

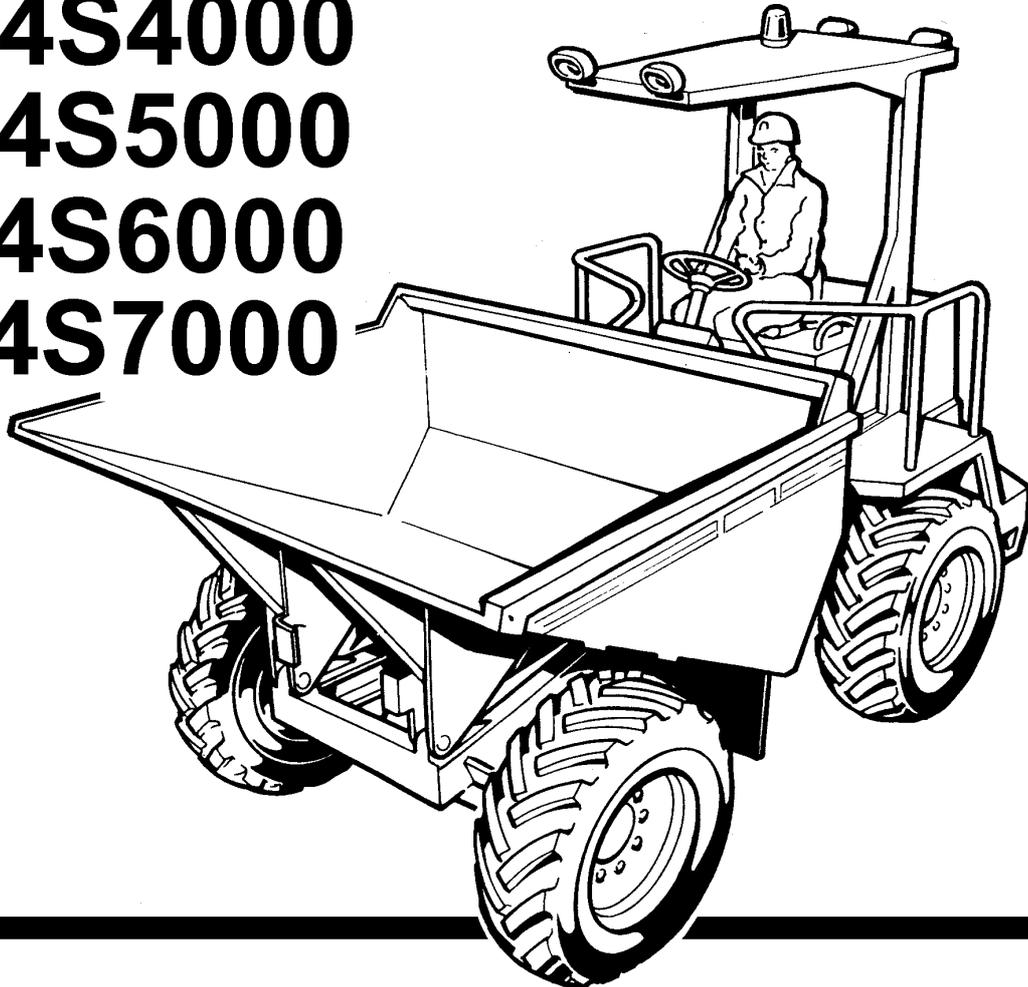
# 'S' Series Dumpers

**4S4000**

**4S5000**

**4S6000**

**4S7000**



## **OPERATORS HANDBOOK & PARTS**

Manual V600869    *May 2007*

# **WINGET**

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The contents of this Handbook, although correct at the time of publication, may be subject to alteration by the Manufactures without notice.

Winget Limited operate a policy of continuous product development. Therefore, some illustrations or text within this publication may differ from your machine.

## THE HANDBOOK

**WARNING** *The Operator must read all the Handbook and fully understand its contents before attempting to operate the machine.*



## THE HANDBOOK MUST NOT BE REMOVED FROM THE MACHINE.

The Handbook should be kept clean and in good condition. Additional copies of the Handbook can be obtained from your Distributor.

The contents of this Operators Handbook are designed as a guide to the machine's controls, operation, working capacities and maintenance. It is not a training manual.

Only trained operators should use this machine. Consult your Distributor for details of authorised training courses.

In this Handbook are notes accompanied by a warning triangle.



**WARNING** *These notes are used to indicate that the procedure being described in the Handbook must be followed to avoid serious injury or death to yourself or others; or damage to the machine.*



*The warnings are also used to protect the machine from unsafe servicing practices.*

Pay particular attention to the warnings given in the Handbook.

If you have any doubts about any aspect of the machine's capability or servicing procedures, you must consult the manufacturer.

## MACHINE IDENTIFICATION

Please record the model and serial numbers of your machine in the spaces provided and quote them when ordering parts.

Model – Year \_\_\_\_\_.

Front axle \_\_\_\_\_.

Dumper serial no. \_\_\_\_\_.

Rear axle \_\_\_\_\_.

Key, start \_\_\_\_\_.

Ram steering \_\_\_\_\_.

Engine \_\_\_\_\_.

Ram, tipping, L.H. \_\_\_\_\_.

Transmission \_\_\_\_\_.

Ram, tipping, R.H. \_\_\_\_\_.

Transfer gearbox \_\_\_\_\_.

Tyre make & size \_\_\_\_\_.

## WARRANTY TERMS & CONDITIONS

The Manufacturer assures you that if any part of the machine becomes defective due to faulty manufacture or materials within 12 months from the date of purchase, the part will be repaired or replaced under warranty free of charge by any authorised Winget Distributor. Warranty repairs **must** be carried out by Winget Distributors.

This Warranty is given to the first owner and may be transferred to subsequent owners for the balance of the Warranty period.

The Manufacturer's liability only extends to the costs of repair or replacement of the faulty parts and necessary labour charges involved in the repairs. The Company accepts no liability for any consequential loss, damage or injury, resulting directly or indirectly from any defect in the goods.

Items not covered by Warranty and considered to be the customer's responsibility include normal maintenance services; replacement of service items and consumables; replacement required due to abuse, accident, misuse or improper operation; replacement of wearable items e.g. pins, bushes, brake linings, clutch linings etc.

The Warranty will not apply where the equipment is modified, converted, or used for purposes other than those for which it was designed, unless clearance for the modifications etc. have been granted by the Manufacturer, in writing.

The Pre-Delivery Inspection and Warranty Registration Document must be completed correctly and returned to the Manufacturer within 7 days of sale date. Failure to do so may result in the claim being subsequently rejected.

Tyres and tubes are not covered by Warranty, but are covered by the tyre manufacturer's own warranty system which provides against defects in material or workmanship.

Engines are covered separately by the engine manufacturers, and engine warranty repairs must be handled by the relevant engine manufacturers' distributors.

No claim will be considered if other than genuine Winget Limited parts, which must be obtained from Winget Limited via an authorised Distributor, are used to effect a repair, or if lubricants other than those recommended by Winget Limited are used.

The equipment must be serviced in accordance with the service schedules laid down by Winget Limited. Evidence that these have been complied with may be required before Warranty Claims are reimbursed.

The Manufacturer's policy is one of continuous improvement. Winget Limited reserve the right to change specifications without notice. No responsibility will be accepted for discrepancies which may occur between specification of machines and the descriptions contained in publications.

**Safety is the responsibility of all persons working with this articulated dump truck. Think “safety” at all times. *Read and remember the contents of this handbook.***

**The safe working recommendations for specific tasks are found with the instructions for the relevant operation in this Handbook.**

## **MACHINE MODIFICATION**

**WARNING** Any modifications to the machine will affect its working parameters and safety factors. Refer to the Manufacturers before fitting any non-standard equipment or parts.



The Manufacturers accept no responsibility for any modifications made after the machine has left the factory, unless previously agreed by the Manufacturers in writing; the Manufacturers will accept no liability for damage to property, personnel or the machine if failure is brought about due to such modifications, or fitment of spurious parts.

## **TRAINING**

**WARNING** Only trained operators should use this machine.



Operators should hold an appropriate full motor vehicle driving licence and undergo both a safety awareness course and a driver training course for articulated dump trucks run by the C.I.T.B. or equivalent body leading to the award of a C.T.A. or equivalent

It is strongly recommended that operators read the H.S.E. publication “Safe Working with Small Dumpers” which is available from government bookshops (HMSO) or from other bookshops quoting the following number ISBN 011 8836935. Another useful publication is British Standard number BS 6264, “Procedure for Operator Training For Earth Moving Machinery” available from the British Standard Institution.

## **RUNNING-IN**

**WARNING** While a gradual ‘running-in’ of a new engine is not necessary, it is extremely important that the instructions given in Section 1 “Operation” on “Running-in a new engine” should be followed very closely during the first fifty hours of operation.



## **DRIVING**

**WARNING** *NEVER* use the machine for purposes other than those for which it was designed. This machine was designed to carry loads such as soil, clay, sand, wet concrete, stone or other similar materials. It was not designed to carry loads which may move around in the skip uncontrollably, or to carry any loads or materials which overhang the skip in any way. If in any doubt as to the suitability of this machine for a particular task, contact your nearest Distributor or the Manufacturer for advice.



*ALWAYS* be aware of local and national regulations governing the use of the machine.

*NEVER* commence work with the machine until the “Daily (or every ten hours)” service checks have been made. (See *Service Section for details*)

*ALWAYS* check wheel nut tightness daily.

*NEVER* carry passengers.

Ensure that the seat is securely fixed to the machine. Where seat belt restraints are fitted as part of Rops/Fops protection they must be worn. Check that the seat belt is in good condition, free from cuts and frayed edges.

*ALWAYS* remain in the driving seat whenever the engine is running. Never attempt to operate any controls unless seated.

*ALWAYS* apply the parking brake before leaving the driver’s seat.

*NEVER* dismount with the engine running, and never leave the machine unattended with the key in the starter switch.

When Battery Isolators are fitted they must be activated only when the engine is turned off except in cases of emergency.

Activating a Battery Isolator when the engine is running can result in damage to the electrical components and circuits.

*NEVER* fill the fuel or hydraulic tanks with the engine running.

*ALWAYS* drive only on surfaces that are known to be stable.

*ALWAYS* keep the floor plates and walkways clean.

*NEVER* drive the machine close to the edge of any excavation. Always use effective wheel stops to prevent the machine running close to the edge. Make sure that the stops are in proportion to the size of the wheels and are set sufficiently far enough back from the edge of any excavation to prevent the weight of the load causing a collapse.

*NEVER* adjust the tyre pressures in an attempt to improve traction on soft ground or obtain a softer ride on hard ground. Incorrectly adjusted tyres can affect the steering and handling characteristics.

*NEVER* attempt to free a machine which is ‘bogged down’ by pushing with the bucket of a backhoe loader, tracked excavator or other similar machine.

*NEVER* attempt to lift the machine unless the articulation lock is engaged .

When working within the articulation point crush zone always fit the articulation lock.

*NEVER* work under an unpropped skip. Always use the skip support provided.

*NEVER* make unnecessary “crash stops” when travelling at speed, especially in forward direction.

**SKIPS AND LOADING**

**WARNING** *NEVER* exceed the rated payload. The weights of all loads above skip water level must be checked.



*NEVER* remain on the machine when loading the skip with excavators or loaders. Stop the engine, apply the parking brake, dismount, and stand well clear.

*ALWAYS* ensure that the load is evenly distributed in the skip.

*NEVER* carry loads or heap materials in such a manner as to affect the forward vision.

*ALWAYS* take extra care when tipping non-free running loads, particularly with Rotary Skips and High Discharge machines.

*NEVER* use the skip in a tipped position to bulldoze heaped materials to level or backfill material into excavations.

*NEVER* leave the machine with the skip raised or rotated..

**TOWING**

**WARNING** *NEVER* attempt to tow a dumper before first reading 'Towing the dumper' (see *Contents page*).



*NEVER* attempt to start the engine of a dumper by towing or pushing.

*Dump trucks are not designed as towing vehicles; however, trailers may be towed providing that:*

- 1 The combined weight of the trailer and its load does not exceed the specified maximum drawbar pull and drawbar load of the dumper (see *specifications*).
- 2 Trailers may be towed in first gear on level dry ground provided a purpose made towing pin is used.
- 3 The dumper skip must be loaded with half the rated payload to ensure tyre adhesion when braking.

*NEVER* tow loads up, down or across gradients.

**GRADIENTS**

**WARNING** *NEVER* operate on any gradients which exceed 25% (1 in 4), or across gradients which exceed 16% (1 in 6).



*ALWAYS* remember that slippery or loose surface conditions can adversely affect safe machine operation, including braking, particularly on gradients.

*ALWAYS* choose routes that avoid steep, slippery or loose gradients.

*NEVER* coast down gradients. Always negotiate gradients in first gear.

*ALWAYS* drive forwards up gradients when loaded.

*ALWAYS* reverse down gradients when loaded.

*ALWAYS* keep the load facing uphill

*NEVER* park on a gradient. If this is unavoidable, *ALWAYS* chock the wheels.

*NEVER* attempt to turn on a gradient

*NEVER* tow up, down or across a gradient.

*NEVER* operate high discharge or rotary skips on gradients.

## HYDRAULICS

**WARNING** *ALWAYS* “Dump” pressure from the system before carrying out any maintenance or adjustments. (**see Service - Hydraulic system**).



*ALWAYS* purge hydraulic rams before commencing work. With the engine running operate the hydraulic control to fully extend and retract the rams.

*NEVER* leave the machine unattended with pressure in the system.

*ALWAYS* practise the greatest cleanliness in maintaining hydraulic components.

## SERVICING

**WARNING** *ALWAYS* report any defect at once, before an accident or consequential damage can occur.



*ALWAYS* conform to service schedules except where:

- 1 Warning lights or warning indicators call for immediate attention.
- 2 Adverse conditions necessitate more frequent servicing.

*ALWAYS* wear correctly fitting protective clothing. Loose or baggy clothing can be extremely dangerous when working on running engines or machinery.

*ALWAYS*, where possible, work on or close to engines or machinery only when they are stopped. If this is not practical, remember to keep tools, test equipment and all parts of your body well away from the moving parts.

*ALWAYS* “Dump” pressure from the hydraulic system before carrying out any kind of maintenance or adjustment. (**see Service - Hydraulic system**).

*ALWAYS* avoid contact with exhaust pipes, exhaust manifolds and silencers when the engine is running; these can be very hot.

*ALWAYS* work out of doors, or in a well-ventilated area.

*NEVER* run an engine in an enclosed space. Exhaust fumes in enclosed areas can kill.

*ALWAYS* disconnect battery cables and remove battery before using an external charger, carrying out welding repairs or to prevent unauthorised usage when unattended or during a repair.

*NEVER* allow unqualified personnel to attempt to repair, remove or replace any part of the machine, or anyone to remove large or heavy components without adequate lifting tackle.

*NEVER* attempt to modify or repair the ROPS frames or FOPS canopies by welding, drilling or any other means. Attempts to do so will invalidate ROPS/FOPS Certification.

*ALWAYS* obtain advice before mixing oils; some are incompatible. If in doubt drain and refill.

*NEVER* allow oils and fuels to come into regular contact with skin. This can lead to serious skin diseases including, medical evidence suggests, skin cancer. *ALWAYS* wear protective gloves when handling oils and fuels whether topping up, draining or refilling. *ALWAYS* wash hands if oils or fuels come into contact with the skin.

Many liquids used in this machine are harmful if taken internally or splashed into the eyes. In the event of accidentally swallowing oils, fuels, anti-freeze, battery acid etc, *DO NOT* encourage vomiting, seek qualified medical assistance immediately.

*ALWAYS* dispose of waste oils and fuels into waste oil storage tanks. If storage tanks are not available consult your distributor or local authority for addresses of local designated disposal points. It is illegal to dispose of waste oil into drains or water courses or to bury it.

Equipment which includes friction materials will sometimes contain asbestos. When removing friction material dust from components, such as when servicing brakes or clutches, do not blow out with an airline; it could be harmful to inhale the dust. Remove the dust with a vacuum cleaner or wipe clean with a damp rag. Waste should be placed in a sealed container, marked, and disposed of in accordance with local or national regulations.

The accumulated dust found in clutch housings may contain lead/antimony. No food should be eaten at a work place contaminated by this dust. Hands must be washed before eating. Do not blow out dust with an airline.

*NEVER* work under an unpropped skip, always fit the special Skip Support that has been supplied with the dumper.

*ALWAYS* fit the articulation lock when servicing or working on the machine.

## DECALS

**Attached to the dumper are several pictorial warning decals.**

*For detailed information on how to safely use the items described by the decals, see the "Safe working, Operation and Servicing" sections of this Handbook.*

*Descriptions of the decals are as follows:*

Fuel tank filling point.



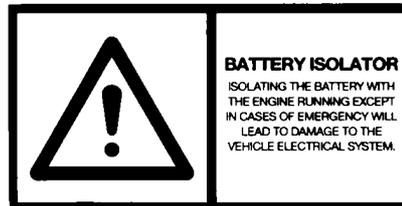
Before lifting the engine cover, ensure the seat has been moved fully forward.



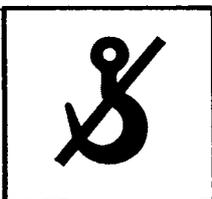
Hydraulic oil filling point.



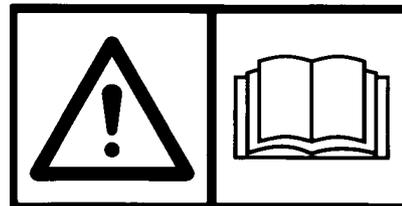
The Battery Isolator is situated close to this decal.



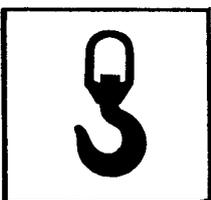
Do not attach lifting hooks to this part of the dumper.



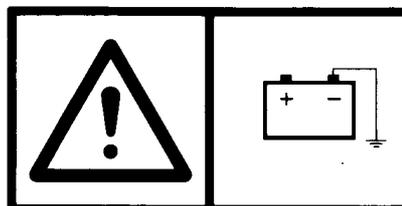
Read Operators Handbook, or Operators Handbook storage place.



Attach lifting hooks to this eye.



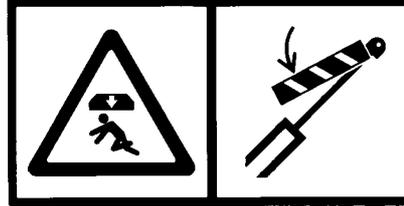
The battery negative terminal is connected to earth.



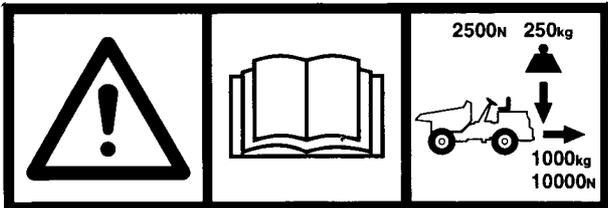
The Articulation Lock, when used, prevents the front and rear chassis from articulating.



ISO Skip Support, when used, is pinned around the tipping ram rod to prevent the ram from closing.



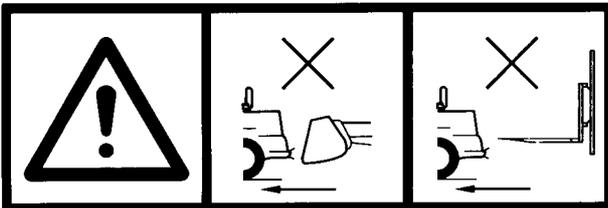
This decal indicates the maximum loads that the dumper towbar can carry and pull.



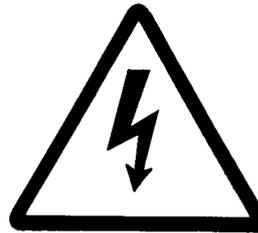
These surfaces may be hot.



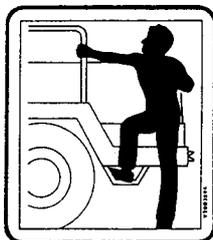
Forks and buckets are not to be used to push or lift the dumper.



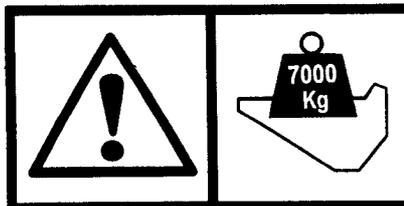
Beware of electrical hazards.



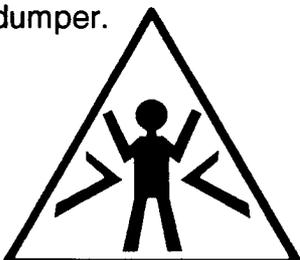
Only mount the dumper from the rear using the steps and handles.



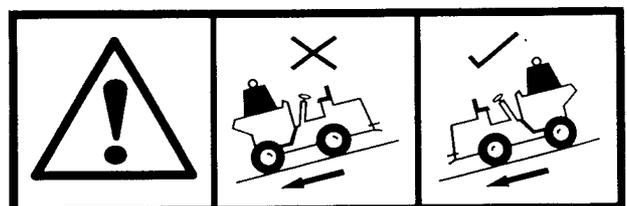
The maximum permitted skip load.



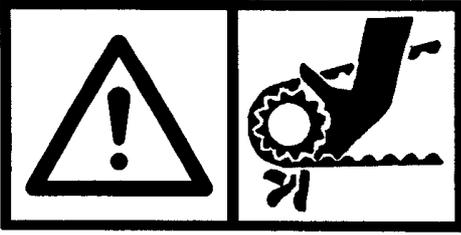
Keep clear of this "Crush area" between the front and rear articulating chassis of the dumper.



Always reverse down gradients when loaded.



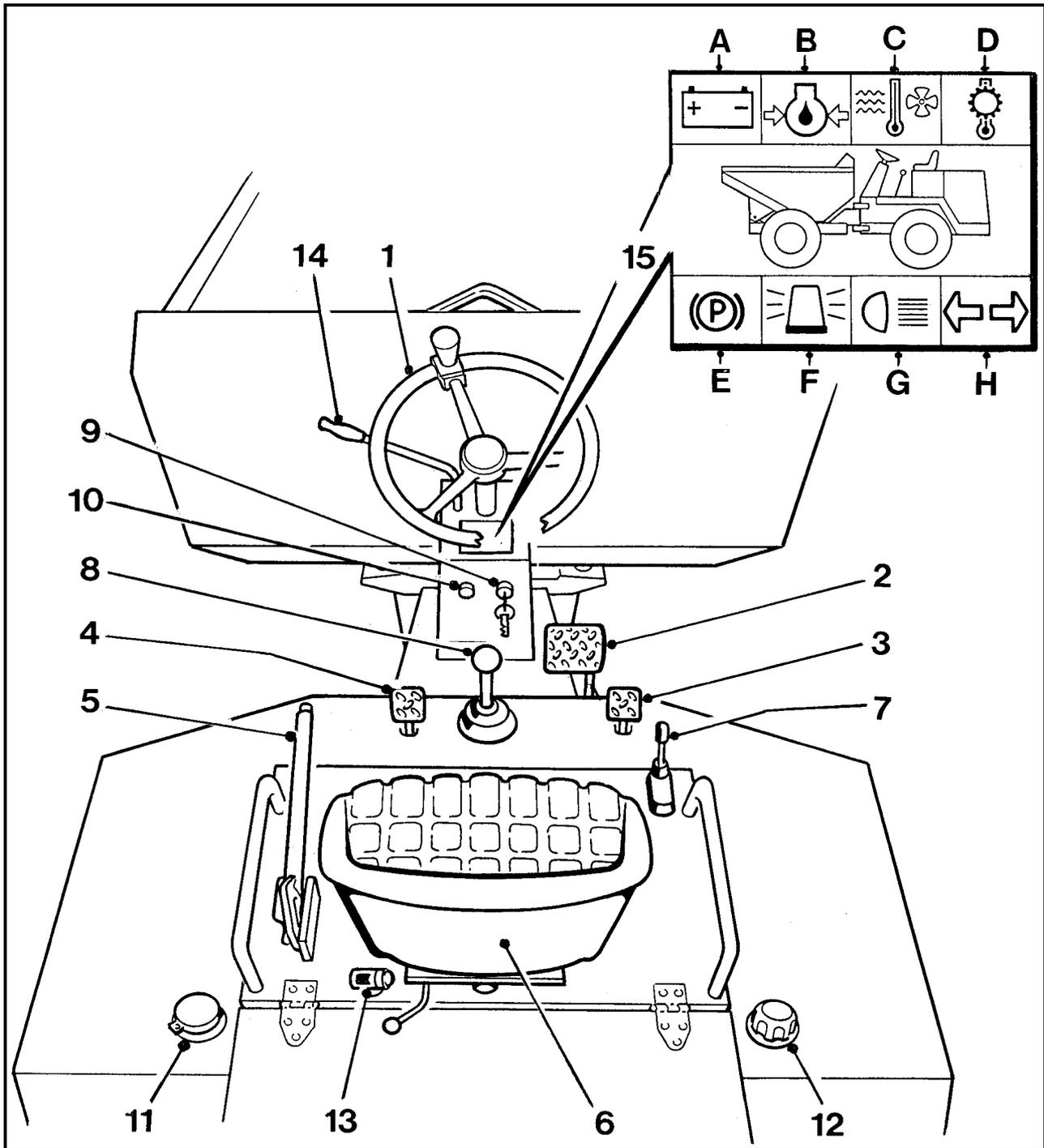
Keep hands away from moving parts.



Always wear eye protection.



## CONTROLS LAYOUT



1 Steering wheel

2 Foot brake

3 Accelerator pedal

4 Dump pedal

5 Parking brake

6 Seat

7 Skip control, tip/return  
(plus, swivel on rotating  
skips)

8 Gear lever

9 Key-start switch

10 Horn

11 Fuel tank

12 Hydraulic tank

13 Indicator, air cleaner  
(under engine cover  
on later machines)

14 Forward/reverse control

15 Warning lights panel

A Battery charging

B Engine oil pressure

C Engine coolant temp.

D Transmission oil temp.

E Parking brake

F Beacon (optional)

G Lighting kit (optional)

H Indicator (optional)

## DRIVING THE DUMPER

### Safety Warnings

**WARNING** *Always wear correctly fitting protective clothing. Loose or baggy clothing can be extremely dangerous when operating or servicing machinery.*



*Always mount the dumper using the steps and handles at the rear. NEVER attempt to mount the dumper from any other position.*

*Only skilled personnel are permitted to work with this dumper.*

*Always be aware of local and national regulations governing the use of the dumper.*

### Running-in a new engine

A gradual running-in of a new engine is not necessary.

Prolonged operation at light loads during the early life of the engine is not recommended.

Maximum load can be applied to a new engine as soon as the engine is put into service and the coolant temperature has reached a minimum of 60 deg. C (140 deg. F).

**WARNING** *Do not operate the engine at high speeds without a load.*



*Do not overload the engine.*

*Do not allow the engine to run at idle speed for long periods; this may cause bore glazing and increased oil consumption.*

**Pre-start checks**

 **WARNING** *Never commence work with the dumper until the checks detailed in “Every 10 operating hours, or daily” have been carried out. (see Service Schedule).*

Check that all controls are clean and not slippery, and that they all function correctly.

Check that the areas around pivot points, rams and linkages are all free from mud, ice and debris.

Check that all grab handles, steps and platforms are clean and dry.

Check the dumper for any obvious damage or faults.

Check that all decals can be clearly read.

**Driving the dumper**

 **WARNING** *Never operate controls unless you are seated on the dumper, and ALWAYS remain in the driving seat whenever the engine is running.*

*Either type fuels must not be used.*

*If the battery charge or engine oil pressure warning lights fail to cancel, stop the engine.*

*If the engine coolant or transmission oil temperature warning lights illuminate, stop the engine.*

*Detect the fault before continuing.*

**DO NOT PROCEED IF A FAULT IS EVIDENT.**

*Never attempt to start the dumper by pushing or towing. This would result in extensive internal damage to the transmission.*

### Starting the engine

Ensure the parking brake (5) is in the raised "ON" position.

Ensure that the forward/reverse control lever (14) is in neutral, this is the central "safety gate" position.

**Note:** The forward/ reverse lever must be lifted through a safety gate (X), which prevents accidental engagement of the lever.

### Audible alarm

The dumper is fitted with an audible alarm. This has two modes of operation:

#### 1. Start-up alarm.

As soon as the key is turned from the off position the alarm sounds for seven seconds as a warning of imminent start-up.

#### 2. Reverse alarm.

When the engine is running and the forward/reverse control is moved into the reverse position the alarm will sound. It will continue to sound until the control is returned to the neutral position.

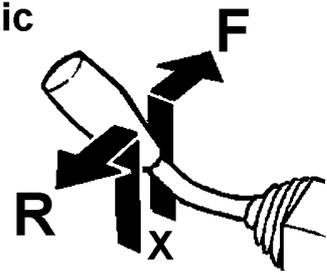
The bleeping of the start-up alarm is faster than that of the reverse alarm, this is to avoid confusing the two.

With the engine running and the start-up alarm sounding, selecting reverse will automatically override the start-up alarm and allow the reverse alarm to sound in its normal manner.

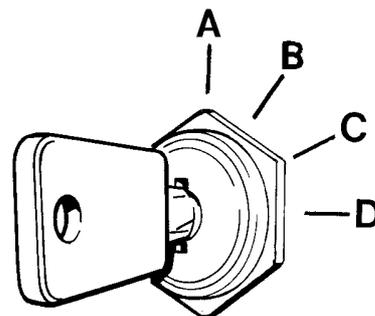
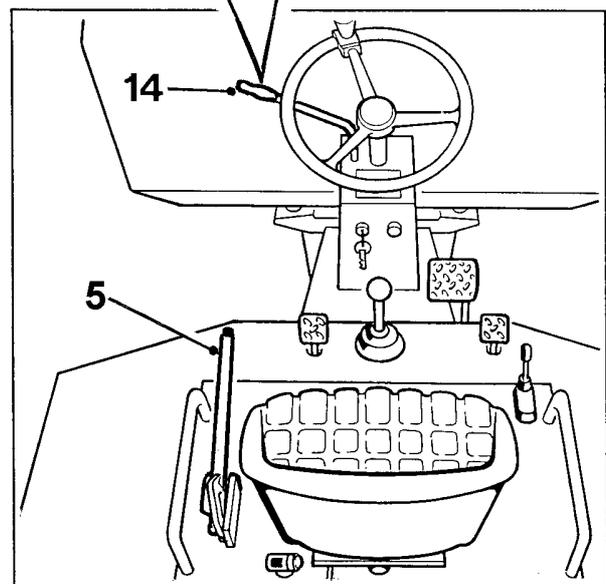
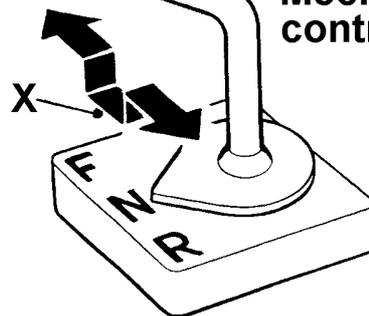
### Starter key positions

- A Off
- B Warning lights
- C Heater, thermostart
- D Starter

Electronic control



Mechanical control



### Starting a warm engine

Turn the starter key to 'B'.

The start-up alarm will sound for seven seconds.

Ensure that the battery charging and engine oil pressure warning lights have illuminated.

**Note:** *Dumpers with electronic F/N/R.*

Press the dump pedal down fully and hold.

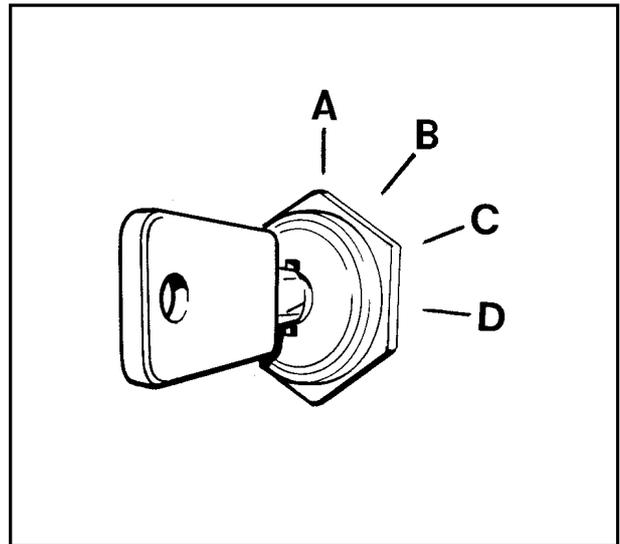
Push down the accelerator to a quarter of its travel and hold.

Turn the starter key to 'D' to engage the starter motor.

Allow the key to return to position 'B' as soon as the engine starts.

Always ensure that the engine and starter motor are stationary before the starter motor is engaged again.

Check that the warning lights have gone out.



### Starting a cold engine

Turn the starter key to 'B'.

The start-up alarm will sound for seven seconds.

Ensure that the battery charging and engine oil pressure warning lights have illuminated.

**Note:** *Dumpers with electronic F/N/R.*

Press the dump pedal down fully and hold.

Then turn the key to 'C' and keep it there for 15 seconds.

Press the accelerator down fully, and hold.

Turn the key to 'D' to engage the starter motor.

Allow the key to return to position 'B' as soon as the engine starts.

If the engine does not start in 15 seconds, turn the start key to position 'C' and hold it there for 15 seconds. Then engage the starter motor again.

Check that the warning lights have gone out.

**If the engine still does not start, consult your Distributor.**

## Engaging gears

**IMPORTANT:** When changing gear, always depress the dump pedal (4), before moving the gear lever (8), from one gear to another.

### To change from forward to reverse:

Brake to a halt progressively.

Move the forward/reverse control (14) backward into the reverse position. The reverse alarm will begin to sound. It will continue to sound until the control is returned to the neutral position.

### To change from reverse to forward:

Reverse the above procedure.

## Steering

Never hold the steering on full lock for more than a few seconds because the excessive use of the relief valve will cause overheating of the components.

## Gradients

**WARNING** *When driving on gradients remember the following:*



Slippery or loose surface conditions can adversely affect safe dumper operation, particularly on gradients.

Choose routes that avoid steep, slippery or loose gradients.

Never park the dumper on a gradient.

Never attempt to turn on, or drive across, a gradient.

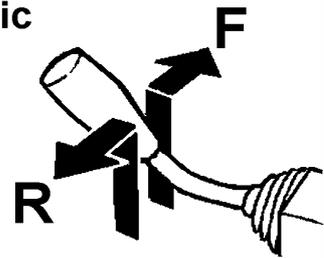
Always drive forwards up gradients when loaded.

Always reverse down gradients when loaded.

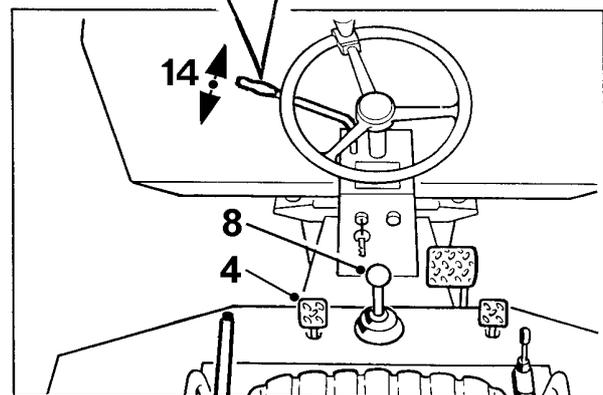
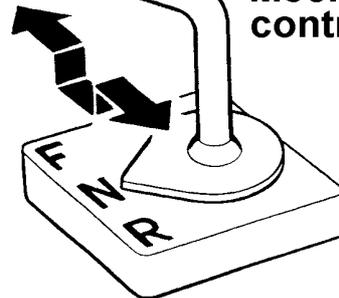
Never tow up or down gradients.

Never operate a High Discharge or Rotating skip on a gradient.

Electronic control



Mechanical control



## Braking

The brake pedal operates the brakes in the conventional manner.

**WARNING** *Never make unnecessary 'crash' stops when travelling at speed, especially in forward direction.*



## Stopping the dumper

Release the accelerator and brake to a halt progressively.

Select neutral gear.

Ensure the forward/reverse control (14) is in the neutral (safety gate) position.

Apply the parking brake when stationary.

Turn the key start switch to the 'OFF' position, and remove the key.

## Leaving the dumper

**WARNING** *At the end of the working day, turn the wheels from lock to lock when parking, to clear mud and water from the steering ram rod. This will reduce the risk of wear and damage from dirt and ice.*



Ensure the dumper is parked on firm, level ground. Do not park on a gradient.

Check that the parking brake is applied.

Check that the forward/reverse control (14) is in the neutral (safety gate) position.

Ensure that the skip is fully lowered.

With the engine stopped, operate the hydraulic lever fully in each direction several times to 'dump' hydraulic pressure from the system.

Remove the starter key from the switch.

If unattended for some time, remove the earth cable from the battery, or activate the Battery Isolator, where fitted.

## Skip tipping

The skip tipping rams are dual acting. They have to be "Powered" up and "Powered" down.

However .....

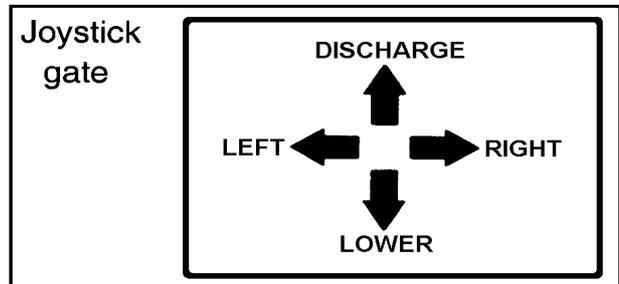
If the skip is raised and the engine is switched off, DO NOT operate the control valve as the skip will rapidly lower to the chassis.

**WARNING** *Never venture under a raised skip unless it is fitted with an "ISO Skip Support" (See Service Safety, Section 2)*



## Rotating skip operation

The skip is operated by a joystick control valve; the lever of which is moved through a gate.



Because of the gate it is not possible to move the lever diagonally, therefore it is not possible to tip and slew the skip simultaneously.

## Slewing the skip

**WARNING** *Before attempting to slew the skip. The dumper must be stationary, on level ground, with the front and rear chassis in-line (not articulated) and with the parking brake applied.*



When the skip is fully lowered, the rear of the skip locates into a recess in the chassis. This is to ensure that there is no rotary movement of the skip while the dumper is travelling.

### To slew the skip:

Look at the rear of the skip where it is recessed into the chassis.

With the joystick lever, gently tip the skip forward just sufficiently to raise the rear of the skip clear of the recess.

Allow the lever to 'self-centre'.

Move the lever in the direction that you wish to turn the skip.

Allow the lever to 'self-centre'.

Move the lever forwards to tip the skip.

Reverse the procedure to return the skip to the travelling position.

**WARNING** *Be sure that the rear of the skip has fully seated in its recess in the chassis before travelling.*



## Towing the dumper

**WARNING** *The dumper should only be towed if recovery is needed of a broken-down unit.*



**WARNING** *Before attempting to tow the dumper:*



*Disconnect the transfer gearbox end (X) of the top propeller shaft.*

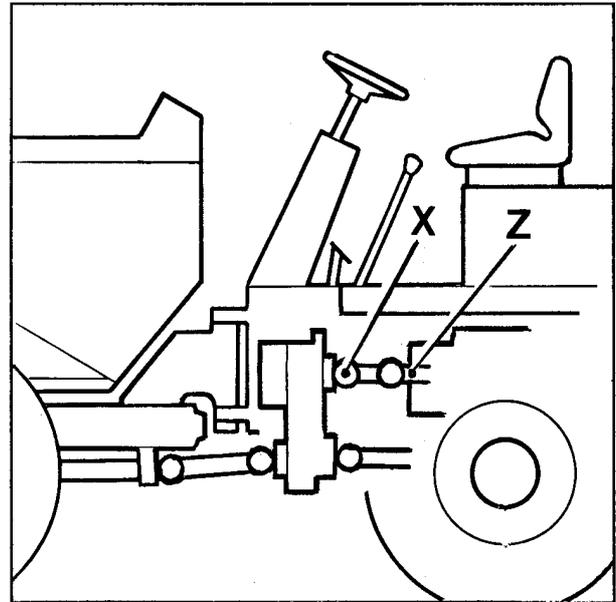
*Tie back the propeller shaft securely to the transmission unit.*

**DO NOT REMOVE THE TOP SHAFT FROM THE DUMPER, as this may permit the transmission output shaft (Z) to come out of the transmission casing.**

*If the output shaft were to come out of the transmission casing, the transmission unit would lose oil.*

*Failure to observe this precaution may result in extensive internal damage to the transmission.*

*Ensure that the gear lever and forward/reverse lever are ALWAYS in neutral while the top propeller shaft is disconnected.*



**WARNING** *Never attempt to start the dumper by pushing or towing. This would result in extensive internal damage to the transmission.*



When towing the dumper, always ensure that the speed is kept to an absolute minimum as the lack of power assistance makes manual steering very slow and strenuous.

**SAFETY**

**WARNING** *Read the safety notes in the “Safe Working” section of this book.*



*Also note the following:*

**SKIP SUPPORT BRACKET**

The “Skip Support Bracket” **MUST ONLY** be used when the tipping ram(s) are to be removed.

**To install the “Skip support bracket”:**

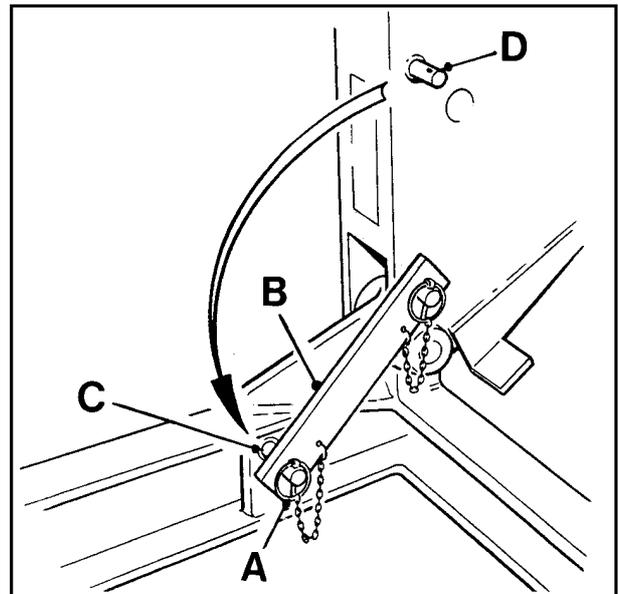
Raise the skip using the hydraulic control lever.

Remove clip/pin (A) from pin (D).

Swing down the bracket (B) and locate it on pin (C). (It may be necessary to adjust the height of the skip before the hole will align with the pin.)

Re-install clip/pin (A) on pin (C).

***Do not operate the hydraulic control lever with the “Skip Support Bracket” in place.***



**ISO SKIP SUPPORT**

The “ISO Skip Support” **MUST** be used whenever working under a raised skip.

**To install the “ISO Skip Support”:**

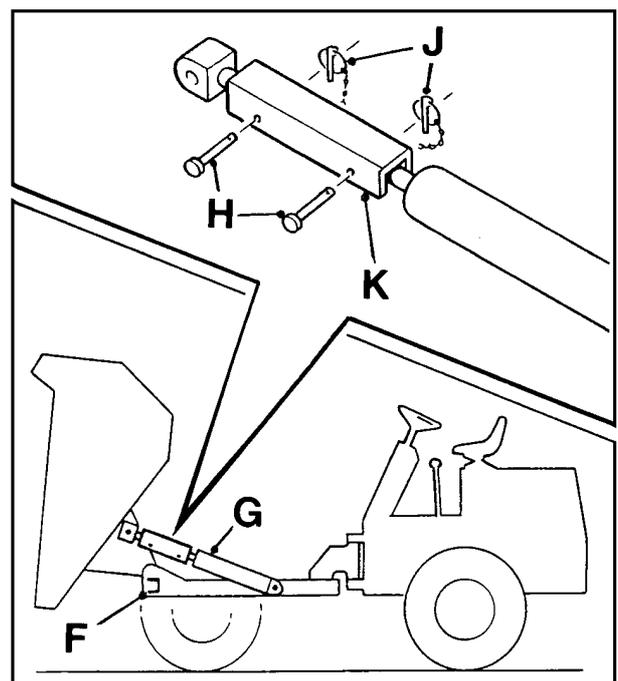
Release the “Support” (K) from its storage position at the front of the chassis (F).

Raise the skip fully using the hydraulic control lever.

Place the “Support” (K) around the rod of the tipping ram (G).

Insert the pins (H) and secure them with clip/pins (J).

***Do not operate the hydraulic control lever with the “ISO Skip Support” in place.***



## ARTICULATION LOCK

The Articulation Lock is provided to lock the front and rear chassis together, making the dumper a rigid unit.

The Articulation Lock **MUST** be in position before attempting to lift the dumper, or before commencing any maintenance work.

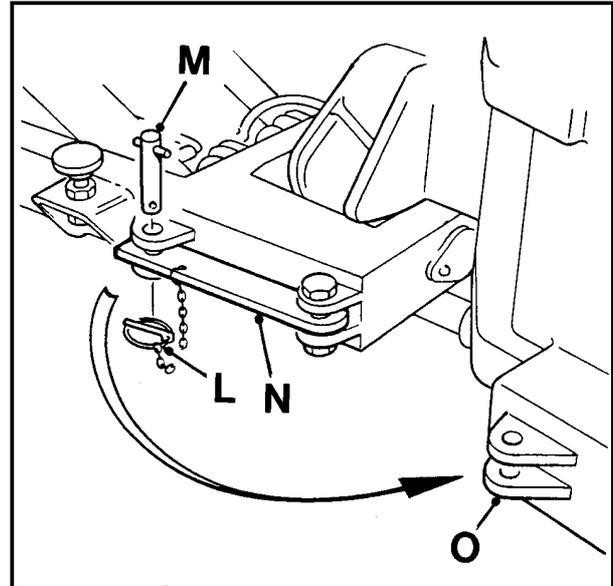
### To install the "Articulation Lock":

Turn the steering wheel until the front and rear chassis are in a straight line.

Remove clip/pin (**L**) and extract pin (**M**).

Swing the locking bracket (**N**) backward to the rear chassis and into clevis (**O**). (It may be necessary to turn the steering wheel to align the bracket and clevis holes.)

Fit pin (**M**) through the clevis (**O**) and bracket, and secure with clip/pin (**L**).



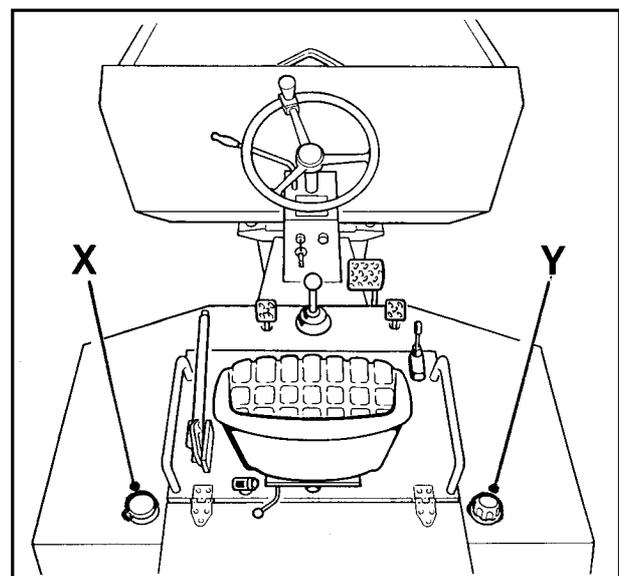
## ACCESS TO SERVICE CHECKPOINTS

The fuel tank filler cap (**X**) is situated on the left-hand wing.

The hydraulic tank filler cap/breather (**Y**) is situated on the right-hand wing.

Ensure the area around the filler cap/breather is free from dirt and debris.

**Note:** On later dumpers the fuel and hydraulic tanks are fitted with a fluid level sight gauge. These are situated adjacent to the rear wheels

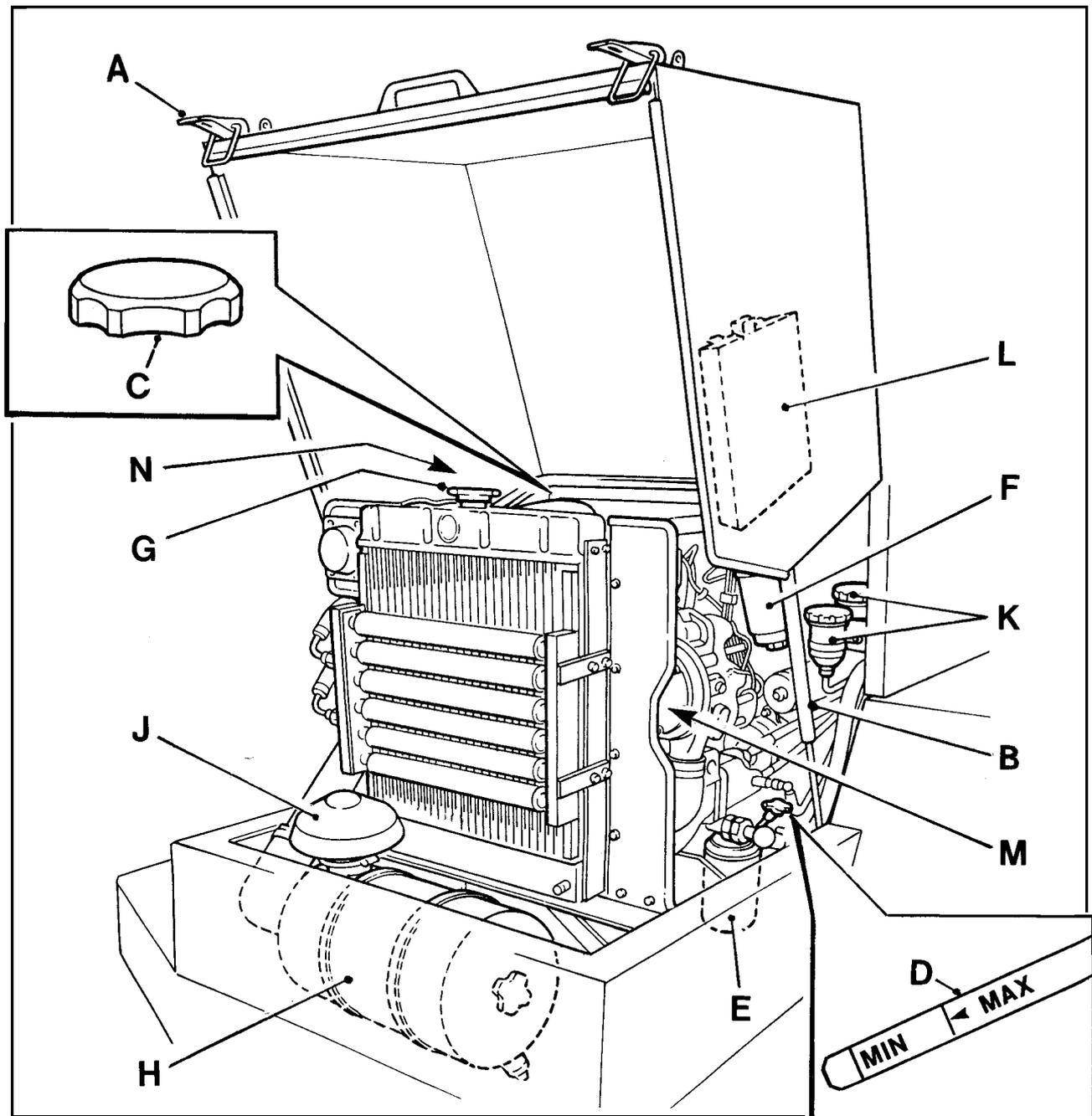


## To open rear cover:

Release catches (A) and lift to open.

The cover is supported by two gas struts and will remain open until manually closed and fastened.

This will give access to:



**A** Locking catches

**B** Gas struts

**C** Engine oil filler

**D** Engine oil dipstick

**E** Engine oil filler

**F** Fuel filter

**G** Coolant filler

**H** Air cleaner

**J** Air intake

**K** Brake fluid reservoirs

**L** Document case

**M** Fan belt

**N** Fuel pre-filter

**SERVICE SCHEDULE**

| <b>Service Operation</b>  | <b>Reference</b> | <b>Page</b> |
|---|------------------|-------------|
| <b>!!!! Warning lights and indicators require IMMEDIATE action !!!!</b> |                  |             |
| Warning indicates RED: Air cleaner                                      | Air cleaner      | 2.21        |
| <b><i>Every 10 operating hours, or daily</i></b>                        |                  |             |
| Engine lubricating oil level  | Engine           | 2.9         |
| Radiator coolant level  | Cooling system   | 2.14        |
| Fuel tank level   | Fuel system      | 2.17        |
| Air cleaner dust collector  | Air cleaner      | 2.21        |
| Fuel pre-filter (water trap)  | Fuel system      | 2.17        |
| Hydraulic oil level   | Hydraulic system | 2.29        |
| Tyre condition and pressure   | Wheels and tyres | 2.8         |
| Wheel nut tightness   | Wheels and tyres | 2.8         |
| Axle joints   | Axles            | 2.27        |
| Brake oil reservoirs  | Braking system   | 2.34        |
| General: Check for oil leaks, damage or faults, and report as necessary |                  |             |

***First 50 operating hours***

*Carry out the procedures for “Every 10 operating hours, or daily”, plus the following:*

|  |                  |      |
|--|------------------|------|
| Engine lubricating oil and filter change | Engine           | 2.9  |
| Fan belt tension                         | Engine           | 2.9  |
| Engine idle speed                        | Engine           | 2.9  |
| Fuel filter change                       | Fuel system      | 2.17 |
| Fuel lift pump strainer                  | Fuel system      | 2.17 |
| Transmission oil change                  | Transmission     | 2.23 |
| Transfer gearbox oil change              | Transfer gearbox | 2.26 |
| Hydraulic pressures check                | Hydraulic system | 2.29 |
| Hydraulic filter change                  | Hydraulic system | 2.29 |
| Front and rear axle oil change           | Axles            | 2.27 |

*Plus the procedures listed on the following page for “every 50 operating hours, or weekly”.*

| <b>Service Operation</b> | <b>Reference</b> | <b>Page</b> |
|--------------------------|------------------|-------------|
|--------------------------|------------------|-------------|

**Every 50 operating hours, or weekly**

Carry out the procedures for "Every 10 operating hours, or daily", plus the following:

|                        |   |      |
|------------------------|---|------|
| Greasing points        | Greasing points   | 2.7  |
| Transmission oil level | Transmission  | 2.23 |
| Air cleaner element    | Air cleaner   | 2.21 |
| Fan                    | belt Engine   | 2.9  |
| Brake pedal travel     | Check the action of the brake pedal. It should have a short travel and firm action. If travel is excessive, or the action spongy, have the brakes serviced by your Distributor. |      |
| Slew ring              | Tighten fixing bolts  |      |
| General                | Check for loose fixings, nuts and bolts etc.  |      |

**First 250 operating hours**

Carry out the procedures for the previous service intervals, plus the following:

|  |  |      |
|--|--|------|
| Transfer gearbox oil level               | Transfer gearbox   | 2.26 |
| Engine lubricating oil and filter change | Engine   | 2.9  |
| Front and rear axle oil levels           | Axles  | 2.27 |
| Battery electrolyte level                | Battery  | 2.36 |
| Air cleaner element                      | Air cleaner  | 2.21 |
| Fuel filter change                       | Fuel system  | 2.17 |
| Transmission oil filter                  | Transmission   | 2.23 |
| Parking brake                            | Check function of the parking brake and adjust if necessary. |      |

**First 500 operating hours**

Carry out the procedures for the previous service intervals, plus the following:

|                         |                  |      |
|-------------------------|------------------|------|
| Hydraulic filter change | Hydraulic system | 2.29 |
|-------------------------|------------------|------|

**First 750 operating hours**

Carry out the procedures for the previous service intervals, plus the following:

|                                     |              |      |
|-------------------------------------|--------------|------|
| Transmission oil and filters change | Transmission | 2.23 |
|-------------------------------------|--------------|------|

| Service Operation | Reference | Page |
|-------------------|-----------|------|
|-------------------|-----------|------|

**Every 1000 operating hours, or yearly**

*Carry out the procedures for the previous service intervals, plus the following:*

|                                |                  |      |
|--------------------------------|------------------|------|
| Hydraulic oil tank and filter  | Hydraulic system | 2.29 |
| Hydraulic pressures            | Hydraulic system | 2.29 |
| Transfer gearbox oil change    | Transfer gearbox | 2.26 |
| Valve clearances (tappets)     | Engine           | 2.9  |
| Front and rear axle oil change | Axles            | 2.27 |

**First 2000 operating hours, or every 2 years**

*Carry out the procedures for the previous service intervals, plus the following:*

|                              |   |      |
|------------------------------|---|------|
| Change engine coolant        | Cooling system  | 2.14 |
| Check coolant hoses          | Cooling system  | 2.14 |
| Brake system overhaul        | Braking system  | 2.34 |
| Fuel injectors               | Fuel system   | 2.17 |
| Alternator and starter motor | Have the alternator and starter motor checked by your Distributor |      |

**Extra services**

*Dirty working conditions*

Increase the frequency of all services during extremes of dirt, vegetable waste, heat and cold, especially those relating to clean air, cooling efficiency, lubrication and machine cleanliness.

*Laying-up*

When a machine is to remain idle, remove the battery to the workshop. Seal all openings, e.g. air intake, exhaust breathers. Grease bright parts and protect rubber components from direct sunlight. Fill fuel tank, check the tyre pressures and exhaust any pressure from the hydraulic system.

See also the "Engine Service Manual" for additional procedures.

## GREASING

**Every 50 operating hours, or weekly**

**WARNING** Always use lubricants of the grade specified



Always lubricate and service **BEFORE** work commences, and **WITHIN** the periods specified.

Always clean grease nipples, filler caps, etc. **BEFORE** and **AFTER** lubrication.

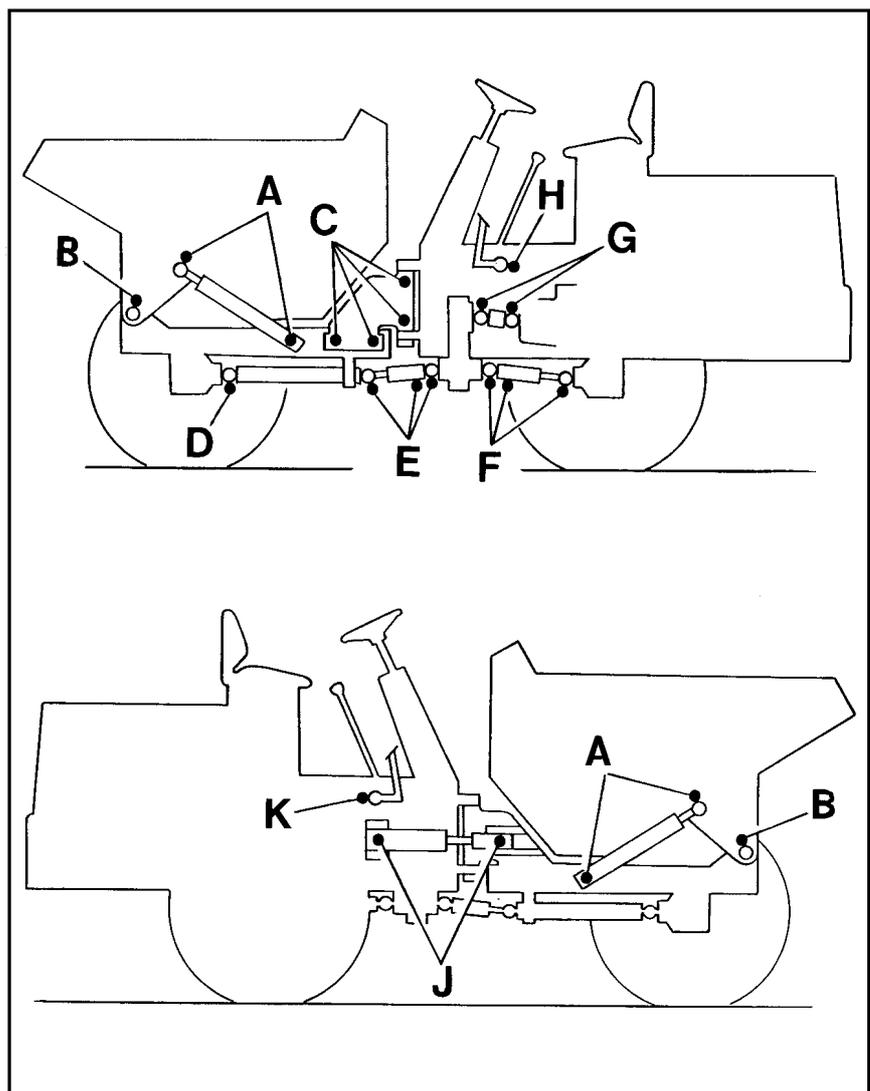
Clean nipples before and after greasing. Apply the grease gun until clean grease appears.

### Location of grease points

- A Tipping rams
- B Skip pivots
- C Centre pivot
- D Front propeller shaft
- E Centre propeller shaft
- F Rear propeller shaft
- G Top propeller shaft
- H Dump pedal
- J Steel ram
- K Accelerator

# Clean and lubricate all linkages not fitted with a grease nipple.

# **Rotating skips:**  
additional greasing points  
Slew ring  
Slewing rams



## WHEELS & TYRES

*Every 10 operating hours, or daily*

### Check wheel nuts

Tighten these whenever necessary, every ten hours or daily.

After a wheel change, the nuts should be checked several times a day until they maintain their correct setting.

*(for wheel nut tightening torque, see “Specifications”.)*

### Check tyre pressures

**WARNING** *When adding air to a tyre, ensure the area is clear of personnel.*



*Never over-inflate a tyre beyond its specified pressure.*

Check the pressure only when the tyres are cold.

*(for correct tyre pressures, see “Specifications”.)*

### Tyre condition

Check the tyres for damage and deterioration.

## ENGINE

**Every 10 operating hours, or daily**

### Check engine lubrication oil level

**WARNING** *Lubrication oil cleanliness is vital for the successful operation of your engine. The oil should be stored under the cleanest possible conditions. When changing or topping up oil, use only clean receptacles.*

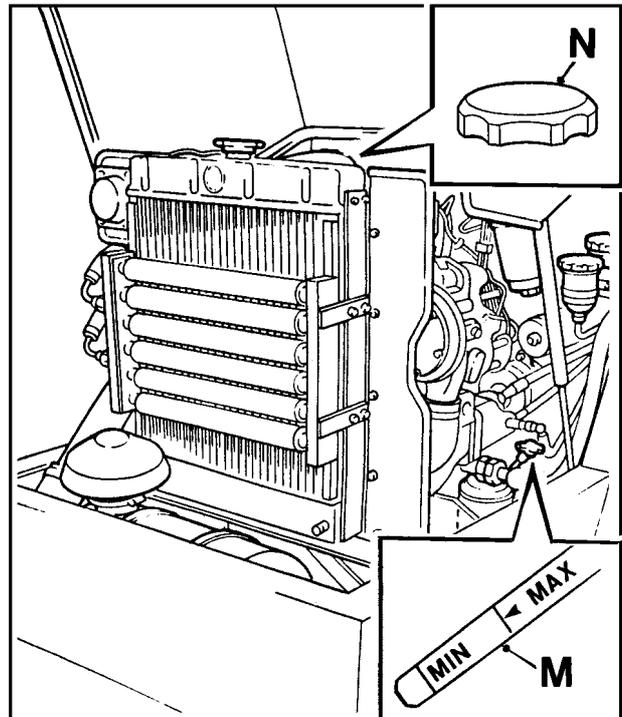


*Do not allow the oil to come into contact with the rubber hoses on the engine.*

Do not check oil level until the engine has been stopped for 2 minutes.

Remove and clean dipstick (**M**), then check that the oil is at the full mark. If level is low, top up through the filler (**N**) to the full mark with clean oil of the correct grade. **DO NOT OVERFILL.**

*(For correct grade of engine oil, see "Specifications".)*



**First 50 operating hours, or weekly**

When your new engine has run for 50 operating hours, the following service procedures should be carried out.

### Change engine lubrication oil

*(See "Every 250 operating hours")*

### Change engine lubrication oil filter

*(See "Every 250 operating hours")*

### Check engine idle speed

**WARNING** *Any alteration to the engine idle speed MUST be carried out by your Distributor, because incorrect adjustment could cause damage to the engine or transmission.*



**Every 50 operating hours, or weekly**

### Check fan drive belt tension

**WARNING** *If the fan drive belt shows any signs of wear, damage or stretching, it should be replaced.*



To ensure maximum belt life, it is recommended that a belt tensioner gauge is used to check the belt tension.

Fit the gauge at the centre of the longest free length (**S**) and check the tension. If a 'Burroughs' gauge is used, the correct tension is 355N (80lbf) (36kgf).

If the tension is 220N (50lbf) (22kgf) or below, adjust to the correct tension.

If a gauge is not available, press down the belt with the thumb at the centre of the longest free length (**S**) and check the deflection. With moderate thumb pressure of approximately 45N (10lbf) (4.5kgf), the correct deflection of the belt is 10mm (3/8").

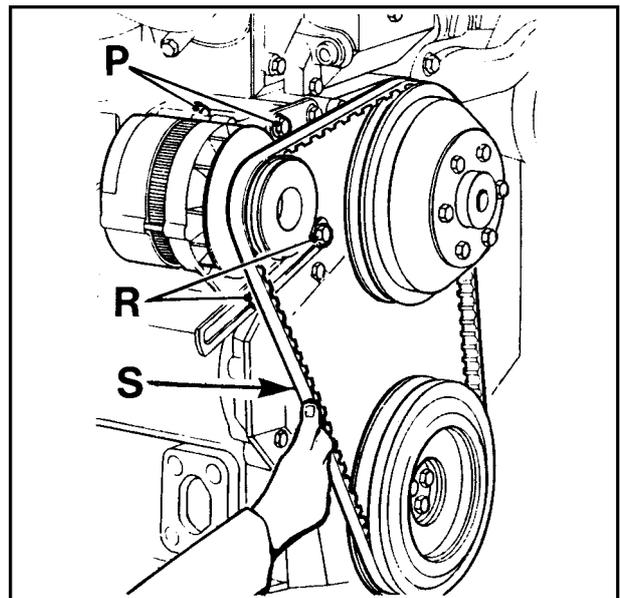
### To adjust fan drive belt tension

Loosen the pivot fasteners (**P**) of the alternator and the adjustment link fasteners (**R**).

Change the position of the alternator to give the correct belt tension. Tighten the pivot fasteners (**P**) and the adjustment link fasteners (**R**).

Check the tension again to ensure that it is still correct.

**If a new belt has been fitted**, the tension should always be checked again after the first 20 hours of operation.



**Every 250 operating hours****Change engine lubrication oil & filter****WARNING Disposal of waste oil**

*Dispose of waste oil into waste storage tanks. If storage tanks are not available, consult your Distributor or local authority for addresses of local designated disposal points. It is illegal to dispose of waste oil into drains or water courses, or to bury it.*

*Lubrication oil cleanliness is vital for the successful operation of your engine. The oil should be stored under the cleanest possible conditions.*

*When changing or topping up oil, use only clean receptacles.*

*Do not allow the oil to come into contact with the rubber hoses or the engine.*

**To change the oil:**

Operate the engine until it is warm.

Park the machine on firm, level ground. Apply the parking brake. Stop the engine.

Clean the area surrounding the drain plug **(R)** before removing.

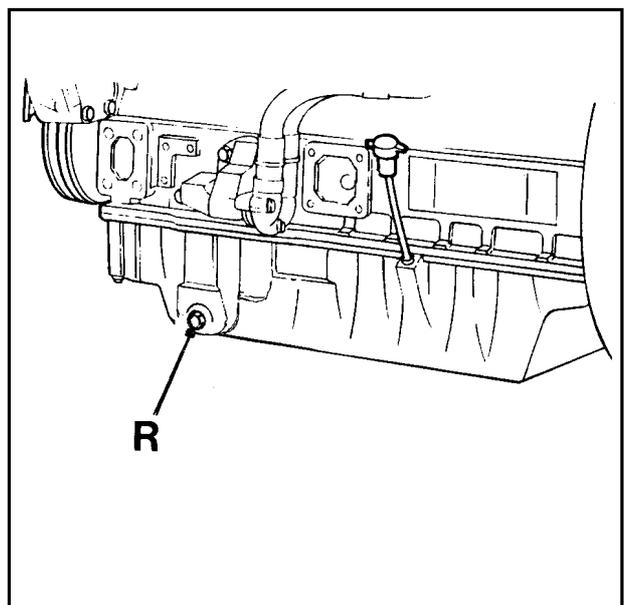
Place a suitable container beneath the plug to catch the draining oil.

When opening the drain plug, remember to stand to one side to avoid oil which will spill from the plug hole.

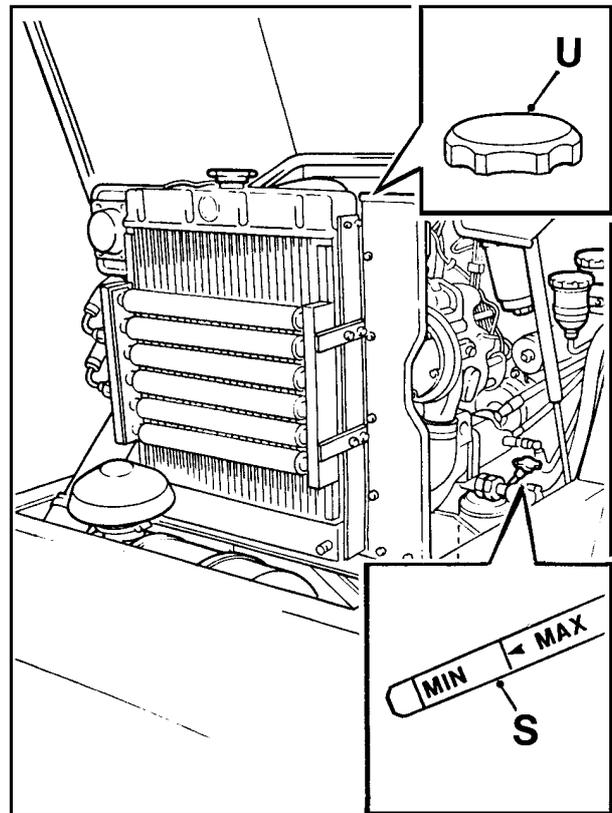
Remove the sump drain plug **(R)** and its 'O' ring, and allow the oil to drain from the sump.

Check that the 'O' ring is not damaged; if necessary renew the 'O' ring.

Replace the 'O' ring and drain plug and tighten to 34Nm (25 lbf ft) (3.5 kgf/m).



Remove the filler cap (**U**) and fill the sump with clean engine lubrication oil of the correct grade to the 'MAX' mark on the dipstick (**S**). **DO NOT OVERFILL.** (For correct grade of engine oil, see "Specifications".)



#### To change engine lubrication oil filter:

Place a suitable container beneath the filter (**W**) to catch spilt oil.

Remove the filter (**W**) with a strap wrench or similar tool. Ensure that the adaptor (**X**) is secure in the filter head. Discard the filter.

Clean the filter head.

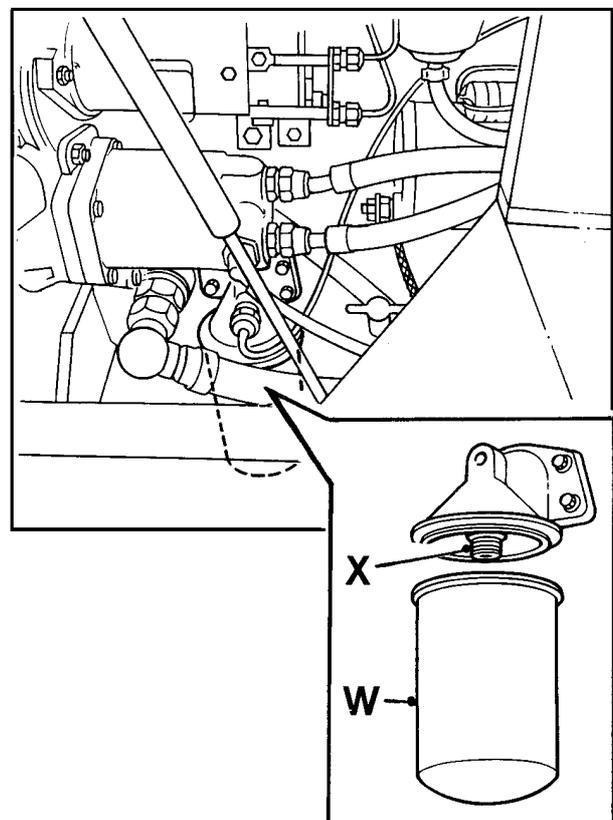
Add clean engine lubrication oil of the correct grade to the new filter. Allow time for the oil to pass through the filter element. (For correct grade of engine oil, see "Specifications")

Lubricate the top of the filter seal with clean engine lubrication oil.

Fit the new filter and tighten it by hand only. Do not use a strap wrench.

Check that the level of oil in the sump is to the 'MAX' mark on the dipstick (**S**). Top up, if necessary, with clean oil of the correct grade.

Operate the engine and check for leakage from the filter.



Stop the engine. When the engine has cooled, check that the level of oil in the sump is to the 'MAX' mark on the dipstick. Top up, if necessary, with clean oil of the correct grade.

**WARNING**

*The filter contains an anti-drain valve to ensure that lubrication oil does not drain from the filter. Therefore, ensure only genuine parts are used.*

***Every 1000 operating hours, or yearly***

**Valve clearances (tappets)**

Have the valve clearances (tappets) checked by your Distributor.

**COOLING SYSTEM**

**WARNING** *Never start the engine without liquid in the cooling system.*



*Antifreeze is toxic and must never be taken internally. If swallowed accidentally, medical advice should be sought immediately.*

*Antifreeze is corrosive to the skin. If it is spilled onto the skin accidentally, it should be washed off immediately. It is advisable to wear protective clothing and eye protection when handling antifreeze.*

*Keep antifreeze out of the reach of children.*

*Keep radiator fins and air intakes clean. Buckled fins and intakes reduce the efficiency of the cooling system, and may lead to overheating.*

**Every 10 operating hours, or daily**

**Check coolant level**

**WARNING** *If the machine is working continuously in hot weather, check the level several times a day.*



*Never check the coolant level with the engine running.*

*The cooling system is pressurised, and care sure be taken when removing the radiator cap, especially if the engine is hot.*

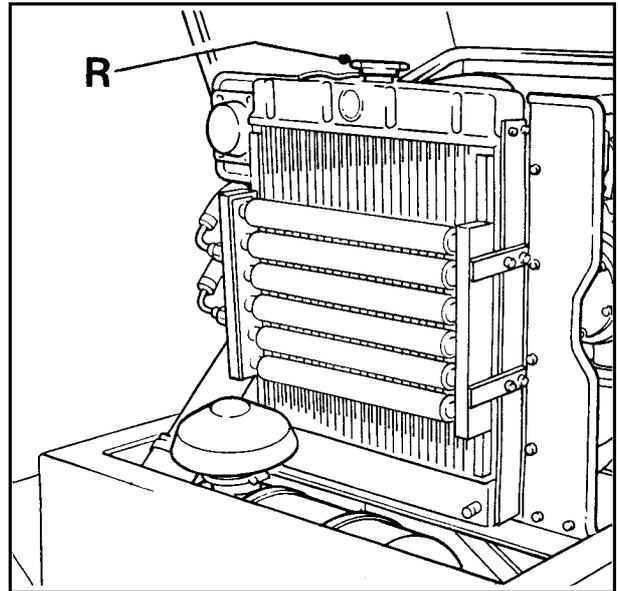
*Never fill up a hot system with cold coolant mixture; damage may be caused to the engine.*

Check and, if necessary, top up the cooling system.

Remove the filler cap (**R**) SLOWLY. If there is liquid in the header tank, the system may be refilled with safety. If not, allow the engine to cool completely before topping up.

Top up with coolant to between 13 – 25mm (0.5 – 1 in) below the filler neck with the correct mixture.

If the cooling system has leaked due to hose failure or similar, it is extremely important that any lost coolant is replaced following repairs by a pre-mixed solution of antifreeze and water. DO NOT use anti-leak additives.



**Every 2000 operating hours, or 2 years**

**Change engine coolant**

**WARNING** *Never remove the radiator cap (**R**) with the engine running.*



*The cooling system is pressurised, and care sure be taken when removing the radiator cap, especially if the engine is hot.*

*Before opening any drain plugs, ensure a suitable container is placed on the ground to catch spilt coolant. When opening drain plugs, remember to stand to one side to avoid coolant which will spill from the drain plug.*

Ensure the machine is parked on firm, level ground. Apply the parking brake. Stop the engine.

Remove the drain plug **(U)** at the bottom of the radiator to drain the radiator.

Remove the drain plug **(T)** from the side of the cylinder block to drain the engine. Ensure that the drain plug hole is not restricted.

Remove the filler cap **(R)**.

Flush the system with clean water.

Refit the drain plugs and refill the system at the radiator filler cap **(R)** using the correct mixture of coolant.

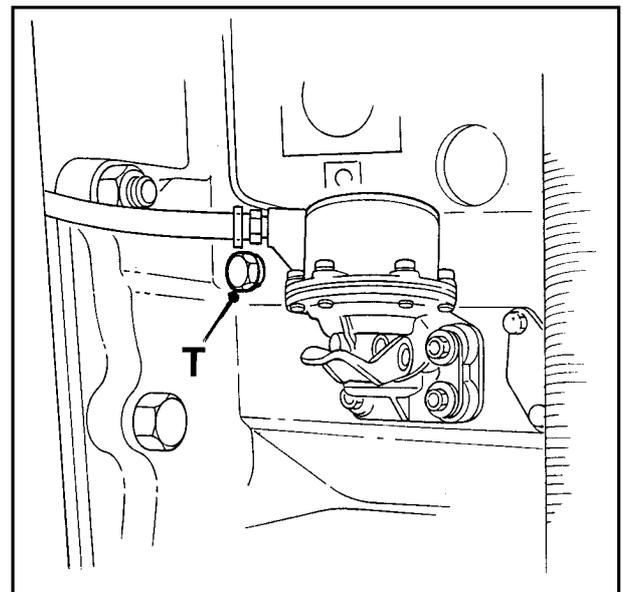
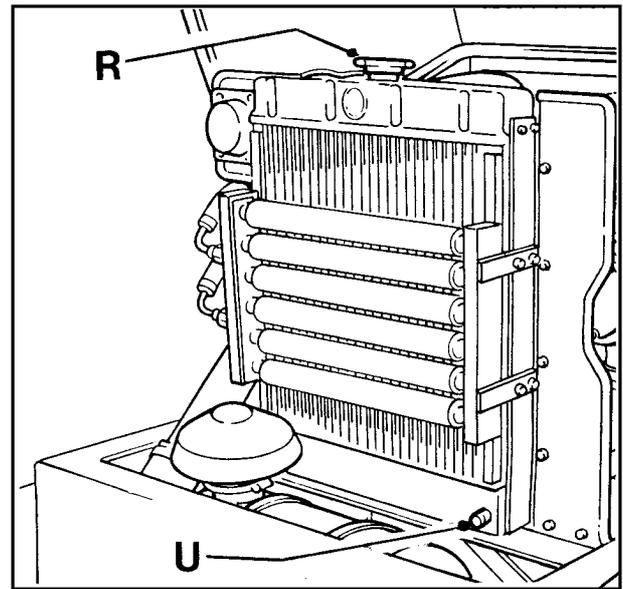
It is preferable to use a coolant mixture of 50% antifreeze and 50% water, as this will give greater protection against freezing and engine corrosion.

**WARNING** Always use antifreeze of the correct type and grade. (For type and grade, see "Specifications")



### Check hoses

During the renewal of coolant, carefully examine the radiator hoses for cracks, cuts or damage.



## FUEL SYSTEM

*Every 10 operating hours, or daily*

### Check fuel tank level

**Note:** Later dumpers are fitted with a fuel level sight gauge. This is situated on the fuel tank adjacent to the rear wheel.

Fill the fuel tank at the end of each day to reduce overnight condensation within the tank.

**WARNING** *Never mix gasoline or any other fuel mixes to diesel fuel because of increased fire or explosion risks.*



### To fill the tank:

**WARNING** *Never smoke when refilling the tank. Always keep control of the filler pump nozzle.*



Stop the engine. Apply the parking brake.

Clean the area around the filler cap **(S)**.

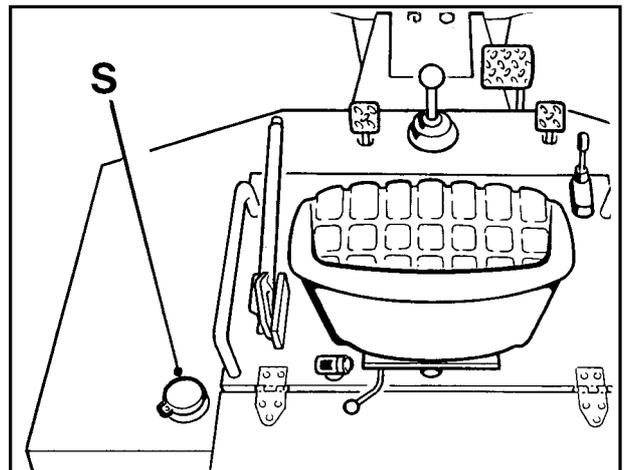
Remove the cap.

Fill the tank with diesel fuel.

**WARNING** *Do not fill the tank to capacity. Allow room for expansion, and wipe up spilt fuel immediately, otherwise paintwork will be damaged.*



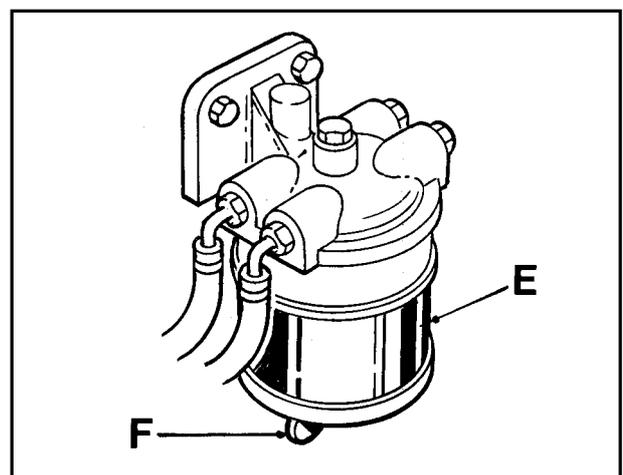
Replace the filler cap **(S)**.



### Check fuel pre-filter for water

If there is sediment in the glass bowl **(E)**, drain as follows:

Loosen the drain **(F)** at the bottom of the filter and allow the water/fuel to drain into a suitable container. Retighten the drain **(F)** when uncontaminated fuel begins to flow.



**First 50 operating hours**

When your new engine has run for 50 operating hours, the following service procedures should be carried out.

**Clean pre-filter**

(See "Every 250 operating hours")

**Clean fuel lift pump strainer**

(See "Every 250 operating hours")

**Change fuel filter**

(See "Every 250 operating hours")

**Every 250 operating hours****Clean pre-filter**

**WARNING** Clean the area surrounding the pre-filter before removing.



Loosen the drain (F) and drain all the contents of the filter into a suitable container.

Hold the base of the filter (G) while unscrewing the retaining bolt (H).

Remove the filter base and the glass bowl (E). Take care to collect all of the seals.

Using clean diesel fuel and a lint-free cloth, clean the inside of the glass bowl (E), the base and the inside of the filter head.

Check the condition of the seals. Renew if necessary.

Reassemble the filter.

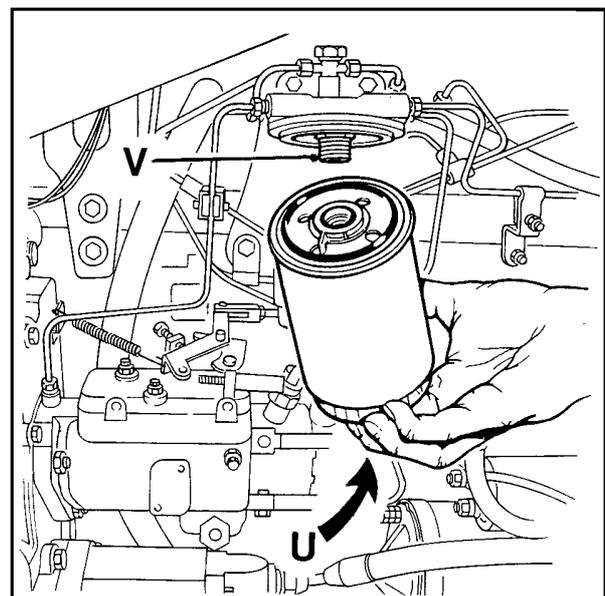
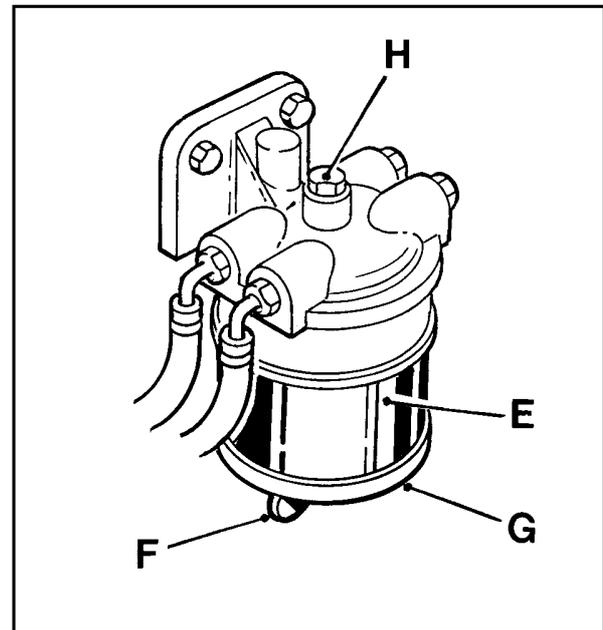
Eliminate air from the filter and fuel system. (See "Bleeding the fuel system")

**Change fuel filter (earlier type)**

**WARNING** It is important that correct parts are used when replacing the fuel filter. The use of an incorrect filter could damage the fuel injection pump and injectors.



Clean the area surrounding the fuel filter before removing.



Loosen the drain (U) at the bottom of the filter and allow the water/fuel to drain into a suitable container.

Use a strap wrench or similar tool to loosen the filter canister, and remove the canister.

Ensure that the threaded adaptor (V) is secure in the filter head and that the inside of the head is clean.

Lightly lubricate the top seals of the canister with clean diesel fuel. Fit the new Canister to the filter head and tighten by hand.

Eliminate the air from the fuel filter. (See *"Bleeding the fuel system, earlier type filter"*)

## Change fuel filter (*later type*)

**WARNING** *Discard the used fuel filter and any spilt fuel in a safe place and in accordance with local regulations.*



Renew a canister as follows...

Thoroughly clean the outside surfaces of the fuel filter assembly.

Loosen the drain device (**I**) at the bottom of the canister and allow the water/fuel to drain into a suitable container.

**Note:** If the filter does not have a drain device fitted release the cap (**J**) on top of the filter head. Remove the nylon insert to lower the level of the fuel in the filter canister. This will prevent fuel spill when the clamp ring (**K**) is released.

Support the filter canister (**L**) and rotate the clamp ring to the left (**M**) and remove the clamp ring.

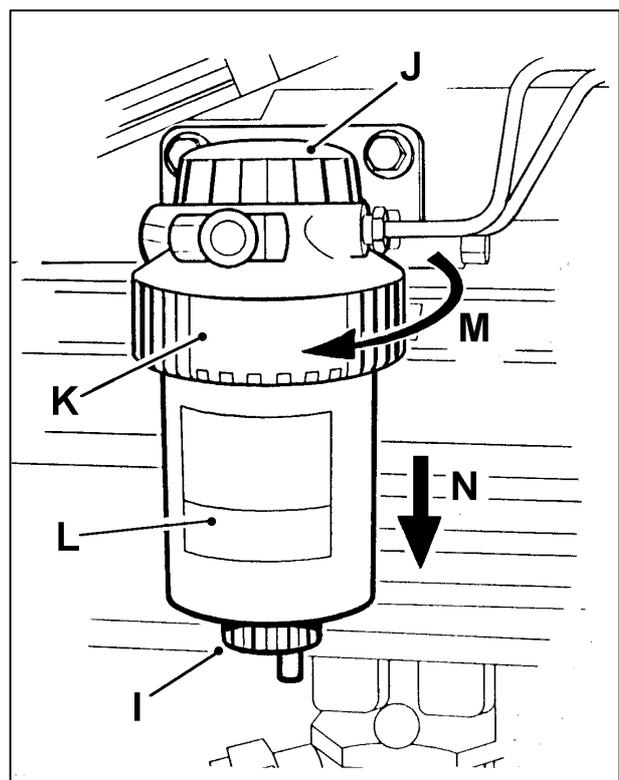
Remove the canister from the filter head by a direct pull downwards (**N**), and discard the old canister.

Ensure the filter head is clean. Push the new canister fully into the filter head.

Support the canister, fit the clamp ring and rotate it to the right to fasten the canister to the head.

If the nylon insert was removed to lower the fuel level in the filter, ensure that it is fitted correctly and fit the cap.

Eliminate the air from the fuel filter (see *"Bleeding the fuel system, later type filter"*)



## Fuel lift pump

Clean sediment chamber and strainer as follows.....

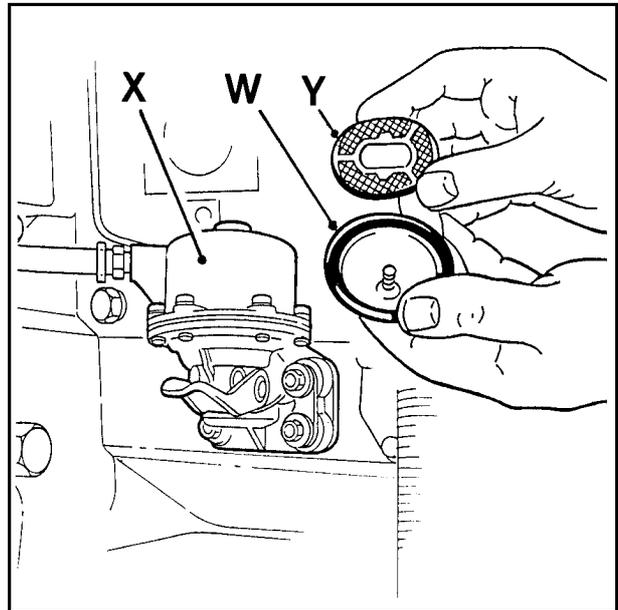
Remove the cover and joint (**W**) from the top of the fuel lift pump (**X**), and remove the gauze strainer (**Y**).

Inspect the joint and renew if necessary.

Carefully wash all the sediment from the lift pump body.

Clean the gauze strainer, joint and cover. Assemble the lift pump. Ensure that the lift pump body and the cover are fitted together correctly, because leakage at this point will allow air into the fuel system.

Eliminate the air from the fuel system. (See "Bleeding the fuel system")



## Bleeding the fuel system

If air enters the fuel system, it must be eliminated before the engine can be started. Air can enter the system if.....

- The fuel tank is drained during normal operation.
- The low-pressure fuel pipes are disconnected.
- A part of the low-pressure fuel system leaks during engine operation.
- 

(see following pages to bleed system)

## To bleed the fuel system (earlier type fuel filter)

**WARNING** *If your skin comes into contact with high-pressure fuel, obtain medical assistance immediately*



Loosen the banjo connection bolt **(M)**, fitted on the top of the fuel filter.

Operate the priming lever **(N)** on the fuel lift pump until fuel, free from air, flows from the filter vent point.

**Note:** If the drive cam of the fuel lift pump is at the point of maximum lift, it will not be possible to operate the priming lever. In this situation, the crankshaft must be turned one revolution.

Tighten the banjo connection bolt **(M)**.

Turn the start key to position 'B'.

Loosen the vent screw **(P)**, situated in the lock screw of the hydraulic head, and the vent screw **(R)**, situated on the governor cover of the fuel injection pump.

Operate the priming lever **(N)** of the fuel lift pump until fuel, free from air, flows from the vent screws. Tighten the vent screws.

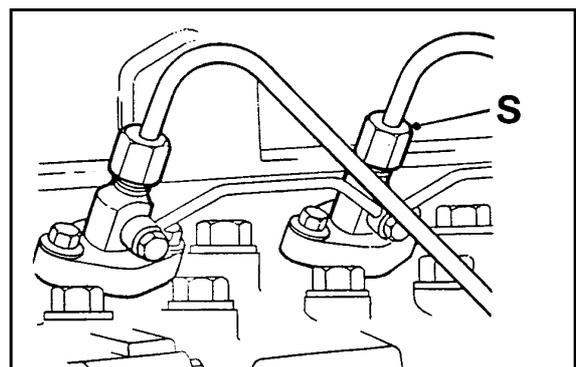
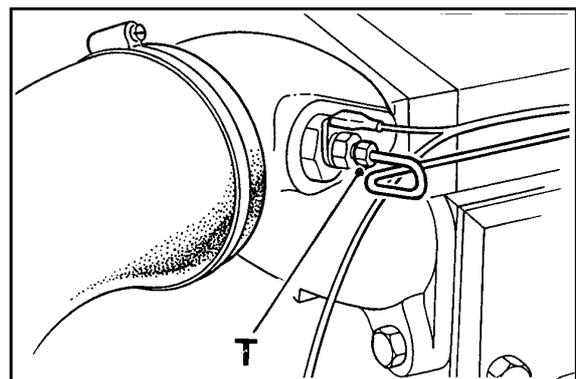
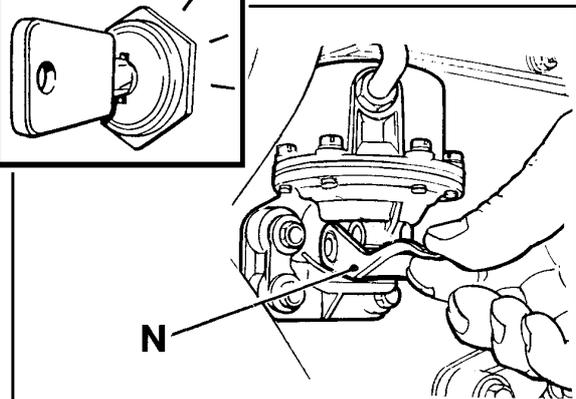
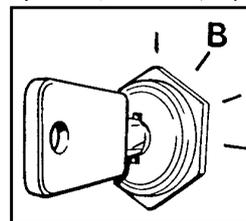
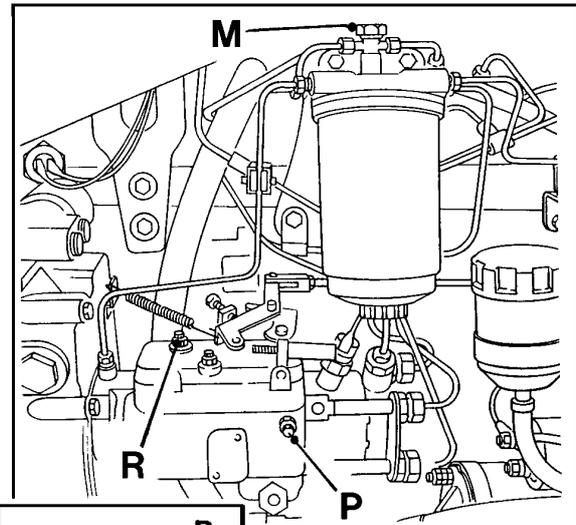
Loosen the union nut **(T)** at the thermostart plug and operate the lift pump until fuel, free from air, flows from the connection. Tighten the union nut **(T)**.

Loosen the union nuts of the high-pressure pipes **(S)** at two of the fuel injectors.

Operate the starter motor until fuel, free from air, flows from the pipe connections. Tighten the high-pressure pipe connections **(S)**.

The engine is now ready to start.

If the engine runs correctly for a short time and then stops, or runs roughly, check for air in the fuel system. If there is air in the system, there is probable a leak in the low-pressure fuel system.



## Bleeding the fuel system (later type fuel filter)

**WARNING** *If your skin comes into contact with high-pressure fuel, obtain medical assistance immediately.*



If air enters the fuel system, it must be removed before the engine can be started.

Air can enter the system if:.....

- The fuel tank is drained during normal operation.
- The low-pressure fuel pipes are disconnected.
- A part of the low pressure fuel system leaks during engine operation.

In order to eliminate air from the fuel system, proceed as follows:.....

Vent screws are not fitted to the fuel injection pump. Air will usually be removed from the fuel pump automatically.

**WARNING** *If the fuel system is empty or if the canister of the fuel filter as been renewed, it will be necessary to eliminate air from the fuel system especially the fuel injection pump*



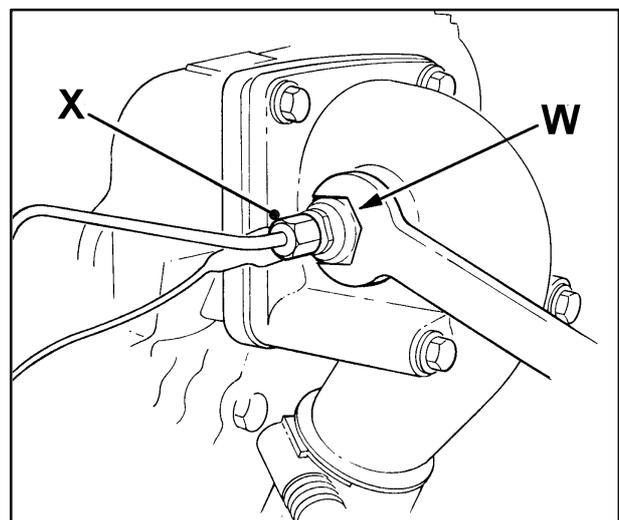
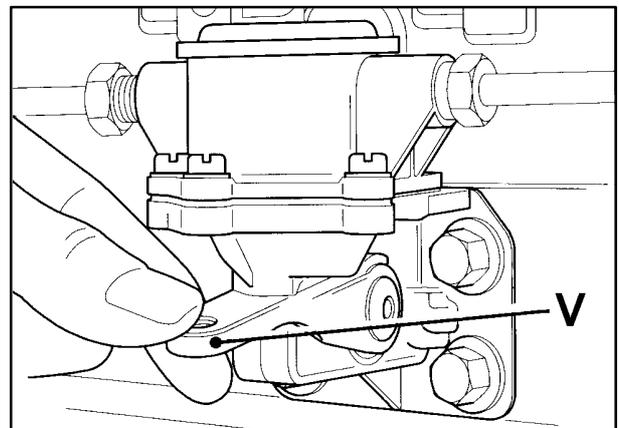
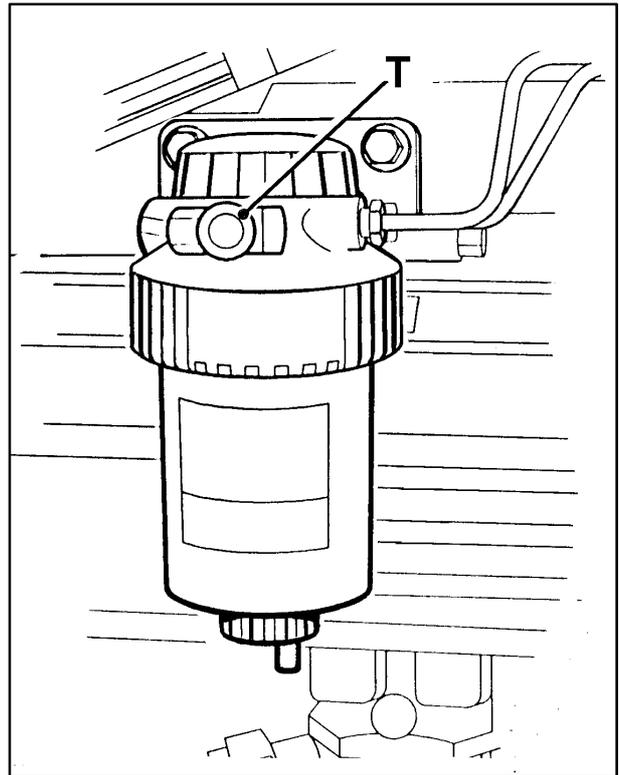
Loosen the vent screw (**T**) on the main filter. Operate the priming lever of the fuel lift pump (**V**) until fuel, free of air, comes from the banjo bolt. Tighten the vent screw

**Note:** If the drive cam of the fuel lift pump is at the point of maximum lift, it will not be possible to operate the priming lever. In this situation, the crankshaft must be rotated one revolution.

**WARNING** *Use a spanner to prevent movement of the fuelled starting aid (**W**) when the union nut (**X**) is loosened or tightened.*



Loosen the union nut (**X**) at the fuelled starting aid and operate the priming lever of the fuel lift pump until fuel, free of air,



comes from the connection. Tighten the union nut at the starting aid.

**Note:** For Lucas fuel injection pumps: Loosen the union nut at the outlet connection of the low pressure fuel leak off pipe which is on top of the governor housing of the fuel injection pump. Operate the priming lever of the fuel lift pump until fuel, free of air comes from the connection. Tighten the union nut.

**WARNING**  Do not tighten the union nuts of the high-pressure pipes more than the recommended torque tension. If there is a leakage from the union nut, ensure that the pipe is correctly aligned with the atomiser inlet. Do not tighten the atomiser union nut more, as this can cause a restriction at the end of the pipe. This can affect the fuel delivery.

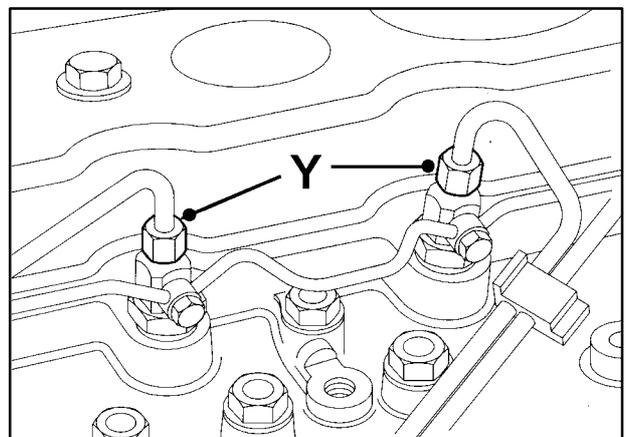
Loosen the high-pressure connections at two of the atomisers (Y).

**WARNING**  Damage to the fuel injection pump, battery and starter motor can occur if the starter motor is used excessively to eliminate air from the fuel system.

Use the starter key to operate the starter motor until fuel, free from air, comes from the pipe connections. Tighten the high-pressure pipe connections to 27Nm (20lbf ft) 2,8kgf m. Return the key to the "OFF" position.

The engine is now ready to start.

**WARNING**  Operate the engine at low idle speed for a minimum of two minutes immediately after air has been removed from the fuel system. This will ensure that the pump is free of air and prevent any damage to the pumps internal parts by metal to metal contact.



If the engine runs correctly for a short time and then stops or runs roughly, check for air in the fuel system. If there is air in the system, there is probably a leakage in the low-pressure system.

***Every 2000 operating hours, or 2 years***

### **Fuel injectors**

Have the fuel injectors checked by your Distributor.

## AIR CLEANER

**WARNING** *The service intervals specified below refer to machines working under normal service conditions. If the machine is working in extremes of dust, dirt, or other air contaminants, the air cleaner elements should be checked more frequently, and renewed as required.*



*Never remove air cleaner elements whilst the engine is running, and never run an engine without air cleaners fitted.*

**Every 50 operating hours, or weekly**

### Check air cleaner

With the engine stopped, remove the outer element **(R)**.

Check the element for contamination and damage.

Check the inside of the filter housing for heavy build-up of dust.

If the element contamination or dust build-up is excessive, service the air cleaner as described in "Every 250 operating hours", below.

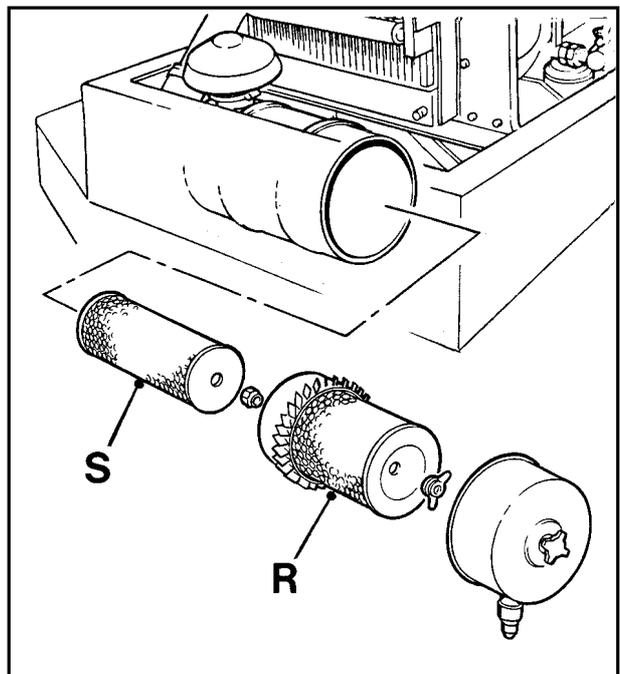
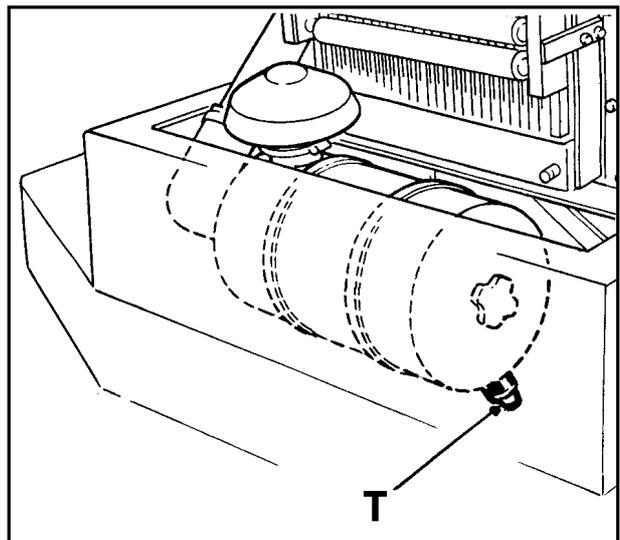
Check that the rubber dust collector **(T)** is not obstructed by debris.

**Every 250 operating hours**

### Service air cleaner

With the engine stopped, remove both the outer element **(R)** and inner element **(S)**.

Clean the inside of the air cleaner casing using a damp, lint-free cloth, paying particular attention to the element seats. If there is an excessive build-up of dust, renew the outer element **(R)**.



Check the condition of both outer and inner elements. Discard elements if they are excessively contaminated, distorted, or the bonded gaskets are loose.

Hold each element up to the light to check for damage or worn areas of paper. Refit new or existing elements as required.

**WARNING** *Never attempt to clean and re-use an element.*



**Note:** Under normal operating conditions, a new inner element **(S)** **MUST** be fitted at every third change of an outer element **(R)**.

### Air cleaner blockage indicator

The air cleaner blockage indicator will show RED through the clear panel **(M)** if the air supply to the engine is severely restricted

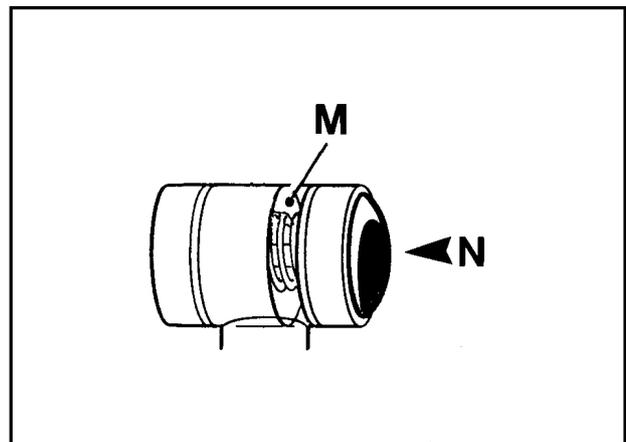
**DO NOT RUN THE ENGINE WITH THE INDICATOR SHOWING RED. THIS WILL CAUSE DAMAGE TO THE ENGINE.**

Regular preventive servicing of the air cleaner, as previously described, will prevent this occurring.

**WARNING** *Always obey the "Air cleaner blocked" indicator IMMEDIATELY.*



To reset the indicator: press IN the rubber **(N)**.



**TRANSMISSION*****First 50 operating hours*****Change transmission oil and filter**

*(See “Every 750 operating hours”)*

***Every 50 operating hours, or weekly*****Check transmission oil level**

Check the transmission oil level when the machine has stood for 2 minutes with the engine at idle speed.

**WARNING** *ALWAYS check and top up the transmission oil with the engine running at idle speed.*



*Clean the area surrounding dipstick before removing.*

Check the oil level at the dipstick/filler cap **(R)**.

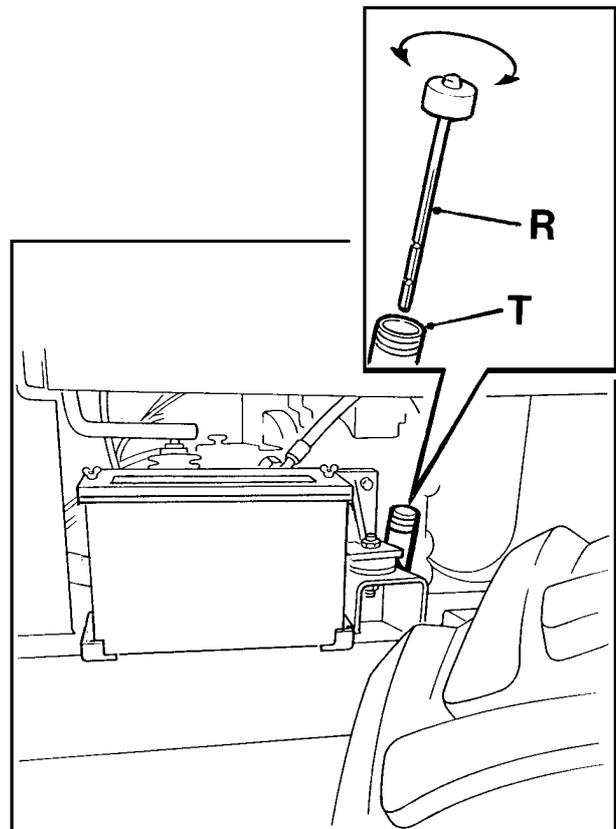
Unscrew the dipstick from the filler tube. Clean the dipstick blade and re-insert into the filler tube. (Do not screw down the cap.)

The oil level is correct when it reaches the ‘maximum’ mark on the dipstick, with the engine at idle speed and the transmission at normal operating temperature.

Top up if necessary, through the dipstick/filler tube **(T)**, with clean oil of the correct grade. It is most important not to overfill.

Re-insert the dipstick **(R)** and screw the cap down securely.

*(For the correct type and grade of oil, see “Specifications”)*



### Every 250 operating hours

**Note:** The adjacent illustrations show the "Compact Shuttle" transmission

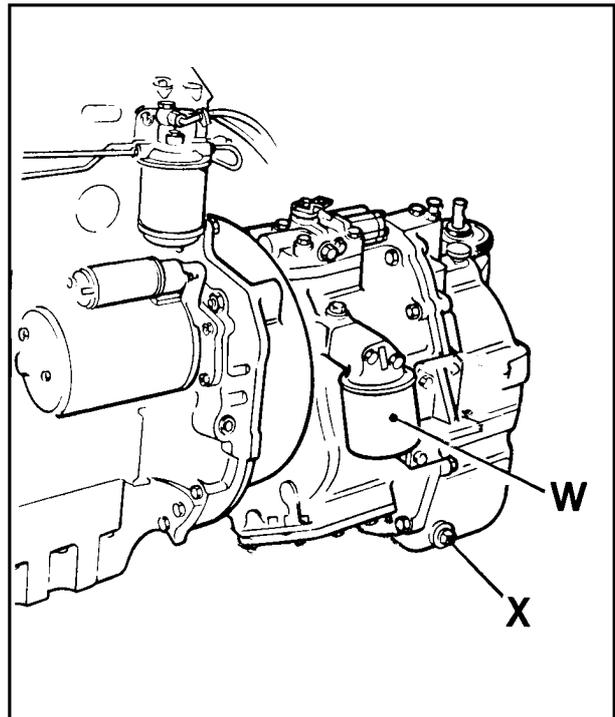
#### Change transmission oil filter

Remove the external oil filter (**W**) and replace with a new filter.

Run the engine until the transmission has reached the normal operating temperature.

Check that the oil level is at the 'maximum' level on the dipstick, with the engine running at idle speed. Top up, if necessary, with clean oil of the correct grade.

(For the correct type and grade of oil, see "Specifications")



### Every 750 operating hours

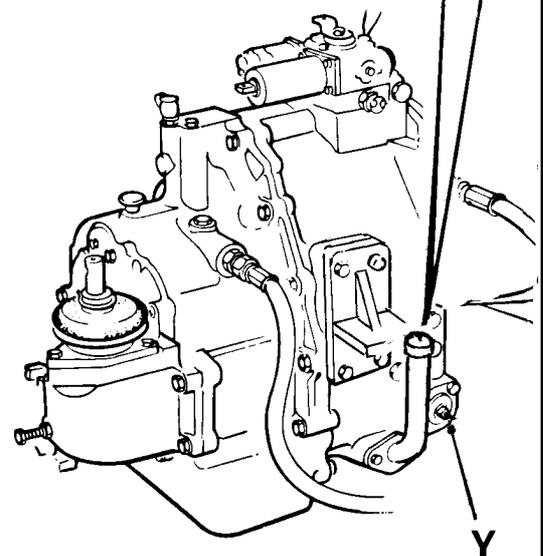
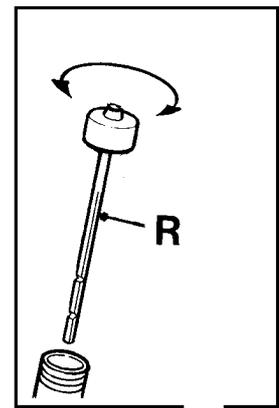
#### Change transmission oil and filter



**WARNING** *Disposal of waste oil*  
 Dispose of waste oil into waste oil storage tanks. If storage tanks are not available, consult your Distributor or local authority for addresses of local designated disposal points. It is illegal to dispose of waste oil into drains or water courses, or to bury it.

*Clean the area surrounding plugs before removing.*

*When removing drain plug (X), be sure to stand to one side to avoid oil which will spill from the hole.*



#### To change transmission oil and filter:

Run the engine to warm the oil. Stop the engine.

Place a suitable container beneath the drain plug (**X**).

Remove the drain plug (**X**) BEFORE removing the filler cap/dipstick (**R**).

Flush through with clean oil. Replace drain plug.

Remove the external oil filter **(W)** and replace with a new filter.

Remove the suction strainer **(Y)**, clean with fresh oil and replace.

Run the engine until the transmission has reached normal operating temperature. With the engine at idle speed, check that the oil level is at the 'maximum' level on the dipstick **(R)**. Top up, if necessary, with clean oil of the correct grade.

*(For the correct type and grade of oil, see "Specifications".)*

**WARNING**

*Do not overfill the transmission. Overfilling usually results in oil breakdown due to excessive heat and aeration from the churning action of the gears. Early breakdown of the oil will result in heavy varnish and sludge deposits that plug up oil ports and build up on splines and bearings. Overfilling will also result in oil leaks.*

## TRANSFER GEARBOX

**First 50 operating hours****Change transfer gearbox oil**

(See "Every 1000 operating hours, or yearly".)

**Every 250 operating hours****Check transfer gearbox oil level**

**WARNING** Clean the area surrounding plugs before removing.



Remove the level plug (**V**) and filler/breather plug (**U**).

Top up via the filler/breather plug hole (**U**) until the oil is level with the level plug hole (**V**). Replace plugs.

(For the correct type and grade of oil, see "Specifications")

**Every 1000 operating hours, or yearly****Change transfer gearbox oil**

**WARNING** When removing drain plug (**Z**), be sure to stand to one side to avoid oil which will spill from the hole.



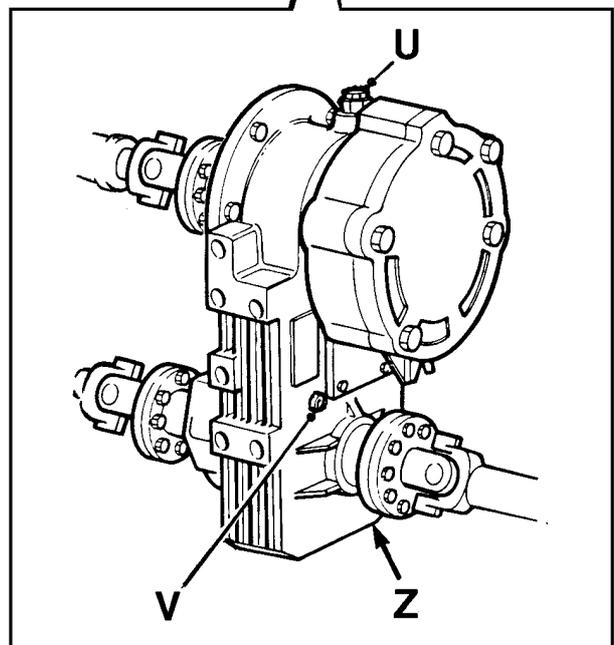
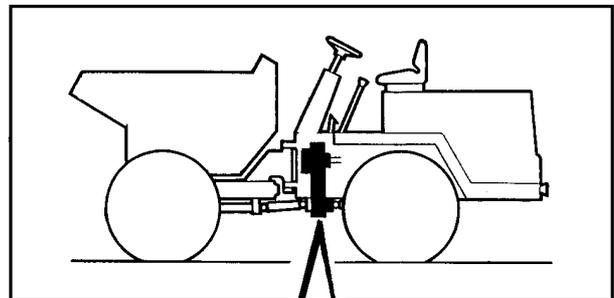
Dispose of waste oil into waste oil storage tanks. If storage tanks are not available, consult your Distributor or local authority for addresses of local designated disposal points. It is illegal to dispose of waste oil into drains or water courses, or to bury it.

Place a suitable container beneath the drain plug (**Z**).

Drain oil by removing the plug (**Z**) at the bottom of the casing. Replace drain plug.

Fill with oil at filler plug (**U**) to the level plug (**V**). Replace plugs.

(For the correct type and grade of oil, see "Specifications".)



## AXLES

**Every 10 operating hours, or daily**

### Check for leaks

Check for oil leaks around joints and seals.

**First 50 operating hours**

### Change front and rear axle oil

Change the lubrication oils in both the front and rear axle.

**WARNING** *Dispose of waste oil into waste oil storage tanks. If storage tanks are not available, consult your Distributor or local authority for addresses of local designated disposal points. It is illegal to dispose of waste oil into drains or water courses, or to bury it.*



*Clean the area surrounding plugs before removing.*

*Place a suitable container beneath drain plugs before removing.*

*When removing drain plugs, be sure to stand to one side to avoid oil which will spill from the hole.*

Remove drain plug **(M)** and drain oil from the differential casing. Replace drain plug.

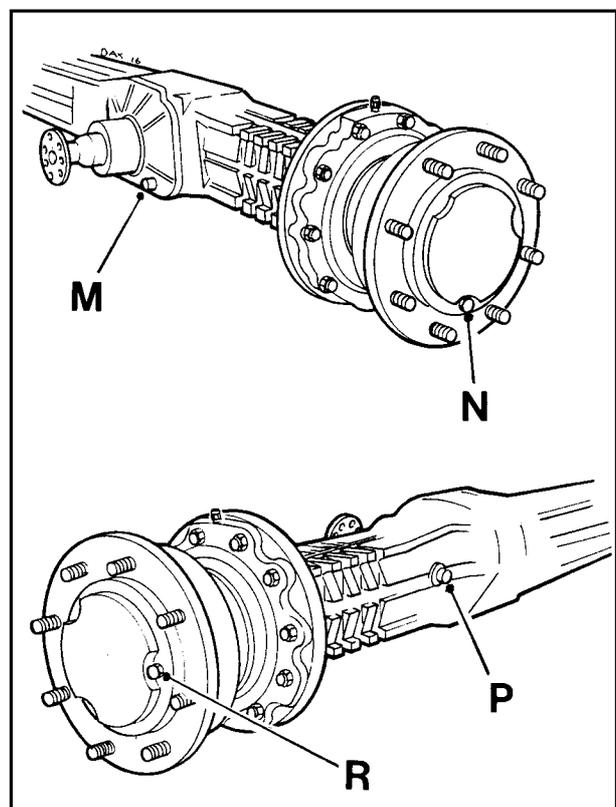
Refill at the level/filler plug **(P)** with clean oil of the correct grade.

Replace filler plug.

Service each hub in turn.

Revolve the hub until the drain/level/filler plug **(N)** is at the bottom.

Remove plug **(N)** and drain oil.



Revolve the hub until the plug hole is at the 3 or 9 o'clock position (**R**).

Refill with clean oil of the correct grade until the oil is level with the hole. Replace plug (**R**).

*(For the correct type and grade of oil, see "Specifications")*

### **Every 250 operating hours**

#### **Check front and rear axle oil levels**

Park the machine on firm, level ground. Apply the parking brake. Stop the engine.

Do not check the oil level until the machine has stood for 2 minutes.

**WARNING** *Clean the area surrounding plugs before removing.*



The differential case oil levels are correct when they reach the level plug holes (**P**).

If the oil level is low, top up with clean oil of the correct grade.

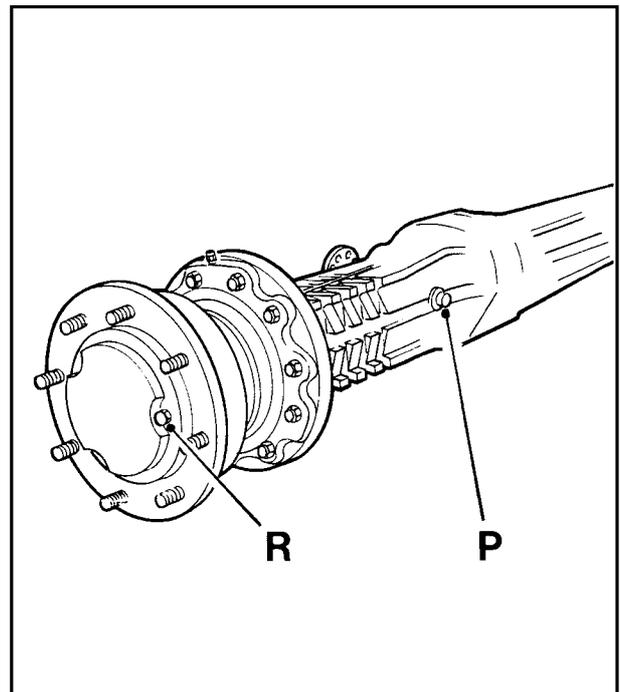
Check each hub oil level individually.

Revolve the hub until the filler/level plug is at the 3 or 9 o'clock position.

The hub oil levels are correct when they reach the filler/level plug holes (**R**).

If the oil level is low, top up with clean oil of the correct grade.

*(For the correct type and grade of oil, see "Specifications")*



### **Every 1000 operating hours**

#### **Change front and rear axle oil**

Use the procedure described in "First 50 operating hours" above.

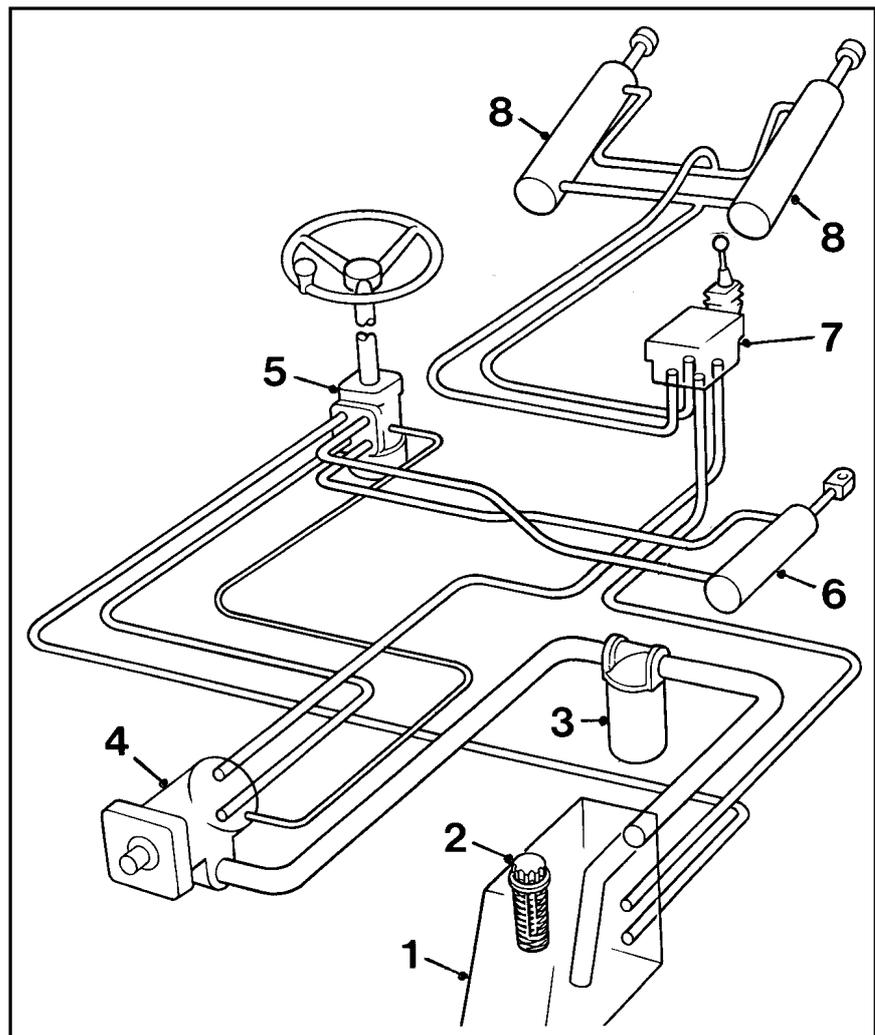
## HYDRAULIC SYSTEM

## Dumpers with forward tipping skips

The hydraulic system provides power for both steering and skip tipping. It is a split system which gives priority flow to the steering in preference to skip tipping.

Main components  
(forward tipping skip)

- 1 Tank
- 2 Filler/breather/strainer
- 3 Filter
- 4 Pump
- 5 Steer unit
- 6 Steer ram
- 7 Tipping control valve
- 8 Tipping rams



**Tank:** The tank (1) has a filler/breather cap which incorporates a dipstick. The filler assembly (2) also includes a strainer.

**Filter:** Oil is drawn from the tank via the filter (3) in the suction line. The filter is fitted with a “spin-off” cartridge element.

**Pump:** From the pump (4) there are two delivery hoses. One hose supplies the steering unit (5) while the other supplies the skip tip control valve (7). A valve within the pump (4) gives priority flow to the steering unit (5). This priority valve is activated by a pressure sensing hose from the steering unit.

**Steering unit:** The steering unit (5) consists of a distributor valve and a rotary meter. When the steering wheel is turned, the distributor valve directs oil from the pump, via the rotary meter, to one or other of the steering ram ports (6), depending on the direction in which the steering wheel is turned. The rotary meter ensures that the oil volume supplied to the ram (6) is proportional to the distance that the

steering wheel is turned. If the oil flow from the pump (4) fails, the steering unit can function as a hand-pump; this will allow the machine to be steered, but without power assistance.

**WARNING** *Steering WITHOUT power assistance is slow and strenuous for the driver. It should only be used in emergencies.*



**Tipping control valve:** The control valve (7) receives oil from the pump (4) and delivers it to the skip tipping rams (8). The rate of oil flow to the rams is proportional to the distance that the control valve lever is moved. If the control valve lever is held either fully backwards or forwards after the rams have reached their full stroke, a relief valve opens, allowing the oil to return to the tank.

## Dumpers with rotating skips

The tank, filter, pump and steering circuit operate in the same manner as for the conventional forward tipping skip. (See *the previous page*)

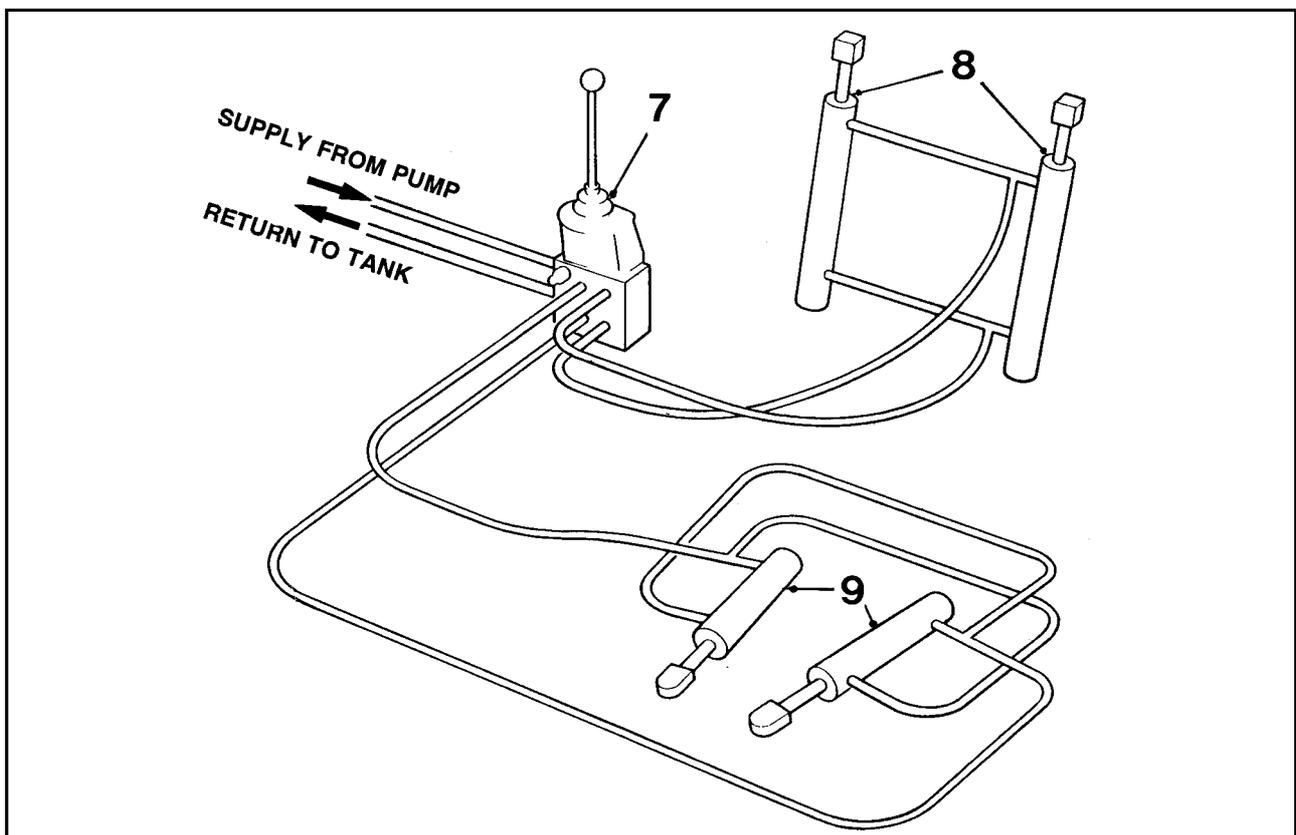
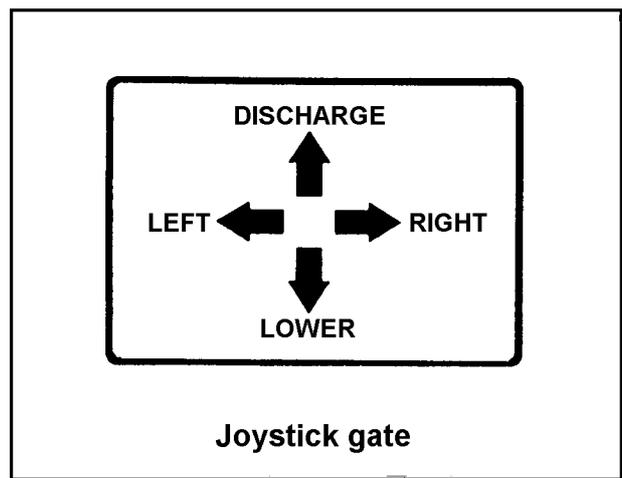
### Rotating skip operation

The skip is operated by a four-way joystick control valve.

**Joystick control valve:** The control valve (7) receives oil from the pump and delivers it to either the tipping rams (8), or the swivel rams (9). The rate of oil flow to the rams is proportional to the distance that the control valve lever is moved.

If the lever is held in one of its most extreme positions (either left/right or forwards/backwards), after any of the rams have reached their full stroke, a relief valve opens, allowing the oil to return to the tank.

Because the joystick is fitted with a gate, it is not possible to move the lever diagonally, therefore it is not possible to tip and swivel simultaneously.



## Dumping hydraulic pressure

**WARNING**  Always dump all hydraulic pressure from the system before servicing any hydraulic component.

### To dump pressure:

Ensure that the skip is fully lowered.  
Stop the engine.

Move the skip control lever several times in each direction.

## Safe working

**WARNING**  Do not allow oils to come into regular contact with skin. This can lead to serious skin diseases. Medical evidence suggests they may include skin cancer.

*Always wear protective gloves when handling oils for topping up, draining, or refilling.*

*Always practise the greatest cleanliness when servicing hydraulic components.*

*Always clean the areas surround filler points, filters etc., before and after servicing.*

*Dispose of waste oil into waste oil storage tanks. If storage tanks are not available, consult your Distributor or local authority for addresses of local designated disposal points.*

*It is illegal to dispose of waste oil into drains or water courses or to bury it.*

*When working on the hydraulic system, allow the hydraulic oil to cool before disconnecting any components or draining down the system.*

## Hydraulic system checks

If the hydraulic system fails to operate completely, or does so extremely slowly, carry out the following checks.

Check that the hydraulic tank is full of oil. (See *Every 10 hour or daily servicing procedures for checking hydraulic oil level*)

Check that the suction filter element has been regularly changed in accordance with the service schedule. If not, change the filter element.

Check that the suction pipe is not blocked.

Check that no leaks are apparent on suction side of pump, as this could cause the pump to cavitate

Periodically check the hoses between the pump and the tank to ensure they are not deformed. Any deformation in the hoses may result in a restricted flow of fluid and damage to the pump.

**If none of these procedures correct the fault contact your Distributor.**

### Check the hydraulic pressures:

#### Tip Circuit

Fit a 200 Bar (3000 psi ) gauge into the hydraulic system at the base of the tipping rams, or where fitted, to the test point on the control valve.

With the engine running at full rpm, operate the tipping control lever until the rams are fully extended and relief valve is 'blowing'.

With the relief valve 'blowing', read the pressure shown on the gauge; it should read as follows.....

**4S4000:** 110 Bar (1600 psi)

**4S5000:** 131 Bar (1900 psi) standard skip

**4S5000RS:** 127 Bar (1850 psi) rotating skip

**4S6000:** 162 Bar (2350 psi)

**4S7000:** 162 Bar (2350 psi)

### Steering Circuit

Fit a 200 bar (3000 psi) gauge into the hydraulic system at the base of the steering ram.

With the engine running at full rpm, turn steering wheel to 'full lock' and check that the reading on the gauge is showing 175 Bar (2500 psi)

**If the gauge does not read as shown above, contact your Distributor, as there may be a fault in the relief valve.**

### Relief valves

The relief valves are pre-set by the manufacture and should NOT be adjusted.

**Every 10 operating hours, or daily**

### Check hydraulic oil level

Do not check oil level before closing the tipping rams, and the engine has been stopped for two minutes.

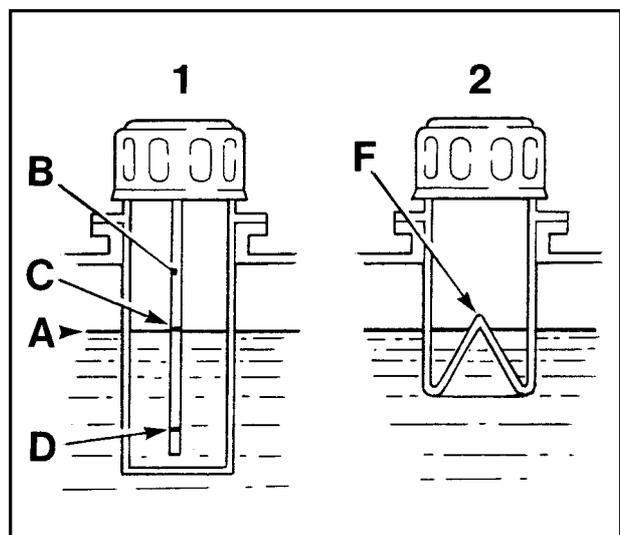
Clean the area surrounding the filler cap before removal.

There are two types of oil level indicator incorporated within the filler, they are.....

- 1 The cap is fitted with a dipstick (**B**).  
The oil level (**A**) is correct when between the maximum (**C**) and minimum (**D**) marks on the dipstick.
- 2 The strainer has a cone (**F**) at its base (The cap has no dipstick).  
The oil level is correct when the top of the cone is just visible.

On later dumpers an oil level sight gauge is fitted to the side of the hydraulic tank.

Do not overfill; it will cause leakage from the breather!



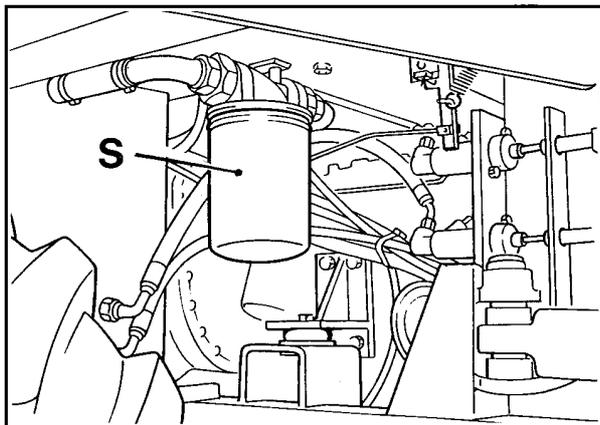
**First 50 operating hours**

**Change hydraulic oil filter element**

**WARNING** *Before changing the filter element, stop the engine and dump hydraulic pressure.*



Remove and discard filter cartridge **(S)**.



Clean joint area, wipe with hydraulic oil, and fit new cartridge,

Do not over-tighten.

Run the engine to circulate the oil.

Operate the hydraulic control lever to purge any air.

Stop the engine and top up the tank as required with clean hydraulic oil of the correct type and grade.

*(For correct type and grade of oil, see "Specifications")*

Check hydraulic pressures.  
*(see "Check that the hydraulic pressures are correct".)*

**Every 500 operating hours**

**Change hydraulic oil filter element**

Change the hydraulic oil filter element using the procedure described in "First 50 operating hours".

**Every 1000 operating hours, or yearly**

**Change hydraulic oil and filter element**

Run the engine and operate the hydraulics to warm the oil.

Fully close the tipping rams.

Stop the engine and dump hydraulic pressure.

Disconnect the battery earth cable.

**WARNING** *Clean the area surrounding the drain plug and filler cap.*



*Place a suitable container, large enough to catch all the oil, on the ground below the drain plug.*

*When the drain plug is removed, be sure to stand to the side to avoid the oil which will spill from the hole.*

Remove the drain plug and drain the oil from the tank.

Flush out the tank with clean hydraulic oil, taking extreme care to remove all dirt and foreign matter. Refit drain plug.

Clean the filler cap breather.

Refill the tank with clean oil of the correct type and grade.

*(For correct type and grade of oil, see "Specifications")*

Run the engine to circulate the oil and operate the hydraulic control to purge any air. Stop the engine and top up the tank as required.

Change the hydraulic oil filter element, using the procedure described in "First 50 operating hours".

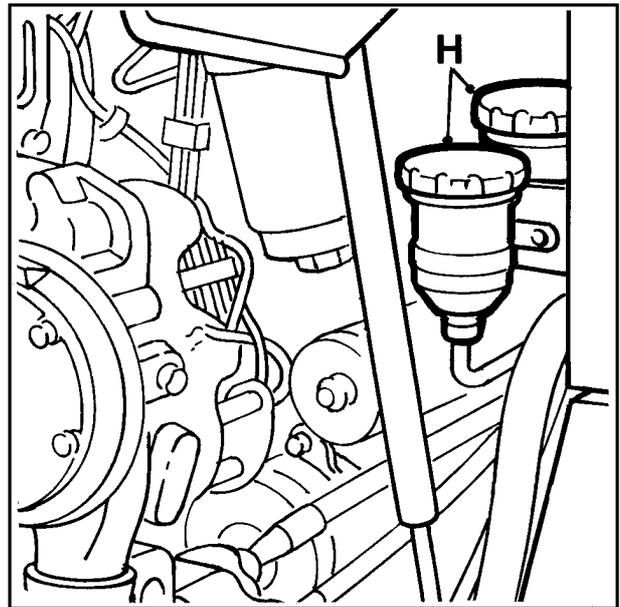
Check hydraulic pressures.  
*(See "Check that the hydraulic pressures are correct".)*

## BRAKING SYSTEM

*Every 10 operating hours, or daily*

### Brake oil reservoirs

Check the oil level in the reservoirs (H). Never allow the oil to fall more than 10mm below top level marks.

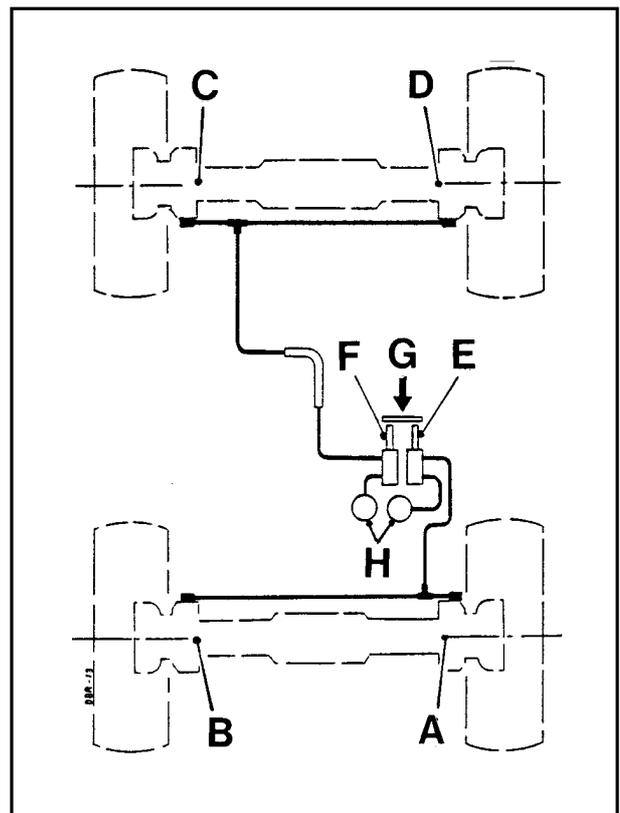


### Braking System

The braking system is designed to require the minimum of maintenance, and no defects should normally occur.

If air is present in the system, it will be indicated by sluggish response and by spongy action of the brake pedal.

- A Bleed screw (rear axle R.H.)
- B Bleed screw (rear axle L.H.)
- C Bleed screw (front axle L.H.)
- D Bleed screw (front axle R.H.)
- E Master cylinder (rear axle)
- F Master cylinder (front axle)
- G Balance bar linkage
- H Brake oil reservoirs



### To bleed the braking system

Check that all connections are tight and the bleed screws are closed.

Check that there is sufficient oil in the brake reservoirs (H).

**WARNING** *Clean the areas surrounding bleed screws and brake reservoirs before servicing.*



**WARNING** Do not allow the reservoirs to empty during the bleeding procedure.



Dispose of waste oil into waste oil storage tanks. If storage tanks are not available, consult your Distributor or local authority for addresses of local designated disposal points. It is illegal to dispose of waste oil into drains or water courses, or to bury it.

Attach bleeder tube (V) to the first bleed screw (A), and immerse the other end of the tube in a small quantity of hydraulic oil contained in a glass jar (W). Slacken the bleed screw and depress the pedal to its full extent. Release pedal and repeat the process until oil pumped into the jar contains no air bubbles. Remove bleeder tube and release pedal.

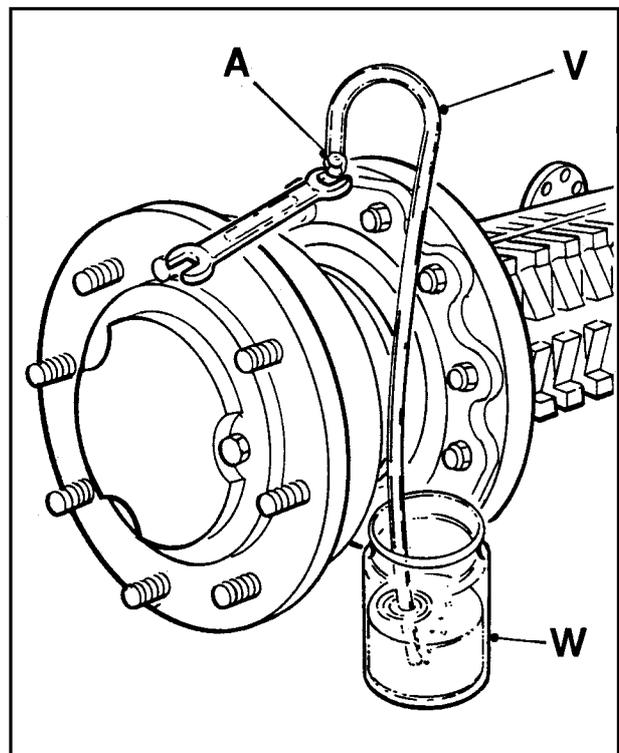
Lock the bleed screw.

Repeat the procedure for bleed screws (B,C and D).

Top up brake reservoirs (H).

Apply normal working load on brake pedal for two or three minutes and examine the entire system for leaks.

**NOTE:** Always ensure that free play of 1 to 2mm exists between the master cylinder push rods and the pistons when the brake pedal is released. Unless the pistons in both master cylinders are allowed to fully return, brake pressure will build up and the brakes will remain on.



## BATTERY

### Safe handling of batteries

**WARNING**

*The battery contains a sulphuric acid electrolyte which can cause severe burns and produce explosive gases. Wear protective clothing, gloves and goggles when servicing the battery. Avoid contact with the skin, eyes or clothing. If spilled onto the skin, flush immediately with cold water. If splashed into the eyes, flush immediately with cold water for 15 minutes and get prompt medical attention. Do not take internally. If accidentally swallowed, call a doctor immediately.*

*Do not use a naked flame or smoke near the battery. Do not produce sparks with cable clamps when charging the battery or starting the engine with a slave battery.*

*Always disconnect battery leads, or activate battery isolator where fitted, before carrying out any maintenance to the electrical system.*

***Every 250 operating hours***

### Check battery electrolyte level

The battery is situated on the left-hand side of the machine.

Ensure that the electrical connections are clean and tight, and coat the terminals with petroleum jelly to protect them from corrosion.

Remove battery filler plugs and check that the electrolyte level is between 6 – 9mm (0.25 – 0.37 in) above the tops of the separators.

If necessary, top up with distilled water.

Replace battery filler plugs.

## Battery removal

**WARNING** *If the battery is to be removed from the dumper, ensure the following procedure is used.*



Switch off the engine.

Remove the starter key from the dumper.

Ensure all electrical circuits are switched off. Activate the Battery Isolator (where fitted).

Remove the battery cover and clamp.

Disconnect the earth (-) lead from the battery before removing the positive (+) lead.

Lift the battery from the dumper.

**WARNING** *When installing the battery, the positive (+) lead MUST be connected first.*



## CENTRE YOKE INSTALLATION (pivot pins guide tool)

### Installing horizontal pivot pin

1 Position the yoke (1) within the front chassis.

2 Thrust washers (10 & 11) are to be fitted at each end of the yoke. To calculate the thickness of the thrust washers proceed as follows.....

Push the yoke backwards until it touches the rear member of the chassis (R).

Measure the distance between the front of the yoke and the chassis (S). Halve this dimension (to the nearest millimetre). The resulting figure is to be the thickness of the rear thrust washer (10).

3 Using grease to hold it in place, position thrust washer (10) onto the chassis.

4 Insert thrust washer (11) in front of the yoke.

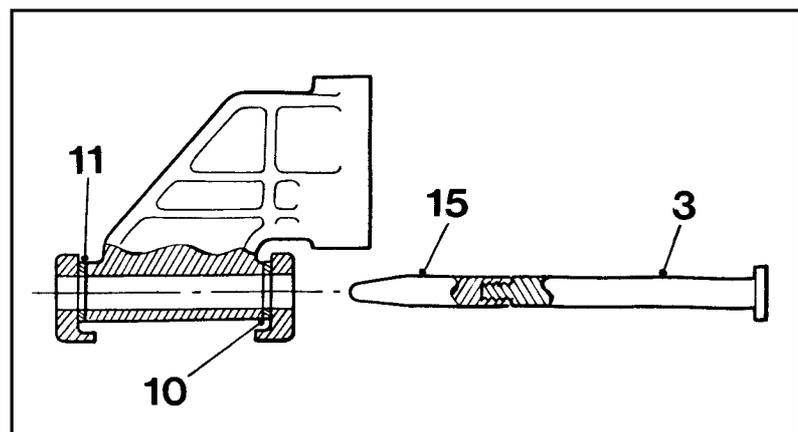
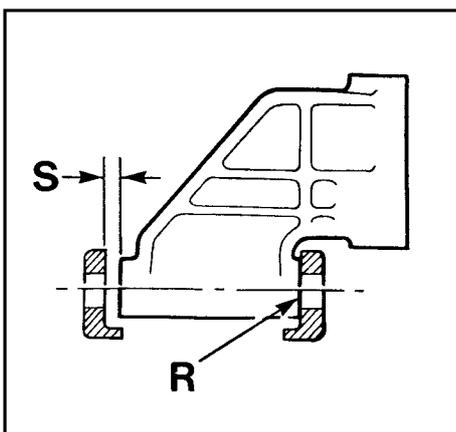
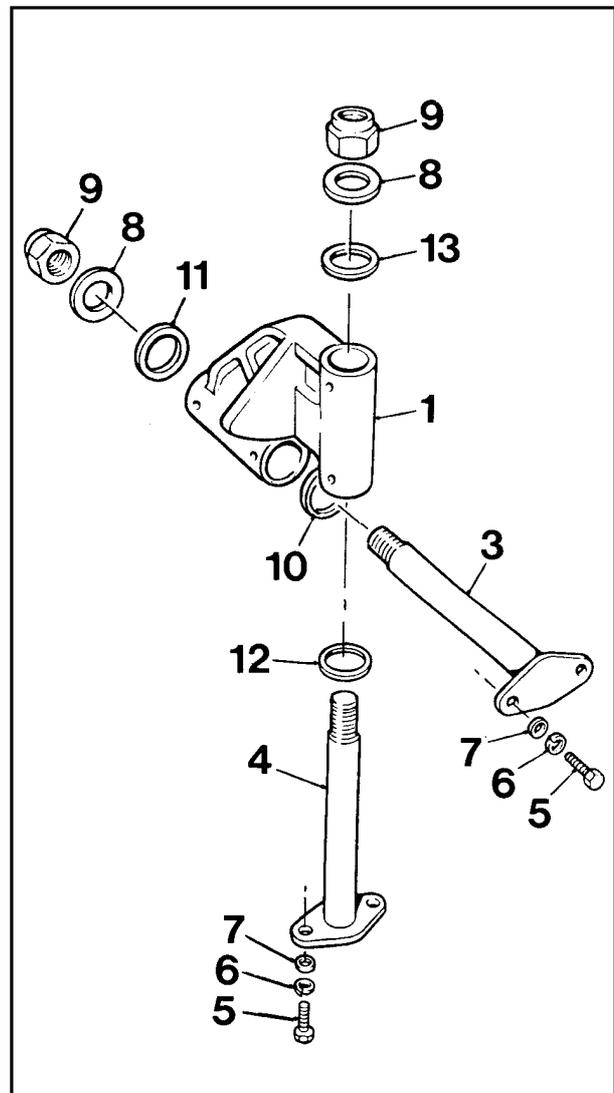
**IMPORTANT:** Thrust washer (11) must be of sufficient thickness to eliminate all horizontal float from the yoke.

5 Screw the guide (15) onto the pin (3).

6 From the rear of the chassis, insert the guide/pin through the chassis, thrust washers and yoke.

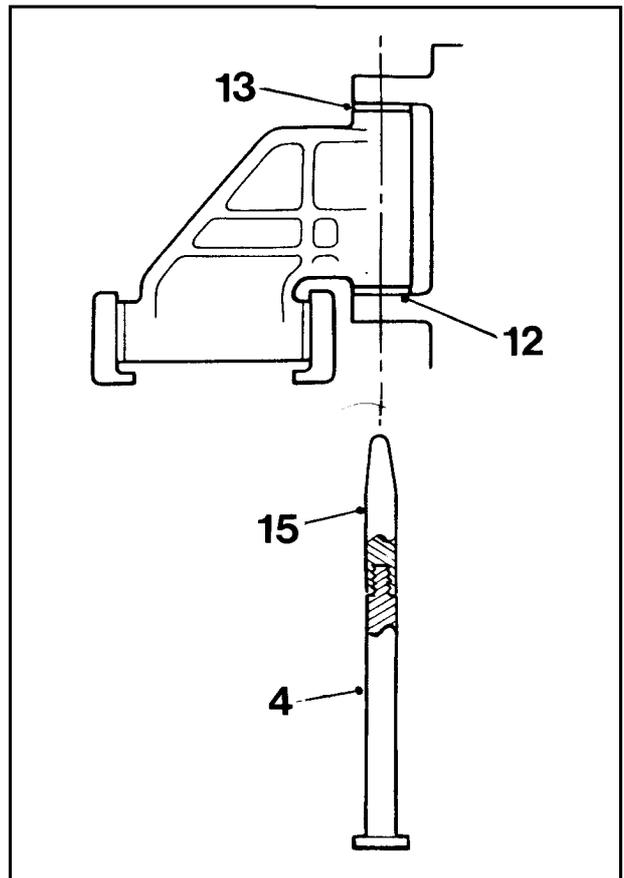
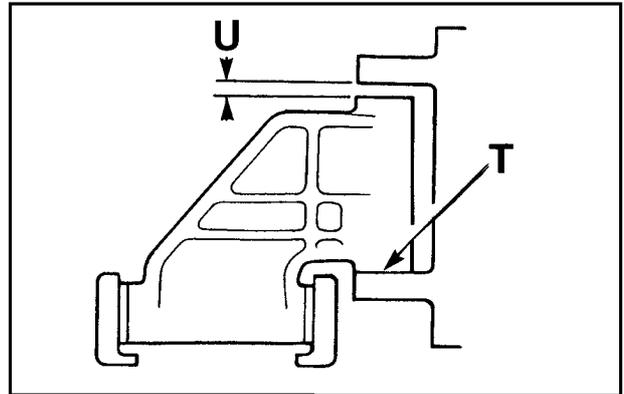
7 Secure the pin with screws (5), and washers (6 & 7).

8 Unscrew the guide from the pin and fit washer (8), nut (9).



**Installing vertical pivot pin**

- 10 Bring the front and rear chassis together, so that the yoke sits on the pivot mount (**T**) of the rear chassis.
- 11 Measure the distance between the Top of the yoke and the upper pivot mount (**U**). Halve this dimension (to the nearest millimetre). The resulting figure is to be the thickness of the lower thrust washer (**12**).
- 12 Insert thrust washer (**12**) beneath the yoke.
- 13 Insert thrust washer (**13**) above the yoke.  
**IMPORTANT:** Thrust washer (**13**) must be of sufficient thickness to eliminate all vertical float from the yoke.
- 14 Screw the guide (**15**) onto the pivot pin (**4**) and insert upwards through the chassis, thrust washers and yoke.
- 15 Secure the pin in the same manner as the horizontal pivot pin (**3**).





**SPECIFICATIONS****Engine, Naturally aspirated**

Direct injection. In-line 4 cylinder diesel  
Power output: 59.4 kW (79 bhp) @ 2200 rev/min

**Engine, Turbo**

Direct injection. In-line 4 cylinder diesel  
Power output: 79.4 kW (106 bhp) @ 2200 rev/min

**Engine, Naturally aspirated. Stage 1 emission compliant**

Direct injection. In-line 4 cylinder diesel  
Power output: 59.4 kW (79 bhp) @ 2200 rev/min

**Engine, Turbo. Stage 1 emission compliant**

Direct injection. In-line 4 cylinder diesel  
Power output: 79.4 kW (106 bhp) @ 2200 rev/min

**Cooling**

Liquid: 50% water with 50% antifreeze

**Axles**

Double reduction by bevel set and planetary hub reduction gears. Oil immersed inboard hydraulic disc brakes.

**Brakes**

Service: Oil immersed inboard hydraulic disc on all hubs  
Parking: Hand operated, ratchet type, actuating a disc brake mounted on the transfer gearbox.

**Transmission**

“Compact Shuttle” with manual F/N/R selection (earlier dumpers)  
“Compact Plus” with electronic F/N/R selection (later dumpers)  
4 speed powershuttle reverser with integral torque converter giving instant forward/reverse selection.

**Hydraulics**

Gear type pump (57 litre/min.), c/w priority valve for steering system.  
Skip operating control valve with pressure relief valve.

**Tyres**

|                  |              |
|------------------|--------------|
| <b>4S4000</b>    | 12.5/80 x 18 |
| <b>4S5000</b>    | 12.5/80 x 18 |
| <b>4S5000 RS</b> | 16.0/70 x 20 |
| <b>4S6000</b>    | 16.0/70 x 20 |
| <b>4S7000</b>    | 16.0/70 x 20 |

**Noise levels**

|            |                  |       |        |
|------------|------------------|-------|--------|
| All models | (except 4S7000): | 83LpA | 105LwA |
|            | 4S7000 only:     | 85LpA | 104LwA |

## 3.2

## TECHNICAL INFORMATION

### ROAD SPEEDS (approximately)

|                  | 1 <sup>st</sup> Gear<br>km/h (mph) | 2 <sup>nd</sup> Gear<br>km/h (mph) | 3 <sup>rd</sup> Gear<br>km/h (mph) | 4 <sup>th</sup> Gear<br>km/h (mph) |
|------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| <b>4S4000</b>    | 4.5 (2.8)                          | 8.7 (5.4)                          | 16.5 (10.3)                        | 23.5 (14.7)                        |
| <b>4S5000</b>    | 4.5 (2.8)                          | 8.7 (5.4)                          | 16.5 (10.3)                        | 23.5 (14.7)                        |
| <b>4S5000 RS</b> | 5.0 (3.1)                          | 9.7 (6.0)                          | 18.5 (11.5)                        | 25.0 (16.0)                        |
| <b>4S6000</b>    | 5.0 (3.1)                          | 9.7 (6.0)                          | 18.5 (11.5)                        | 25.0 (16.0)                        |
| <b>4S7000</b>    | 5.0 (3.1)                          | 9.7 (6.0)                          | 18.5 (11.5)                        | 25.0 (16.0)                        |

*All speeds forward or reverse*

### LOAD CAPACITIES

|                  | Max. safe load<br>kg (lb) | Liquid<br>litres (ft <sup>3</sup> ) | Struck<br>litres (ft <sup>3</sup> ) | Heaped<br>litres (ft <sup>3</sup> ) |
|------------------|---------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <b>4S4000</b>    | 4000 (8818)               | 1450 (51.0)                         | 1890 (66.7)                         | 2550 (90.0)                         |
| <b>4S5000</b>    | 5000 (11023)              | 1670 (59.0)                         | 2155 (76.0)                         | 2915 (103.0)                        |
| <b>4S5000 RS</b> | 5000 (11023)              | 1408 (49.7)                         | 16.93 (59.7)                        | 2800 (98.8)                         |
| <b>4S6000</b>    | 6000 (13228)              | 1828 (64.5)                         | 2500 (88.2)                         | 3400 (120.0)                        |
| <b>4S7000</b>    | 7000 (15432)              | 1900 (67.0)                         | 2900 (103.0)                        | 3700 (131.0)                        |

### LUBRICANTS AND FLUIDS

|                                  | Total oils (factory fill) | Capacities   |
|----------------------------------|---------------------------|--|
| Engine oil                       | Rubia XT 15W/40           | Approximately 9.4 litres                               |
| Transmission                     | Transmission MP           | Approximately 13.0 litres<br>(14.0 litres with cooler) |
| Transfer gearbox                 | Transmission MP           | 2.3 litres   |
| Axles main casing & differential | Transmission MP           | 7.0 litres   |
| Hubs                             | Transmission MP           | 1.0 litre (per hub)                                    |
| Hydraulic system                 | Azzola ZS46               | 55.0 litres (tank capacity)                            |
| Braking system                   | Azzola ZS22               | 0.60 litre   |
| General grease                   | Multis EP2                | As required  |

### CAPACITIES, fluids

|                                       |                        |
|---------------------------------------|------------------------|
| Fuel oil<br>(tank capacity)           | 57 litres (12.5 gall)  |
| Cooling system<br>(radiator capacity) | 18.5 litres (4.1 gall) |

## MACHINE WEIGHT, unladen

|                  |         |           |
|------------------|---------|-----------|
| <b>4S4000</b>    | 3550 kg | (7824 lb) |
| <b>4S5000</b>    | 3575 kg | (7879 lb) |
| <b>4S5000 RS</b> | 3985 kg | (8783 lb) |
| <b>4S6000</b>    | 3825 kg | (8430 lb) |
| <b>4S7000</b>    | 3985 kg | (8783 lb) |

These weights are nominal and may vary depending on the model and specification of the dumper.

## PRESSURES, hydraulic working

|                  |         |                            |
|------------------|---------|----------------------------|
| <b>4S4000</b>    | 110 bar | (1600 lb <sup>2</sup> /in) |
| <b>4S5000</b>    | 131 bar | (1900 lb <sup>2</sup> /in) |
| <b>4S5000 RS</b> | 127 bar | (1850 lb <sup>2</sup> /in) |
| <b>4S6000</b>    | 162 bar | (2350 lb <sup>2</sup> /in) |
| <b>4S7000</b>    | 162 bar | (2350 lb <sup>2</sup> /in) |

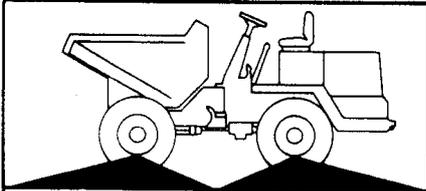
## ADJUSTMENTS

|           |            |          |
|-----------|------------|----------|
| Wheel nut | 220 lbf ft | (300 Nm) |
|-----------|------------|----------|

## DRAWBAR LOAD

|                   |         |           |
|-------------------|---------|-----------|
| Weight on drawbar | 2500 N  | (250 kg)  |
| Drawbar pull      | 10000 N | (1000 kg) |

## TYRE PRESSURES



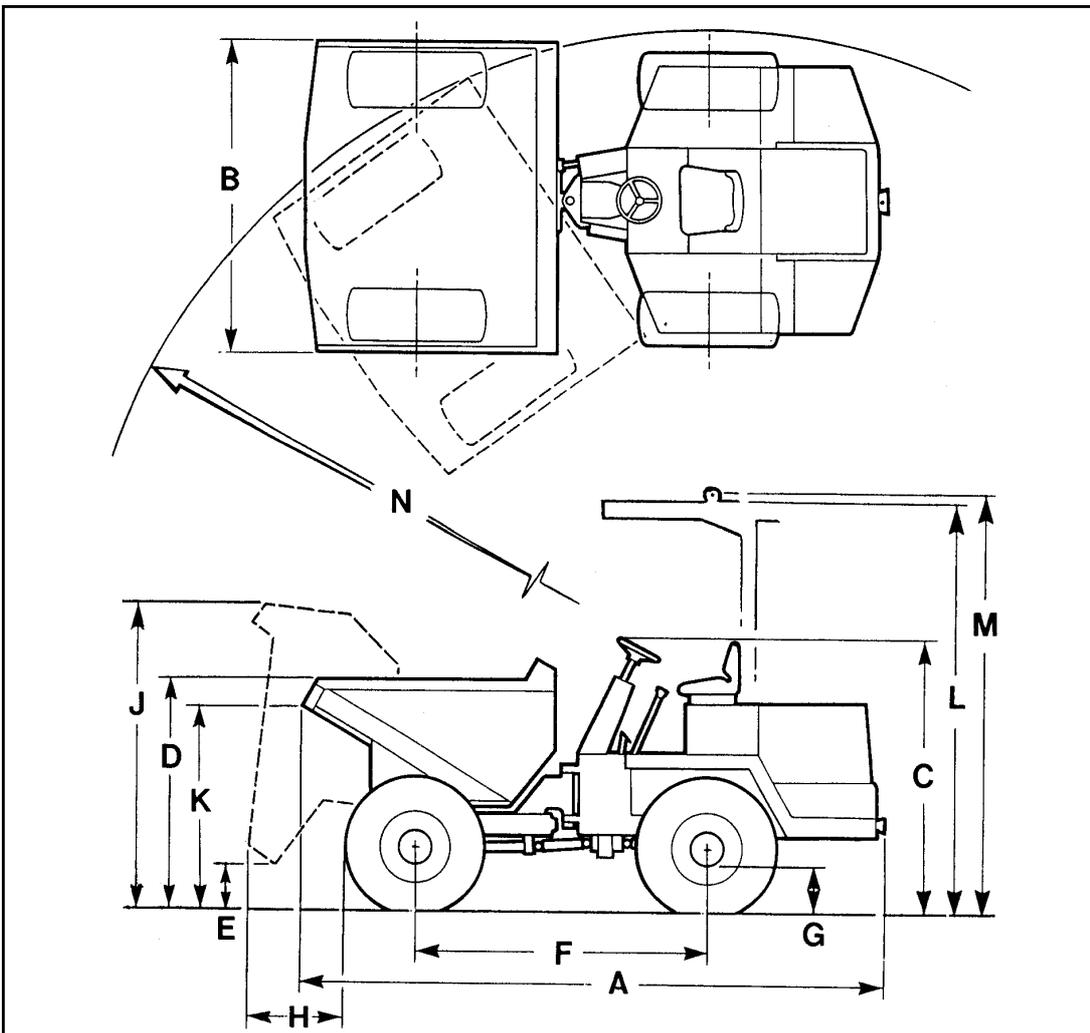
| 4S4000                    |                 |                |                 |
|---------------------------|-----------------|----------------|-----------------|
| 12.5/80x18                |                 | 12.5/80x18     |                 |
| <b>3.10bar</b>            | <b>45 P.S.I</b> | <b>1.75bar</b> | <b>25 P.S.I</b> |
| 4S5000 RS (rotating skip) |                 |                |                 |
| 16.0/70x20                |                 | 16.0/70x20     |                 |
| <b>3.45bar</b>            | <b>50 P.S.I</b> | <b>1.75bar</b> | <b>25 P.S.I</b> |
| 4S6000                    |                 |                |                 |
| 16.0/70x20                |                 | 16.0/70x20     |                 |
| <b>3.45bar</b>            | <b>50 P.S.I</b> | <b>1.75bar</b> | <b>25 P.S.I</b> |
| 4S7000                    |                 |                |                 |
| 16.0/70x20                |                 | 16.0/70x20     |                 |
| <b>4.62bar</b>            | <b>66 P.S.I</b> | <b>2.03bar</b> | <b>29 P.S.I</b> |

## VIBRATION DECLARATION

|   |
|---|
| Whole body vibration level $a_w$ (m/s <sup>2</sup> ): 0.7 – 0.8 typical*  |
| <b>*Note:</b> The absence of a harmonised test code together with the variable conditions under which this equipment may be used allows only representative figures to be quoted. |
| Hand/arm vibration level $a_{ha}$ (m/s <sup>2</sup> ): Less than 2.5  |

MACHINE DIMENSIONS

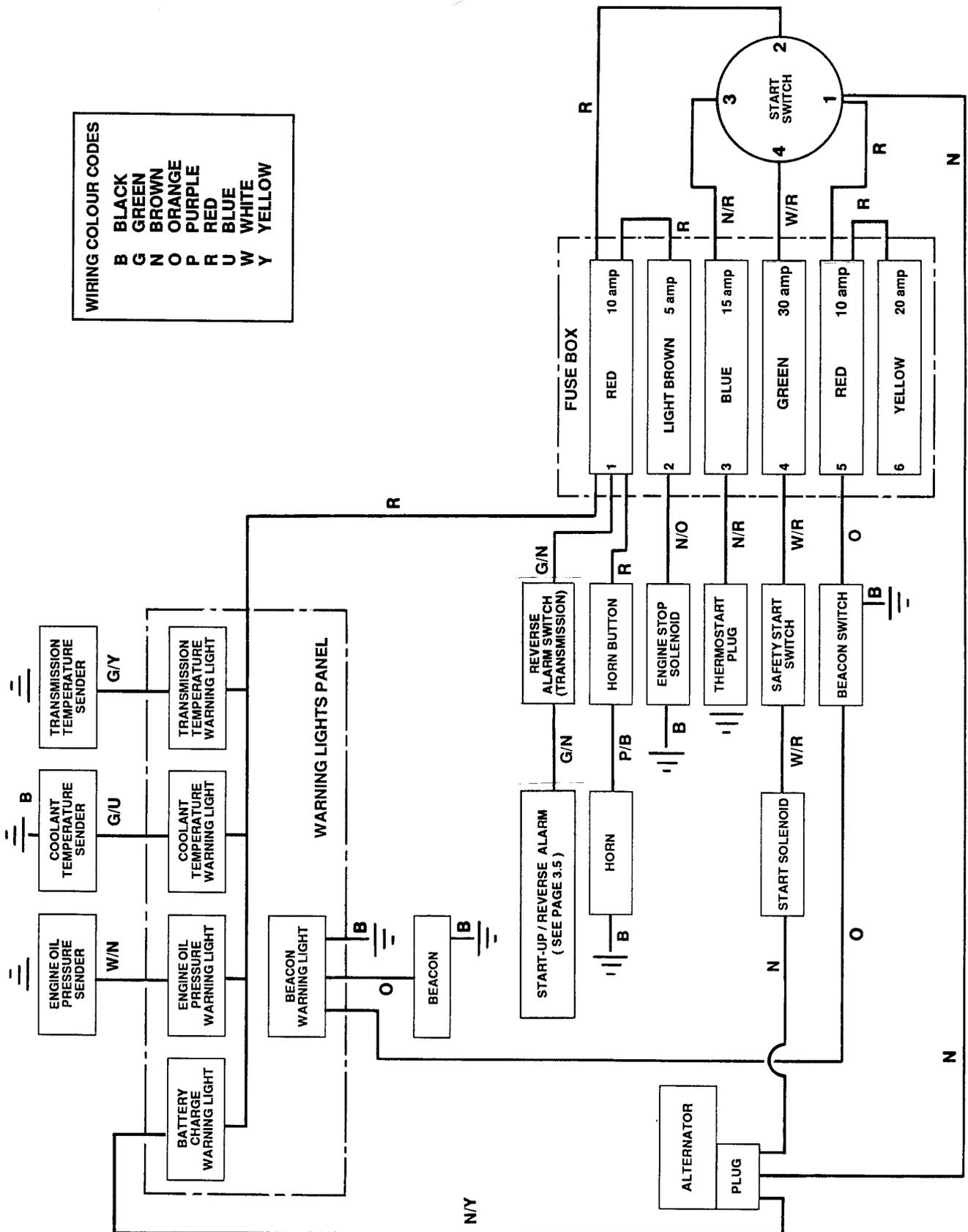
| <i>Dimensions in meters</i>       | 4S4000 | 4S5000 | 4S5000RS | 4S6000 | 4S7000 |
|-----------------------------------|--------|--------|----------|--------|--------|
| A Overall length                  | 4.43   | 4.43   | 4.64     | 4.60   | 4.60   |
| B Overall width                   | 2.06   | 2.30   | 2.14     | 2.37   | 2.47   |
| C Height to top of steering wheel | 2.13   | 2.13   | 2.17     | 2.17   | 2.17   |
| D Loading height                  | 1.67   | 1.67   | 1.78     | 1.74   | 1.81   |
| E Discharge height                | 0.38   | 0.38   | 1.14     | 1.31   | 0.34   |
| F Wheelbase                       | 2.29   | 2.29   | 2.29     | 2.29   | 2.29   |
| G Ground clearance                | 0.33   | 0.33   | 0.37     | 0.37   | 0.37   |
| H Forward discharge distance      | 0.71   | 0.71   | 0.57     | 0.49   | 0.57   |
| J Max. skip height at discharge   | 2.32   | 2.32   | 3.32     | 2.35   | 2.37   |
| K Front lip to ground             | 1.54   | 1.54   | 1.68     | 1.59   | 1.63   |
| L Height with ROPS/FOPS canopy    | 2.88   | 2.88   | 2.91     | 2.91   | 2.91   |
| M Height with cab                 | 2.93   | 2.93   | 2.97     | 2.97   | 2.97   |
| N Turning circle                  | 9.62   | 9.88   | 9.50     | 10.00  | 10.33  |
| ... Side discharge distance       | .....  | .....  | 0.23     | .....  | .....  |
| ... Width of skip discharge lip   | .....  | .....  | 1.84     | .....  | .....  |



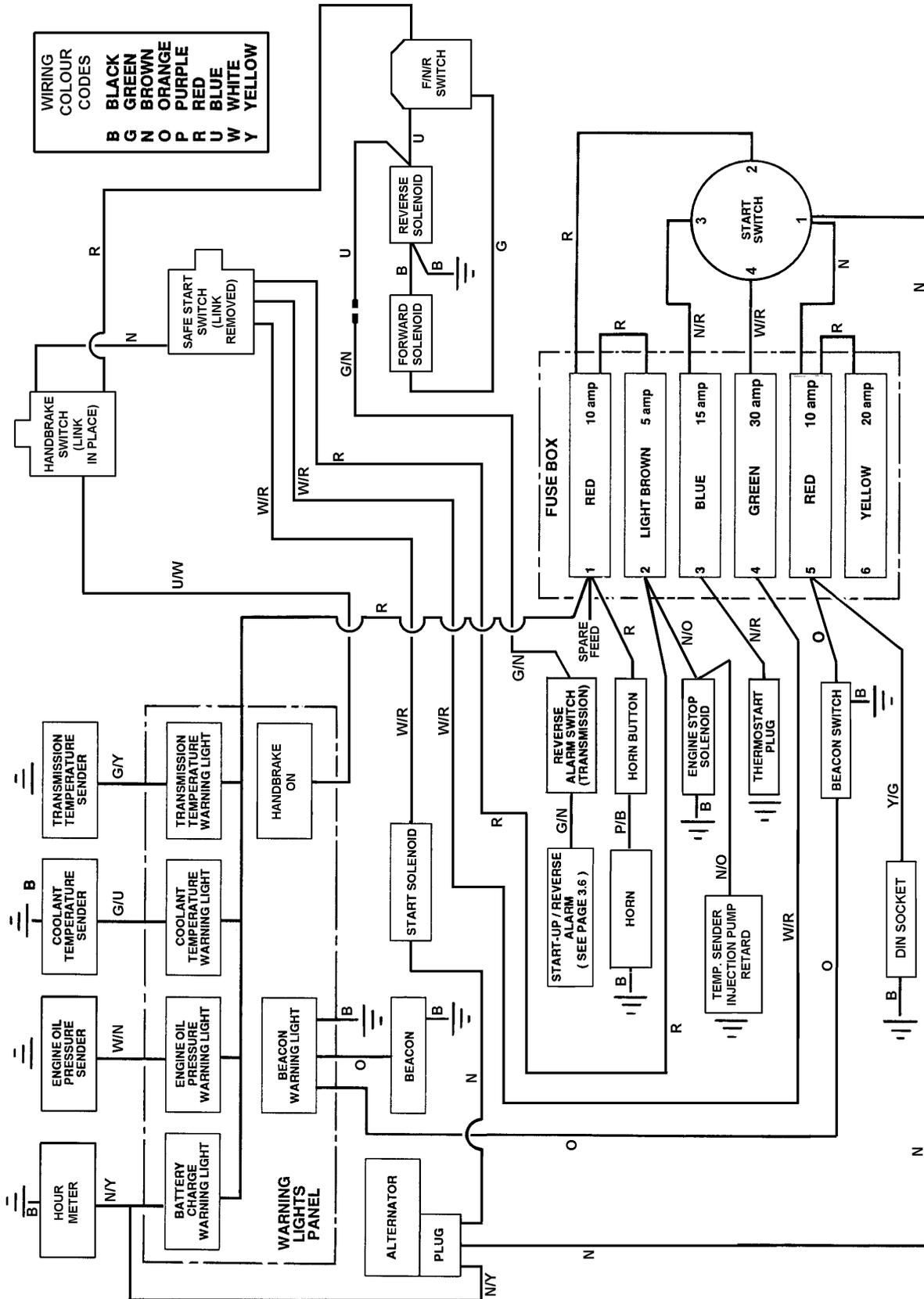
## WIRING LAYOUT of basic dumper without cab or road lights (Compact "Shuttle" transmission)

**WIRING COLOUR CODES**

|   |        |
|---|--------|
| B | BLACK  |
| G | GREEN  |
| N | BROWN  |
| O | ORANGE |
| P | PURPLE |
| R | RED    |
| U | BLUE   |
| W | WHITE  |
| Y | YELLOW |



**WIRING LAYOUT** of basic dumper without cab or road lights  
*(Compact "Plus" transmission with electronic F/N/R)*



## AUDIBLE ALARM TIMER

*The following instructions should be carried out when fitting the Audible Alarm Timer.*

### Installation

- 1 Remove the existing connectors from the red and blue wires of the timer and audible alarm,, replace them with male crimp on bullet connectors. The yellow wire of the alarm may be cut off.
- 2 Position the timer on the radiator stay midway between the water temperature sender and radiator, secure with the cable tie provided. Connect the blue and red wires of the timer and alarm using female bullet connectors (as illustrated below).
- 3 On the timer, fit a 1/4" female lucar connector to the pink wire and fit male crimp on bullet connectors to both the brown and white.
- 4 Connect the pink wire to the centre terminal on the water temperature sender. Connect the brown wire to the green/brown wire in the existing wiring loom, (some machines are fitted with a diode in the green/brown wire).

Connect white to the black (earth) wire in the existing wiring loom.

- 5 Check that the start-up alarm sounds off for approximately seven seconds when the starter switch is turned on. Tape up all the wiring connectors. Secure the wiring with nylon cable ties.

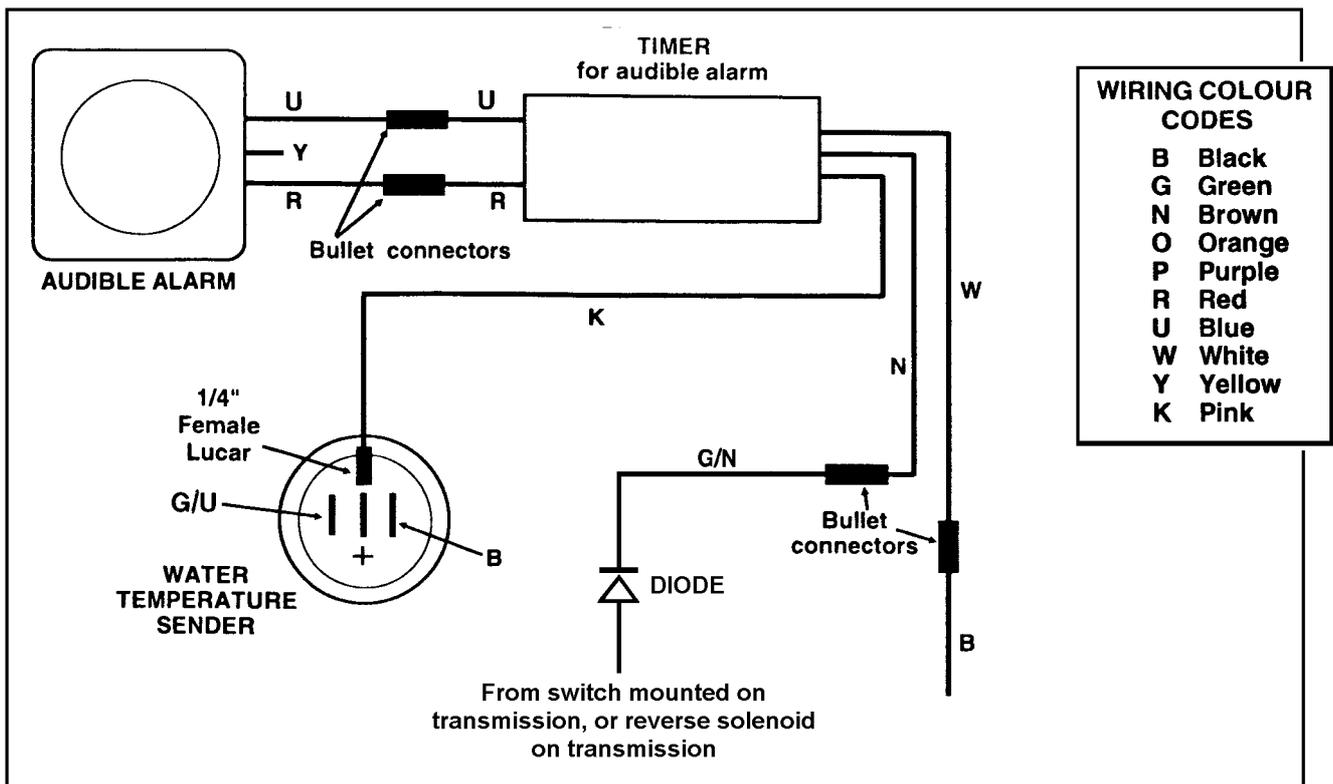
### General

Do not earth the blue or red wires connected to either the timer or alarm, doing so will damage the internal circuits of the timer rendering it unservicable.

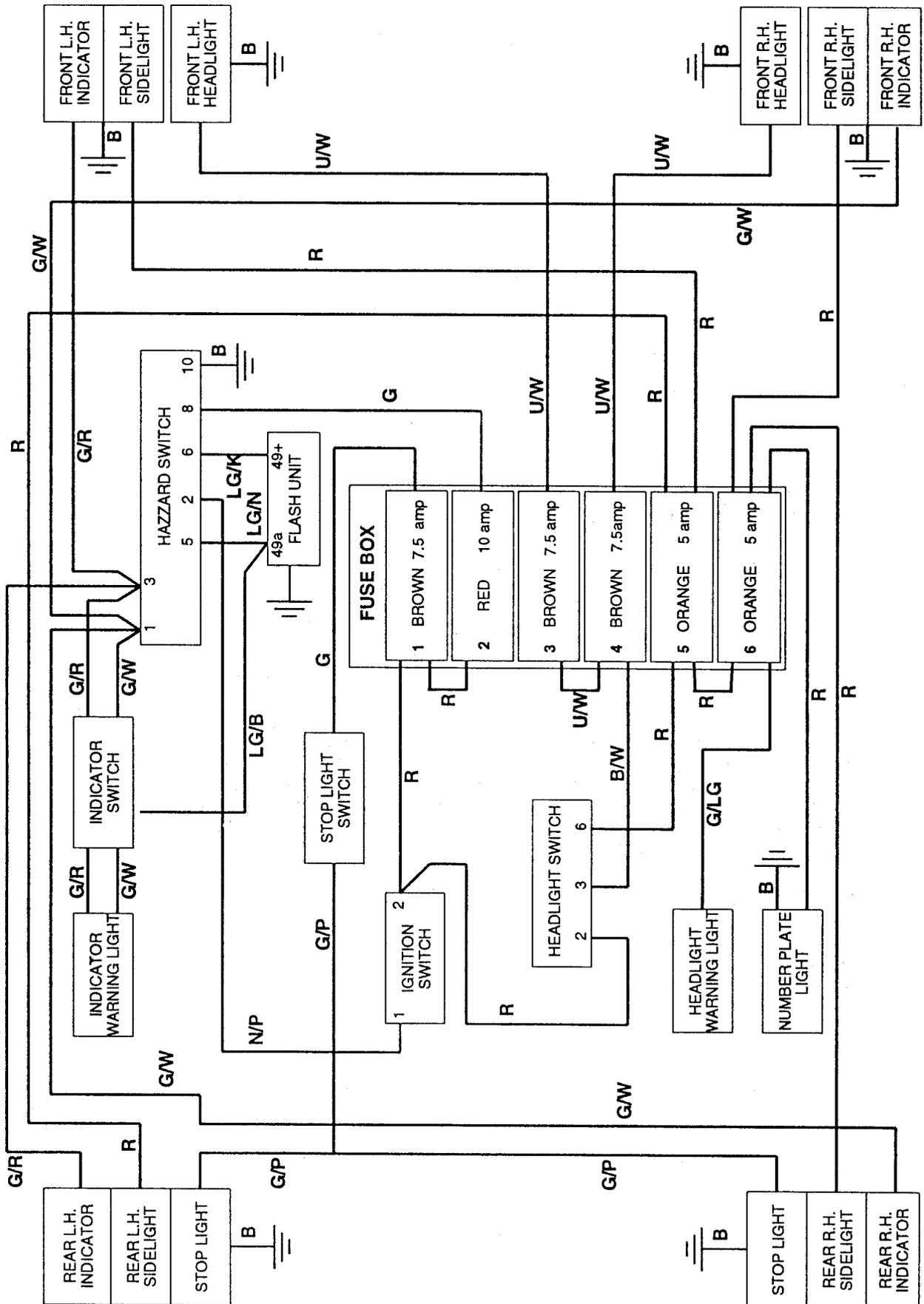
The timer has two live (+) feeds:

- a) A live feed from the water temperature sender operates the alarm in the start-up mode.
- b) A live feed from the transmission mounted pressure switch operates the alarm in the reverse mode.

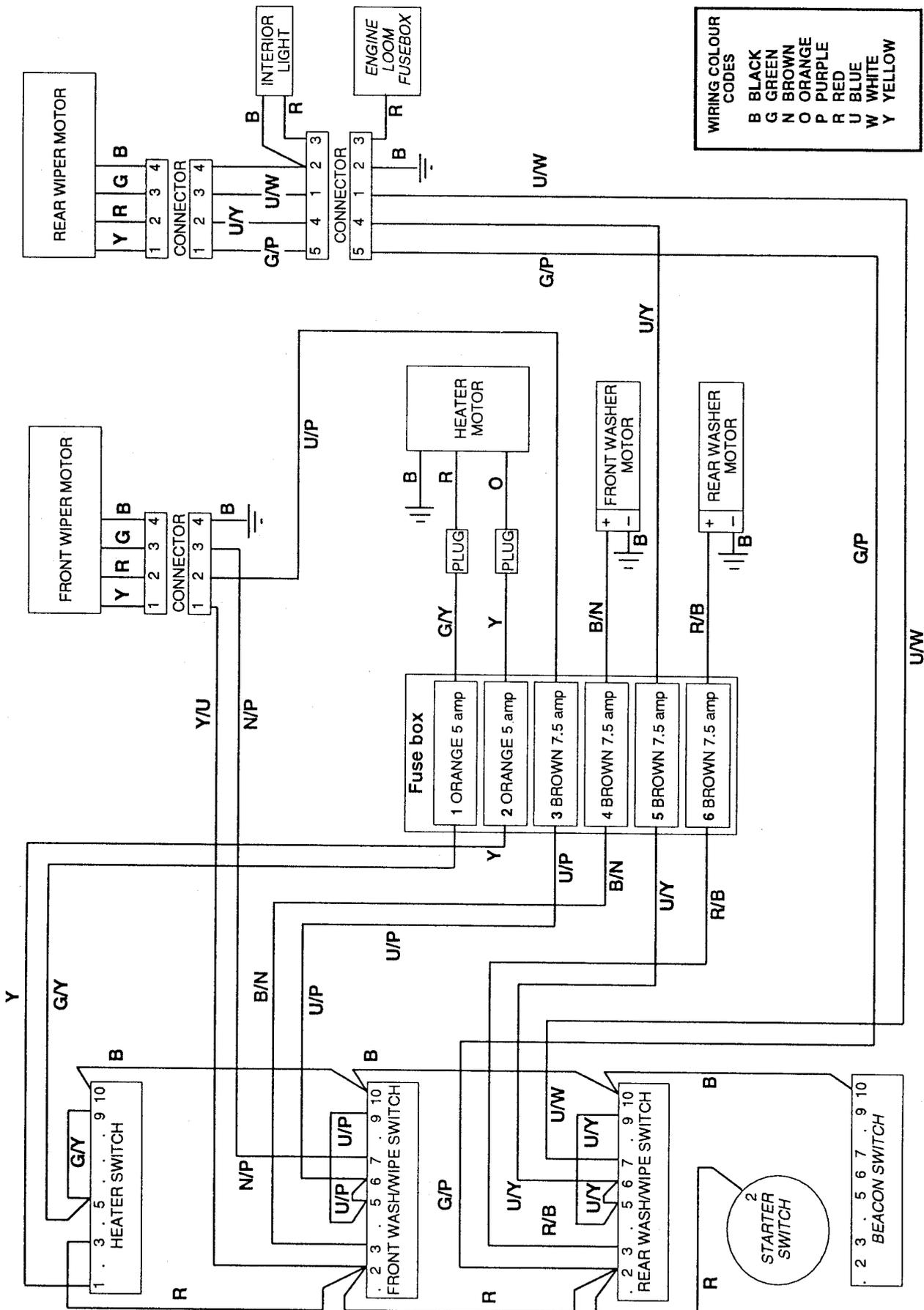
Selecting reverse while the engine is running and the start-up alarm sounding will automatically override the start-up alarm and allow the reverse alarm to sound as it would normally whilst reversing.



ROAD LIGHTS, electrical circuit

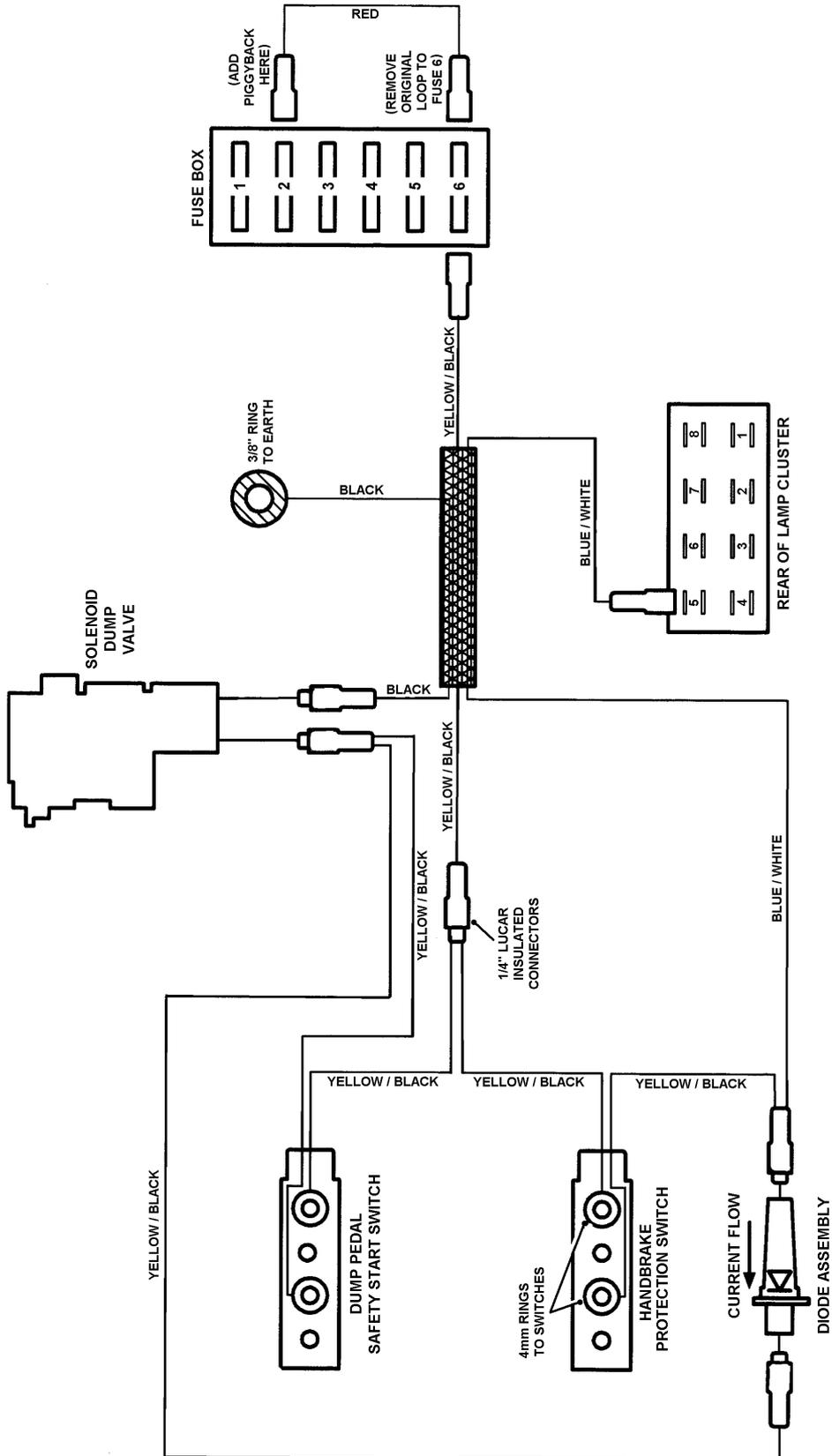


## CAB, electrical circuit



**HANDBRAKE PROTECTION CIRCUIT**

This circuit prevents the machine from being driven when the handbrake is applied,

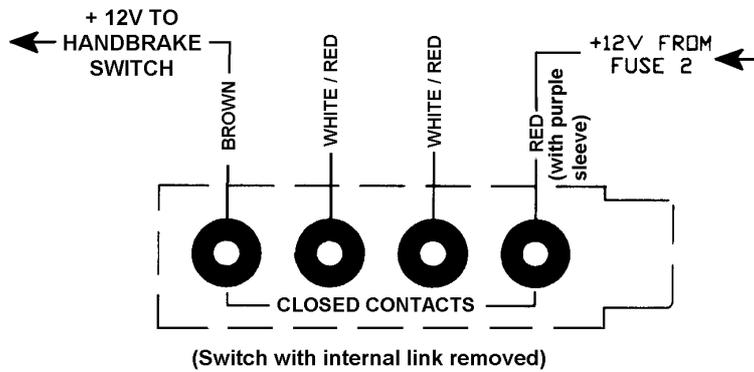
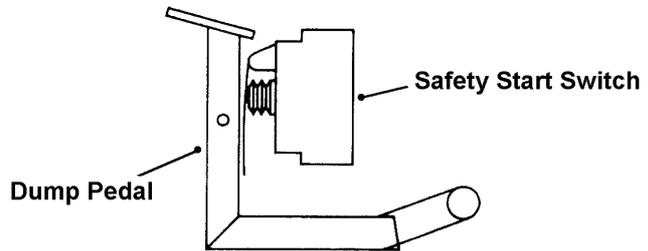


## DUMP PEDAL SAFETY START SWITCH

For machines with electronic dump and mechanical gear change

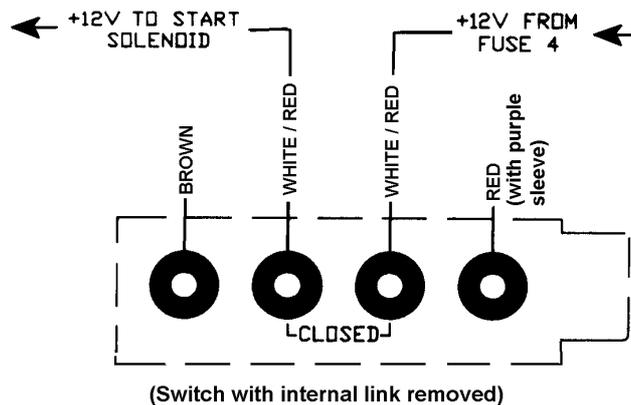
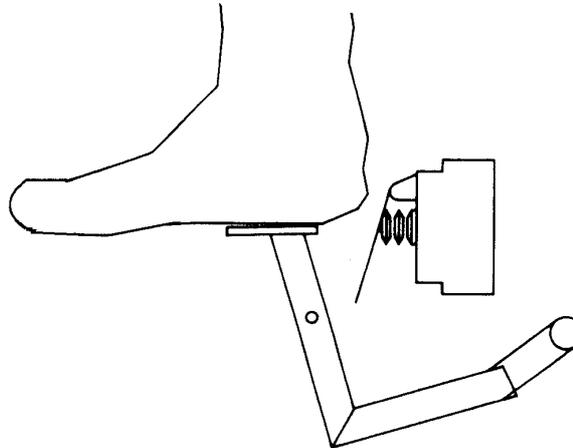
### DUMP PEDAL RELEASED

With the dump pedal released, (i.e. the switch depressed), the engine will not start.



### DUMP PEDAL DEPRESSED

To start the engine the dump pedal must be depressed, (i.e. this will release the switch).

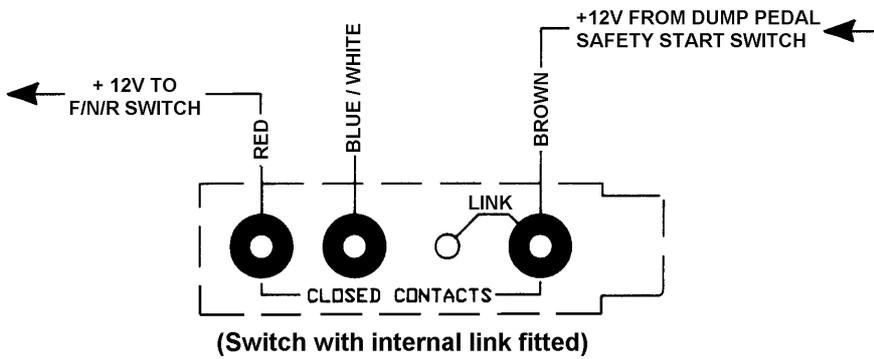
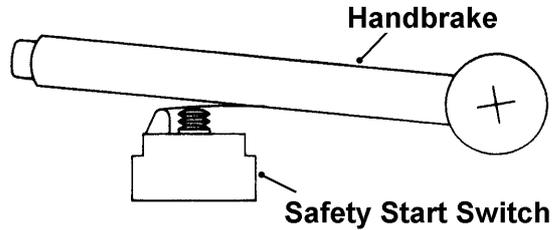


**HANDBRAKE SAFETY START SWITCH**

For machines with electronic dump and mechanical gear change

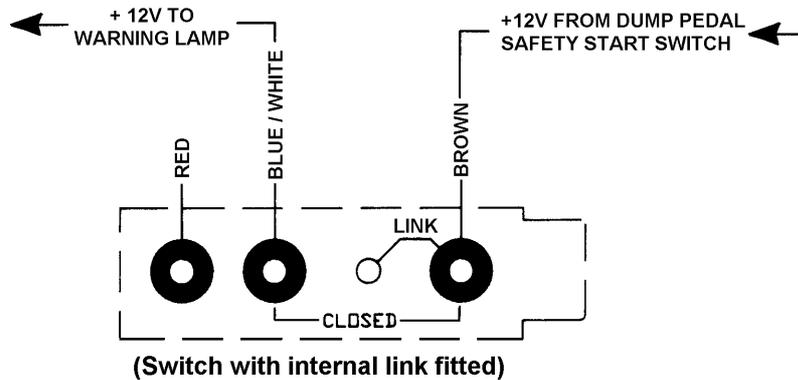
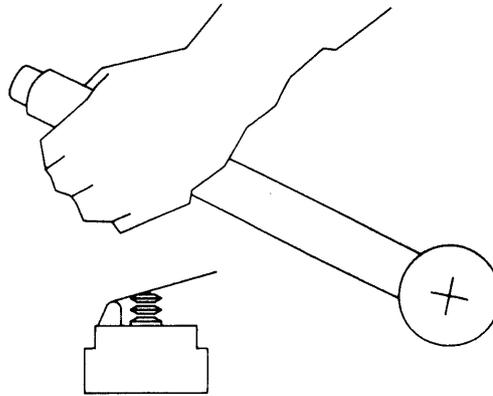
**HANDBRAKE RELEASED**

With the handbrake released, (i.e. the switch depressed), the engine will not start



**HANDBRAKE APPLIED**

To start the engine the handbrake must be applied, (i.e. this will release the safety start switch).



# ***PARTS***

|                             |          |
|-----------------------------|----------|
| <b>Brakes</b>               | <b>1</b> |
| <b>Axles &amp; steering</b> | <b>2</b> |
| <b>Engine</b>               | <b>3</b> |
| <b>Transmission</b>         | <b>4</b> |
| <b>Electrics</b>            | <b>5</b> |
| <b>Skip</b>                 | <b>6</b> |
| <b>Hydraulics</b>           | <b>7</b> |
| <b>Chassis &amp; panels</b> | <b>8</b> |
| <b>Miscellaneous</b>        | <b>9</b> |

[<<< To beginning of Book](#)

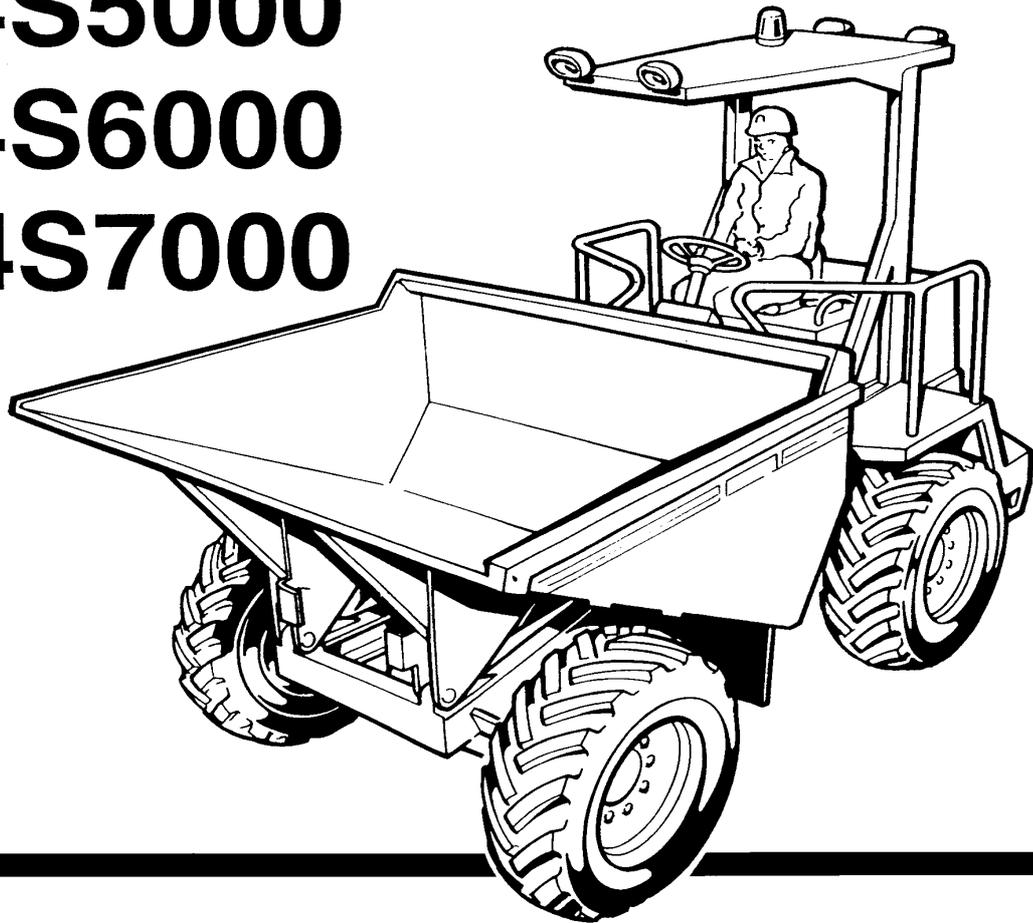
# **'S' Series Dumpers**

**4S4000**

**4S5000**

**4S6000**

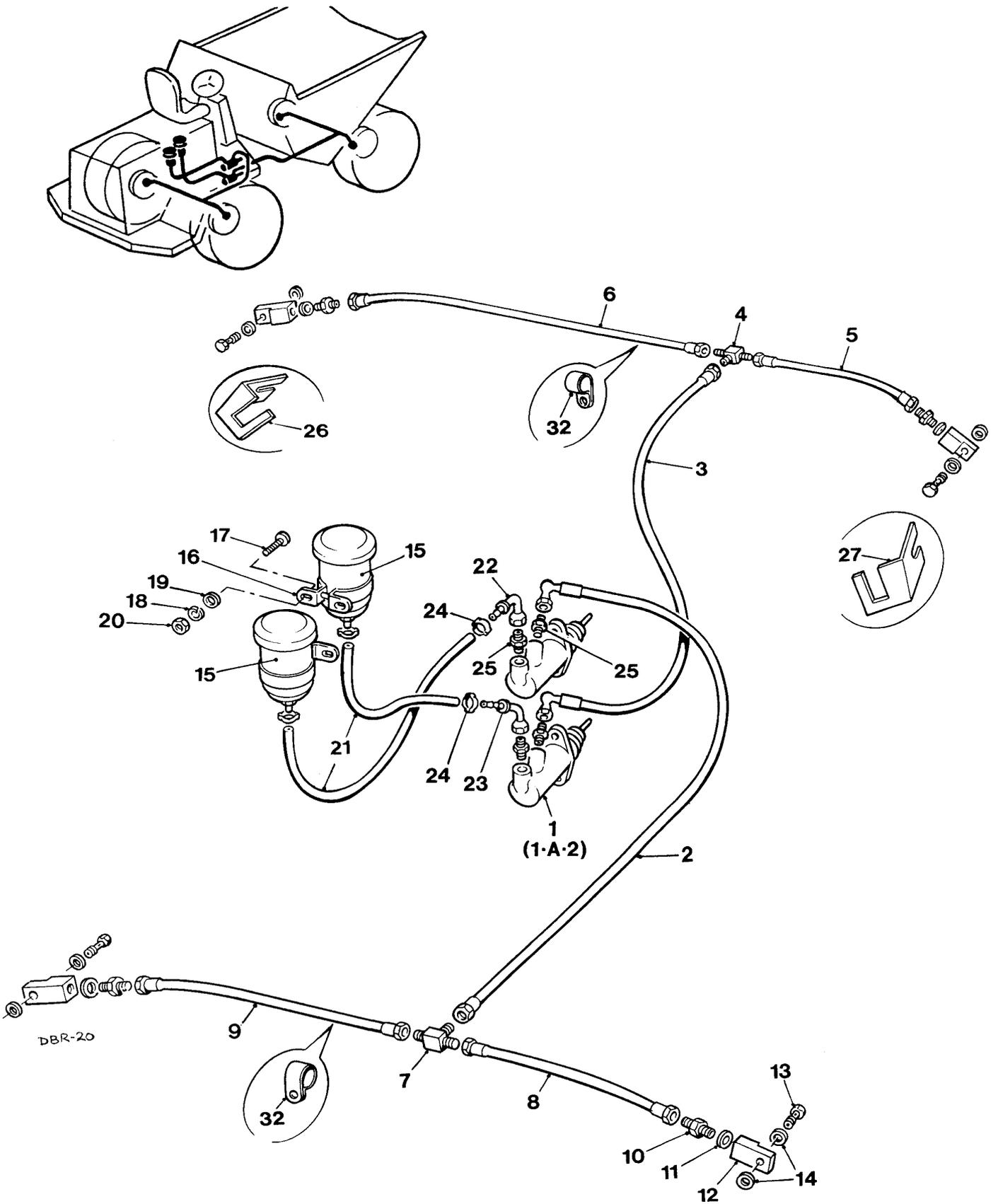
**4S7000**



# ***Brakes***

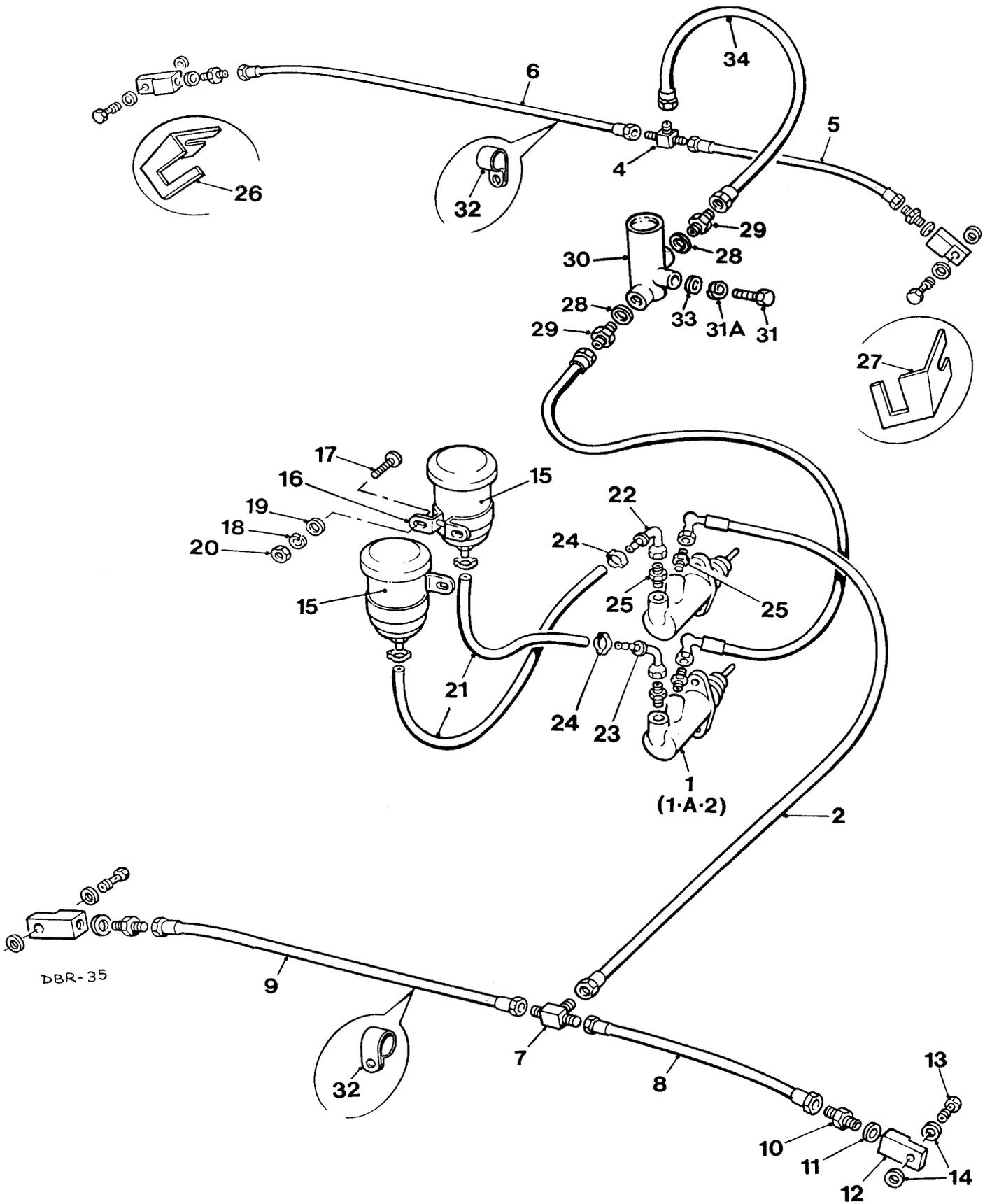
|  |                   |
|--|-------------------|
| <b>BRAKING SYSTEM (NOT 4S7000)</b>     | <b>1 - A - 1</b>  |
| <b>BRAKING SYSTEM (4S7000 ONLY)</b>    | <b>1 - A - 1A</b> |
| <b>MASTER CYLINDER</b>                 | <b>1 - A - 2</b>  |
| <b>BRAKE PEDAL</b>                     | <b>1 - B - 1</b>  |
| <b>PARKING BRAKE, transfer gearbox</b> | <b>1 - C - 1</b>  |
| <b>LEVER, parking brake</b>            | <b>1 - D - 1</b>  |
| <b>ELECTRIC DUMP SOLENOID</b>          | <b>1 - D - 2</b>  |

**[<<<< To beginning of Parts](#)**



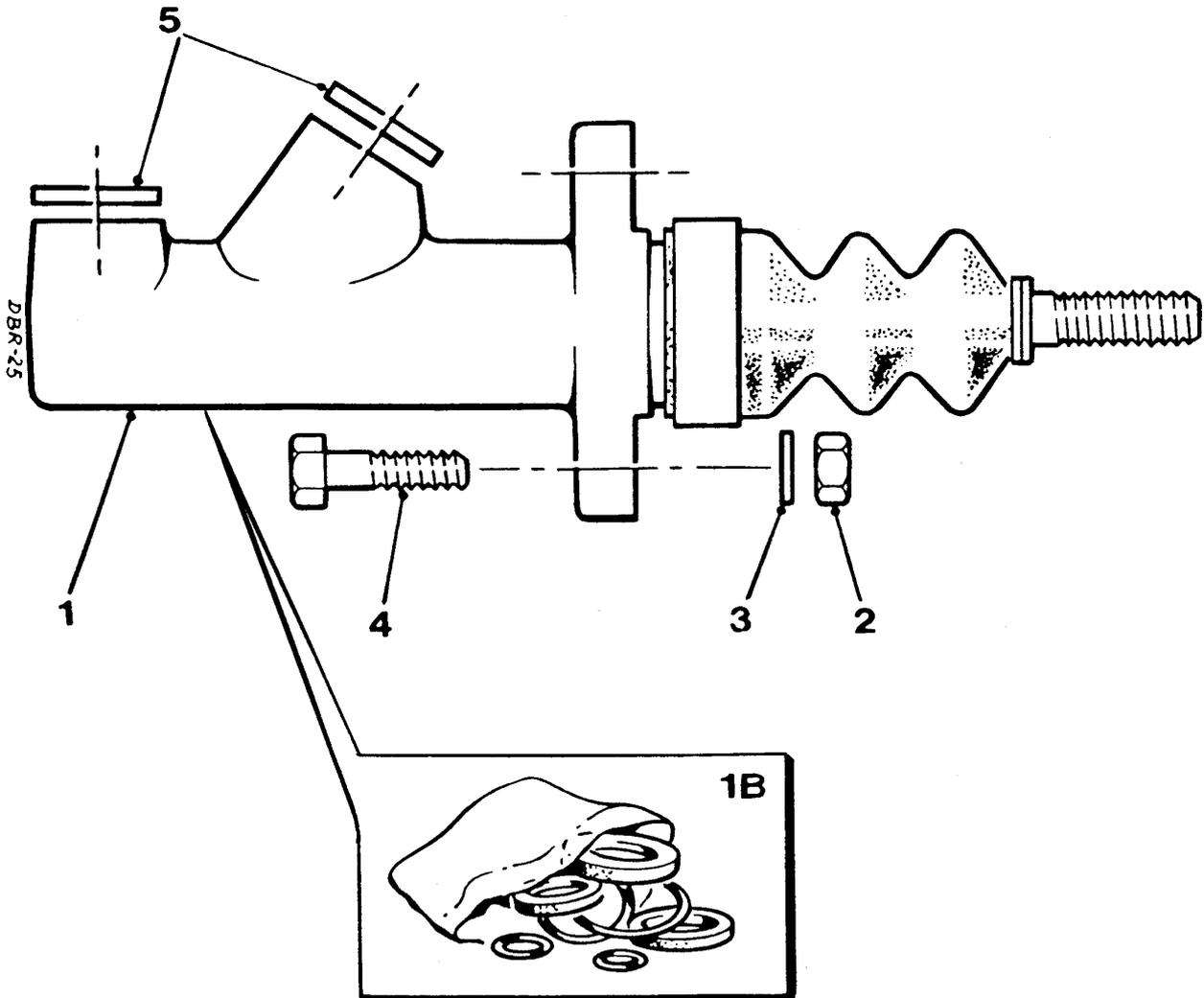
**BRAKE SYSTEM****1 - A - 1**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                   | <b>Qty</b> |
|-------------|----------------|------------------|--------------------------------------|------------|
| 1           | -----          | 2001 /           | MASTER CYL. (see page 1 - A - 2)     | 2          |
| 2           | 32S01C         |                  | HOSE, master cylinder to rear axle   | 1          |
| 3           | 318S01D        |                  | HOSE, master cylinder to front axle  | 1          |
| 4           | 121S03         |                  | FITTING, tee                         | 1          |
| 5           | 25S01B         |                  | HOSE, tee to hub                     | 1          |
| 6           | 25S01A         |                  | HOSE, tee to hub                     | 1          |
| 7           | 121S03         |                  | FITTING, tee                         | 1          |
| 8           | 25S01B         |                  | HOSE, tee to hub                     | 1          |
| 9           | 25S01A         |                  | HOSE, tee to hub                     | 1          |
| 10          | V2003515       |                  | ADAPTOR, male                        | 4          |
| 11          | 298S03         |                  | SEAL, bonded                         | 4          |
| 12          | V2001630       |                  | BRAKE BLOCK                          | 4          |
| 13          | V2003241       |                  | BOLT, banjo                          | 4          |
| 14          | 298S02         |                  | SEAL, bonded                         | 8          |
| 15          | V2003030       |                  | RESERVIOR, assembly                  | 2          |
| 16          | ---            |                  | CLIP, reservoir (order assembly)     | 1          |
| 17          | 11S01AA        |                  | SCREW, set                           | 4          |
| 18          | 17S02          |                  | WASHER, spring                       | 4          |
| 19          | 267S03         |                  | WASHER, flat                         | 4          |
| 20          | 7S01           |                  | NUT                                  | 4          |
| 21          | V2002991       |                  | HOSE, reservoir to m/cyl. (metres)   | 2          |
| 22          | 129S01A        |                  | NOZZLE, 90 deg.                      | 1          |
| 23          | 135S01A        |                  | FITTING, reversable, 45 deg.         | 1          |
| 24          | V2003029       |                  | CLIP, hose                           | 4          |
| 25          | V2003524       |                  | ADAPTOR, male                        | 4          |
| 26          | V2003584       |                  | BRACKET, brake fitting support, L.H. | 2          |
| 27          | V2003585       |                  | BRACKET, brake fitting support, R.H. | 2          |
| 32          | V2003557       |                  | CLIP, "P"                            | 2          |



**BRAKE SYSTEM (with Pressure Regulating Valve)****1 - A - 1A**

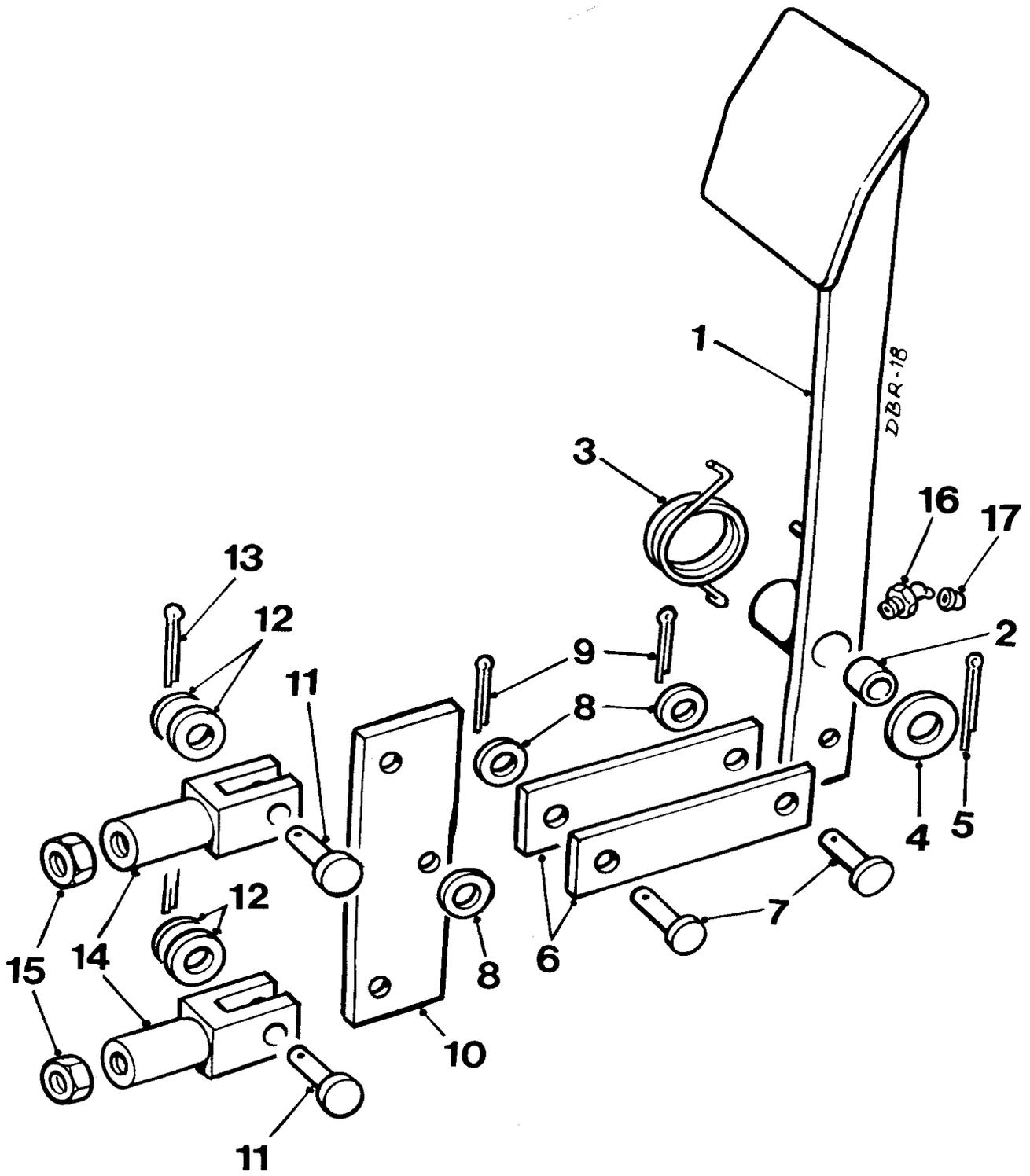
| Item | Part no  | Serial no | Description                             | Qty |
|------|----------|-----------|---|-----|
| 1    | -----    | 2122 /    | MASTER CYL. (see page 1 - A - 2)        | 2   |
| 2    | 32S01C   |           | HOSE, master cylinder to rear axle      | 1   |
| 3    | 318S01D  |           | HOSE, master cylinder to front axle     | 1   |
| 4    | 121S03   |           | FITTING, tee                            | 1   |
| 5    | 25S01B   |           | HOSE, tee to hub                        | 1   |
| 6    | 25S01A   |           | HOSE, tee to hub                        | 1   |
| 7    | 121S03   |           | FITTING, tee                            | 1   |
| 8    | 25S01B   |           | HOSE, tee to hub                        | 1   |
| 9    | 25S01A   |           | HOSE, tee to hub                        | 1   |
| 10   | V2003515 |           | ADAPTOR, male                           | 4   |
| 11   | 298S03   |           | SEAL, bonded                            | 4   |
| 12   | V2001630 |           | BRAKE BLOCK                             | 4   |
| 13   | V2003241 |           | BOLT, banjo                             | 4   |
| 14   | 298S02   |           | SEAL, bonded                            | 8   |
| 15   | V2003030 |           | RESERVIOR, assembly                     | 2   |
| 16   | ---      |           | CLIP, reservoir (order assembly)        | 1   |
| 17   | 11S01AA  |           | SCREW, set                              | 4   |
| 18   | 17S02    |           | WASHER, spring                          | 4   |
| 19   | 267S03   |           | WASHER, flat                            | 4   |
| 20   | 7S01     |           | NUT                                     | 4   |
| 21   | V2002991 |           | HOSE, reservoir to master cyl. (metres) | 2   |
| 22   | 129S01A  |           | NOZZLE, 90 deg.                         | 1   |
| 23   | 135S01A  |           | FITTING, reversable, 45 deg.            | 1   |
| 24   | V2003029 |           | CLIP, hose                              | 4   |
| 25   | V2003524 |           | ADAPTOR, male                           | 4   |
| 26   | V2003584 |           | BRACKET, brake fitting support, L.H.    | 2   |
| 27   | V2003585 |           | BRACKET, brake fitting support, R.H.    | 2   |
| 28   | 298S03   |           | SEAL, bonded                            | 2   |
| 29   | V2003515 |           | FITTING, m/m                            | 2   |
| 30   | V2004564 |           | VALVE, pressure regulating              | 1   |
| 31   | 11S03C   |           | SCREW, set                              | 1   |
| 31A  | 17S04    |           | WASHER, spring                          | 1   |
| 32   | V2003557 |           | CLIP, "P"                               | 2   |
| 33   | 267S05   |           | WASHER, flat                            | 1   |
| 34   | 25S01B   |           | HOSE, valve to adaptor 'T'              | 1   |



# MASTER CYLINDER

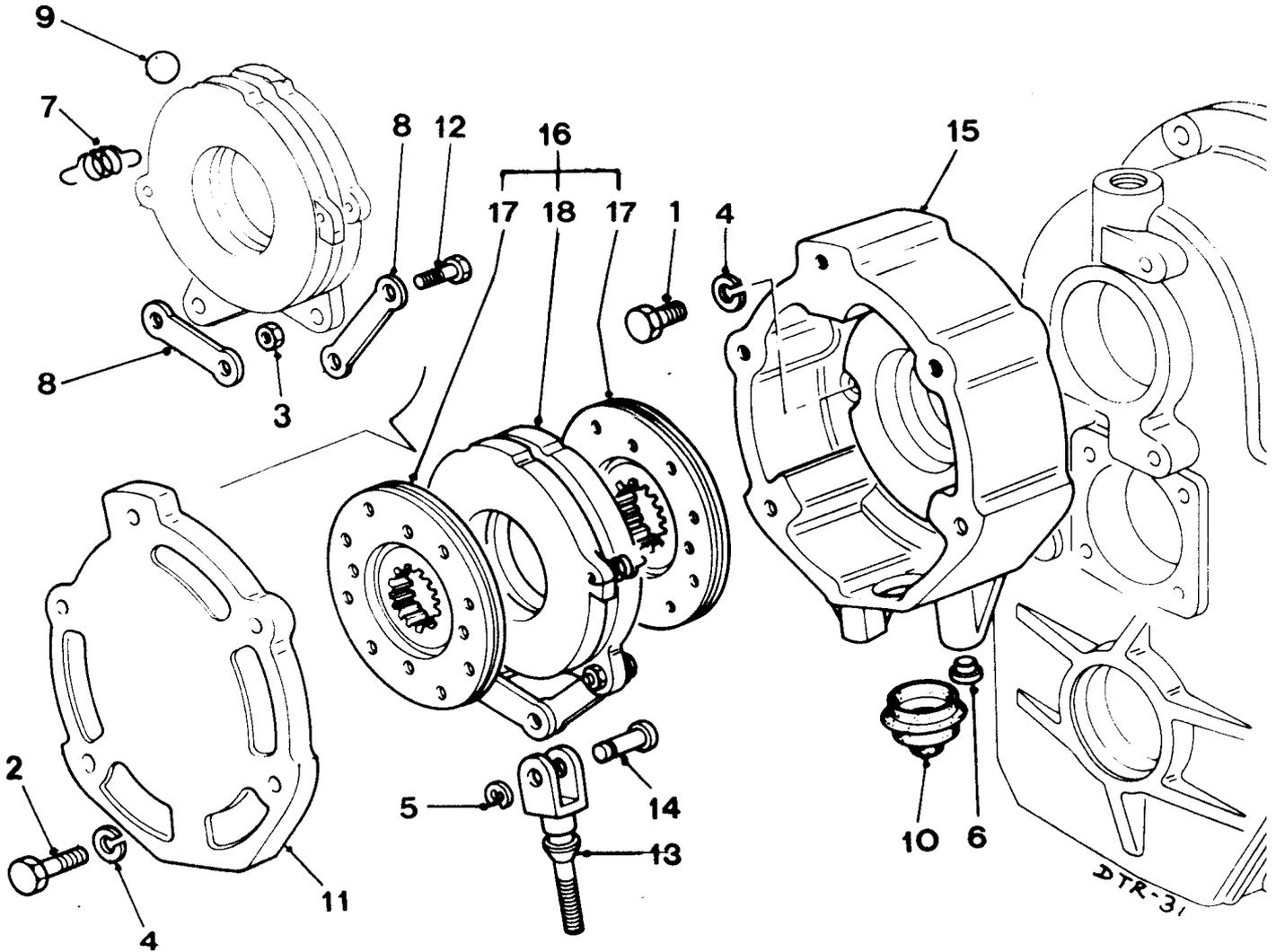
1 - A - 2

| Item  | Part no  | Serial no | Description                          | Qty |
|---|----------|-----------|--------------------------------------|-----|
| <p>Dumpers are fitted with either <b>GIRLING</b> or <b>FRENOS IRUNA</b> Master Cylinders.</p> <p>Be sure to quote the name marked on the Master Cylinder before ordering parts.</p> |          |           |                                      |     |
| 1   | V2000977 |           | MASTER CYLINDER, <b>GIRLING</b>      | 2   |
| 1   | V2003672 |           | MASTER CYLINDER, <b>FRENOS IRUNA</b> |     |
| 1B  | V600117  |           | KIT, repair, GIRLING                 | 1   |
| 1B  | V601698  |           | KIT, repair, FRENOS IRUNA            | 1   |
| 2   | 61S04    |           | NUT, self locking                    | 4   |
| 3   | 267S06   |           | WASHER, flat                         | 4   |
| 4   | 11S04E   |           | BOLT                                 | 4   |
| 5   | 298S04   |           | SEAL, bonded                         | 4   |

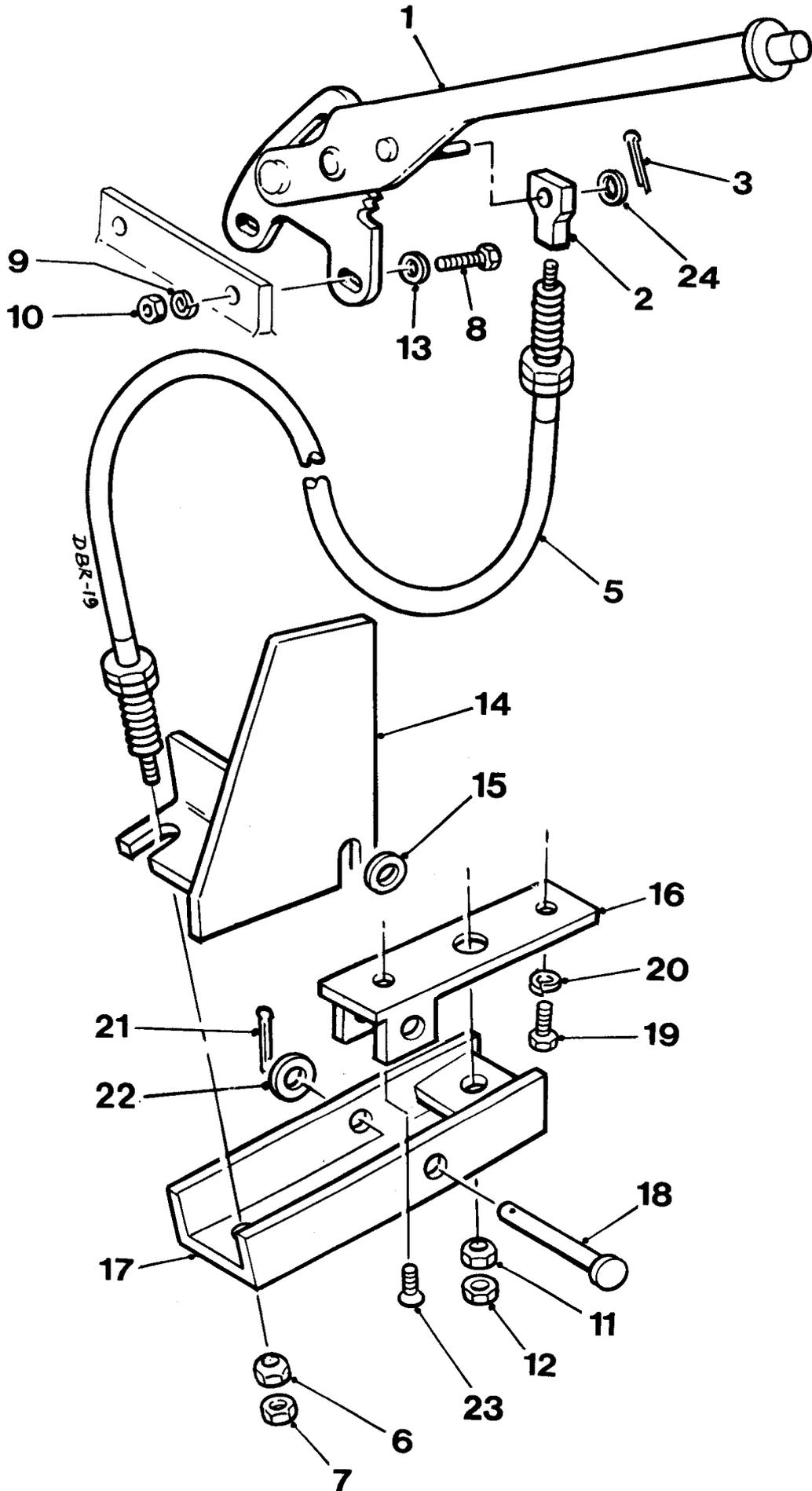


**BRAKE PEDAL****1 - B - 1**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                           | <b>Qty</b> |
|-------------|----------------|------------------|--|------------|
| 1           | V2002384       | 2001 /           | PEDAL, brake ( <i>Dumpers without cabs</i> ) | 1          |
| 1           | V2004292       | 2086 /           | PEDAL, brake ( <i>Dumpers with cabs</i> )    | 1          |
| 2           | V2002595       |                  | BUSH   | 2          |
| 3           | V2003307       |                  | SPRING                                       | 1          |
| 4           | 267S10         |                  | WASHER, flat                                 | 1          |
| 5           | 44S03D         |                  | PIN, split                                   | 1          |
| 6           | V2002385       |                  | BAR, link                                    | 2          |
| 7           | 10650A18       |                  | PIN, pivot                                   | 2          |
| 8           | 10S14          |                  | WASHER, flat                                 | 3          |
| 9           | 44S02C         |                  | PIN, split                                   | 2          |
| 10          | 20117A06       |                  | LEVER, compensating                          | 1          |
| 11          | 10650A19       |                  | PIN, pivot                                   | 2          |
| 12          | 267S06         |                  | WASHER, flat                                 | 4          |
| 13          | 44S02C         |                  | PIN, split                                   | 2          |
| 14          | V2002386       |                  | CLEVIS                                       | 2          |
| 15          | 7S04           |                  | NUT  | 2          |
| 16          | 333601010      |                  | NIPPLE, grease, 135 deg.                     | 1          |
| 17          | 176S01         |                  | CAP, grease nipple                           | 1          |

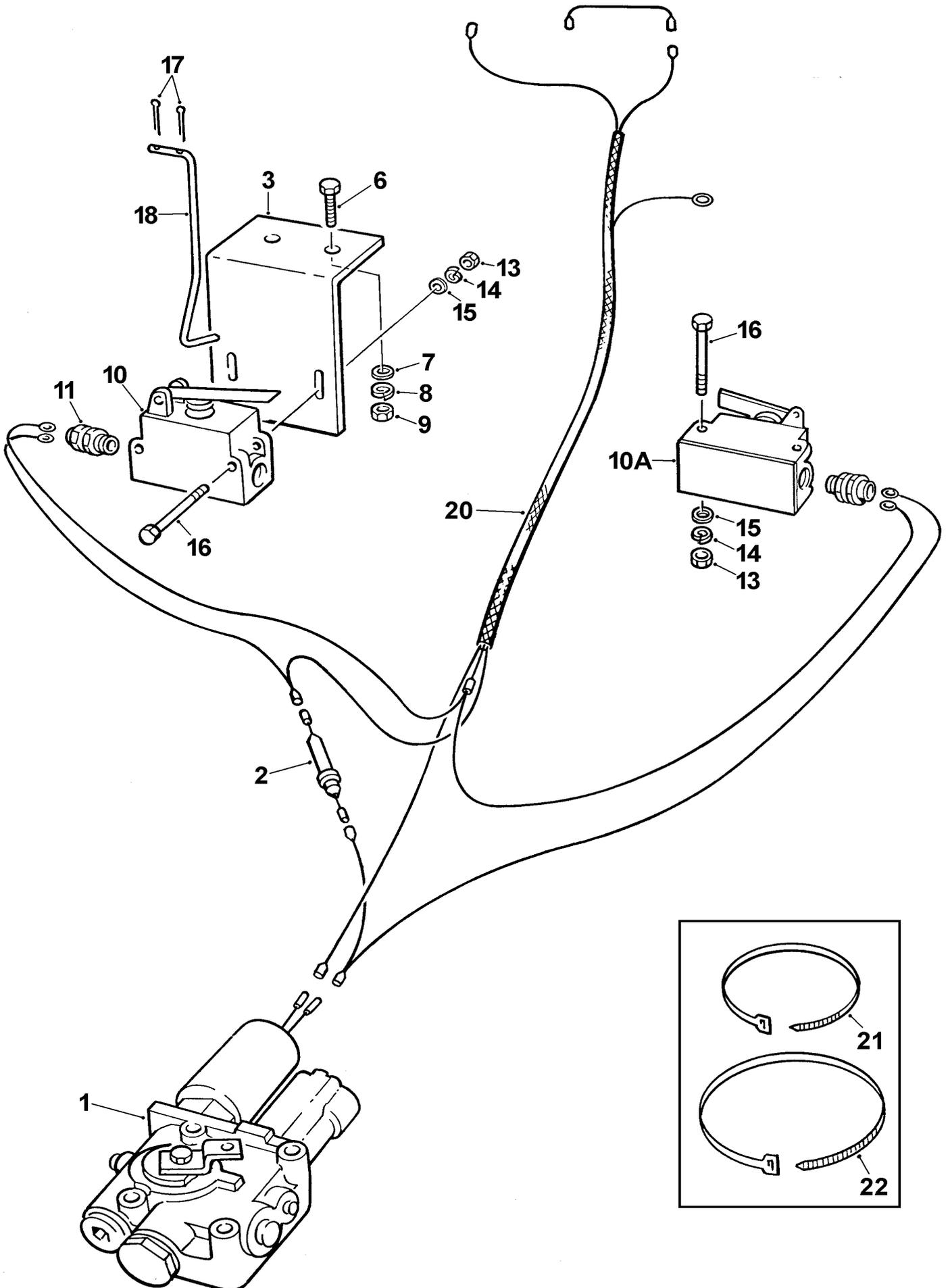


| Item  | Part no | Serial no | Description          | Qty |
|---|---------|-----------|----------------------|-----|
| <p><b>The Parking Brake is sold as components only.</b></p> <p><b>The Parking Brake assembly is part of the Transfer Gearbox<br/>(see Transmission Section)</b></p> |         |           |                      |     |
| 1   | 11S05D  | 2001 /    | SCREW                | 3   |
| 2   | 11S05F  |           | SCREW                | 5   |
| 3   | V600508 |           | NUT                  | 2   |
| 4   | 17S06   |           | WASHER, spring       | 8   |
| 5   | V600509 |           | WASHER, locking      | 1   |
| 6   | V600510 |           | PLUG                 | 1   |
| 7   | V600511 |           | SPRING               | 2   |
| 8   | V600512 |           | LINK                 | 2   |
| 9   | V600513 |           | BALL                 | 4   |
| 10  | V600467 |           | COVER, dust          | 1   |
| 11  | V600515 |           | COVER                | 1   |
| 12  | V600516 |           | SCREW, "special"     | 2   |
| 13  | V600517 |           | ROD, brake actuating | 1   |
| 14  | V600518 |           | PIN                  | 1   |
| 15  | V600519 |           | HOUSING              | 1   |
| 16  | V600520 |           | BRAKE, assembly      | 1   |
| 17  | V600521 |           | DISC, brake          | 2   |
| 18  | V600522 |           | BRAKE MECHANISM      | 1   |



**LEVER, parking brake****1 - D - 1**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>             | <b>Qty</b> |
|-------------|----------------|------------------|--------------------------------|------------|
| 1           | 20208A01       | 2001 /           | LEVER, parking brake, assembly | 1          |
| 1A          | 20208A0101     |                  | KNOB, lever                    | 1          |
| 2           | V2003305       |                  | CONNECTOR, cable/lever         | 1          |
| 3           | 44S03D         |                  | PIN, split                     | 1          |
| 5           | V2003190       |                  | CABLE                          | 1          |
| 6           | V2003219       |                  | NUT, domed                     | 1          |
| 7           | 95S02          |                  | NUT, locking                   | 1          |
| 8           | 11S03C         |                  | SCREW, set                     | 2          |
| 9           | 17S04          |                  | WASHER, spring                 | 2          |
| 10          | 7S03           |                  | NUT                            | 2          |
| 11          | V2003220       |                  | NUT, domed                     | 1          |
| 12          | 56S04          |                  | NUT, locking                   | 1          |
| 13          | 267S05         |                  | WASHER, flat                   | 2          |
| 14          | V2001703       |                  | BRACKET, cable                 | 1          |
| 15          | 267S07         |                  | WASHER, flat                   | 1          |
| 16          | V2001704       |                  | BRACKET, fixed                 | 1          |
| 17          | V2001705       |                  | LEVER, fulcrum                 | 1          |
| 18          | V2003508       |                  | PIN                            | 1          |
| 19          | 11S04B         |                  | SCREW, set                     | 1          |
| 20          | 17S05          |                  | WASHER, spring                 | 1          |
| 21          | 44S02C         |                  | PIN, split                     | 1          |
| 22          | 267S07         |                  | WASHER, flat                   | 1          |
| 23          | 52S04D         |                  | SCREW, c/sunk                  | 1          |
| 24          | 267S06         |                  | WASHER, flat                   | 1          |



**ELECTRICAL DUMP SOLENOID (option)**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b>           | <b>Description</b>   | <b>Qty</b> |
|-------------|----------------|----------------------------|--|------------|
|             |                | 2001 / 2407<br>2001 / 2403 | <b>4S4000/4S5000/4S6000 Dumpers</b><br><b>4S7000 Dumper</b>              |            |
| 1           | V2004256       |                            | VALVE, transmission dump solenoid<br><i>(see also page 4-B-6)</i>        | 1          |
| 2           | V2004257       |                            | DIODE, c/w holder  | 1          |
| 3           | V2004255       |                            | BRACKET  | 1          |
| 6           | 11S05D         |                            | SCREW, set   | 2          |
| 7           | 267S07         |                            | WASHER, flat   | 2          |
| 8           | 17S06          |                            | WASHER, spring   | 2          |
| 9           | 7S05           |                            | NUT  | 2          |
| 10          | 208561000      |                            | SWITCH, <i>Operated by handbrake rod</i>                                 | 1          |
| 10A         | 208561000      |                            | SWITCH, <i>Fitted behind dump pedal</i><br><i>(see also page 4-D-1A)</i> | 1          |
| 11          | 250166010      |                            | FITTING, cable gland   | 2          |
| 13          | 7S01           |                            | NUT  | 4          |
| 14          | 17S02          |                            | WASHER, spring   | 4          |
| 15          | 267S03         |                            | WASHER, flat   | 4          |
| 16          | 8S01F          |                            | BOLT   | 4          |
| 14          | V2001703       |                            | BRACKET, cable   |            |
| 15          | 267S07         |                            | WASHER, flat   |            |
| 16          | V2001704       |                            | BRACKET, fixed   |            |
| 17          | 44S02B         |                            | PIN, split   | 2          |
| 18          | V2004260       |                            | ROD, <i>connected to handbrake</i>                                       | 1          |
| 20          | V2004258       |                            | LOOM, wiring   | 1          |
| 21          | V2003111       |                            | STRAP, nylon, 200mm long   | 6          |
| 22          | V2003253       |                            | STRAP, nylon, 380mm long   | 4          |

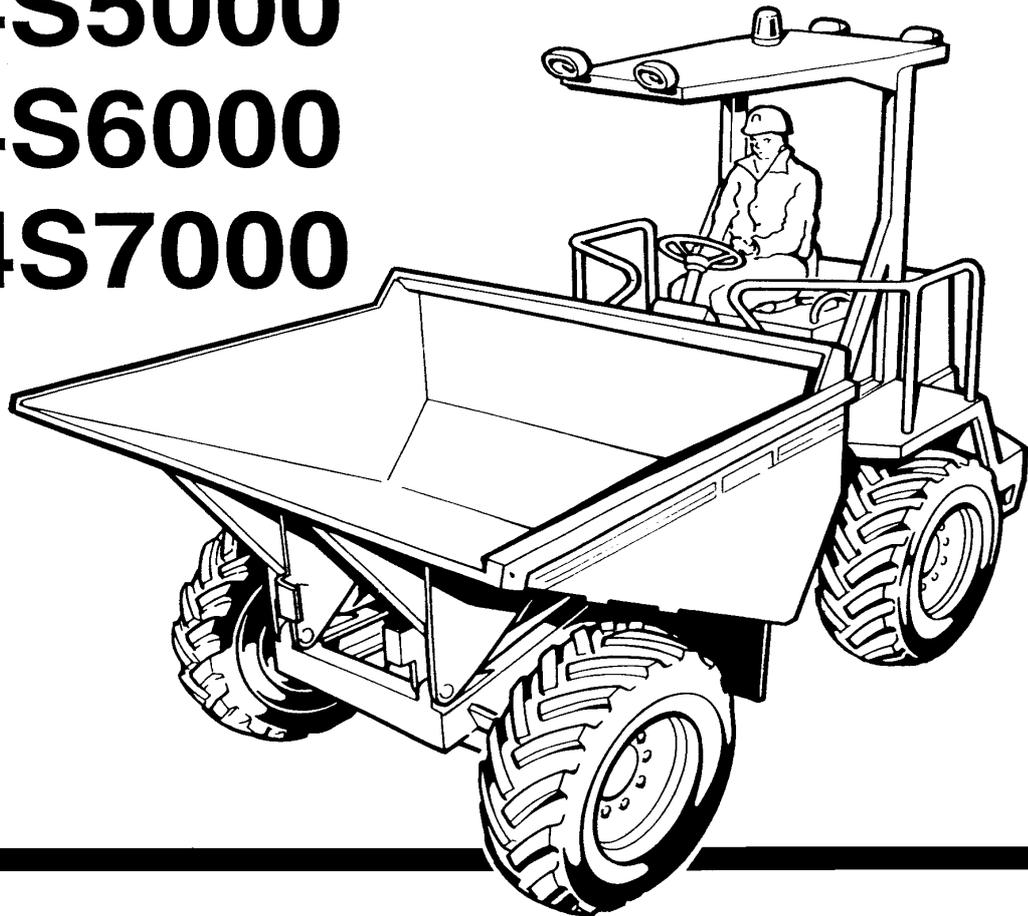
# **'S' Series Dumpers**

**4S4000**

**4S5000**

**4S6000**

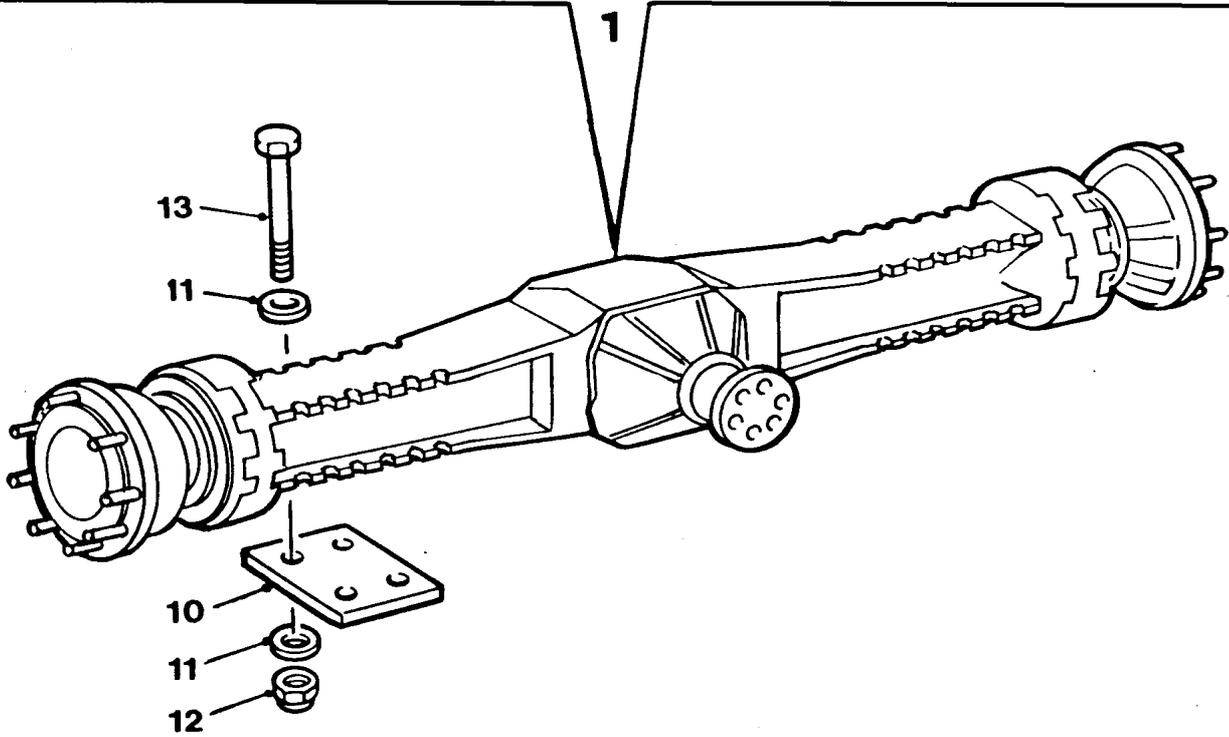
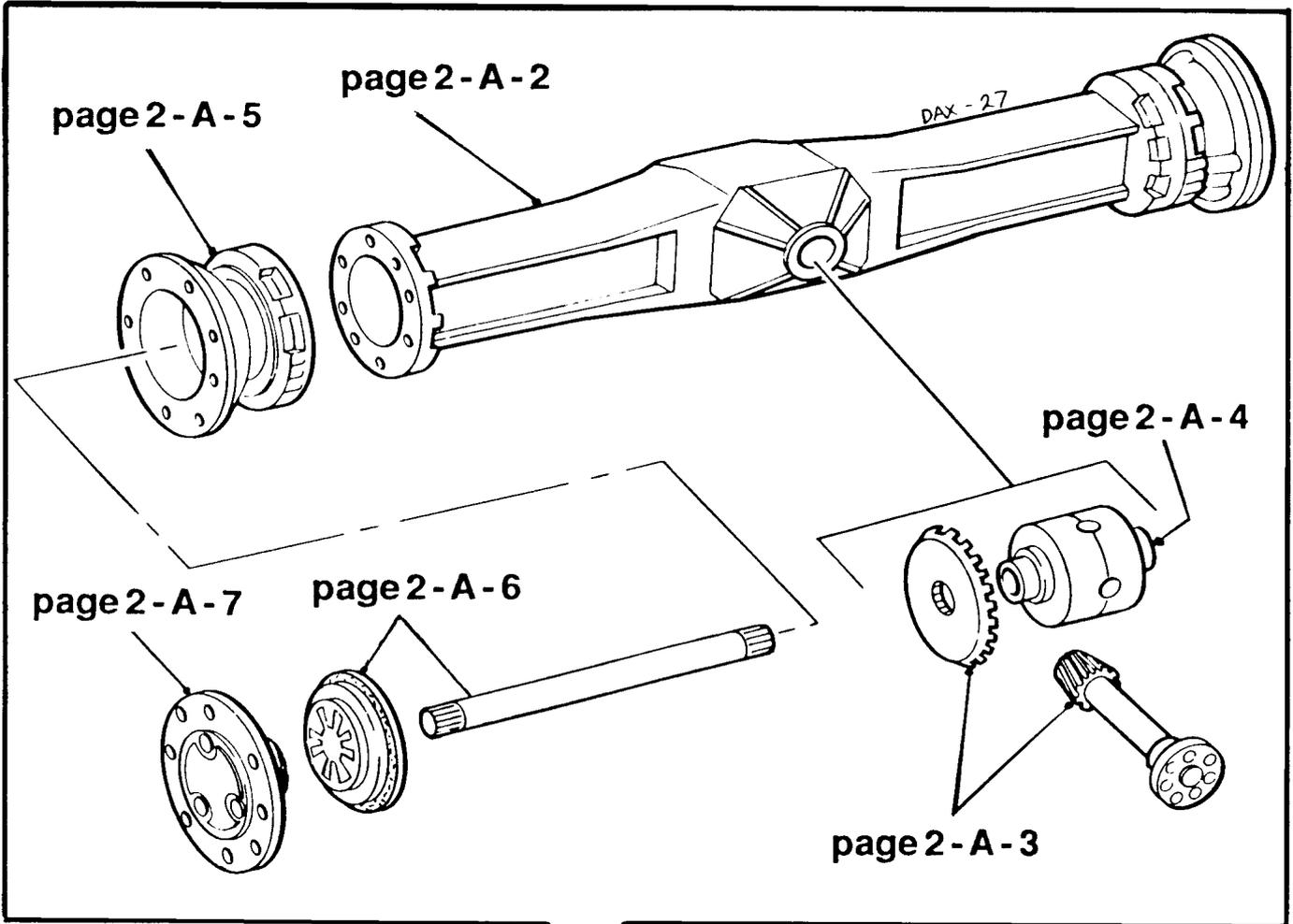
**4S7000**



# ***Axles & Wheels***

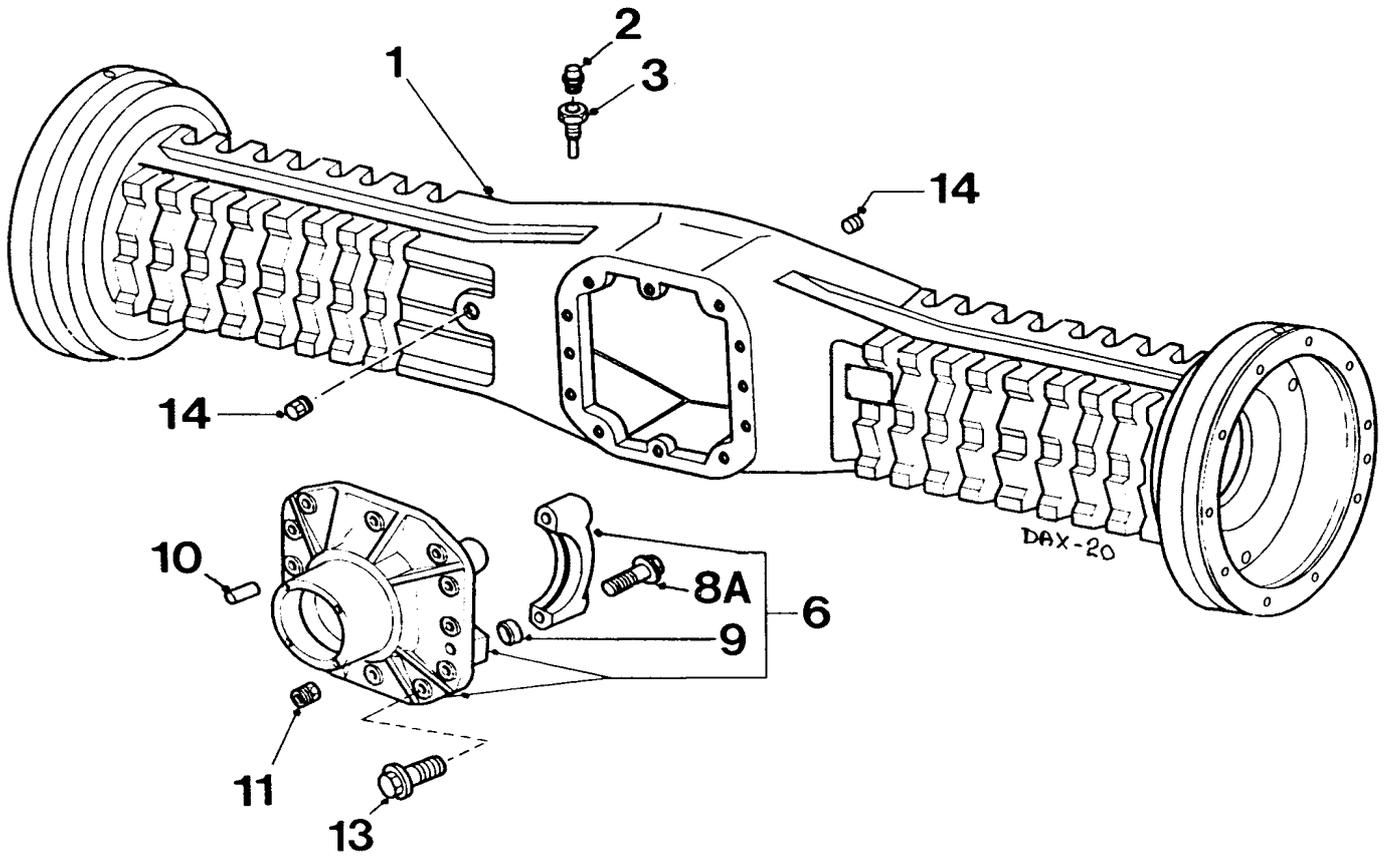
|                                  |                  |
|----------------------------------|------------------|
| <b>AXLES &amp; MOUNTS</b>        | <b>2 - A - 1</b> |
| <b>AXLE HOUSING</b>              | <b>2 - A - 2</b> |
| <b>CROWN GEAR &amp; PINION</b>   | <b>2 - A - 3</b> |
| <b>DIFFERENTIAL</b>              | <b>2 - A - 4</b> |
| <b>WHEEL HUB</b>                 | <b>2 - A - 5</b> |
| <b>BRAKES</b>                    | <b>2 - A - 6</b> |
| <b>EPICYCLIC REDUCTION GEARS</b> | <b>2 - A - 7</b> |
| <b>STEERING COLUMN</b>           | <b>2 - S - 1</b> |
| <b>WHEELS &amp; TYRES</b>        | <b>2 - W - 1</b> |

[\*\*<<< To beginning of Parts\*\*](#)



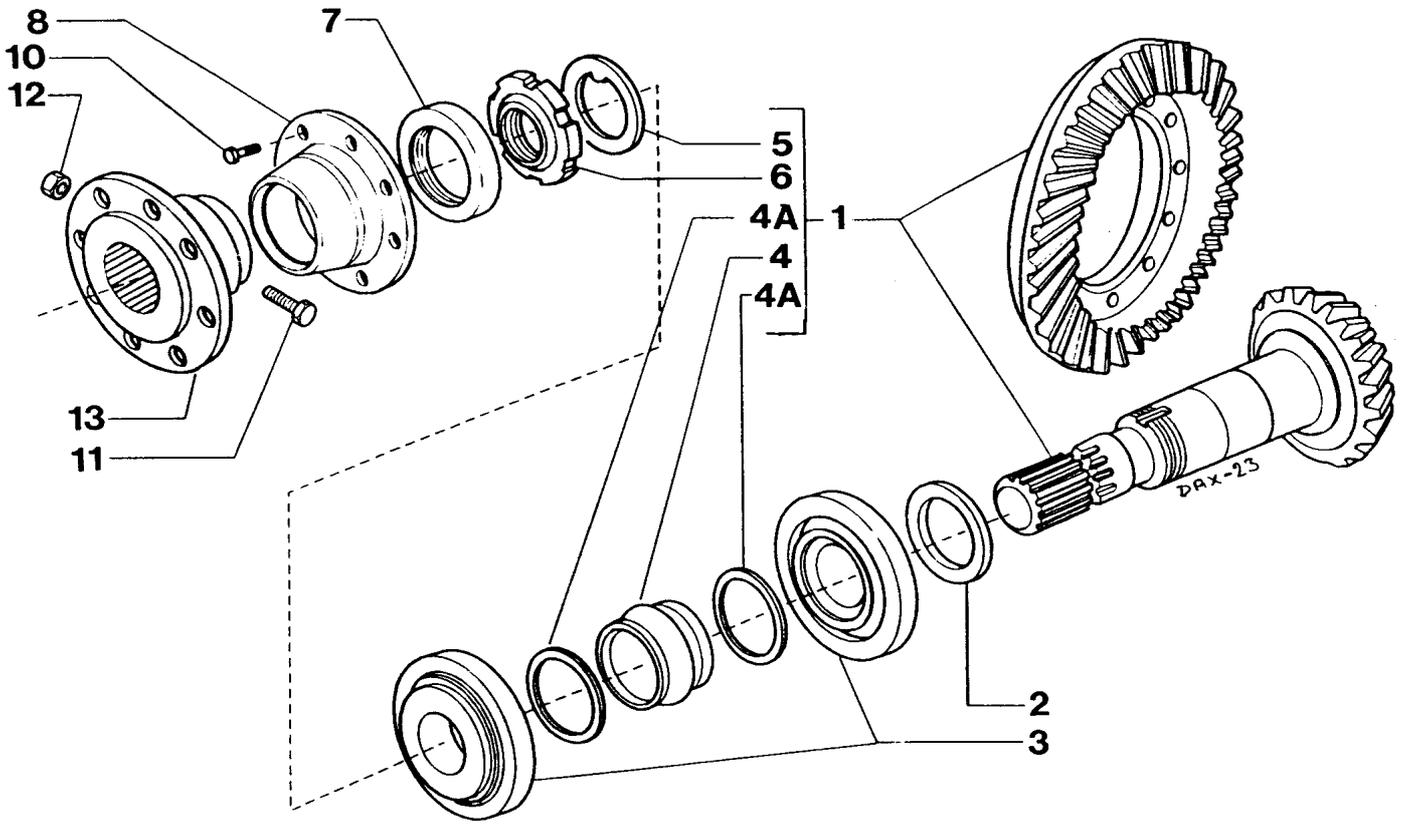
**AXLES & MOUNTS****2 - A - 1**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>        | <b>Qty</b> |
|-------------|----------------|------------------|---------------------------|------------|
| 1           | V2002305       | 2001 /           | AXLE, assembly            | 2          |
|             | Page 2-A-2     |                  | HOUSING, axle             | 1          |
|             | Page 2-A-3     |                  | CROWN WHEEL & PINION      | 1          |
|             | Page 2-A-4     |                  | DIFFERENTIAL              | 1          |
|             | Page 2-A-5     |                  | WHEEL HUB                 | 2          |
|             | Page 2-A-6     |                  | BRAKES & DRIVESHAFTS      | 2          |
|             | Page 2-A-7     |                  | EPICYCLIC REDUCTION GEARS | 2          |
| 10          | V2003332       |                  | PLATE, lower              | 4          |
| 11          | 267S10         |                  | WASHER, flat              | 32         |
| 12          | 61S07          |                  | NUT, 'Binx', self-locking | 16         |
| 13          | 8S07Z          |                  | BOLT                      | 16         |



**AXLE HOUSING****2 - A - 2**

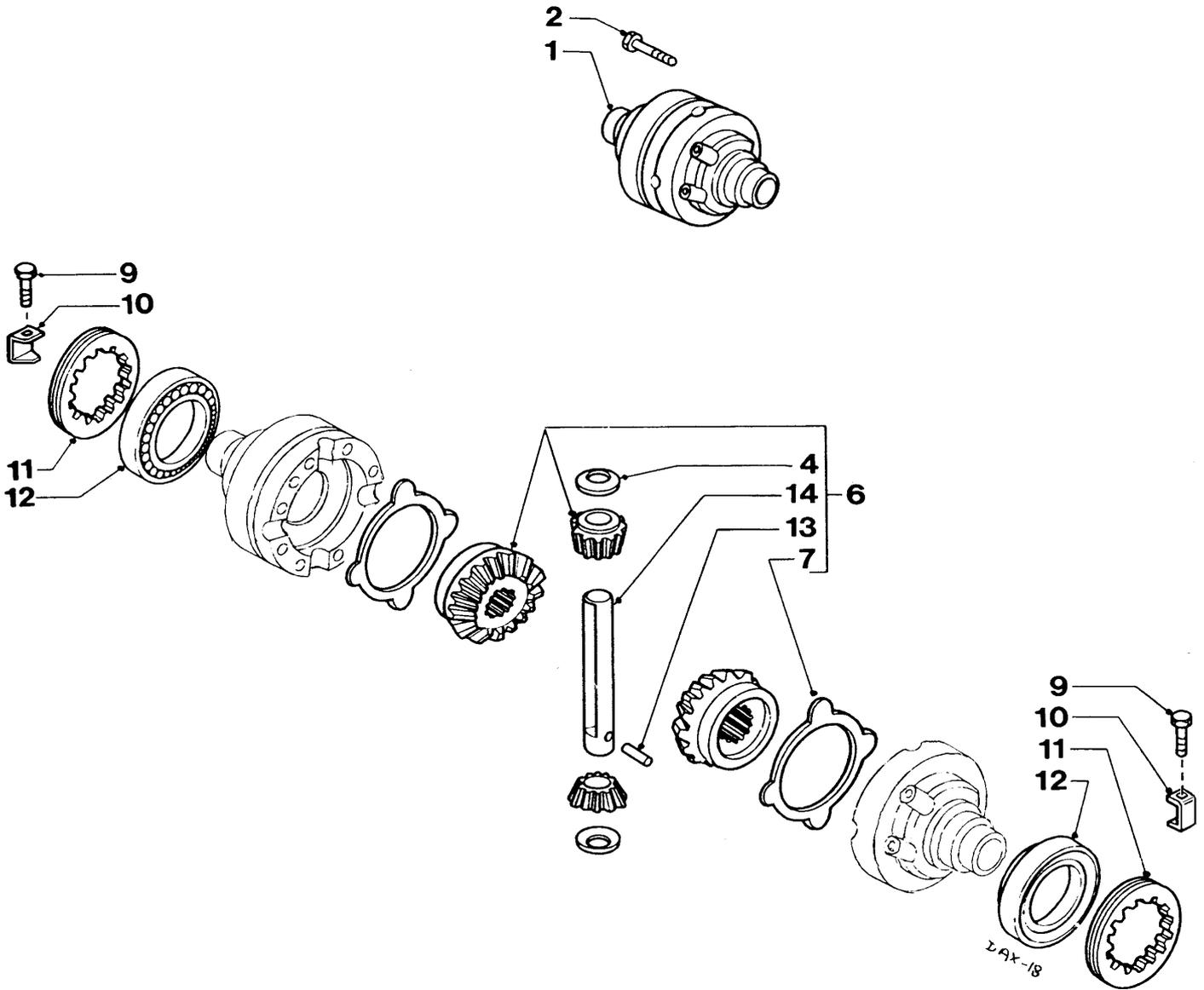
| <b>Item</b> | <b>Part no</b> | <b>Axle serial no</b> | <b>Description</b>              | <b>Qty</b> |
|-------------|----------------|-----------------------|---------------------------------|------------|
| 1           | V601129        | 336 /                 | HOUSING, axle                   | 1          |
| 2           | V600196        | 336 /                 | BREATHER                        | 1          |
| 3           | V600461        | 336 /                 | ADAPTOR, breather               | 1          |
| 6           | V601157        | 336 /                 | SUPPORT, differential, assembly | 1          |
| 8A          | V600162        | 336 /                 | BOLT with collar                | 4          |
| 9           | V600076        | 336 /                 | BUSH                            | 4          |
| 10          | V600077        | 336 /                 | PIN                             | 2          |
| 11          | V600078        | 336 /                 | PLUG, drain                     | 2          |
| 13          | V601128        | 336 /                 | BOLT with collar                | 10         |
| 14          | V601158        | 336 /                 | PLUG                            | 1          |
| --          | V601156        | 336 /                 | PLATE, axle serial number       | 1          |
| --          | V601130        | 336 /                 | RIVET, for serial plate         | 4          |



# CROWN GEAR & PINION

# 2 - A - 3

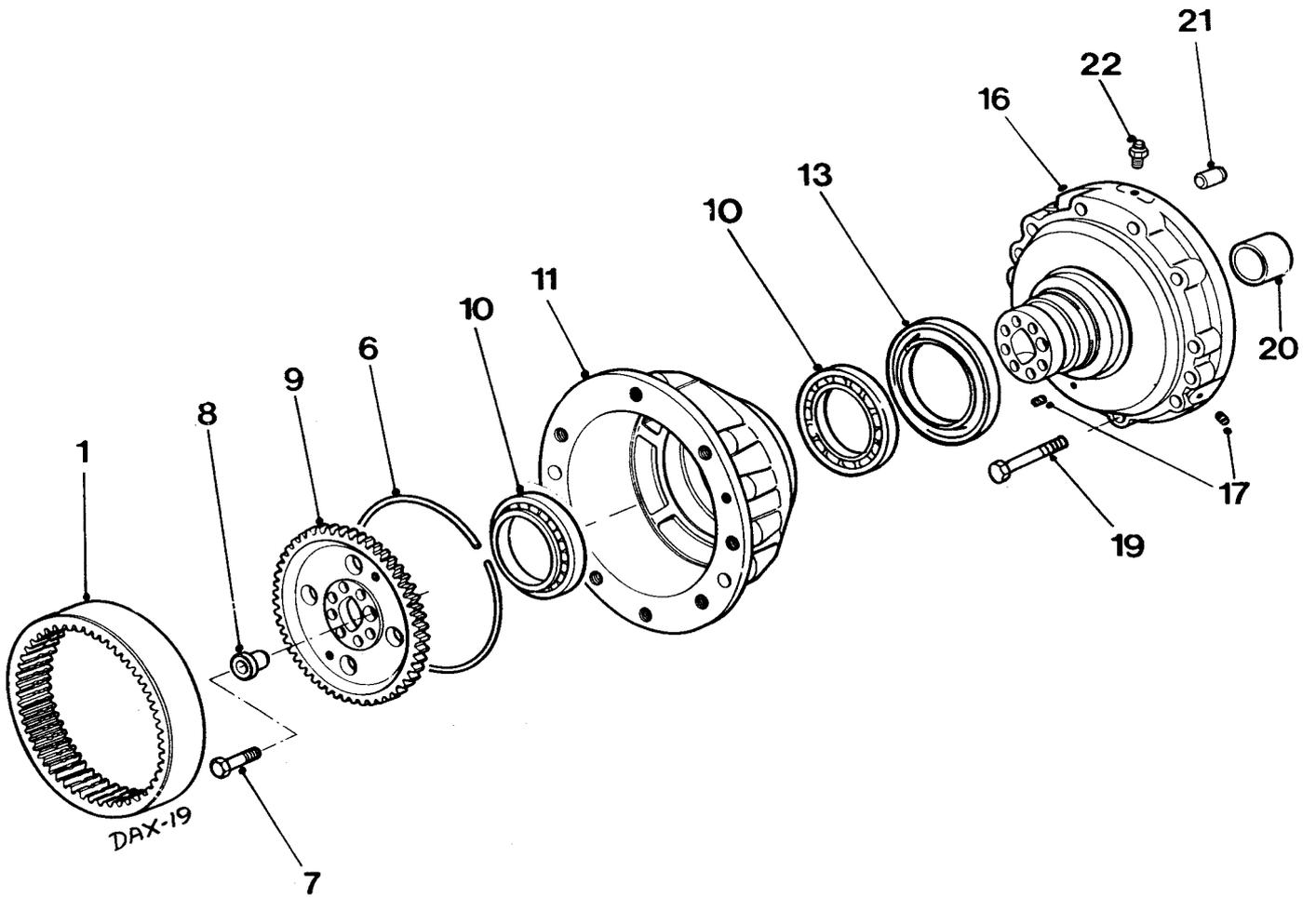
| Item | Part no | Axle serial no | Description   | Qty |
|------|---------|----------------|---|-----|
| 1    | V601159 | 336 /          | CROWN GEAR & PINION (matched pair)                    |     |
| 2    | V602639 | 336 /          | SHIM, 2.50mm  | AR  |
| 2    | V602640 | 336 /          | SHIM, 2.60mm  | AR  |
| 2    | V602641 | 336 /          | SHIM, 2.70mm  | AR  |
| 2    | V602642 | 336 /          | SHIM, 2.80mm  | AR  |
| 2    | V602643 | 336 /          | SHIM, 2.90mm  | AR  |
| 2    | V602644 | 336 /          | SHIM, 3.00mm  | AR  |
| 2    | V602645 | 336 /          | SHIM, 3.10mm  | AR  |
| 2    | V602646 | 336 /          | SHIM, 3.20mm  | AR  |
| 2    | V602647 | 336 /          | SHIM, 3.30mm  | AR  |
| 2    | V602648 | 336 /          | SHIM, 3.40mm  | AR  |
| 3    | V600215 | 336 /          | BEARING   | 2   |
| 4    | V601131 | 336 /          | SPACER, collapsible                                   | 1   |
| 4A   | V601132 | 336 /          | WASHER  | 2   |
| 5    | V600216 | 336 /          | WASHER  | 1   |
| 6    | V600217 | 336 /          | NUT, ring   | 1   |
| 7    | V600201 | 336 /          | SEAL, oil   | 1   |
| 8    | V600218 | 336 /          | COVER   | 1   |
| 10   | V600219 | 336 / #        | BOLT, (M6x20)<br>Used <b>with</b> spring washer 17S03 | 6   |
| --   | 17S03   | 336 / #        | WASHER, spring  | 6   |
| 10   | 11S02B  | # /            | BOLT, (M6x16)<br>Used <b>without</b> spring washer    | 6   |
| 11   | V601133 | 336 /          | BOLT  | 2   |
| 12   | V600220 | 336 /          | NUT, nylon insert                                     | 2   |
| 13   | V600221 | 336 /          | FLANGE  | 1   |



## DIFFERENTIAL

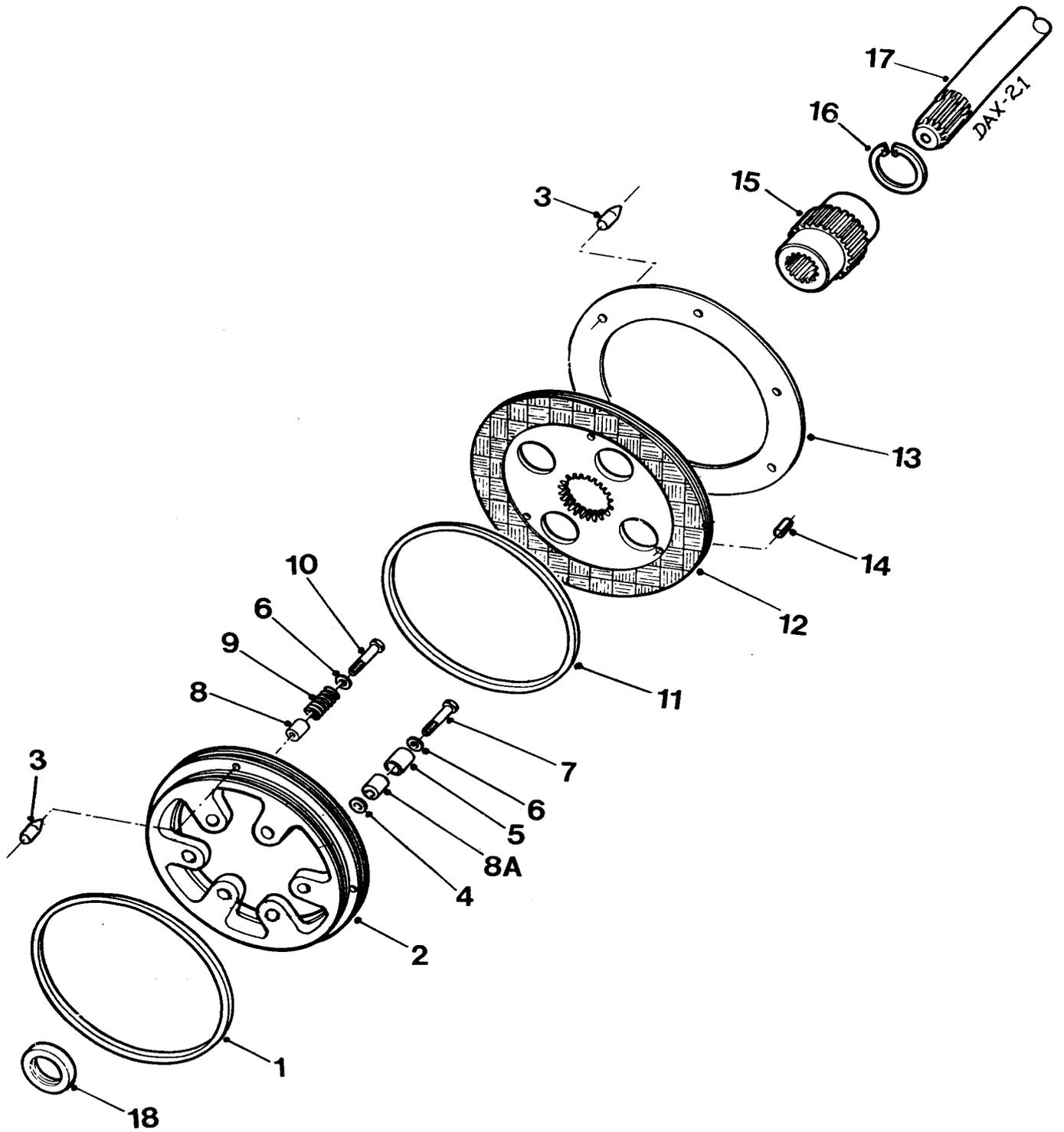
2 - A - 4

| Item | Part no | Axle serial no | Description   | Qty |
|------|---------|----------------|---|-----|
| 1    | V601160 | 336 /          | HOUSING, matched pair, assembly                             | 1   |
| 2    | V600083 | 336 /          | BOLT  | 12  |
| 4    | V600408 | 336 /          | WASHER, thrust  | 2   |
| 6    | V602684 | 336 /          | KIT, differential<br>Kit consists of items 4, 6, 7, 13 & 14 | 1   |
| 7    | V600086 | 336 /          | PLATE   | 2   |
| 9    | V600222 | 336 /#         | BOLT, (M6x12)<br>used <b>with</b> spring washer 17S03       | 2   |
| --   | 17S03   | 336 / #        | WASHER, spring  | 2   |
| 9    | V602707 | # /            | BOLT, (M6x10)<br>used <b>without</b> spring washer 17S03    | 2   |
| 10   | V600223 | 336 /          | PLATE, locking  | 2   |
| 11   | V600224 | 336 /          | NUT, ring   | 2   |
| 12   | V600225 | 336 /          | BEARING   | 2   |
| 13   | V600087 | 336 /          | PIN, dowel  | 1   |
| 14   | V600088 | 336 /          | ROD, pinion   | 2   |



**WHEEL HUB****2 - A - 5**

| <b>Item</b> | <b>Part no</b> | <b>Axle serial no</b> | <b>Description</b>                           | <b>Qty</b> |
|-------------|----------------|-----------------------|--|------------|
| 1           | V600502        | 336 /                 | CROWN GEAR                                   | 2          |
| 6           | V600503        | 336 /                 | RING, locking                                | 2          |
| 7           | V600229        | 336 /                 | BOLT   | 12         |
| 8           | V601134        | 336 /                 | BUSH, centring, 20mm diameter                | 10         |
| 8           | V601135        | 336 /                 | BUSH, centring, 24mm diameter                | 2          |
| 9           | V600504        | 336 /                 | CARRIER, wheel                               | 2          |
| 10          | V600232        | 336 /                 | BEARING                                      | 4          |
| 11          | V600417        | 336 /                 | HUB, wheel                                   | 2          |
| 13          | V600501        | 336 /                 | SEAL, c/w wear ring                          | 2          |
| 16          | V600112        | 336 /                 | SHAFT, hub                                   | 2          |
| 17          | V600113        | 336 /                 | PLUG   | 4          |
| 19          | V600114        | 336 / 422             | STUD   | 20         |
| --          | V600075        | 336 / 422             | NUT, <i>used with stud V600114 (item 19)</i> |            |
| 19          | V602626        | 423 /                 | BOLT (M14x75)                                | 20         |
| 20          | V600202        | 336 /                 | BUSH   | 2          |
| 21          | V600115        | 336 /                 | PIN  | 4          |
| 22          | V600116        | 336 /                 | BLEED NIPPLE                                 | 2          |

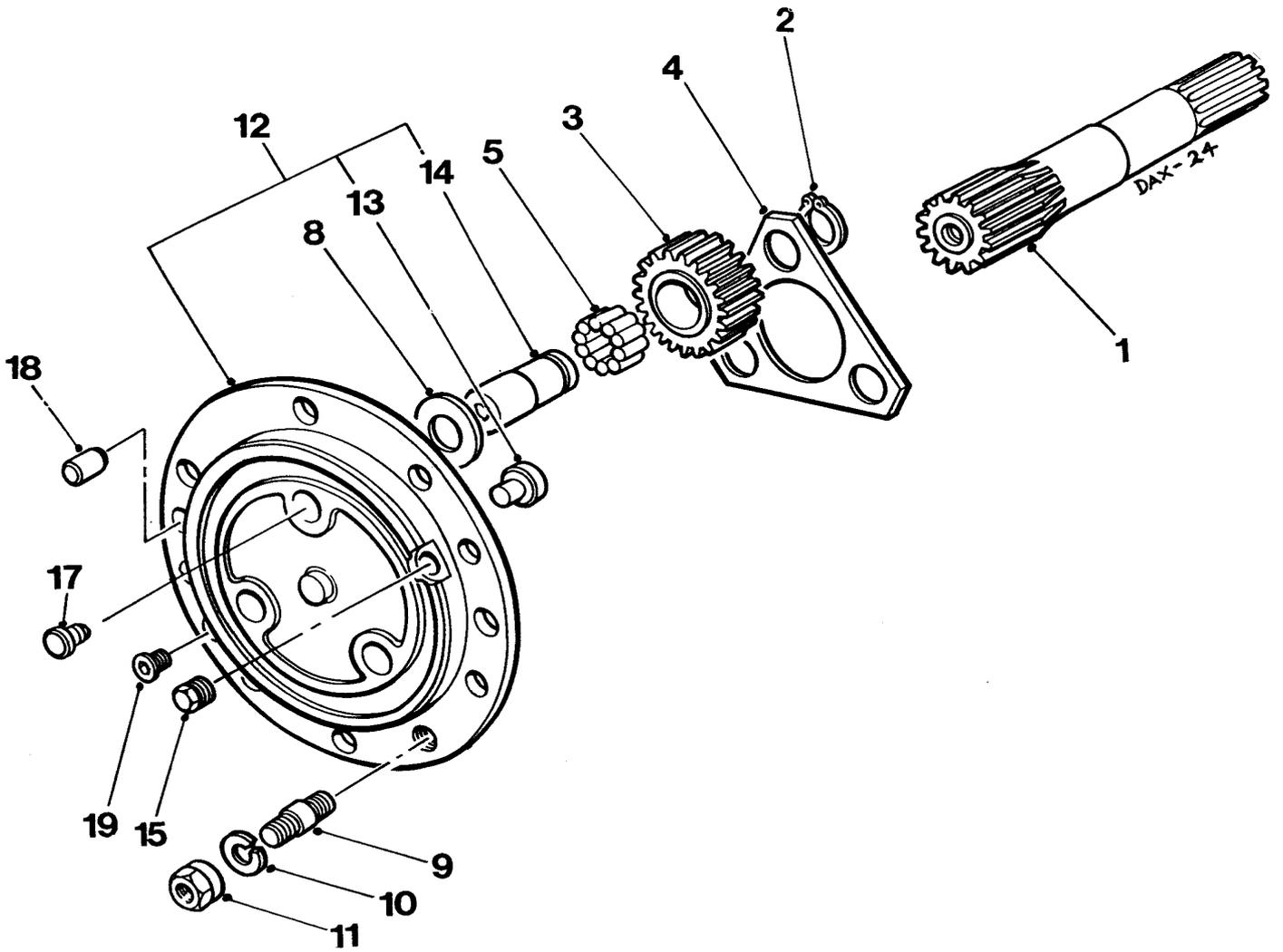


**BRAKES****2 - A - 6**

| <b>Item</b> | <b>Part no</b> | <b>Axle serial no</b> | <b>Description</b>       | <b>Qty</b> |
|-------------|----------------|-----------------------|--------------------------|------------|
| 1           | V600462        | 336 /                 | RING                     | 2          |
| 2           | V600089        | 336 /                 | PISTON                   | 2          |
| 3           | V600464        | 336 /                 | PIN                      | 12         |
| 4           | -----          |                       | <i>"Not used"</i>        | --         |
| --          | V602599        | 423 /                 | KIT, brake self adusting | 1          |
| 5           | V600483        | 336 /                 | BUSH                     | 6          |
| 6           | V600498        | 336 /                 | WASHER                   | 12         |
| 7           | V600499        | 336 /                 | SCREW                    | 6          |
| 8           | V600496        | 336 /                 | BUSH                     | 6          |
| 8A          | V600496        | 336 /                 | BUSH                     | 6          |
| 9           | V600497        | 336 /                 | SPRING                   | 6          |
| 10          | V600499        | 336 /                 | SCREW                    | 6          |
| 11          | V600095        | 336 /                 | RING                     | 2          |
| 12          | V600096        | 336 /                 | DISC, Brake              | 2          |
| 13          | V600097        | 336 /                 | PLATE                    | 2          |
| 14          | V600098        | 336 / 422             | PIN, split               | 8          |
| 14          | V600098        | 423 /                 | PIN, split               | 2          |
| 15          | V600099        | 336 /                 | SLEEVE                   | 2          |
| 16          | V600100        | 336 /                 | CIRCLIP                  | 2          |
| 17          | V600101        | 336 /                 | DRIVESHAFT               | 2          |
| 18          | V600102        | 336 /                 | SEAL                     | 2          |

2 - A - 7

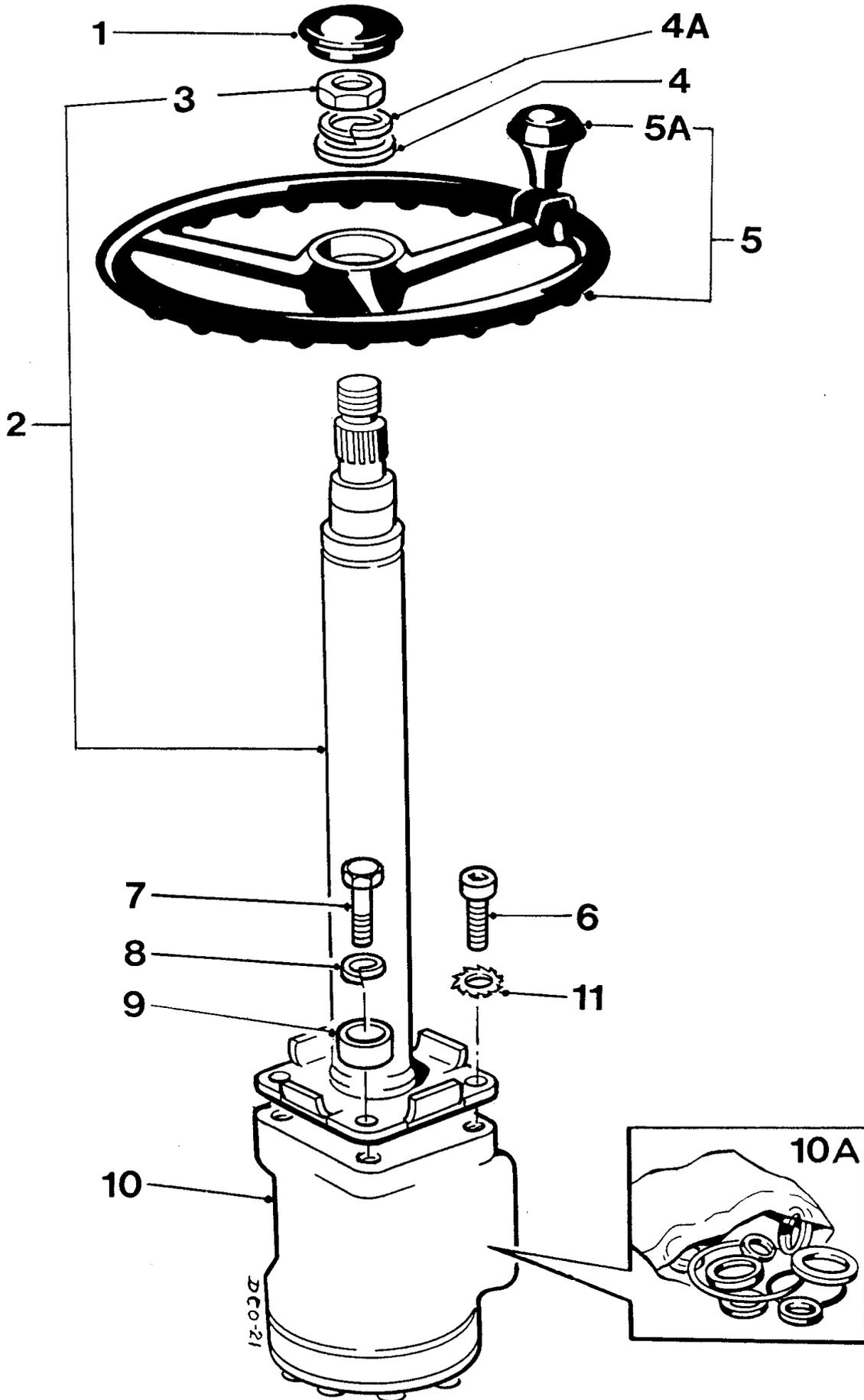
4S4000, 4S5000, 4S6000 & 4S7000 Dumpers



# EPICYCLIC REDUCTION GEARS

# 2 - A - 7

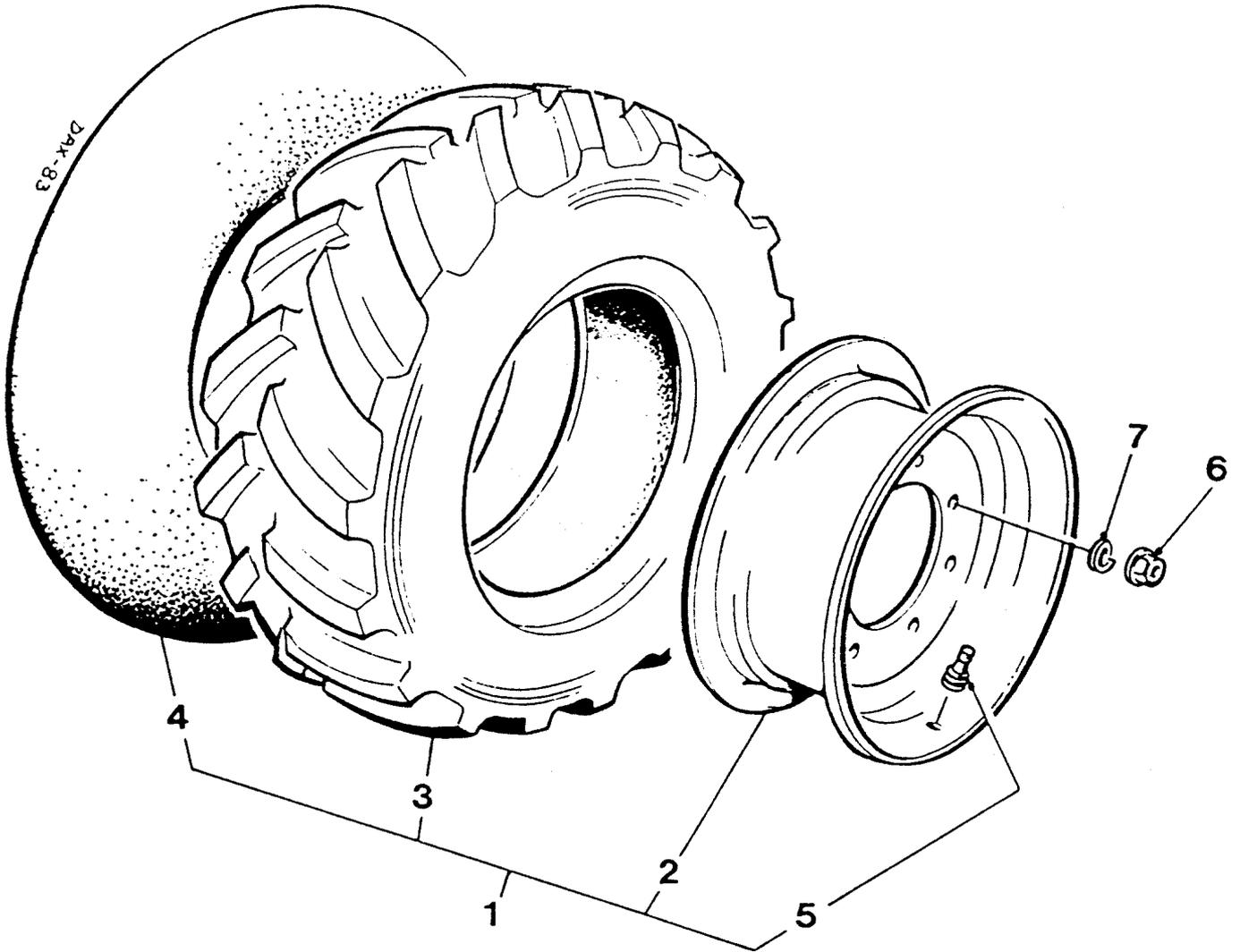
| Item | Part no | Axle serial no | Description                          | Qty |
|------|---------|----------------|--------------------------------------|-----|
| 1    | V600103 | 336 /          | SHAFT                                | 2   |
| 2    | V600104 | 336 /          | CIRCLIP                              | 6   |
| 3    | V600105 | 336 /          | PINION                               | 6   |
| 4    | V600106 | 336 /          | WASHER, thrust                       | 2   |
| 5    | V600107 | 336 /          | BEARING, needle (sets of 10)         | 18  |
| 8    | V600864 | 336 /          | WASHER                               | 6   |
| 9    | V600234 | 336 /          | STUD                                 | 12  |
| 9    | V600418 | 336 /          | STUD, with collar                    | 4   |
| 10   | —       | 336 /          | WASHER ( <i>see page 2 - W - 1</i> ) | 16  |
| 11   | —       | 336 /          | NUT ( <i>see page 2 - W - 1</i> )    | 16  |
| 12   | V600108 | 336 /          | CARRIER, assembly                    | 2   |
| 13   | V600233 | 336 /          | PIN, lock                            | 2   |
| 14   | —       | 336 /          | SHAFT ( <i>order assembly</i> )      | 3   |
| 15   | V600197 | 336 /          | PLUG, drain                          | 2   |
| 17   | V601162 | 336 /          | PLUG ( <i>where used</i> )           | 6   |
| 18   | V600236 | 336 /          | PIN                                  | 4   |
| 19   | V600237 | 336 /          | SCREW                                | 4   |



# STEERING COLUMN

2 - S - 1

| Item                                    | Part no  | Axle serial no | Description   | Qty |
|---|----------|----------------|---|-----|
| 1                                       | V601232  | 2001 / 2051    | CAP, wheel centre   | 1   |
| 1                                       | V2004153 | 2052 /         | CAP, wheel centre   | 1   |
| 2                                       | V2002872 |                | COLUMN, steering assembly   | 1   |
| 3                                       | 95S06    |                | NUT   | 1   |
| 4                                       | 267S09   |                | WASHER, flat  | 1   |
| 4A                                      | 17S08    |                | WASHER, spring  | 1   |
| 5                                       | V2003164 | / 2051         | WHEEL, steer ( <i>Obsolete use V2004152 with centre cap V2004153</i> )                        | 1   |
| 5                                       | V2004152 | 2052 /         | WHEEL, steering   | 1   |
| 5A                                      | V600491  |                | SPINNER, knob   | 1   |
| <b>DANFOSS \ EM&amp;S steering unit</b> |          |                |   |     |
| 6                                       | 103S04B  |                | SCREW, socket   | 2   |
| 7                                       | 69S03G   |                | BOLT  | 2   |
| 8                                       | 41S05    |                | WASHER, spring  | 2   |
| 9                                       | CSE182   |                | SPACER  | 2   |
| 10                                      | V2003312 |                | UNIT, steering, Danfoss \ EM&S  | 1   |
| 10A                                     | V2003362 |                | # KIT, seals, Danfoss   | AR  |
| 10A                                     | V602682  |                | # KIT, seals, EM&S  | AR  |
|   |          |                | # <b>IMPORTANT:</b> <i>Be sure to quote the make of steering unit when ordering seal kits</i> |     |
| 11                                      | 67S04    |                | WASHER, shakeproof  | 2   |
| <b>REXROTH \ ZF steering unit</b>       |          |                |   |     |
| --                                      | V602671  |                | KIT, Steering unit & fittings   | 1   |
| 6                                       | -----    |                | -----   |     |
| 7                                       | 11S04F   |                | SCREW, set  | 4   |
| 8                                       | 17S05    |                | WASHER, spring  | 4   |
| 9                                       | CSE182   |                | SPACER  | 4   |
| 10                                      | V2004696 |                | UNIT, steering, Rexroth \ ZF  | 1   |
| 10A                                     | V602670  |                | # KIT, seals  | AR  |
| 11                                      | -----    |                | -----   |     |



| Item  | Part no  | Axle serial no | Description              | Qty |
|---|----------|----------------|--------------------------|-----|
| <b>4S4000</b>   |          |                |                          |     |
| 1   | 24S72    |                | WHEEL, assembly, L.H.    | 2   |
| 1   | 24S73    |                | WHEEL, assembly, R.H.    | 2   |
| 2   | V2000925 |                | RIM, wheel               | 1   |
| 3   | 20S12    |                | TYRE, 12.5/80 x 18 10ply | 1   |
| 4   | 23S05    |                | TUBE, 12.5 x 18          | 1   |
| 5   | —        |                | (NOT USED)               |     |
| 6   | V600423  |                | NUT, wheel               | 32  |
| 7   | V600235  |                | WASHER, spring           | 32  |
| <b>4S5000 (not rotating skip)</b>                     |          |                |                          |     |
| 1   | 24S78    |                | WHEEL, assembly, L.H.    | 2   |
| 1   | 24S79    |                | WHEEL, assembly, R.H.    | 2   |
| 2   | V2000925 |                | RIM, wheel               | 1   |
| 3   | 20S22    |                | TYRE, 12.5/80 x 18 12ply | 1   |
| 4   | 23S05    |                | TUBE, 12.5 x 18          | 1   |
| 5   | —        |                | (NOT USED)               |     |
| 6   | V600423  |                | NUT, wheel               | 32  |
| 7   | V600235  |                | WASHER, spring           | 32  |
| <b>4S5000 (rotating skip)<br/>4S6000 &amp; 4S7000</b> |          |                |                          |     |
| 1   | 24S74    |                | WHEEL, assembly, L.H.    | 2   |
| 1   | 24S75    |                | WHEEL, assembly, R.H.    | 2   |
| 2   | V2001606 |                | RIM, wheel               | 1   |
| 3   | V2003335 |                | TYRE, 16/70 x 20         | 1   |
| 4   | 23S10    |                | TUBE, (WHERE USED)       | 1   |
| 5   | V2003358 |                | VALVE, (WHERE USED)      | 1   |
| 6   | V600423  |                | NUT, wheel               | 32  |
| 7   | V600235  |                | WASHER, spring           | 32  |
| <b>Alternative 18 x 19.5</b>                          |          |                |                          |     |
| 1   | 24S90    |                | WHEEL, assembly, L.H.    | 2   |
| 1   | 24S91    |                | WHEEL, assembly, R.H.    | 2   |
| 2   | V2004930 |                | RIM, wheel               | 1   |
| 3   | 20S25    |                | TYRE, 18 x 19.5          | 1   |
| 4   | 23S24    |                | TUBE, (WHERE USED)       | 1   |
| 5   | V2003358 |                | VALVE, (WHERE USED)      | 1   |
| 6   | V600423  |                | NUT, wheel               | 32  |
| 7   | V600235  |                | WASHER, spring           | 32  |

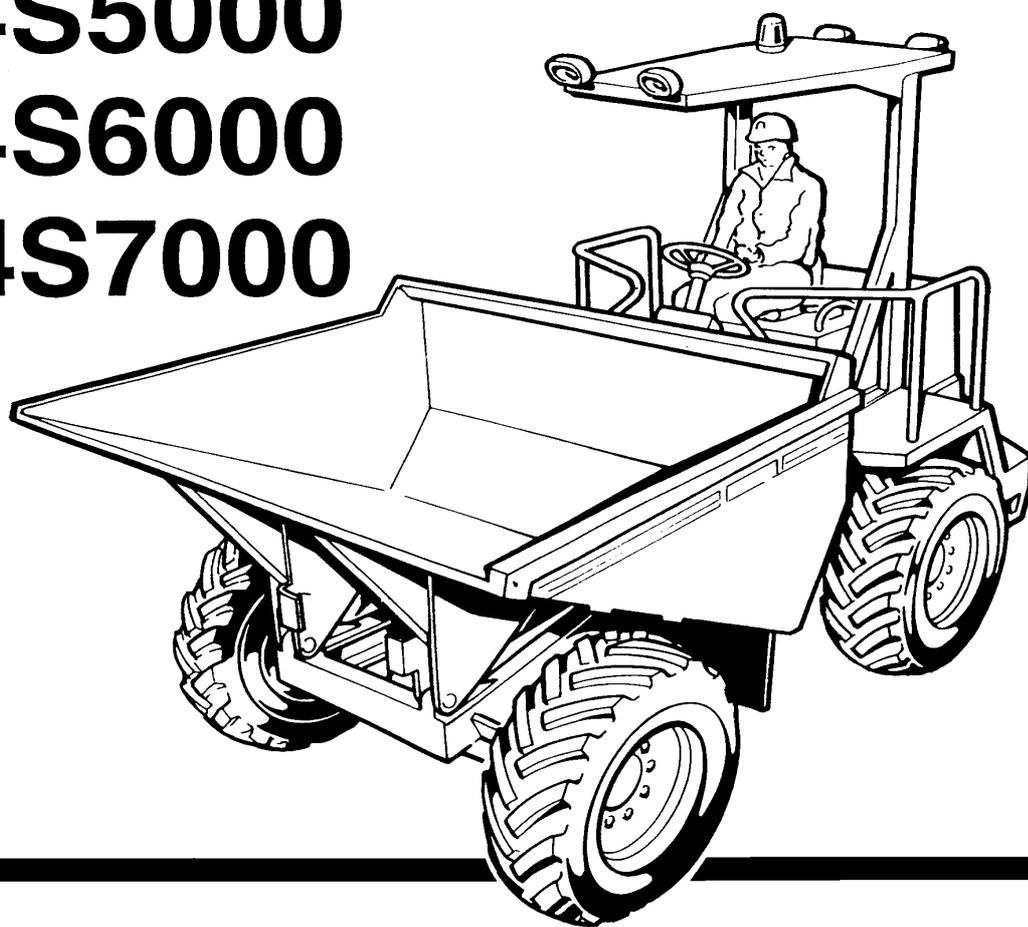
# **'S' Series Dumpers**

**4S4000**

**4S5000**

**4S6000**

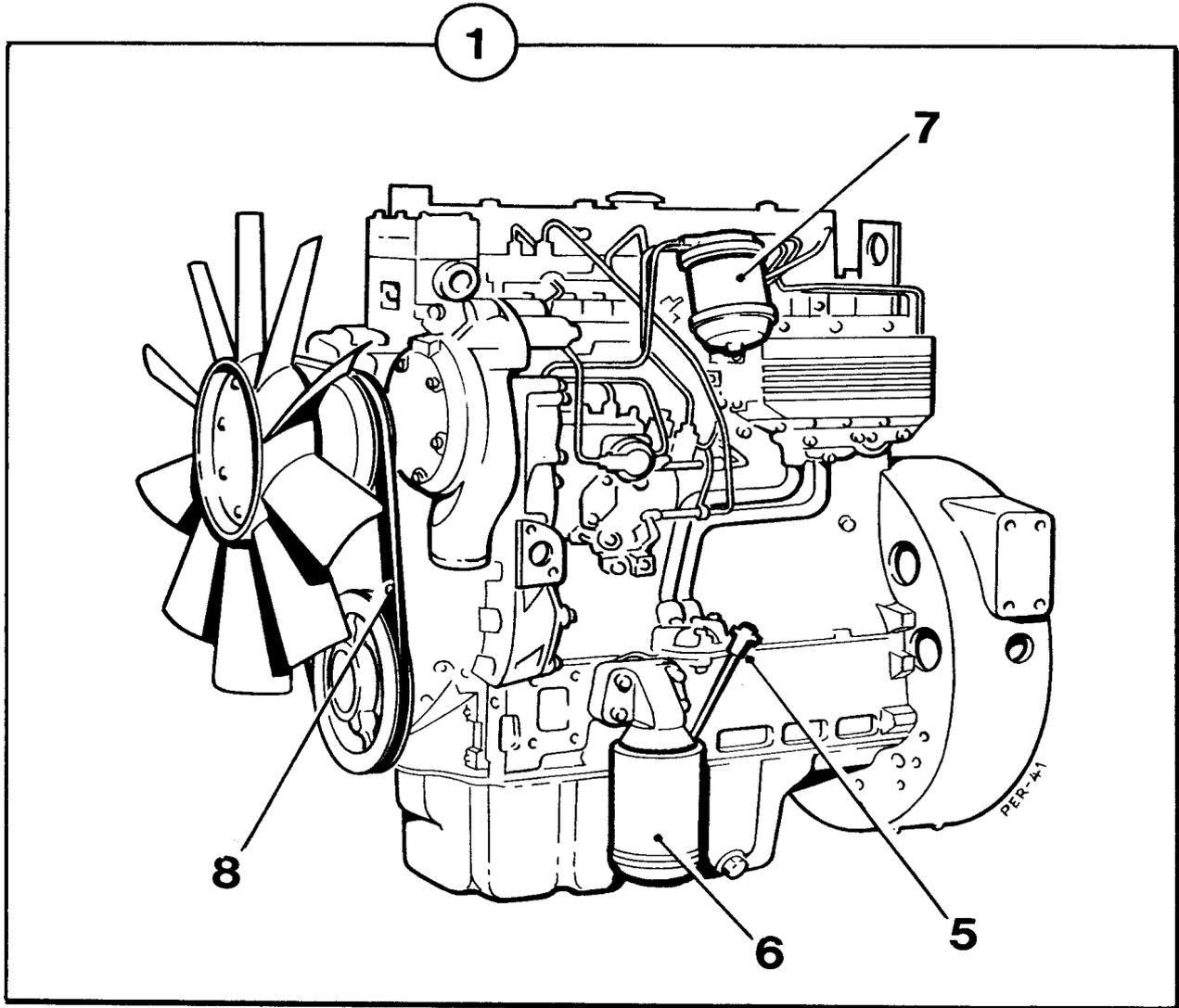
**4S7000**



# *Engine*

|   |                   |
|---|-------------------|
| <b>ENGINE</b>   | <b>3 - A - 1</b>  |
| <b>HYDRAULIC PUMP DRIVE</b>   | <b>3 - A - 11</b> |
| <b>FUEL TANK &amp;<br/>LOW PRESSURE FUEL SYSTEM</b>                 | <b>3 - A - 18</b> |
| <b>EXHAUST</b>  | <b>3 - C - 1</b>  |
| <b>AIR CLEANER<br/>From serial number 2001 to 2223</b>              | <b>3 - C - 2</b>  |
| <b>AIR CLEANER (<i>NOT 4S7000</i>)<br/>From serial number 2224</b>  | <b>3 - C - 3</b>  |
| <b>AIR CLEANER (<i>4S7000 ONLY</i>)<br/>From serial number 2122</b> | <b>3 - C - 4</b>  |
| <b>ACCELERATOR PEDAL &amp; LINKAGE</b>                              | <b>3 - D - 1</b>  |
| <b>ACCELERATOR PEDAL &amp; LINKAGE</b>                              | <b>3 - D - 1A</b> |
| <b>RADIATOR</b>   | <b>3 - R - 1</b>  |
| <b>RADIATOR HOSES &amp; FITTINGS</b>                                | <b>3 - R - 2</b>  |
| <b>AIR RECIRCULATION GUARDS</b>                                     | <b>3 - R - 3</b>  |

[\*\*<<< To beginning of Parts\*\*](#)



| Item | Part no | Serial no | Description | Qty |
|------|---------|-----------|-------------|-----|
|------|---------|-----------|-------------|-----|

## Perkins 4 Cylinder, 1000 Series

*Quote engine serial number before ordering parts*

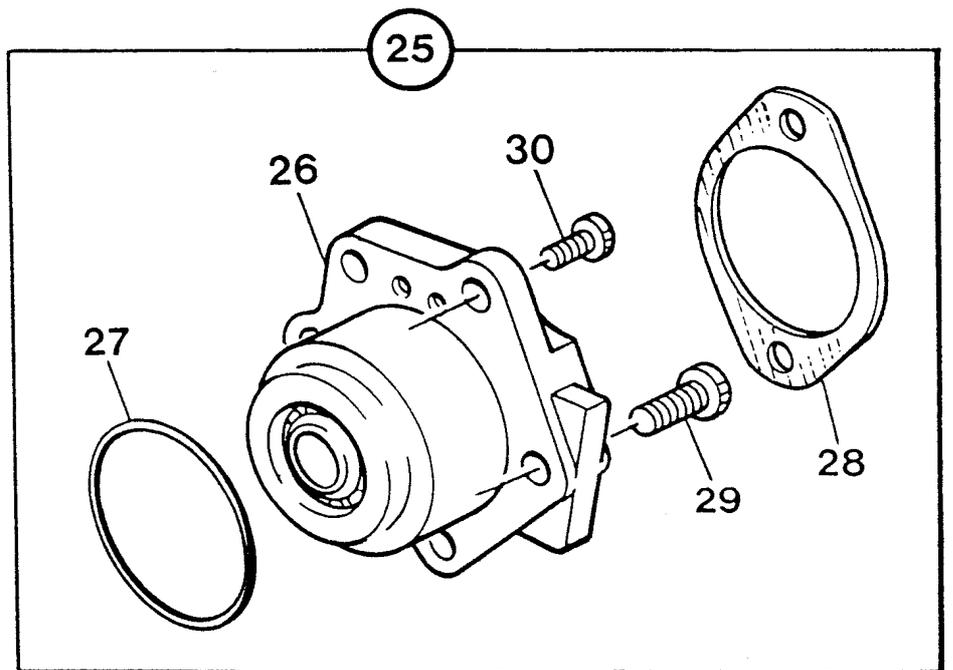
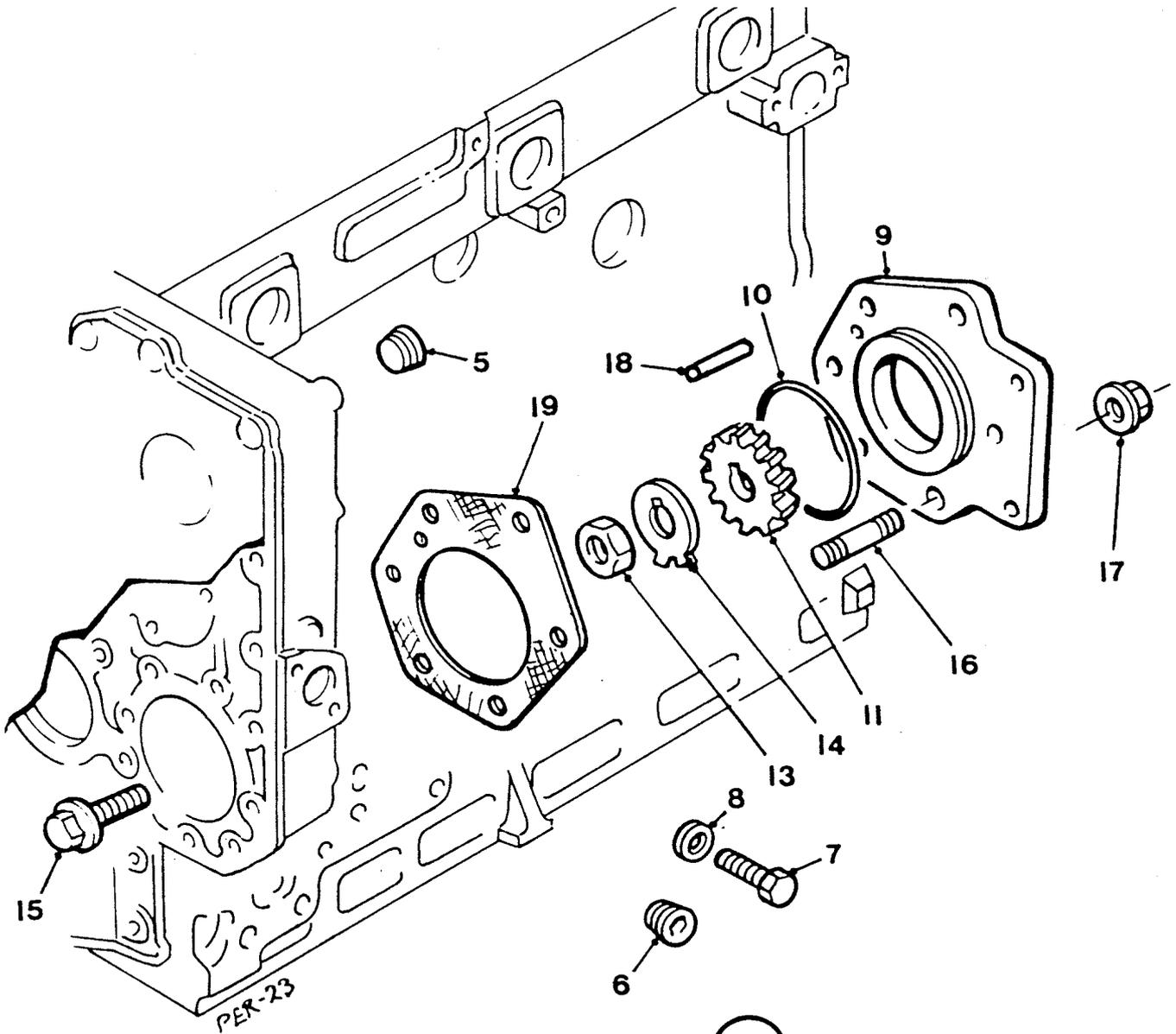
### NOT emission compliant engines

|    |          |        |                                    |   |
|----|----------|--------|------------------------------------|---|
| 1  | V2002308 | / 2355 | ENGINE, <i>naturally aspirated</i> | 1 |
| 5  | V600971  |        | DIPSTICK                           | 1 |
| 6  | V600600  |        | OIL FILTER                         | 1 |
| 7  | V601044  |        | FUEL FILTER, element assembly      | 1 |
| 8  | V600941  |        | FAN BELT                           | 1 |
| -- | -----    |        | FUEL PRE-FILTER (see page 3-A-18)  |   |
| 1  | V2004290 | / 2330 | ENGINE, <i>turbo</i>               | 1 |
| 5  | V602694  |        | DIPSTICK                           | 1 |
| 6  | V602637  |        | OIL FILTER                         | 1 |
| 7  | V601044  |        | FUEL FILTER, element assembly      | 1 |
| 8  | V600941  |        | FAN BELT                           | 1 |
| -- | -----    |        | FUEL PRE-FILTER (see page 3-A-18)  |   |

### Stage 1 emission compliant engines

|    |          |        |                                    |   |
|----|----------|--------|------------------------------------|---|
| 1  | V2005032 | 2356 / | ENGINE, <i>naturally aspirated</i> | 1 |
| 5  | -----    |        | DIPSTICK                           | 1 |
| 6  | V600600  |        | OIL FILTER                         | 1 |
| 7  | V602695  |        | FUEL FILTER, element assembly      | 1 |
| 8  | -----    |        | FAN BELT                           | 1 |
| -- | -----    |        | FUEL PRE-FILTER (see page 3-A-18)  |   |
| 1  | V2004670 | 2331 / | ENGINE, <i>turbo</i>               | 1 |
| 5  | V602697  |        | DIPSTICK                           | 1 |
| 6  | V602637  |        | OIL FILTER                         | 1 |
| 7  | V602695  |        | FUEL FILTER, element assembly      | 1 |
| 8  | V602698  |        | FAN BELT                           | 1 |
| -- | -----    |        | FUEL PRE-FILTER (see page 3-A-18)  |   |

*For all other engine components  
see the “Engine Parts Catalogue”*



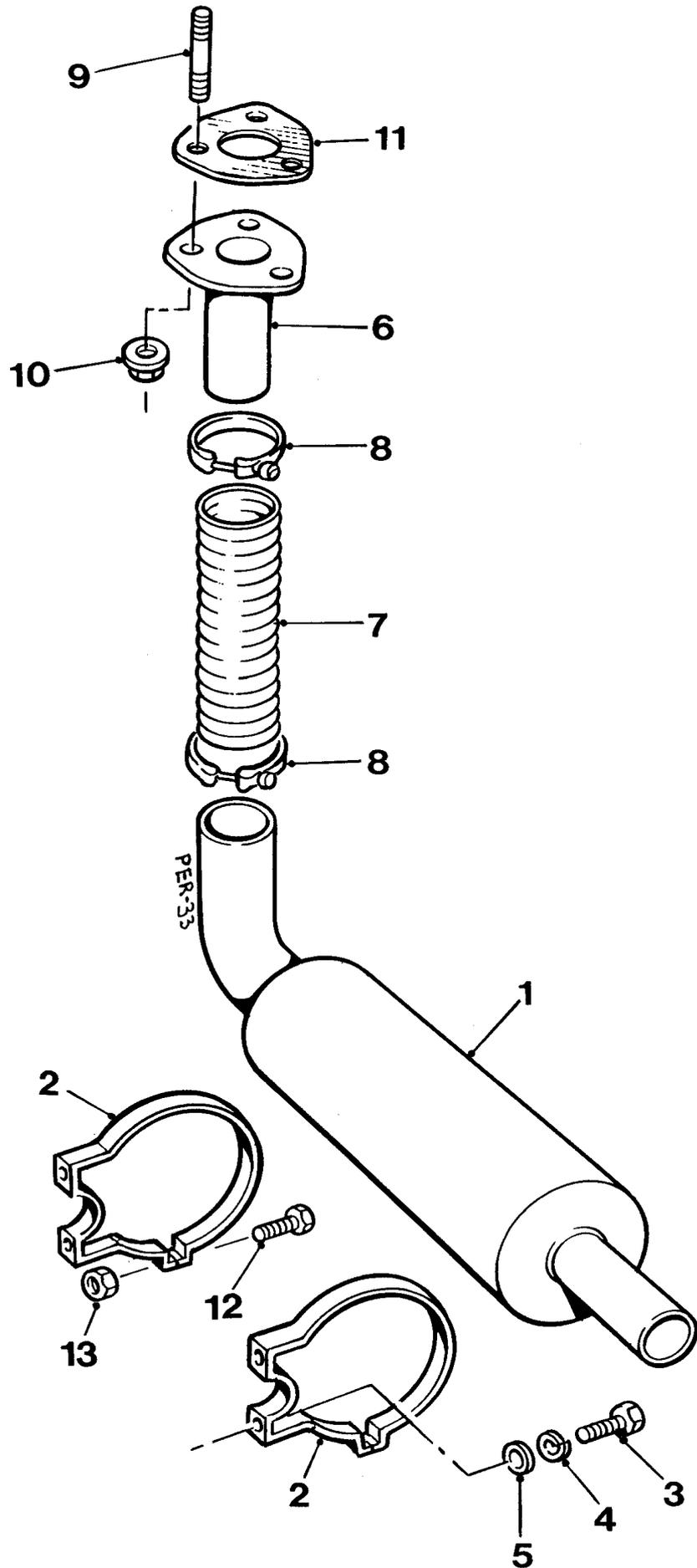
# HYDRAULIC PUMP DRIVE

# 3 - A - 11

| Item   | Part no  | Serial no | Description                     | Qty |
|--|----------|-----------|---------------------------------|-----|
| 5  | V600540  |           | # PLUG                          | 1   |
| 6  | V600540  |           | # PLUG                          | 1   |
| 7  | V600942  |           | # WASHER                        | 1   |
| 8  | V600583  |           | # HOUSING, adapter              | 1   |
| 9  | V600943  |           | # SEAL, 'O' ring                | 1   |
| 10   | V600944  |           | # GEAR                          | 1   |
| 11   | V600945  |           | # NUT                           | 1   |
| 13   | 9S09     |           | # NUT                           | 1   |
| 14   | V600586  |           | # WASHER                        | 1   |
| 15   | V600946  |           | # SCREW                         | 1   |
| 16   | V600923  |           | # STUD                          | 4   |
| 17   | V600924  |           | # NUT                           | 4   |
| 18   | V600947  |           | # PIN                           | 1   |
| 19   | V600587  |           | # JOINT                         | 1   |
| <p><b># These items are obsolete. To replace them it will be necessary to fit the complete kit V602242 as shown below:</b></p> |          |           |                                 |     |
| 25   | V602242  |           | DRIVE, hydraulic pump, assembly | 1   |
| 26   | V602253  |           | DRIVE unit                      | 1   |
| 27   | V602252  |           | SEAL, 'O' ring                  | 1   |
| 28   | V2004202 |           | GASKET                          | 1   |
| 29   | 68S05D   |           | SCREW, socket head cap          | 1   |
| 30   | 68S04C   |           | SCREW, socket head cap          | 5   |

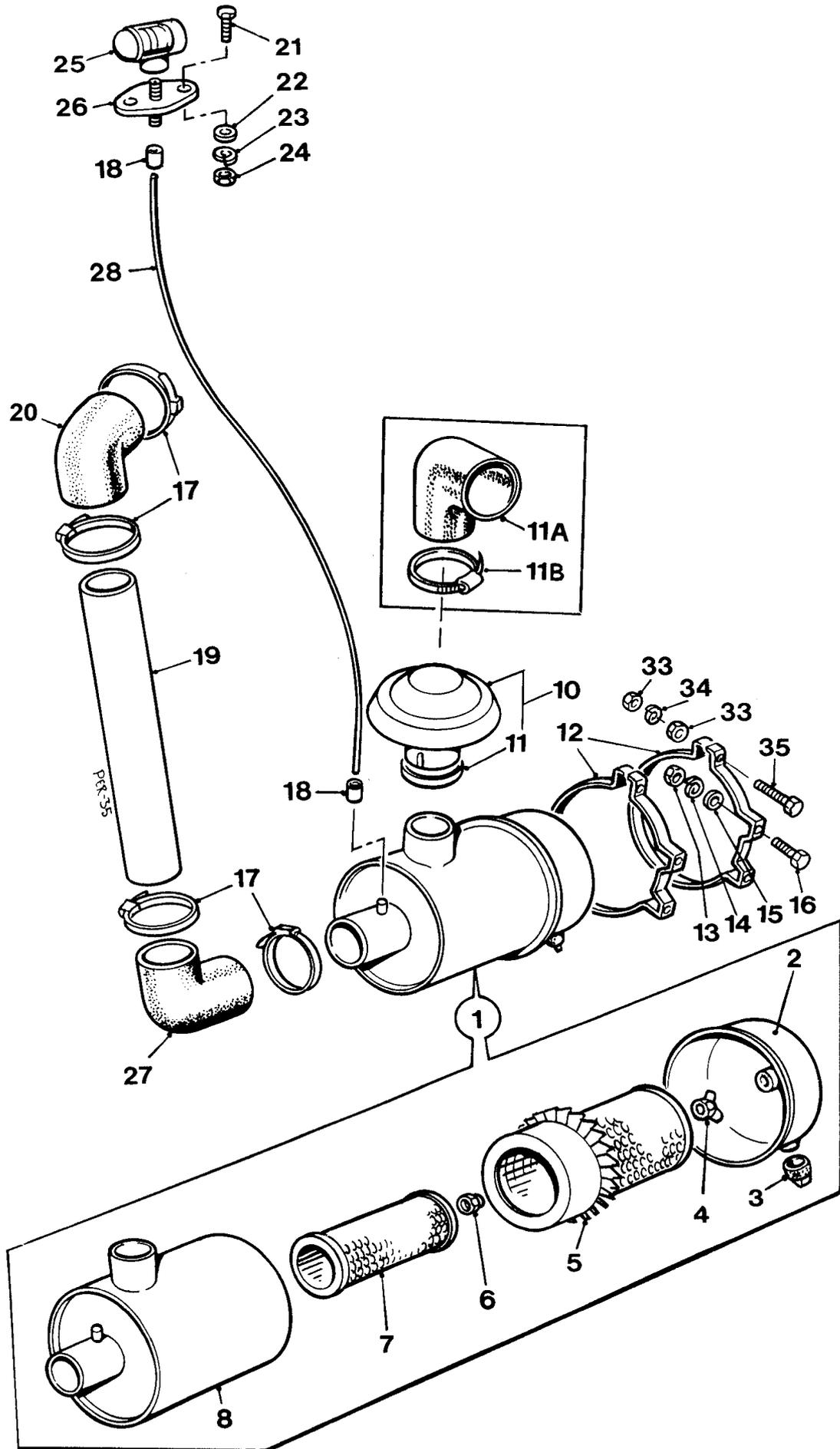


| Item | Part no  | Serial no | Description  | Qty |
|------|----------|-----------|--|-----|
| 1    | V2002275 | 2001 /    | FUEL TANK / MUDWING  | 1   |
| 2    | 100S04   |           | SEAL, bonded   | 1   |
| 3    | 127S04   |           | PLUG, drain  | 1   |
| 4    | V2003209 |           | FITTING, nylon, elbow  | 2   |
| 5    | V2003295 |           | CAP, filler, assembly  | 1   |
| 5A   | V602660  |           | GASKET, filler cap   | 1   |
| 10   | V2003357 |           | PIPE, fuel, 90 deg.  | 1   |
| 11   | V2003327 |           | PIPE, fuel, straight   | 1   |
| 12   | V2003339 |           | PIPE, fuel, 90 deg.  | 2   |
| 13   | V2003029 |           | CLIP, hose   | 6   |
| 14   | V2002991 |           | HOSE, fuel line (order by metre)                                 | AR  |
| 15   | V2002991 |           | HOSE, fuel line (order by metre)                                 | AR  |
| 16   | V2002991 |           | HOSE, fuel line (order by metre)                                 | AR  |
| 17   | -----    |           | # FILTER, fuel ( <i>see page 3 - A - 1</i> )                     |     |
| 18   | -----    |           | # LIFT PUMP, fuel ( <i>see Engine Parts Cat.</i> )               |     |
| 20   | 11S03C   |           | SCREW, set   | 2   |
| 21   | 17S04    |           | WASHER, spring   | 2   |
| 22   | 267S05   |           | WASHER, flat   | 2   |
| 23   | 7S03     |           | NUT  | 2   |
| 24   | -----    |           | PRE-FILTER, assembly   | 1   |
| 24A  | V601004  |           | # PRE-FILTER, bowl   |     |
|      |          |           | # <b>Quote Engine Serial Number before ordering engine parts</b> |     |
| 29   | V600605  |           | WASHER   | 2   |
| 30   | V600604  |           | PLUG   | 2   |
| 31   | V600613  |           | NUT  | 1   |
| 32   | V600614  |           | FITTING, ferrule   | 1   |
| 35   | V2004928 | Apr-00 /  | GAUGE, fuel level  | 1   |



**EXHAUST****3 - C - 1**

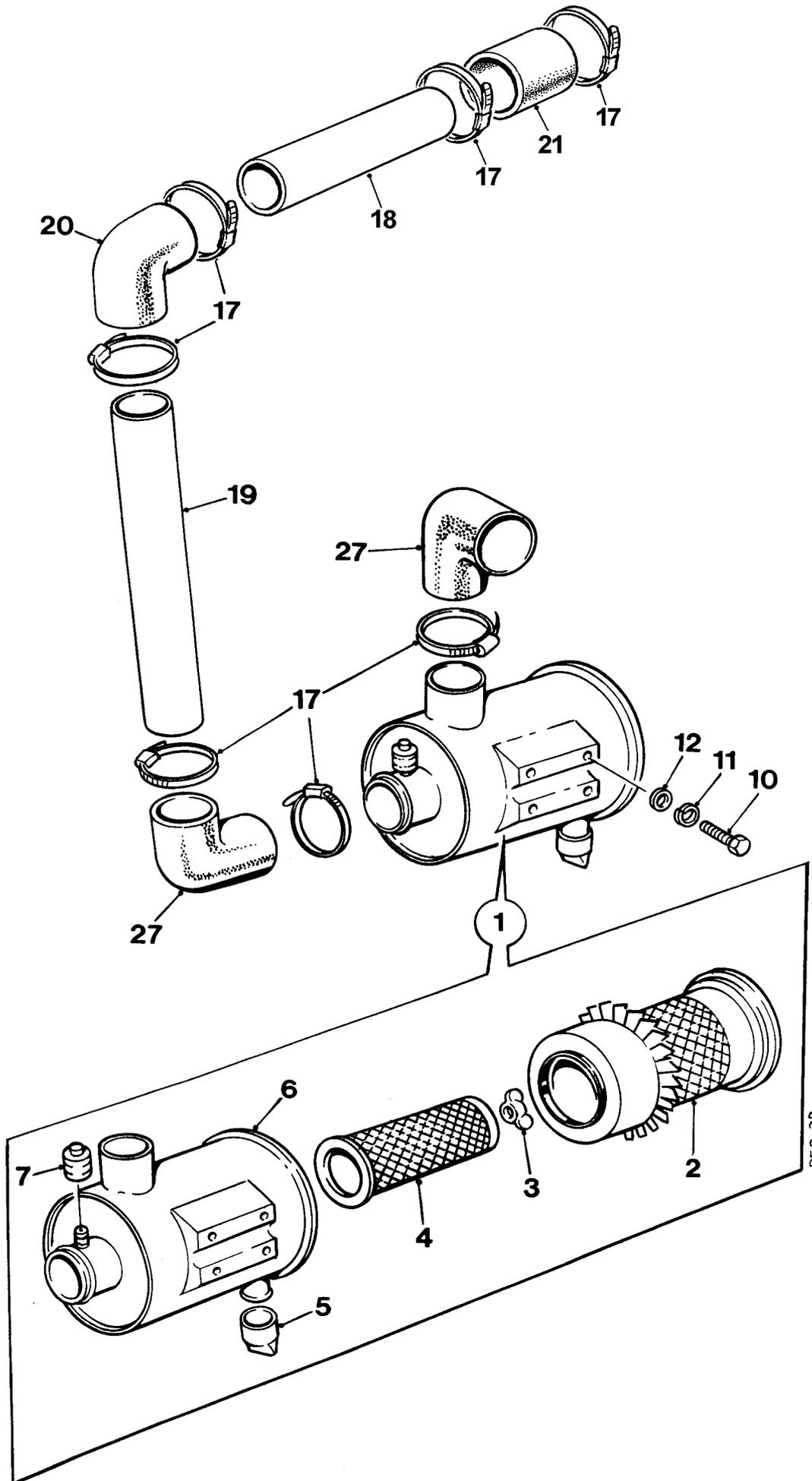
| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                   | <b>Qty</b> |
|-------------|----------------|------------------|--------------------------------------|------------|
| 1           | V2002451       | 2001 /           | SILENCER ( <i>Not 4S7000</i> )       | 1          |
| 1           | V2004453       |                  | SILENCER ( <i>4S7000 only</i> )      | 1          |
| 2           | V2003336       |                  | BAND, mounting                       | 2          |
| 3           | 11S03A         |                  | SCREW, set                           | 4          |
| 4           | 17S04          |                  | WASHER, spring                       | 4          |
| 5           | 267S05         |                  | WASHER, flat                         | 4          |
| 6           | V2002452       |                  | PIPE, exhaust ( <i>Not 4S7000</i> )  | 1          |
| 6           | V2004461       |                  | PIPE, exhaust ( <i>4S7000 only</i> ) | 1          |
| 7           | V2002466       |                  | PIPE, exhaust, flexible              | 1          |
| 8           | V2003240       |                  | CLAMP, band                          | 2          |
| 9           | V601168        |                  | STUD                                 | 3          |
| 10          | V601169        |                  | NUT                                  | 3          |
| 11          | V601170        |                  | JOINT                                | 1          |
| 12          | 11S02H         |                  | SCREW, set                           | 2          |
| 13          | 61S02          |                  | NUT, self-locking                    | 2          |



# AIR CLEANER & FITTINGS

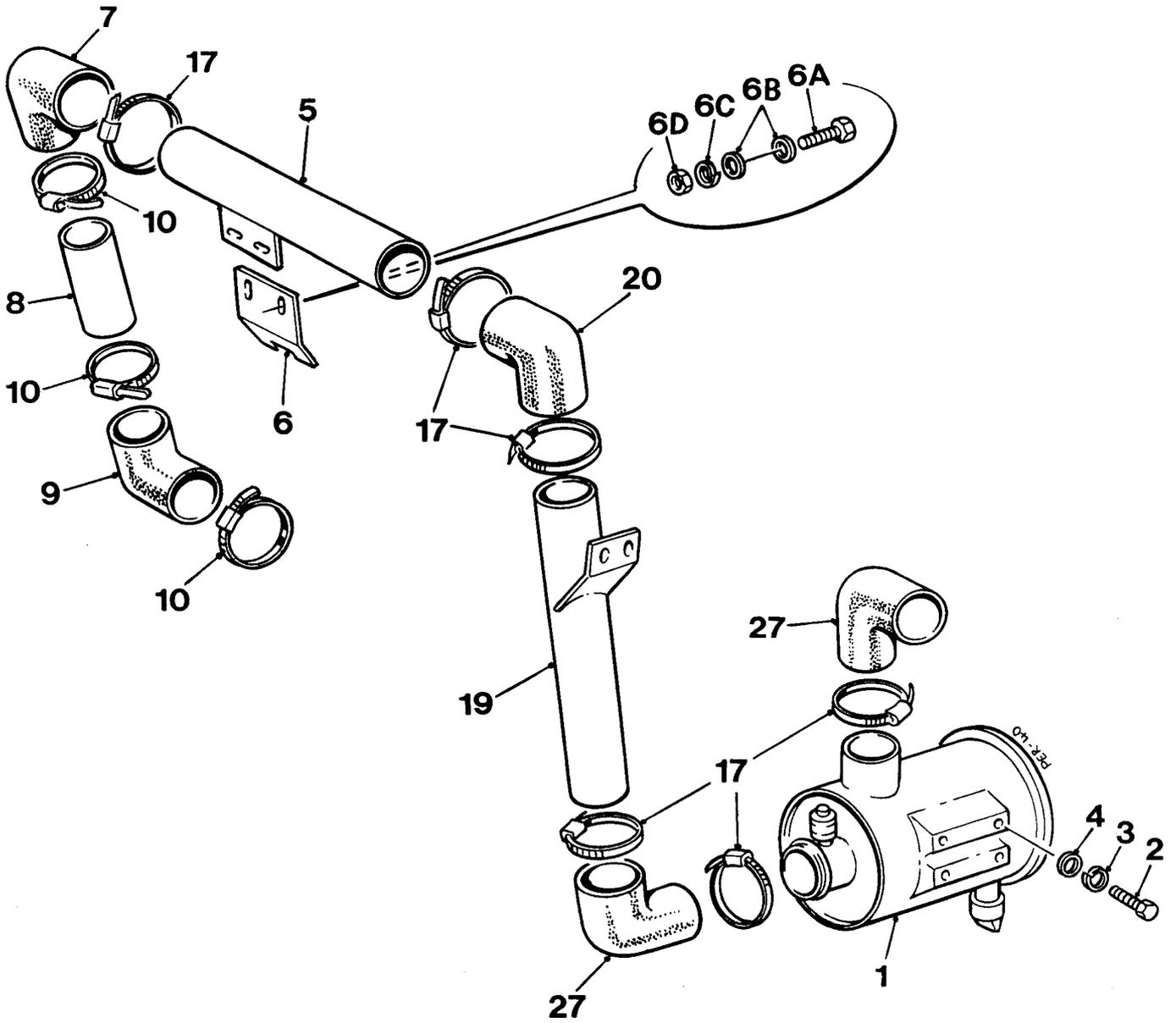
# 3 - C - 2

| Item | Part no  | Serial no   | Description                           | Qty |
|------|----------|-------------|---------------------------------------|-----|
| 1    | V2003355 | 2001 / 2223 | AIR CLEANER, assembly                 | 1   |
| 2    | V600485  | / 2223      | COVER                                 | 1   |
| 3    | V600486  | / 2223      | COLLECTOR, dust                       | 1   |
| 4    | V600487  | / 2223      | NUT, wing                             | 1   |
| 5    | V600484  | / 2223      | ELEMENT, outer                        | 1   |
| 6    | V600658  | / 2223      | NUT                                   | 1   |
| 7    | V600659  | / 2223      | ELEMENT, inner                        | 1   |
| 8    | -----    | / 2223      | BODY ( <i>order assembly</i> )        | 1   |
| 10   | V2003596 | / 2152      | CAP, stack, assembly                  | 1   |
| 11   | 97S15    | / 2152      | CLIP                                  | 1   |
| 11A  | V2003188 | 2153 / 2223 | HOSE, rubber, 90 deg. elbow           | 1   |
| 11B  | 97S15    | 2153 / 2223 | CLIP, hose                            | 1   |
| 12   | V2003271 | / 2223      | CLAMP, band                           | 2   |
| 13   | 7S03     | / 2223      | NUT                                   | 4   |
| 14   | 17S04    | / 2223      | WASHER, spring                        | 4   |
| 15   | 267S05   | / 2223      | WASHER, flat                          | 4   |
| 16   | 11S03C   | / 2223      | SCREW, set                            | 4   |
| 17   | 97S15    | / 2223      | CLIP, hose                            | 4   |
| 18   | V2003298 | / 2223      | ADAPTOR                               | 2   |
| 19   | V2002939 | / 2223      | PIPE, steel                           | 1   |
| 20   | V2003356 | / 2223      | HOSE, rubber, 135 deg. elbow          | 1   |
| 21   | 11S02A   | / 2223      | SCREW, set                            | 2   |
| 22   | 267S04   | / 2223      | WASHER, flat                          | 2   |
| 23   | 17S03    | / 2223      | WASHER, spring                        | 2   |
| 24   | 7S02     | / 2223      | NUT                                   | 2   |
| 25   | V2003297 | / 2223      | INDICATOR, restrictor                 | 1   |
| 26   | V2003296 | / 2223      | ADAPTOR                               | 1   |
| 27   | V2003188 | / 2223      | HOSE, rubber, 90 deg. elbow           | 1   |
| 28   | V2003299 | / 2223      | TUBE, nylon ( <i>order by metre</i> ) | AR  |
| 33   | 7S03     | / 2223      | NUT                                   | 4   |
| 34   | 17S04    | / 2223      | WASHER, spring                        | 2   |
| 35   | 11S03F   | / 2223      | SCREW, set                            | 2   |



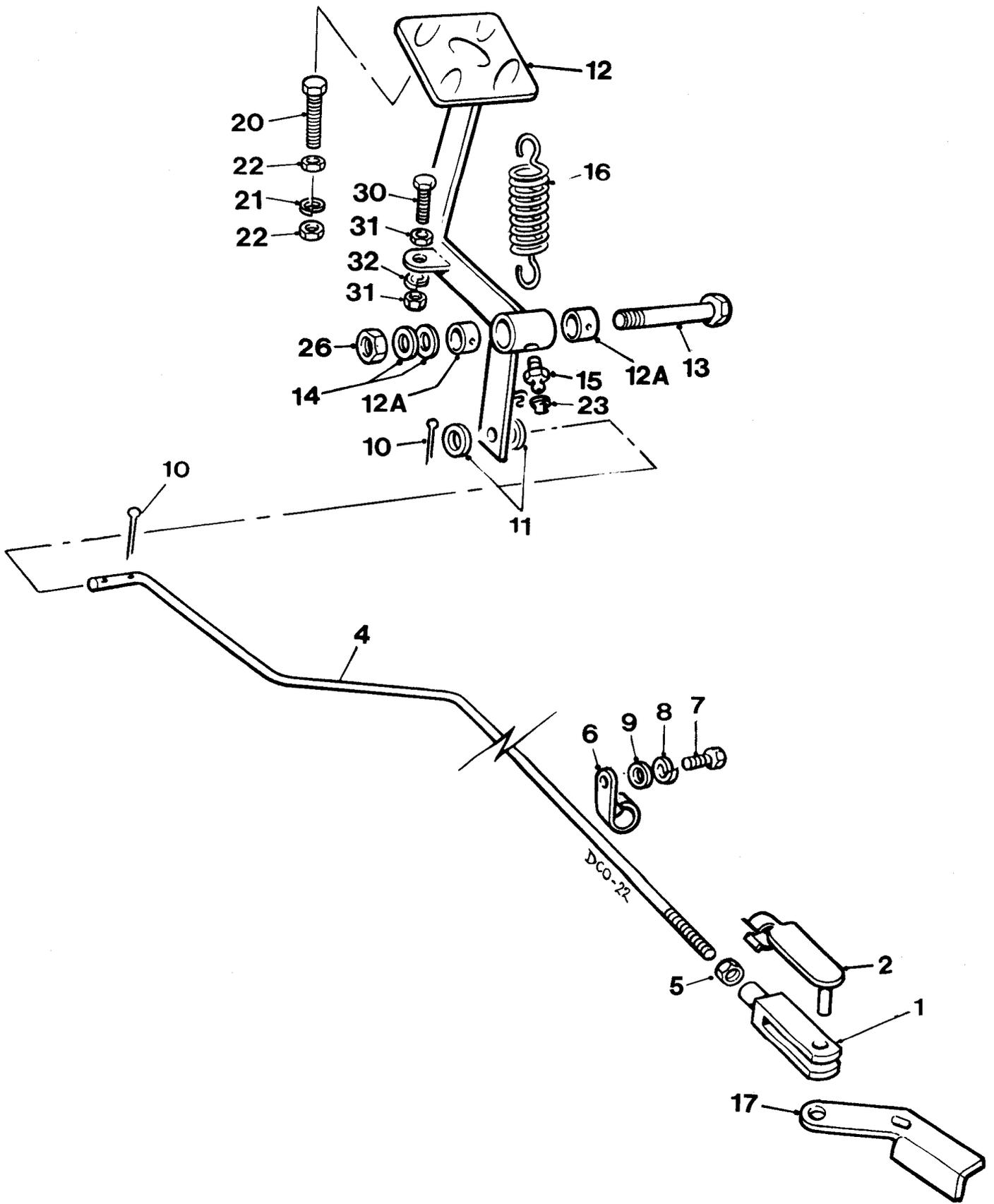
**AIR CLEANER & FITTINGS****3 - C - 3**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>           | <b>Qty</b> |
|-------------|----------------|------------------|------------------------------|------------|
| 1           | V2004764       | 2224 /           | AIR CLEANER, assembly        | 1          |
| 2           | V602663        | 2224 /           | ELEMENT, outer               | 1          |
| 3           | V602687        | 2224 /           | NUT, wing                    | 1          |
| 4           | V602664        | 2224 /           | ELEMENT, inner               | 1          |
| 5           | V602688        | 2224 /           | COLLECTOR, dust              | 1          |
| 6           | -----          | 2224 /           | BODY (order assembly)        | 1          |
| 7           | V602665        | 2224 /           | INDICATOR, restrictor        | 1          |
| 10          | 11S03C         | 2224 /           | SCREW, set                   | 4          |
| 11          | 17S04          | 2224 /           | WASHER, spring               | 4          |
| 12          | 267S05         | 2224 /           | WASHER, flat                 | 4          |
| 17          | 97S15          | 2224 /           | CLIP, hose                   | 5/7        |
| 18          | V2005103       | 2356 /           | PIPE, steel, 310 mm long     |            |
| 19          | V2002939       | 2224 / 2355      | PIPE, steel, 620 mm long     | 1          |
| 19          | V2005102       | 2356 /           | PIPE, steel, 545 mm long     | 1          |
| 20          | V2003356       | 2224 /           | HOSE, rubber, 135 deg. elbow | 1          |
| 21          | V2005104       | 2356 /           | HOSE, rubber, straight       | 1          |
| 27          | V2003188       | 2224 /           | HOSE, rubber, 90 deg. elbow  | 2          |



**AIR CLEANER & FITTINGS****3 - C - 4**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>  | <b>Qty</b> |
|-------------|----------------|------------------|---|------------|
| 1           | V2003355       | 2122 / 2227      | AIR CLEANER, assembly<br><i>(See page 3-C-2 for elements)</i> | 1          |
| 1           | V2004764       | 2228 /           | AIR CLEANER, assembly<br><i>(See page 3-C-3 for elements)</i> | 1          |
| 2           | 11S03C         |                  | SCREW, set  | 4          |
| 3           | 17S04          |                  | WASHER, spring  | 4          |
| 4           | 267S05         |                  | WASHER, flat  | 4          |
| 5           | V2004457       |                  | PIPE, steel, horizontal                                       | 1          |
| 6           | V2004458       |                  | BRACKET   | 1          |
| 6A          | 11S02C         |                  | SCREW, set  | 2          |
| 6B          | 267S04         |                  | WASHER, flat  | 4          |
| 6C          | 17S03          |                  | WASHER, spring  | 2          |
| 6D          | 7S02           |                  | NUT   | 2          |
| 7           | V2004183       |                  | HOSE, rubber, elbow reducer, upper                            | 1          |
| 8           | V2004459       |                  | PIPE, steel, small  | 1          |
| 9           | V2004595       |                  | HOSE, rubber, elbow, lower                                    | 1          |
| 10          | 97S13          |                  | CLIP  | 3          |
| 17          | 97S15          |                  | CLIP, hose  | 6          |
| 19          | V2004455       |                  | PIPE, steel   | 1          |
| 20          | V2003356       |                  | HOSE, rubber, 135 deg. elbow                                  | 1          |
| 27          | V2003188       |                  | HOSE, rubber, 90 deg. elbow                                   | 2          |



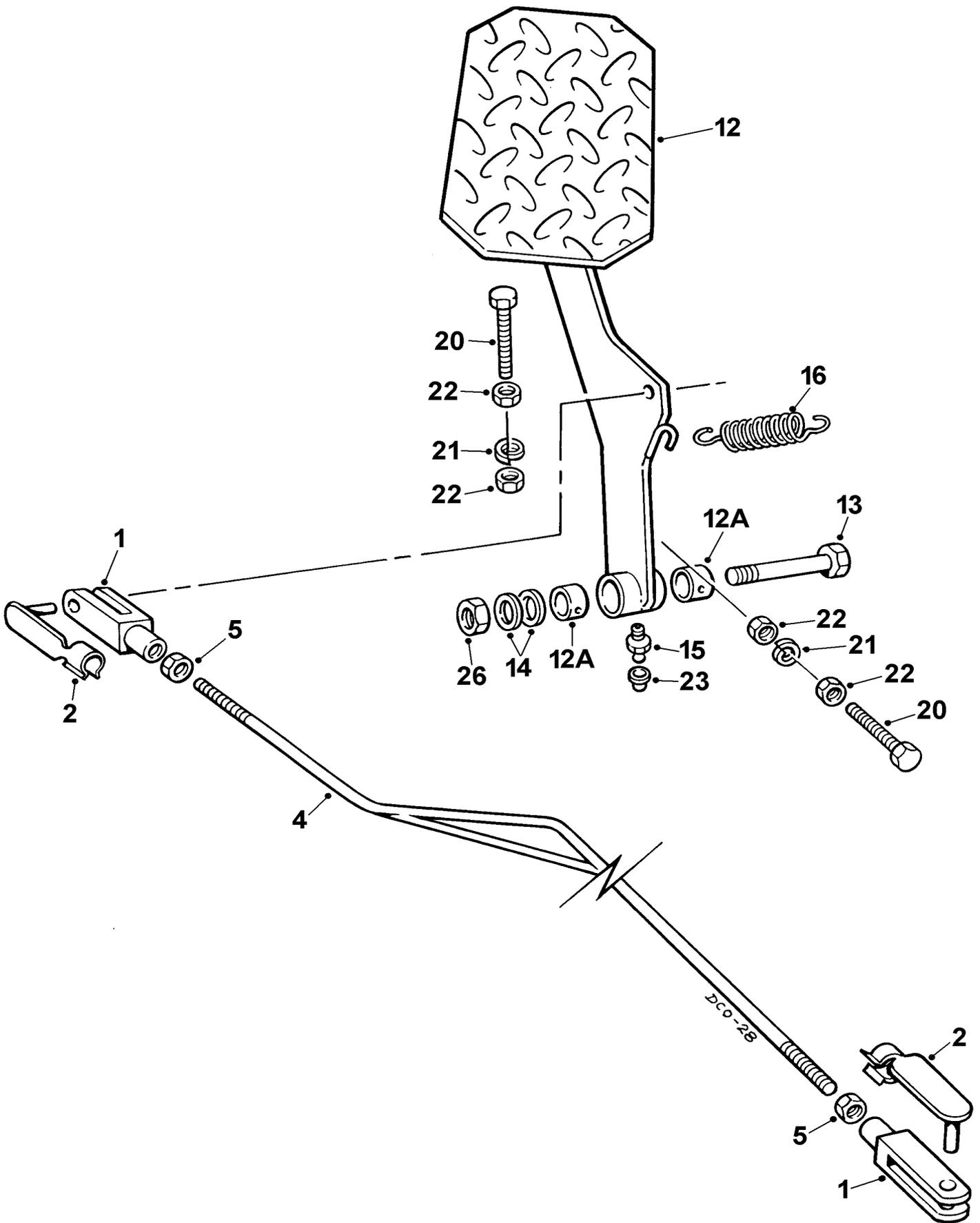
# ACCELERATOR PEDAL & LINKAGE

# 3 - D - 1

| Item | Part no   | Serial no   | Description                              | Qty |
|------|-----------|-------------|--|-----|
|      |           | 2001 / 2355 | 4S4000/4S5000/4S6000 Dumpers             |     |
|      |           | 2001 / 2330 | 4S7000 Dumper                            |     |
| 1    | 224410000 |             | CLEVIS                                   | 1   |
| 2    | V2003532  |             | CLIP, spring                             | 1   |
| 4    | V2003094  | 2001 / 2355 | ROD ( <b>Not 4S7000</b> )                | 1   |
| 4    | V2004769  | 2001 / 2330 | ROD ( <b>4S7000 Only</b> )               | 1   |
| 5    | 7S03      |             | NUT                                      | 1   |
| 6    | V2003096  |             | BRACKET                                  | 1   |
| 7    | 11S04B    |             | SCREW, set                               | 1   |
| 8    | 17S05     |             | WASHER, spring                           | 1   |
| 9    | 267S06    |             | WASHER, flat                             | 1   |
| 10   | 44S03D    |             | PIN, split                               | 2   |
| 11   | 267S05    |             | WASHER, flat                             | 2   |
| 12   | V2003091  |             | PEDAL, assembly                          | 1   |
| 12A  | 43S03     |             | BUSH                                     | 2   |
| 13   | 6S05M     |             | BOLT                                     | 1   |
| 14   | 10S04     |             | WASHER, flat                             | 2   |
| 15   | 131S01    |             | NIPPLE, grease                           | 1   |
| 16   | 425434000 |             | SPRING                                   | 1   |
| 17   | V2003548  |             | LEVER                                    | 1   |
| 20   | 11S03M    |             | SCREW, set                               | 1   |
| 21   | 17S04     |             | WASHER, spring                           | 1   |
| 22   | 7S03      |             | NUT                                      | 2   |
| 23   | 176S01    |             | COVER, grease nipple                     | 1   |
| 26   | 87S05     |             | NUT, 'Binx' self locking                 | 1   |
| 30   | 11S03C    |             | SCREW, set                               | 1   |
| 31   | 7S03      |             | NUT                                      | 2   |
| 32   | 17S04     |             | WASHER, spring                           | 1   |
| ---  | V2003592  |             | # WIRE, locking                          |     |
| ---  | V2003591  |             | # SEAL, lead locking                     |     |
|      |           |             | # To lock fuel adjustment screws on pump |     |

# 3 - D - 1A

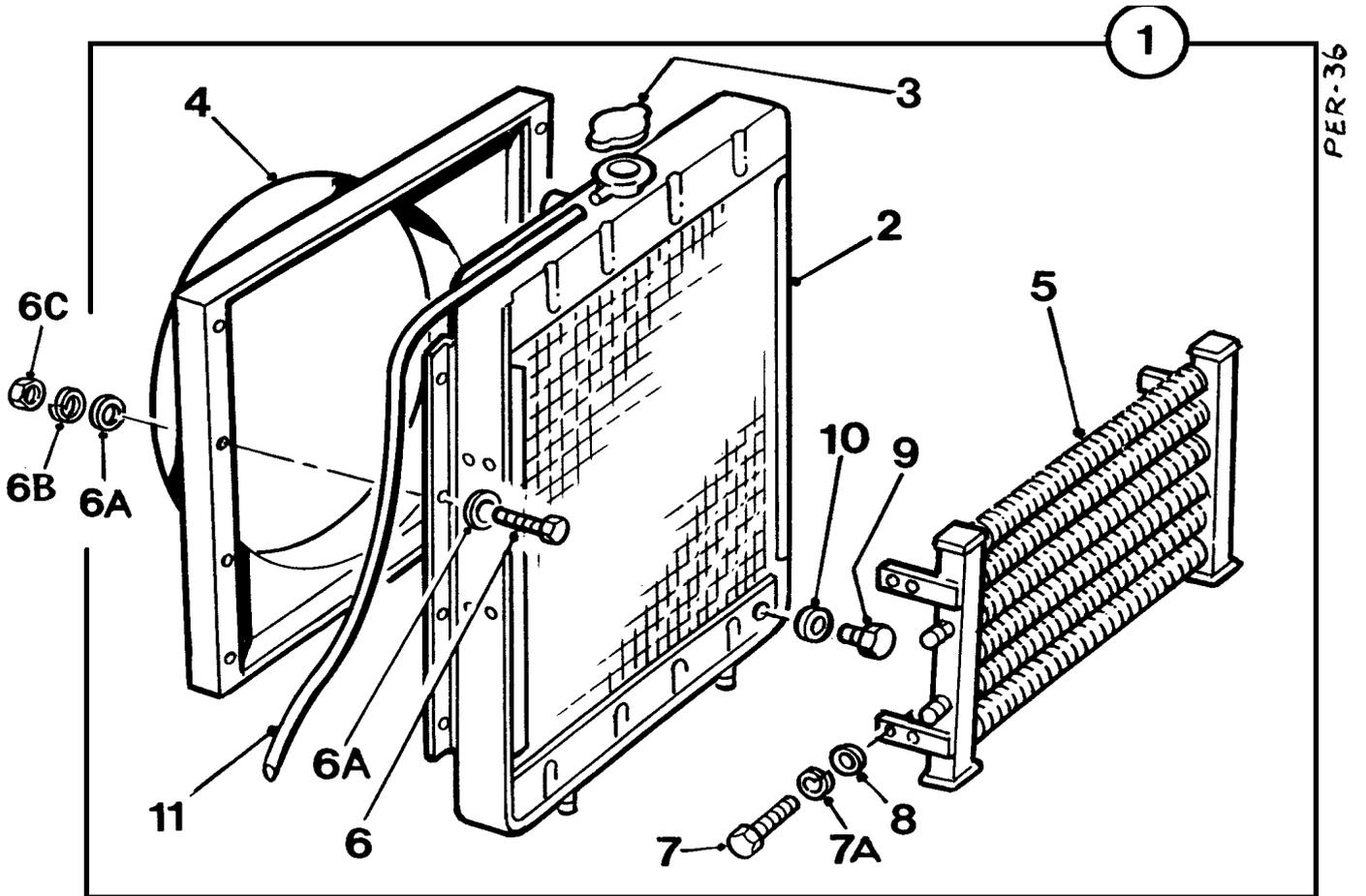
## 4S4000, 4S5000, 4S6000 & 4S7000 Dumpers



# ACCELERATOR PEDAL & LINKAGE

# 3 - D - 1A

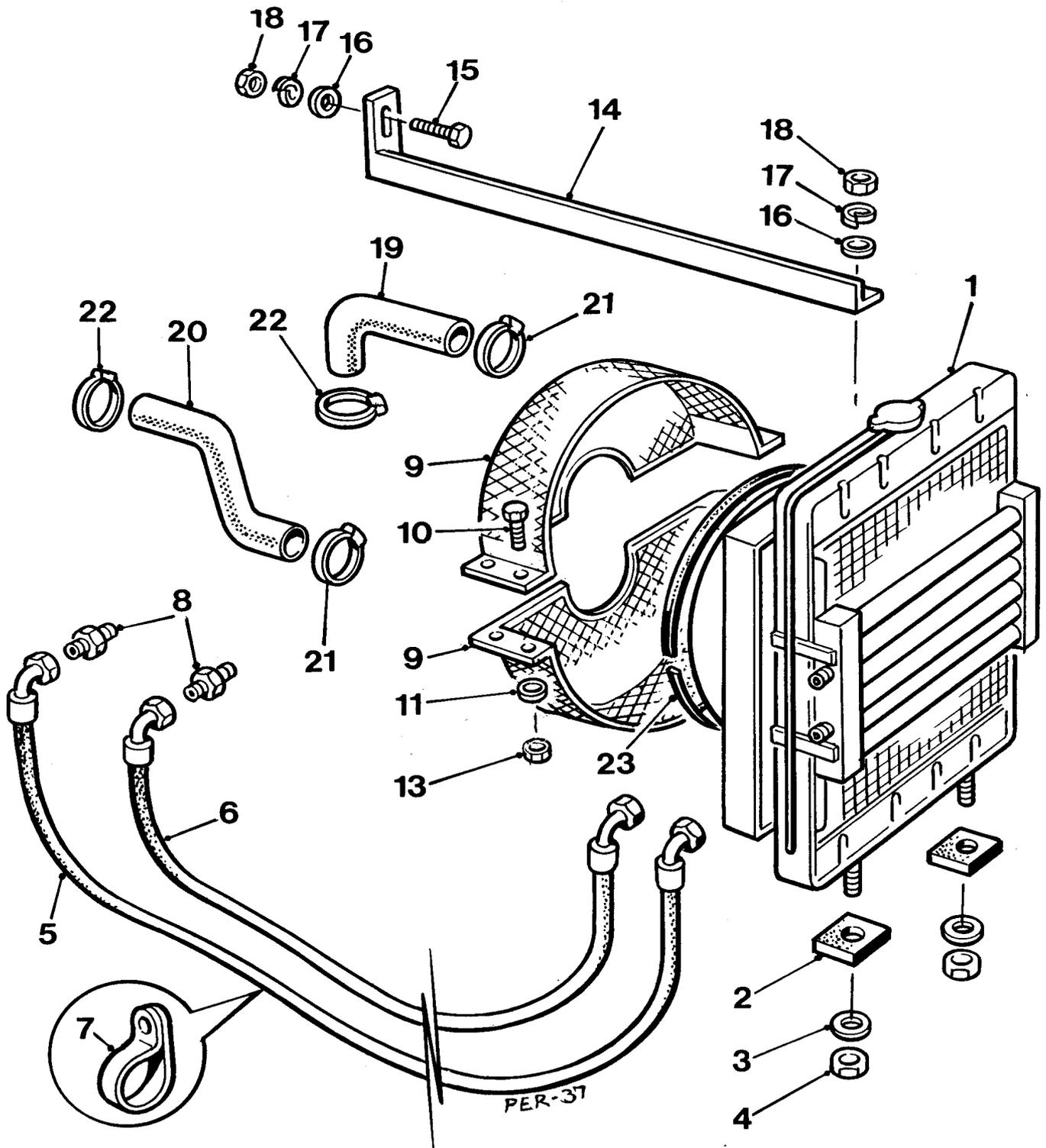
| Item | Part no   | Serial no        | Description                                   | Qty |
|------|-----------|------------------|---|-----|
|      |           | 2356 /<br>2331 / | 4S4000/4S5000/4S6000 Dumpers<br>4S7000 Dumper |     |
| 1    | V2003245  |                  | CLEVIS  | 2   |
| 2    | V2003246  |                  | CLIP, spring                                  | 2   |
| 4    | V2004699  | 2356 /           | ROD ( <b>Not 4S7000</b> )                     | 1   |
| 4    | V2004699  | 2331 /           | ROD ( <b>4S7000 Only</b> )                    | 1   |
| 5    | 7S02      |                  | NUT   | 1   |
| 12   | V2004756  |                  | PEDAL, assembly                               | 1   |
| 12A  | 43S03     |                  | BUSH  | 2   |
| 13   | 6S05M     |                  | BOLT, pivot                                   | 1   |
| 14   | 10S04     |                  | WASHER, flat                                  | 2   |
| 15   | 131S02    |                  | NIPPLE, grease                                | 1   |
| 16   | 425434000 |                  | SPRING  | 1   |
| 20   | 11S03M    |                  | SCREW, set                                    | 2   |
| 21   | 17S04     |                  | WASHER, spring                                | 2   |
| 22   | 7S03      |                  | NUT   | 4   |
| 23   | 176S01    |                  | COVER, grease nipple                          | 1   |
| 26   | 87S05     |                  | NUT, 'Binx' self locking                      | 1   |



# RADIATOR ASSEMBLY

# 3 - R - 1

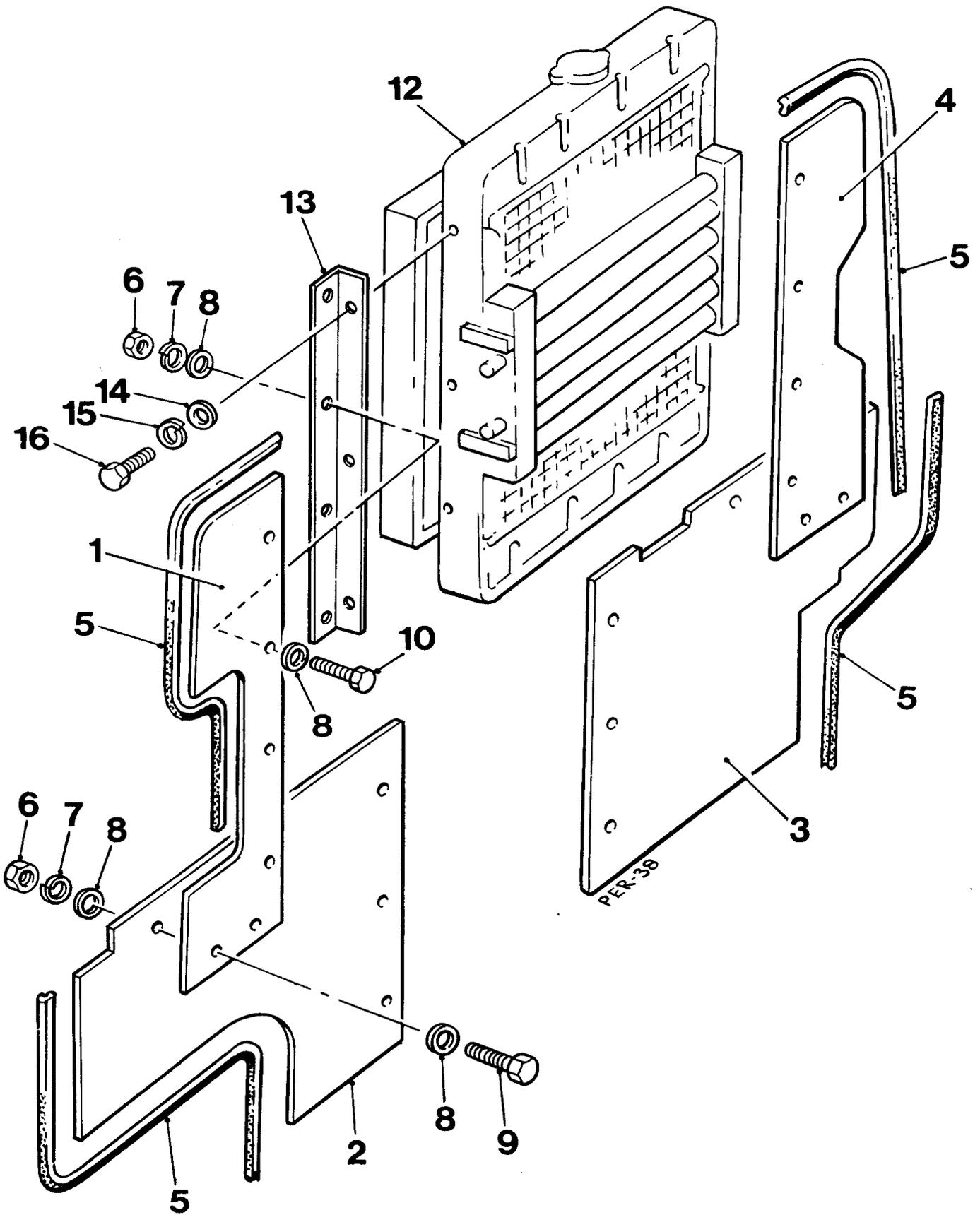
| Item | Part no   | Serial no   | Description                     | Qty |
|------|-----------|-------------|---------------------------------|-----|
| 1    | V2002312  | 2001 / 2214 | RADIATOR, assy. <b>"Covrad"</b> | 1   |
| 2    | V2003359  | 2001 / 2214 | RADIATOR                        | 1   |
| 3    | V600660   | 2001 / 2214 | CAP                             | 1   |
| 4    | V2002286  | 2001 / 2214 | COWL                            | 1   |
| 5    | V600661   | 2001 / 2214 | COOLER, oil                     | 1   |
| 6    | 178SPR05E | 2001 / 2214 | SCREW, self-tapping             | 8   |
| 6A   | -----     | 2001 / 2214 | <i>"NOT USED"</i>               |     |
| 6B   | -----     | 2001 / 2214 | <i>"NOT USED"</i>               |     |
| 6C   | -----     | 2001 / 2214 | <i>"NOT USED"</i>               |     |
| 7    | 28S01C    | 2001 / 2214 | SCREW, set                      | 8   |
| 7A   | 67S01     | 2001 / 2214 | WASHER, shake-proof             | 8   |
| 8    | 10S34     | 2001 / 2214 | WASHER, flat                    | 8   |
| 9    | V2003210  | 2001 / 2214 | PLUG, drain                     | 1   |
| 10   | 100S02    | 2001 / 2214 | SEAL, bonded                    | 1   |
| 11   | V2003267  | 2001 / 2214 | HOSE (order by metre)           | AR  |
|      |           |             |                                 |     |
| 1    | V2004762  | 2215 /      | RADIATOR, assy. <b>"Becool"</b> | 1   |
| 2    | V602673   | 2215 /      | RADIATOR                        | 1   |
| 3    | V600660   | 2215 /      | CAP                             | 1   |
| 4    | V602674   | 2215 /      | COWL                            | 1   |
| 5    | V600661   | 2215 /      | COOLER, oil                     | 1   |
| 6    | 11S02C    | 2215 /      | SCREW, set                      | 8   |
| 6A   | 267S04    | 2215 /      | WASHER, flat                    | 16  |
| 6B   | 17S03     | 2215 /      | WASHER, spring                  | 8   |
| 6C   | 7S02      | 2215 /      | NUT                             | 8   |
| 7    | 11S02C    | 2215 /      | SCREW, set                      | 8   |
| 7A   | 17S03     | 2215 /      | WASHER, spring                  | 8   |
| 8    | 267S04    | 2215 /      | WASHER, flat                    | 8   |
| 9    | V2003210  | 2215 /      | PLUG, drain                     | 1   |
| 10   | 100S02    | 2215 /      | SEAL, bonded                    | 1   |
| 11   | V2003267  | 2215 /      | HOSE (order by metre)           | AR  |



# RADIATOR HOSES & FITTINGS

# 3 - R - 2

| Item | Part no   | Serial no | Description                          | Qty |
|------|-----------|-----------|--------------------------------------|-----|
| 1    | -         | 2001 /    | RADIATOR, assy. (see page 3 - R - 1) | 1   |
| 2    | V2003328  |           | INSULATOR                            | 2   |
| 3    | 267S06    |           | WASHER, flat                         | 2   |
| 4    | 61S04     |           | NUT, self locking                    | 2   |
| 5    | V2003354  |           | HOSE                                 | 1   |
| 6    | V2003354  |           | HOSE                                 | 1   |
| 7    | V2003560  |           | CLIP, hose                           | AR  |
| 8    | V2003353  |           | ADAPTOR, male                        | 2   |
| 9    | V2002455  |           | GUARD, fan                           | 2   |
| 10   | 11S02C    |           | SCREW, set                           | 4   |
| 11   | 267S04    |           | WASHER, flat                         | 4   |
| 13   | 61S02     |           | NUT, 'Binx' self-locking             | 4   |
| 14   | V2003033  |           | BRACKET, radiator support            | 1   |
| 15   | 11S03C    |           | SCREW, set                           | 1   |
| 16   | 267S05    |           | WASHER, flat                         | 2   |
| 17   | 17S04     |           | WASHER, spring                       | 2   |
| 18   | 7S03      |           | NUT                                  | 2   |
| 19   | V2001698  |           | HOSE, top                            | 1   |
| 20   | V2001697  |           | HOSE, bottom                         | 1   |
| 21   | 97S11     |           | CLIP, hose                           | 2   |
| 22   | 97S13     |           | CLIP, hose                           | 2   |
| 23   | 106209000 |           | SEAL, rubber strip                   | AR  |



# AIR RECIRCULATION GUARDS

3 - R - 3

| Item | Part no   | Serial no | Description                              | Qty |
|------|-----------|-----------|--|-----|
| 1    | V2003580  |           | GUARD, L.H. upper                        | 1   |
| 2    | V2003581  |           | GUARD, L.H. lower                        | 1   |
| 3    | V2003582  |           | GUARD, R.H. lower                        | 1   |
| 4    | V2003579  |           | GUARD, R.H. upper ( <b>Not 4S7000</b> )  | 1   |
| 4    | V2004454  |           | GUARD, R.H. upper ( <b>4S7000 only</b> ) | 1   |
| 5    | V2003587  |           | STRIP, seal (order by metre)             | 2M  |
| 6    | 7S02      |           | NUT                                      | 17  |
| 7    | 17S03     |           | WASHER, spring                           | 17  |
| 8    | 267S04    |           | WASHER, flat                             | 26  |
| 9    | 11S02B    |           | SCREW, set                               | 9   |
| 10   | 178SPR05E | / 2214    | SCREW, self tapping                      | 8   |
| 10   | 11S02A    | 2215 /    | SCREW, set                               | 8   |
| 12   | -----     |           | RADIATOR                                 | 1   |
| 13   | V2004763  | 2215 /    | BRACKET, guard mounting                  | 2   |
| 14   | 267S04    | 2215 /    | WASHER, flat                             | 6   |
| 15   | 17S03     | 2215 /    | WASHER, spring                           | 6   |
| 16   | 11S02A    | 2215 /    | SCREW, set                               | 6   |

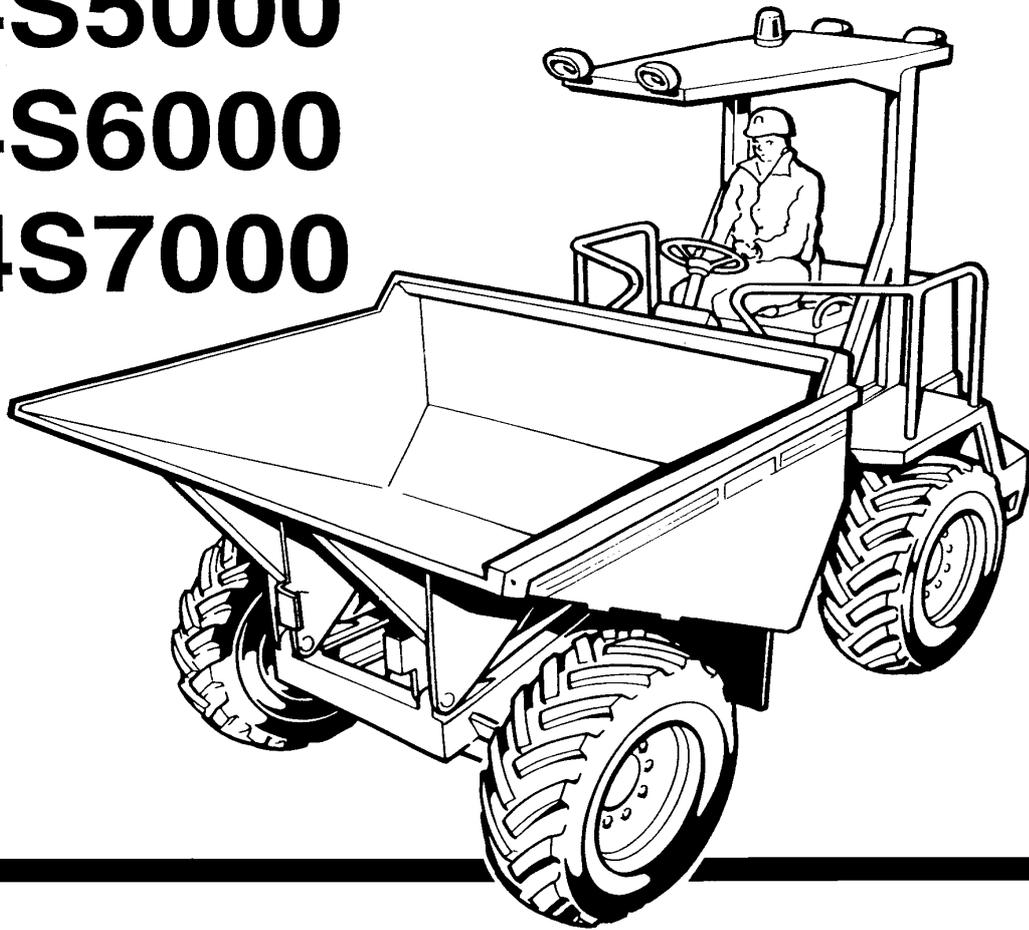
# **'S' Series Dumpers**

**4S4000**

**4S5000**

**4S6000**

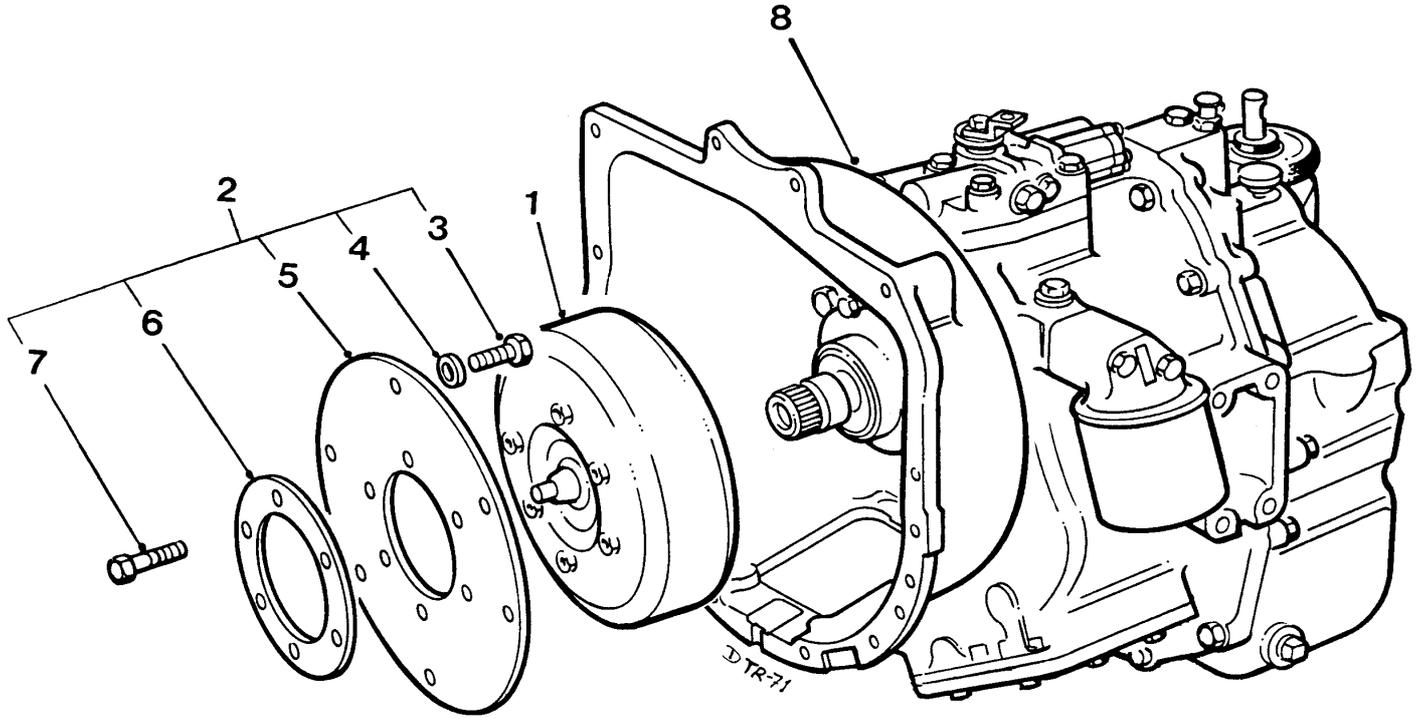
**4S7000**



# *Transmission*

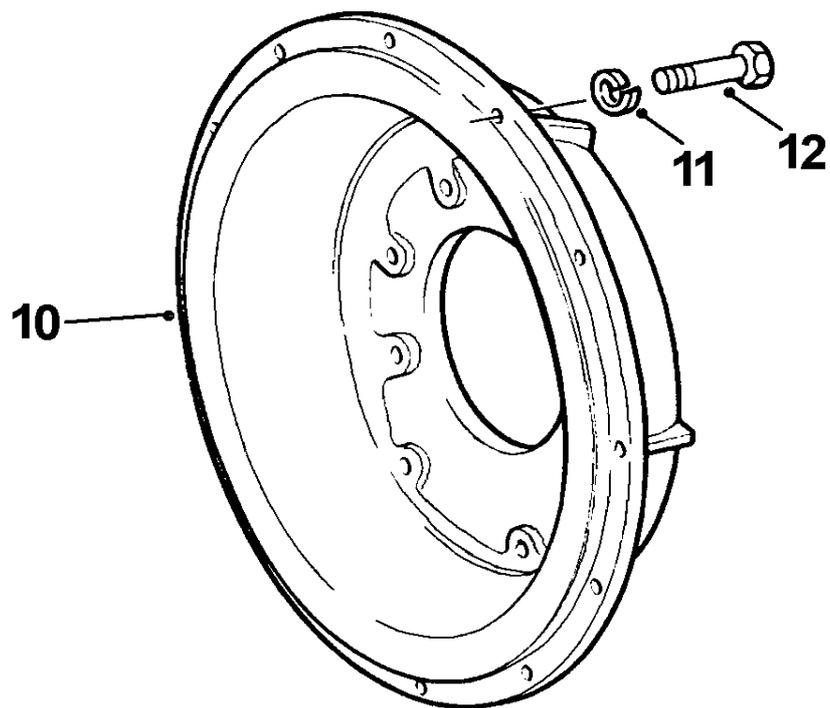
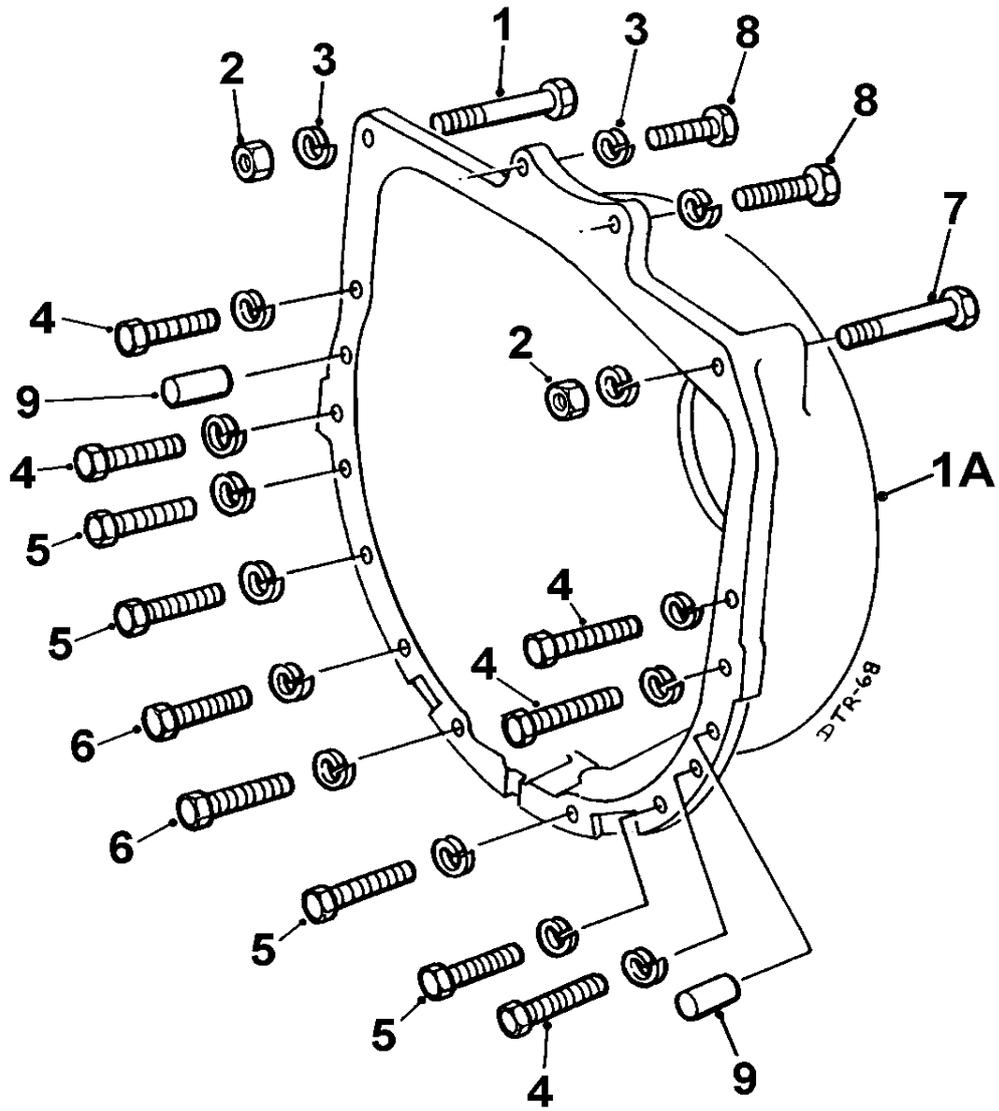
|  |            |
|--|------------|
| TORQUE CONVERTER &<br><i>"Compact"</i> TRANSMISSION                    | 4 - A - 1  |
| BELL HOUSING, <i>"Compact Shuttle"</i> to engine                       | 4 - A - 2  |
| CASING, <i>"Compact Shuttle"</i>                                       | 4 - B - 2  |
| GEARS & SHAFTS, <i>"Compact Shuttle"</i>                               | 4 - B - 3  |
| CASING, <i>"Compact Plus"</i>  | 4 - B - 4  |
| GEARS & SHAFTS, <i>"Compact Plus"</i>                                  | 4 - B - 4A |
| CONTROL VALVE, Mechanically operated<br><i>"Compact Shuttle"</i>       | 4 - B - 5  |
| CONTROL VALVE, Solenoid operated<br><i>"Compact Shuttle"</i>           | 4 - B - 6  |
| INCH / DUMP PEDAL, <i>"Compact Shuttle"</i>                            | 4 - D - 1  |
| INCH / DUMP PEDAL, <i>"Compact Plus"</i>                               | 4 - D - 1A |
| CONTROL LEVER, Forward / Neutral / Reverse<br><i>"Compact Shuttle"</i> | 4 - D - 2  |
| CONTROL LEVER, Forward / Neutral / Reverse<br><i>"Compact Plus"</i>    | 4 - D - 2A |
| GEAR LEVER   | 4 - D - 3  |
| PROPELLER SHAFTS   | 4 - E - 1  |
| TRANSFER GEARBOX, assembly   | 4 - F - 1  |
| INPUT & IDLER SHAFT, transfer gearbox                                  | 4 - F - 2  |
| OUTPUT SHAFT, transfer gearbox   | 4 - F - 3  |
| HOUSING, transfer gearbox  | 4 - F - 4  |

[\*\*<<< To beginning of Parts\*\*](#)



# TORQUE CONVERTER & "Compact" TRANSMISSION 4 - A - 1

| Item | Part no  | Serial no   | Description   | Qty |
|------|----------|-------------|---|-----|
| 1    | V2003351 | 2001 /      | TORQUE CONVERTER  | 1   |
| 2    | V2003258 | 2001 /      | DRIVE PLATE, assembly   | 1   |
| 3    | -----    |             | SCREW, set (order assembly)                                     | 6   |
| 4    | -----    |             | WASHER, flat (order assembly)                                   | 6   |
| 5    | -----    |             | DRIVE PLATE (order assembly)                                    | 1   |
| 6    | -----    |             | SUPPORT, plate (order assembly)                                 | 1   |
| 7    | -----    |             | SCREW, set (order assembly)                                     | 6   |
| 8    | V2003352 |             | <b>"Compact Shuttle"</b> TRANSMISSION                           |     |
|      |          | 2001 / 2407 | <b>4S4000/4S5000/4S6000 Dumpers</b>                             |     |
|      |          | 2001 / 2403 | <b>4S7000 Dumper</b>  |     |
| --   | -----    |             | CASING,<br>(see page 4 - B - 2)                                 |     |
| --   | -----    |             | GEARS & SHAFTS,<br>(see page 4 - B - 3)                         |     |
| --   | -----    |             | CONTROL VALVE,<br>mechanically operated<br>(see page 4 - B - 5) |     |
| --   | -----    |             | CONTROL VALVE,<br>solenoid operated<br>(see page 4 - B - 6)     |     |
| 8    | V2004669 |             | <b>"Compact Plus"</b> TRANSMISSION                              |     |
|      |          | 2408 /      | <b>4S4000/4S5000/4S6000 Dumpers</b>                             |     |
|      |          | 2404 /      | <b>4S7000 Dumper</b>  |     |
| --   | -----    |             | CASING,<br>(see page 4 - B - 4)                                 |     |
| --   | -----    |             | GEARS & SHAFTS,<br>(see page 4 - B - 4A)                        |     |



| Item  | Part no | Serial no | Description                                      | Qty |
|---|---------|-----------|--|-----|
| <b>"Compact Shuttle" with stressed block bell housing</b> |         |           |  |     |
| 1A  | V600698 | 2001 /    | BELL HOUSING, stressed block                     | 1   |
| 1   | 8S05G   |           | BOLT   | 1   |
| 2   | 7S05    |           | NUT  | 2   |
| 3   | 17S06   |           | WASHER, spring                                   | 15  |
| 4   | 11S05K  |           | SCREW, set                                       | 5   |
| 5   | 11S05M  |           | SCREW, set                                       | 4   |
| 6   | 11S05H  |           | SCREW, set                                       | 2   |
| 7   | 8S05P   |           | BOLT   | 1   |
| 8   | 11S05F  | / 2330    | <b>Turbo engines</b><br>SCREW, set               | 2   |
| 8   | 11S05F  | / 2355    | <b>Naturally asperated engines</b><br>SCREW, set | 2   |
| 9   | V600662 |           | DOWEL  | 2   |

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**"Compact Shuttle" with SAE 3 bell housing**

|    |         |        |  |    |
|----|---------|--------|--|----|
| 10 | V603601 |        | BELL HOUSING, SAE 3                                  | 1  |
| 11 | 17S06   |        | <b>Turbo engines</b><br>WASHER, spring               | 12 |
| 12 | 8S04D   | 2331 / | BOLT   | 12 |
| 11 | 17S06   |        | <b>Naturally asperated engines</b><br>WASHER, spring | 12 |
| 12 | 8S04D   | 2356 / | BOLT   | 12 |



**"Compact Shuttle Transmission"****4 - B - 2****CASING**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                  | <b>Qty</b> |
|-------------|----------------|------------------|-------------------------------------|------------|
|             |                | 2001 / 2407      | <b>4S4000/4S5000/4S6000 Dumpers</b> |            |
|             |                | 2001 / 2403      | <b>4S7000 Dumper</b>                |            |
| 1           | V600663        |                  | CASE, main                          | 1          |
| 2           | V600664        |                  | CASE                                | 1          |
| 3           | V600665        |                  | COVER                               | 1          |
| 4           | V600666        |                  | WASHER                              | 1          |
| 5           | V600667        |                  | SEAL, 'O' ring                      | 1          |
| 6           | V600668        |                  | STRAINER                            | 1          |
| --          | V600669        |                  | WASHER, sealing                     | 1          |
| 7           | V600670        |                  | PLUG                                | 1          |
| 8           | V600671        |                  | WASHER, copper                      | 1          |
| 9           | V600672        |                  | PLUG                                | 2          |
| 10          | V600673        |                  | SCREW                               | 3          |
| 11          | V600674        |                  | SEAL, 'O' ring                      | 3          |
| 12          | V600675        |                  | NIPPLE, bleed                       | 1          |
| 13          | V600676        |                  | COVER                               | 1          |
| 14          | V600677        |                  | BREATHER                            | 1          |
| 15          | V600678        |                  | LEVER                               | 1          |
| 16          | V600679        |                  | DOWEL                               | 1          |
| 17          | V600680        |                  | SEATING                             | 1          |
| 18          | V600681        |                  | SEAL, 'O' ring                      | 1          |
| 19          | V600381        |                  | CLIP                                | 1          |
| 20          | V600682        |                  | COVER                               | 1          |
| --          | V600683        |                  | CLIP, cover                         | 1          |
| 21          | V600684        |                  | SCREW                               | 1          |
| 22          | V600685        |                  | SEATING                             | 1          |
| 22A         | V600686        |                  | SPACER                              | 1          |
| 23          | V600687        |                  | GASKET/SHIM                         | AR         |
| 24          | V600688        |                  | PLUG                                | 2          |
| 25          | V600674        |                  | SEAL, 'O' ring                      | 2          |
| 26          | V600689        |                  | SPRING                              | 1          |
| 27          | V600344        |                  | BALL                                | 4          |
| 28          | V600690        |                  | ROD, shift, 3rd/4th                 | 1          |
| 29          | V600691        |                  | FORK, shift, 1st/2nd                | 1          |
| 30          | V600692        |                  | FORK, shift, 3rd/4th                | 1          |
| 31          | V600693        |                  | SCREW                               | 4          |



**"Compact Shuttle Transmission"****4 - B - 2****CASING**

| Item | Part no | Serial no | Description   | Qty |
|------|---------|-----------|---|-----|
| 32   | V600694 | #         | LUG,shift   | 2   |
|      |         | #         | <i>The two lugs must be ordered as a matched pair. Never replace one without the other.</i> |     |
| 33   | V600695 |           | PLATE   | 1   |
| 34   | V600696 |           | SCREW   | 2   |
| 35   | V600697 |           | ROD, shift, 1st/2nd   | 1   |
| 36   | .....   |           | BELL HOUSING (see page 4-A-2)   | 1   |
| 37   | V600699 |           | SCREW   | 1   |
| 38   | V600700 |           | SEAL, ring  | 1   |
| 39   | V600701 |           | PUMP & OIL SEAL, assembly   | 1   |
| 40   | V600702 |           | SEAL, washer  | 4   |
| 41   | V600703 |           | SCREW   | 4   |
| 42   | V600704 |           | SEAL  | 1   |
| 43   | V600688 |           | PLUG  | 2   |
| 44   | V600705 |           | GASKET  | 1   |
| 45   | V600706 |           | HOUSING   | 1   |
| 46   | V600707 |           | ADAPTOR   | 1   |
| 47   | V600708 |           | FILTER  | 1   |
| 48   | V600709 |           | WASHER  | 2   |
| 49   | V600710 |           | SCREW   | 2   |
| 50   | V600711 |           | PLUG, assembly  | 2   |
| 50A  | V600712 |           | 'O' RING  | 2   |
| 51   | V600713 |           | COVER   | 1   |
| 52   | V600714 |           | SCREW   | 1   |
| 53   | V600715 |           | NUT   | 1   |
| 54   | V600716 |           | SCREW   | 1   |
| 55   | V600717 |           | GASKET  | 1   |
| 63   | V600718 |           | DOWEL   | 4   |
| 64   | V600719 |           | PLUG  | 1   |
| 65   | V600720 |           | PIPE  | 1   |
| 66   | V600721 |           | COVER   | 1   |
| 67   | V600696 |           | SCREW   | 4   |
| 68   | V600722 |           | PLUG  | 1   |
| 69   | V600723 |           | GASKET  | 1   |

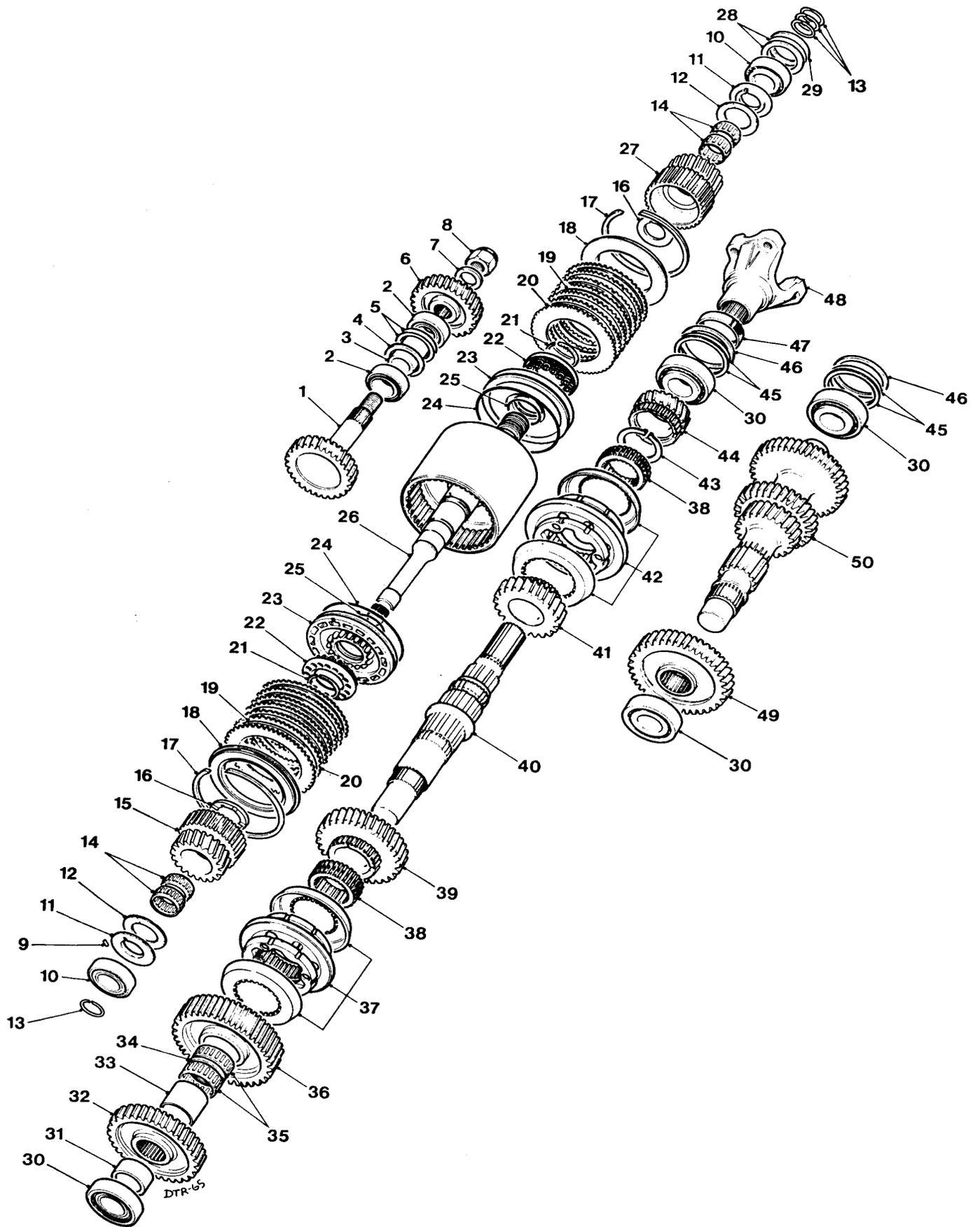


**"Compact Shuttle Transmission"****4 - B - 2****CASING**

| Item | Part no    | Serial no | Description                        | Qty |
|------|------------|-----------|------------------------------------|-----|
| 70   | V600724    |           | COVER                              | 1   |
| 71   | V600725    |           | SCREW                              | 8   |
| 72   | V600726    |           | PLUG                               | 1   |
| 73   | V600727    |           | SCREW                              | 15  |
| 74   | V600728    |           | GASKET                             | 1   |
| 75   | V600729    |           | PIPE                               | 1   |
| 76   | V600730    |           | SCREW                              | 2   |
| 77   | V600731    |           | WASHER                             | 4   |
| 78   | V600732    |           | SENDER, temp. (See Electrics Sec.) | 1   |
| 80   | V2003564   |           | TUBE, filler                       | 1   |
| 80A  | 30113A0506 |           | SEAL, 'O' ring                     | 1   |
| 81   | V2003565   |           | DIPSTICK/CAP                       | 1   |
| 82   | 11S05C     |           | SCREW                              | 2   |
| 83   | 17S06      |           | WASHER, spring                     | 2   |
| 84   | 267S07     |           | WASHER, flat                       | 2   |

**Service Kits**

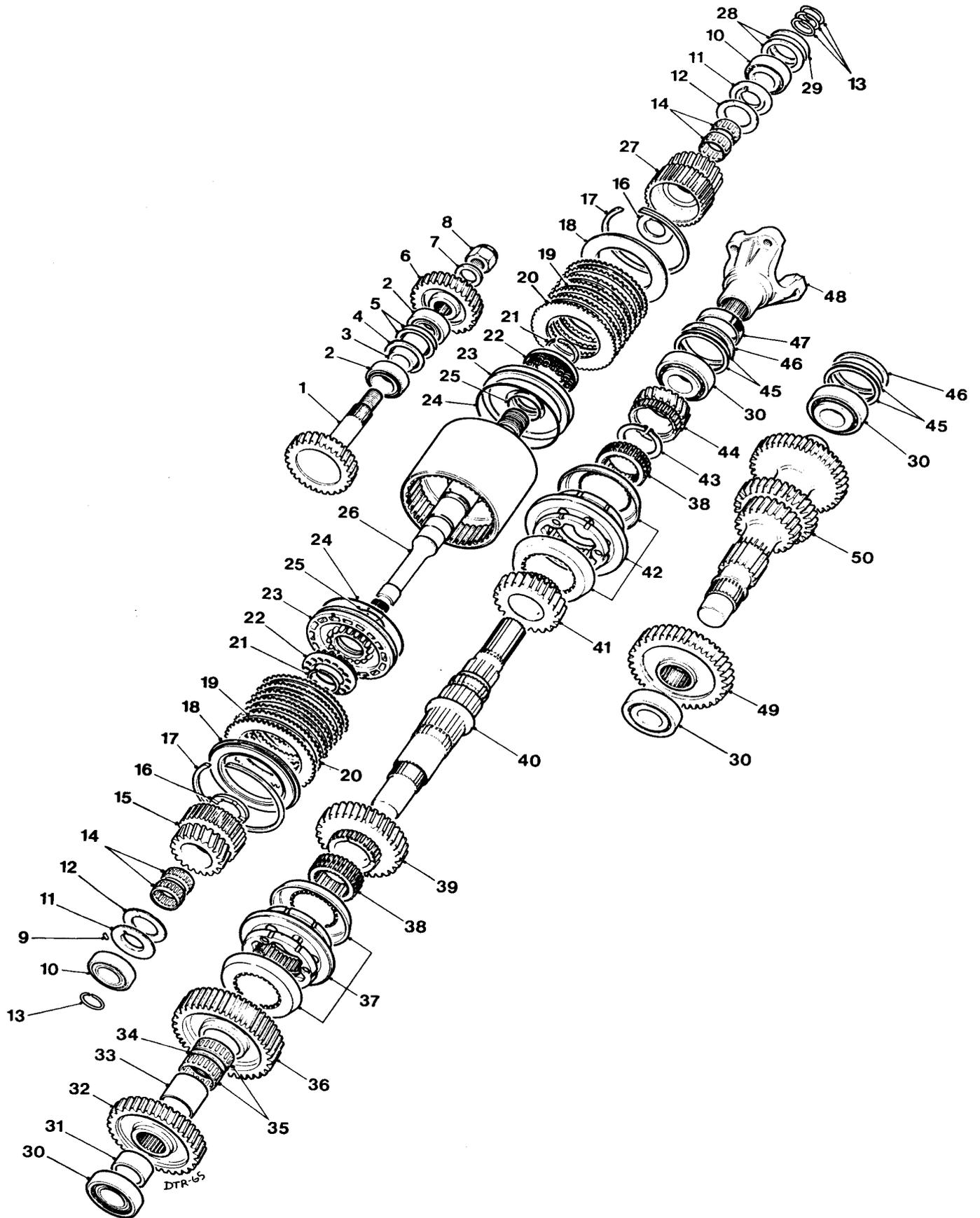
- V600733                      GASKET KIT, main transmission  
*Comprises items 23, 44, 55, 69 & 74.*
- V600734                    SEAL KIT, main transmission  
*Comprises items 38, 40, 42, 68 above,  
plus items 13, 24 & 47 on page 4-B-3.*
- V600735                    'O' RING KIT, main transmission  
*Comprises items 5, 11, 18 & 25 above,  
plus item 25 on page 4-B-3.*
- V600736                    SMALL PARTS KIT, main transmission  
*Comprises items 24, 25, 26, 27 above.*
- V600737                    BASIC OVERHAUL KIT, main trans.  
*Comprises all above kits, plus the kits  
on page 4-B-3.*



**"Compact Shuttle Transmission"****4 - B - 3****GEARS & SHAFTS**

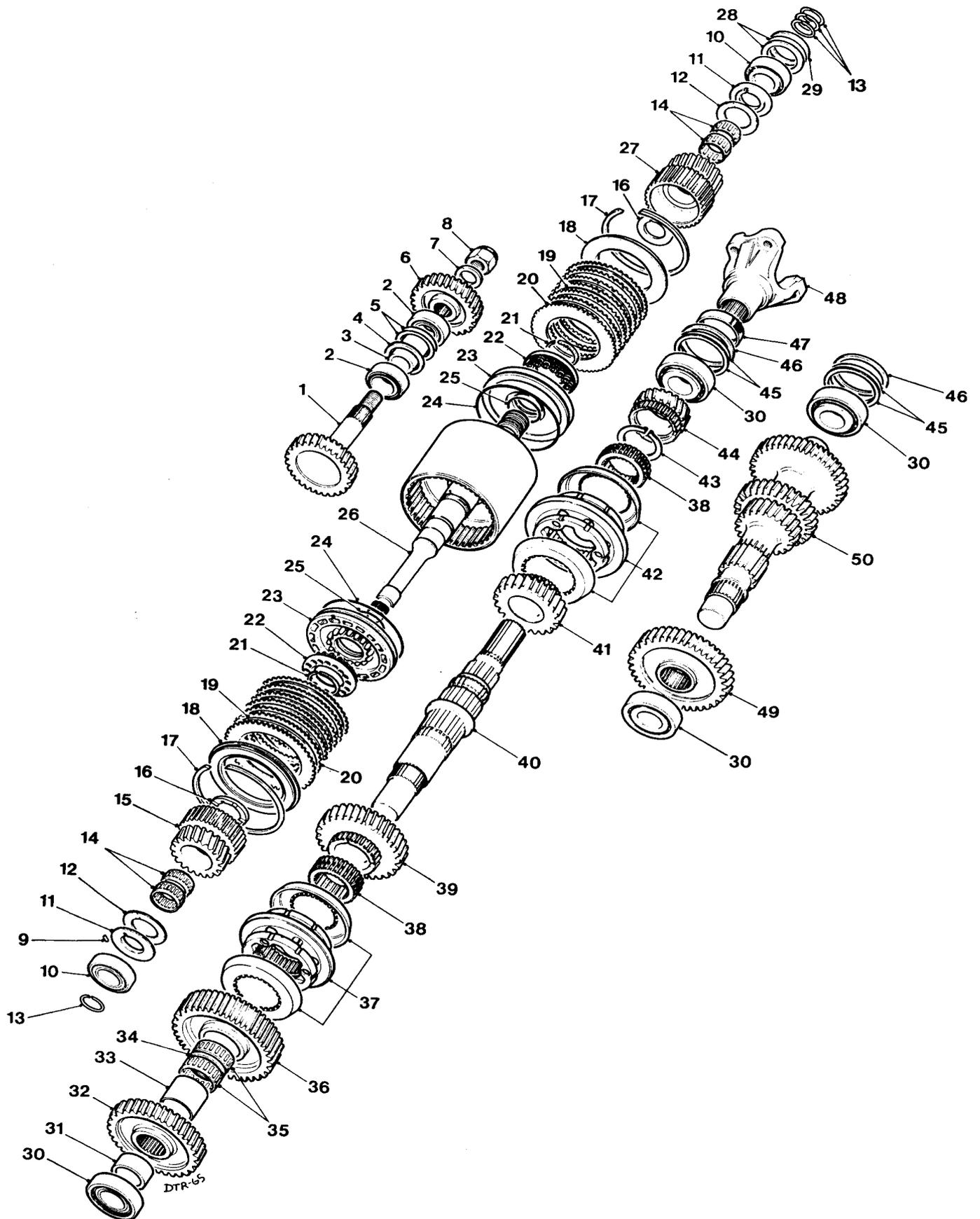
| Item | Part no | Serial no   | Description   | Qty   |
|------|---------|-------------|---|-------|
|      |         | 2001 / 2407 | <b>4S4000/4S5000/4S6000 Dumpers</b>   |       |
|      |         | 2001 / 2403 | <b>4S7000 Dumper</b>  |       |
| 1    | V600738 |             | GEAR, reverse idler (27T)   | 1     |
| 2    | V600739 |             | BEARING   | 2     |
| 3    | V600740 |             | SPACER  | 1     |
| 4    | V600741 |             | DISTANCE PIECE  | 1     |
| 5    | V600742 |             | SHIM (.051mm)   | AR    |
| 5    | V600743 |             | SHIM (.076mm)   | AR    |
| 5    | V600744 |             | SHIM (.178mm)   | AR    |
| 5    | V600745 |             | SHIM (.559mm)   | AR    |
| 6    | V600746 |             | GEAR, reverse idler (25T)   | 1     |
| 7    | V600747 |             | WASHER  | 1     |
| 8    | V600748 |             | NUT, self-locking   | 1     |
| 9    | V600749 |             | DOWEL   | 4     |
| 10   | V600406 |             | BEARING   | 2     |
| 11   | V600750 |             | WASHER, thrust, outer   | 2     |
| 12   | V600751 |             | WASHER, thrust  | 2     |
| 13   | V600752 |             | RING, sealing   | 4     |
| 14   | V600753 |             | BEARING   | 4     |
| 15   | V600754 |             | GEAR, forward primary   | 1     |
| 16   | V600755 |             | WASHER, thrust, inner   | 2     |
| 17   | V600756 |             | # RING, snap  | 2     |
| 18   | V600757 |             | # RETAINER (stamped no. 66196)  | 2     |
|      |         |             | # <i>Rings V600756 &amp; Retainers V600757 were only fitted when FOURTEEN plain clutch discs were fitted in the transmission.</i> |       |
| --   | V602293 |             | \$ KIT, ring & retainer   | 2     |
| 17   | V602600 |             | \$ RING, snap   | 1     |
| 18   | V602601 |             | \$ RETAINER (stamped no. 69729)   | 1     |
|      |         |             | \$ <i>Rings V602600 &amp; Retainers V602601 are used when SIXTEEN plain clutch discs are fitted in the transmission.</i>          |       |
| 19   | V600758 |             | DISC, friction, lined   | 14    |
| 20   | V600759 |             | # \$ DISC, clutch, plain  | 14/16 |

**NOTE:** *During overhaul of the transmission, discard all old friction and clutch discs and the retainers, then fit SIXTEEN new plain clutch discs and fourteen new lined friction discs with two new Rings V602600 and Retainers V602601.*



**"Compact Shuttle Transmission"****4 - B - 3****GEARS & SHAFTS**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>    | <b>Qty</b> |
|-------------|----------------|------------------|-----------------------|------------|
| 21          | V600760        |                  | RING                  | 2          |
| 22          | V600761        |                  | RETAINER              | 2          |
| 23          | V600762        |                  | PISTON                | 2          |
| 24          | V600763        |                  | SEAL                  | 2          |
| 25          | V600764        |                  | SEAL, 'O' ring        | 2          |
| 26          | V600765        |                  | SHAFT, input          | 1          |
| 27          | V600766        |                  | GEAR, reverse primary | 1          |
| 28          | V600367        |                  | SHIM (.051mm)         | AR         |
| 28          | V600368        |                  | SHIM (.076mm)         | AR         |
| 28          | V600369        |                  | SHIM (.127mm)         | AR         |
| 28          | V600370        |                  | SHIM (.178mm)         | AR         |
| 28          | V600371        |                  | SHIM (.381mm)         | AR         |
| 28          | V600372        |                  | SHIM (.508mm)         | AR         |
| 29          | V600767        |                  | SPACER                | 1          |
| 30          | V600479        |                  | BEARING               | 4          |
| 31          | V600768        |                  | SPACER                | 1          |
| 32          | V600769        |                  | GEAR                  | 1          |
| 33          | V600770        |                  | SLEEVE                | 1          |
| 34          | V600771        |                  | SPACER                | 1          |
| 35          | V600401        |                  | BEARING               | 2          |
| 36          | V600772        |                  | GEAR, 1st (43T)       | 1          |
| 37          | V600773        |                  | SYNCHRO, 1st/2nd      | 1          |
| 38          | V600398        |                  | SLEEVE                | 2          |
| 39          | V600774        |                  | GEAR, 2nd (35T)       | 1          |
| 40          | V600775        |                  | SHAFT, output         | 1          |
| 41          | V600776        |                  | GEAR, 3rd (27T)       | 1          |
| 42          | V600777        |                  | SYNCHRO, 3rd/4th      | 1          |
| 43          | V600778        |                  | CIRCLIP               | 1          |
| 44          | V600779        |                  | GEAR, 4th (20T)       | 1          |
| 45          | V600780        |                  | SHIM (.051mm)         | AR         |
| 45          | V600781        |                  | SHIM (.076mm)         | AR         |
| 45          | V600782        |                  | SHIM (.178mm)         | AR         |
| 45          | V600783        |                  | SHIM (.559mm)         | AR         |

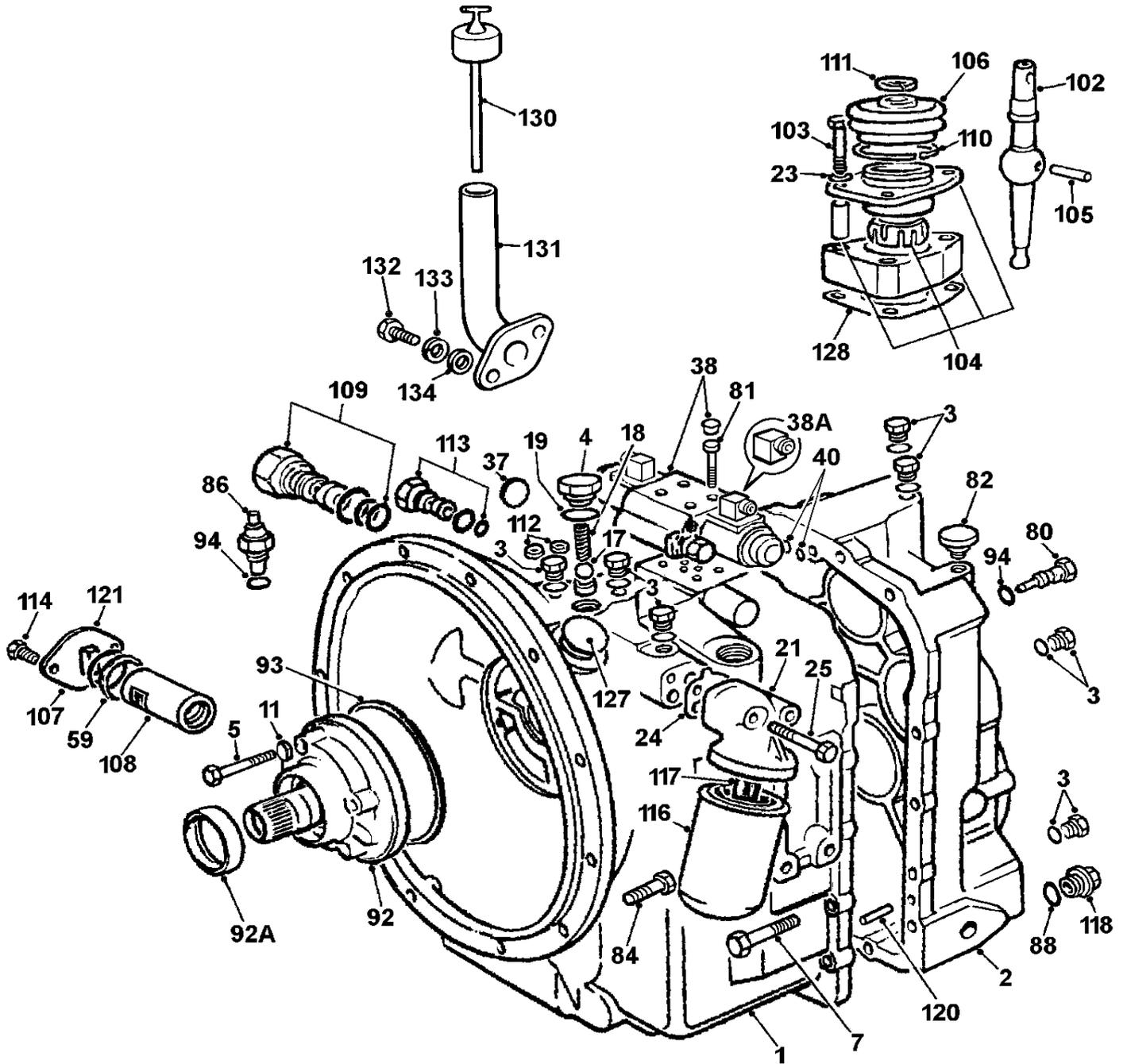


**GEARS & SHAFTS**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>    | <b>Qty</b> |
|-------------|----------------|------------------|-----------------------|------------|
| 46          | V600784        |                  | SPACER                | 2          |
| 47          | V600785        |                  | SEAL                  | 1          |
| 48          | V600786        |                  | YOKE                  | 1          |
| 49          | V600787        |                  | GEAR, C/S drive (38T) | 1          |
| 50          | V600788        |                  | COUNTERSHAFT          | 1          |

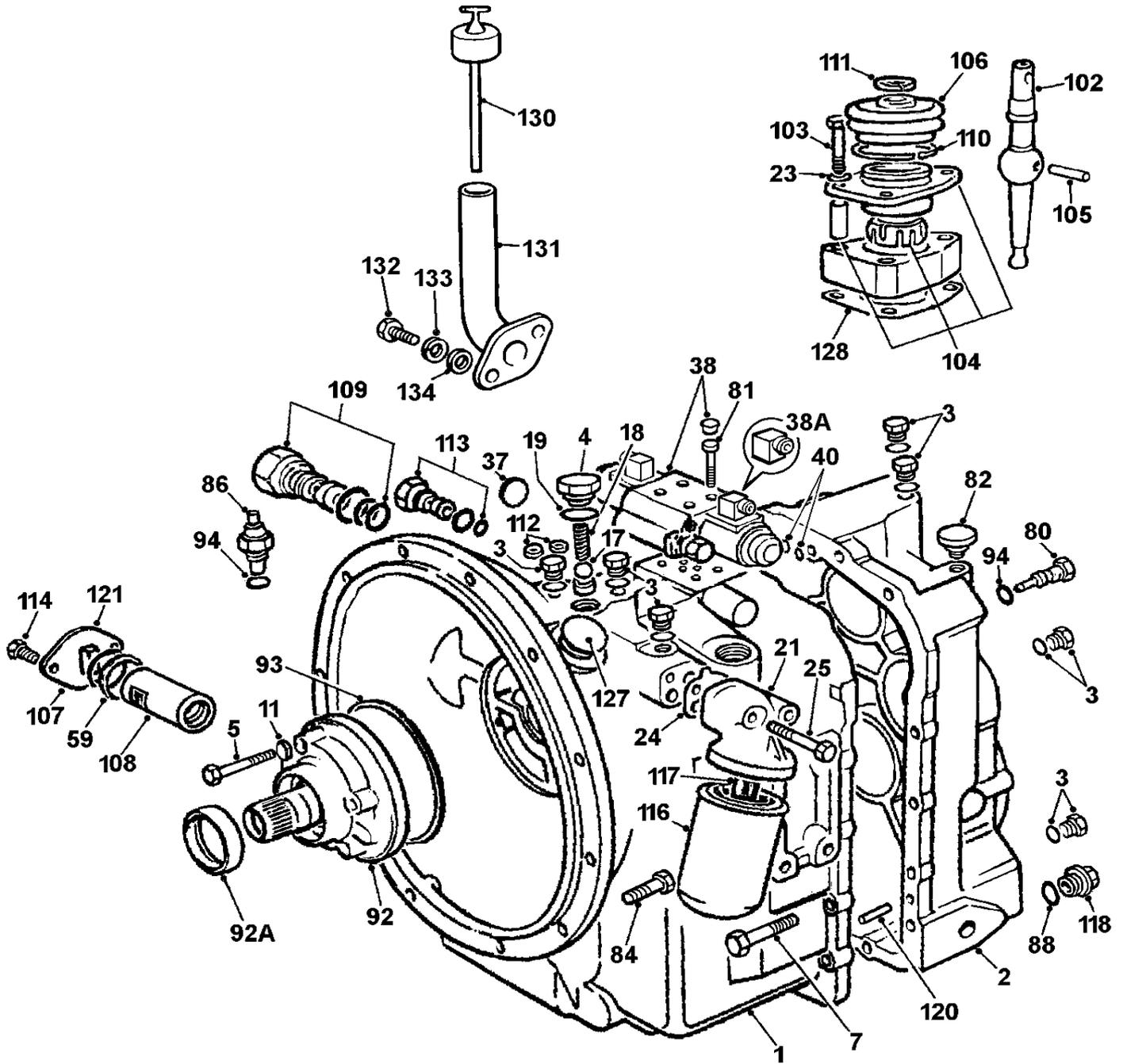
**Service Kits**

|     |         |  |  |    |
|-----|---------|--|--|----|
| --- | V600789 |  | BEARING KIT, main transmission<br><i>Comprises items 2, 10, 14, 30, 33 &amp; 35.</i>   | AR |
| --- | V600865 |  | THRUSTWASHER KIT, main trans.<br><i>Comprises items 11, 12 &amp; 16 above.</i>   | AR |
| --- | V600866 |  | CLUTCH PACK, main transmission<br><i>Comprises items 17, 18, 19, 20, 21, 22,<br/>23, 24 &amp; 25 above.</i>                        | AR |
| --- | V600734 |  | SEAL KIT, main transmission<br><i>Comprises items 38, 40, 42 &amp; 68 on page<br/>4 - B - 2, plus items 13, 24 &amp; 47 above.</i> | AR |
| --- | V600867 |  | SNAP RING KIT, main transmission<br><i>Comprises items 17, 21 &amp; 43 above.</i>  | AR |
| --- | V600735 |  | 'O' RING KIT, main transmission<br><i>Comprises items 5, 11, 18 &amp; 25 on page<br/>4 - B - 2, plus item 25 above.</i>            | AR |
| --- | V600737 |  | BASIC OVERHAUL KIT, main trans.<br><i>Comprises all above kits, plus the kits on<br/>page 4 - B - 2.</i>                           | AR |



**"Compact Plus Transmission"****4 - B - 4****CASING**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                                    | <b>Qty</b> |
|-------------|----------------|------------------|---|------------|
|             |                | 2408 /<br>2404 / | <b>4S4000/4S5000/4S6000 Dumpers<br/>4S7000 Dumper</b> |            |
| 1           | V603015        |                  | CASING, front, assembly                               | 1          |
| 2           | V603491        |                  | CASING, rear, assembly                                | 1          |
| 3           | V603492        |                  | PLUG & 'O' RING, assembly                             | 12         |
| 3A          | V600674        |                  | O' RING   | 12         |
| 4           | V603493        |                  | HOUSING, cold start spring                            | 1          |
| 5           | V603495        |                  | BOLT  | 4          |
| 7           | V603479        |                  | BOLT  | 16         |
| 11          | V603480        |                  | WASHER, copper  | 4          |
| 17          | V603483        |                  | BALL  | 1          |
| 18          | V603484        |                  | SPRING, cold start                                    | 1          |
| 19          | V603485        |                  | 'O' RING  | 1          |
| 21          | V603078        |                  | HOUSING, oil filter                                   | 1          |
| 23          | V603086        |                  | WASHER, plain   | 3          |
| 24          | V600705        |                  | GASKET, filter housing                                | 1          |
| 25          | V600710        |                  | BOLT  | 2          |
| 37          | V603019        |                  | PLUG, expansion                                       | 1          |
| 38          | V603020        |                  | VALVE, directional, assembly                          | 1          |
| 38A         | V601234        |                  | PLUG, cable connector                                 | 2          |
| 40          | V603022        |                  | O' RING   | 2          |
| 59          | V603026        |                  | SUPPORT RING, coarse filter                           | 1          |
| 80          | V603047        |                  | PLUG, breather  | 1          |
| 81          | V603048        |                  | CAPSCREW, socked head                                 | 4          |
| 82          | V603049        |                  | BREATHER  | 1          |
| 84          | 8S04D          |                  | SCREW, set  | 12         |
| 84A         | 17S05          |                  | WASHER, spring  | 12         |
| 86          | V600732        |                  | SENDER, temperature                                   | 1          |
| 88          | V603052        |                  | 'O' RING, drain plug                                  | 1          |
| 92          | V603056        |                  | PUMP  | 1          |
| 92A         | V600704        |                  | SEAL, oil   | 1          |
| 93          | V600700        |                  | RING, sealing   | 1          |
| 94          | V600674        |                  | RING, sealing   | 2          |
| 102         | V603062        |                  | LEVER, stub, gear                                     | 1          |
| 103         | V603063        |                  | BOLT  | 3          |
| 104         | V603064        |                  | SEATING, gear lever, assembly                         | 1          |
| 105         | V600679        |                  | PIN, anti rotation                                    | 1          |
| 106         | V600682        |                  | COVER, dust   | 1          |

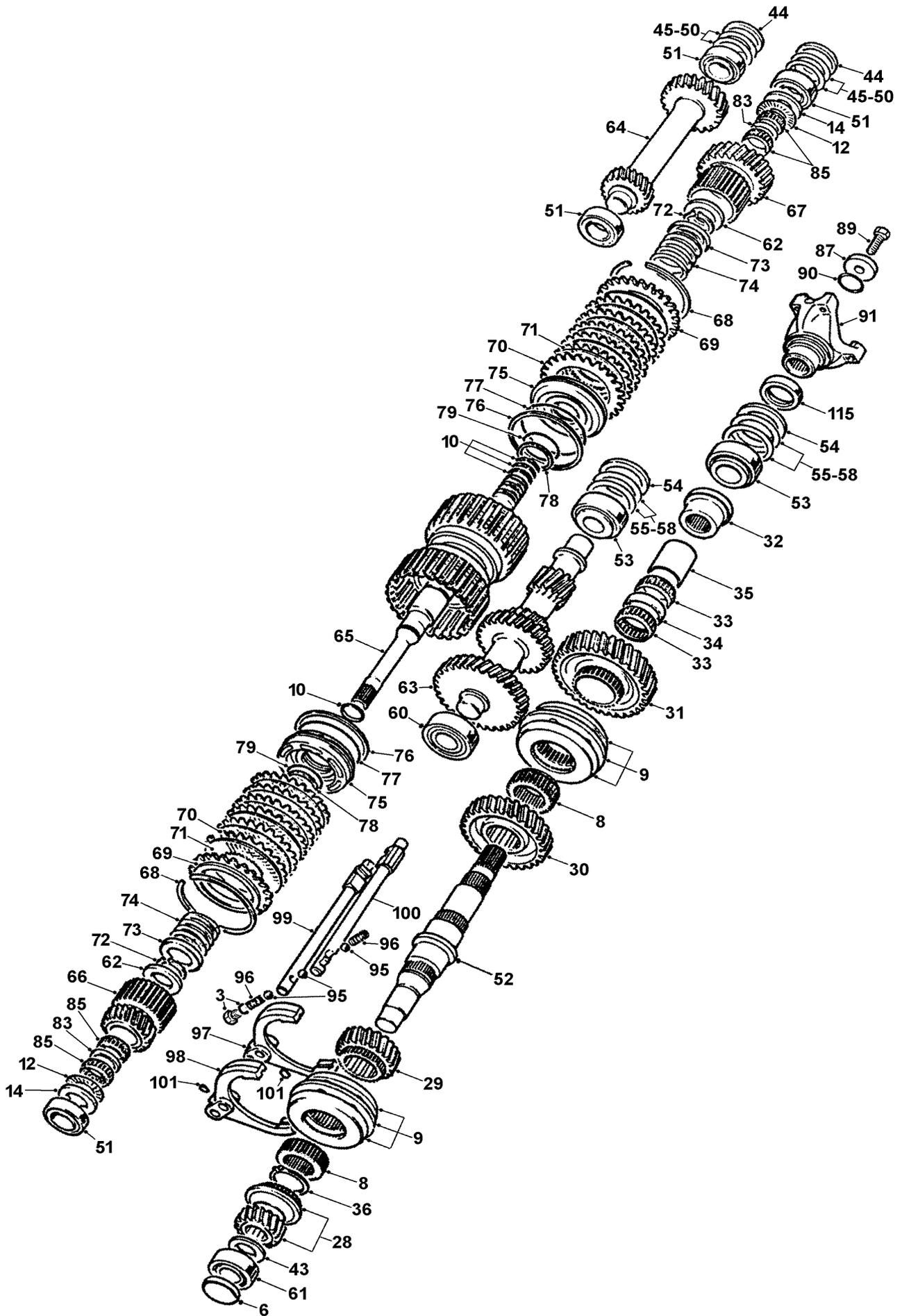


**"Compact Plus Transmission"****4 - B - 4****CASING**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                   | <b>Qty</b> |
|-------------|----------------|------------------|--------------------------------------|------------|
| 107         | V603065        |                  | 'O' RING, suction strainer           | 1          |
| 108         | V600668        |                  | STRAINER, suction                    | 1          |
| 109         | V603066        |                  | VALVE, cartridge, pressure regulator | 1          |
| 110         | V603067        |                  | CLIP, "Oetiker"                      | 1          |
| 111         | V603132        |                  | CLIP, "Oetiker"                      | 1          |
| 112         | V603133        |                  | PLUG                                 | 2          |
| 113         | V603535        |                  | VALVE, relief, converter             | 1          |
| 114         | V600684        |                  | SETSCREW, strainer cover             | 2          |
| 116         | V603536        |                  | FILTER, oil                          | 1          |
| 117         | V600707        |                  | ADAPTOR, filter                      | 1          |
| 118         | V600711        |                  | PLUG, drain                          | 1          |
| 120         | V600335        |                  | DOWEL, case                          | 2          |
| 121         | V603537        |                  | PLATE,cover, strainer                | 1          |
| 130         | V2003565       |                  | DIPSTICK/CAP                         | 1          |
| 131         | V2003564       |                  | TUBE, filler                         | 1          |
| .....       | 30113A0506     |                  | SEAL, 'O' ring                       | 1          |
| 132         | 11S05C         |                  | SCREW                                | 2          |
| 133         | 17S06          |                  | WASHER, spring                       | 2          |
| 134         | 267S07         |                  | WASHER, flat                         | 2          |

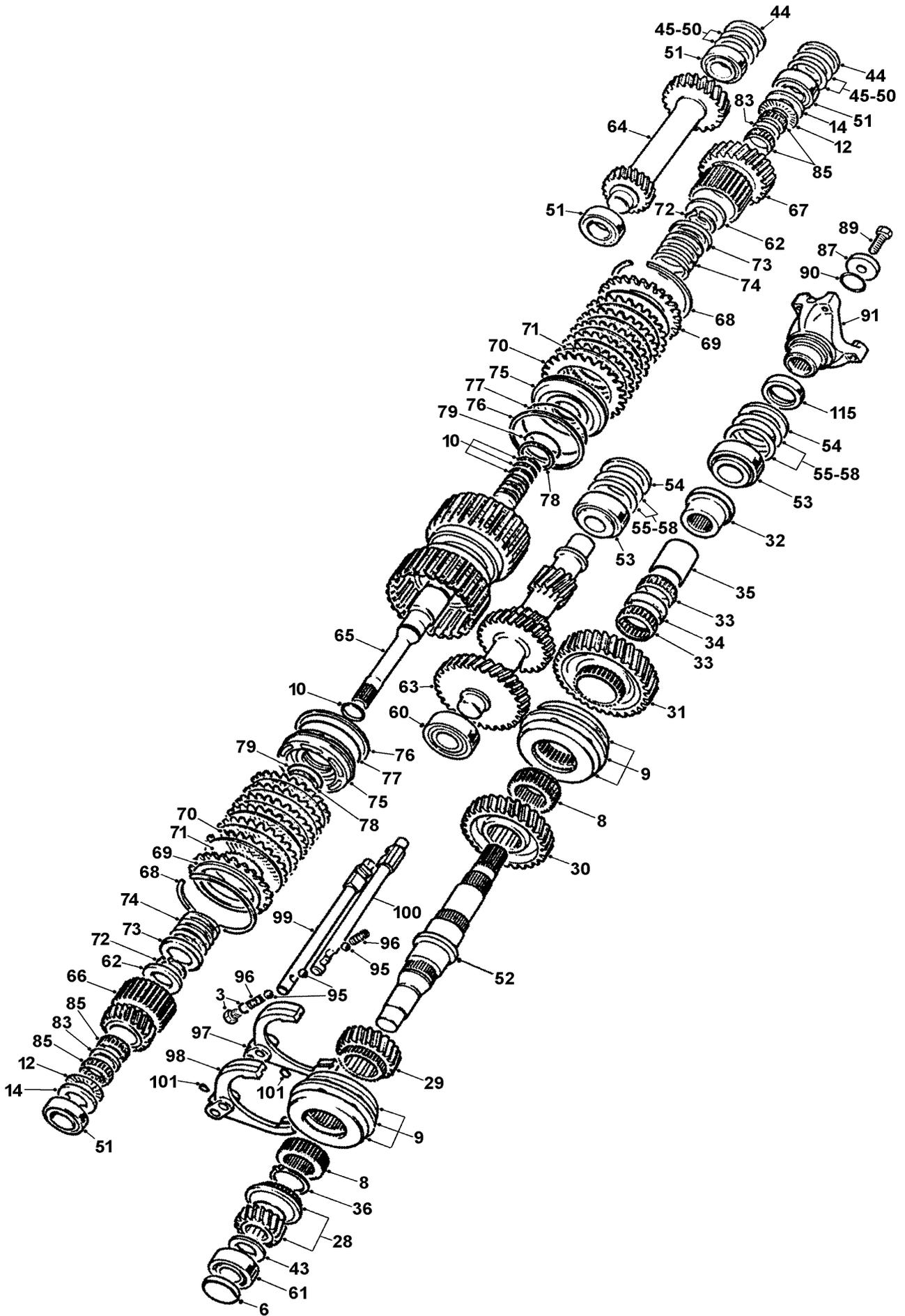
***Items below not illustrated***

|       |         |  |                    |   |
|-------|---------|--|--------------------|---|
| ..... | V603538 |  | CAPSCREW, M10X50ML | 1 |
| ..... | V603539 |  | PLUG, sealing      | 1 |
| ..... | V603540 |  | GUIDE, spring      | 2 |
| ..... | V603541 |  | GASKET             | 1 |



**"Compact Plus Transmission"****4 - B - 4A****GEARS & SHAFTS**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                                    | <b>Qty</b> |
|-------------|----------------|------------------|---|------------|
|             |                | 2408 /<br>2404 / | <b>4S4000/4S5000/4S6000 Dumpers<br/>4S7000 Dumper</b> |            |
| 3           | V603492        |                  | PLUG & 'O' RING, assembly                             | 12         |
| 3A          | V600674        |                  | O' RING   | 12         |
| 6           | V600722        |                  | CAP, sealing  | 1          |
| 8           | V603398        |                  | SLEEVE, reverse shift hub                             | 2          |
| 9           | V600773        |                  | SYNCHRONISER, assembly                                | 2          |
| 12          | V603481        |                  | BEARING, thrust                                       | 2          |
| 14          | V603482        |                  | WASHER, thrust  | 2          |
| 28          | V603016        |                  | SHAFT, output, 4th gear                               | 1          |
| 29          | V603017        |                  | SHAFT, output, 3rd gear                               | 1          |
| 30          | V603018        |                  | SHAFT, output, 2nd gear                               | 1          |
| 31          | V600772        |                  | SHAFT, output, 1st gear                               | 1          |
| 32          | V603558        |                  | SPACER  | 1          |
| 33          | V600401        |                  | BEARING   | 2          |
| 34          | V600771        |                  | SPACER, 1st gear bearing                              | 1          |
| 35          | V600770        |                  | SLEEVE, 1st gear bearing                              | 1          |
| 36          | V600776        |                  | CIRCLIP   | 1          |
| 43          | V603023        |                  | WASHER, thrust, 4th gear                              | 1          |
| 44          | V600767        |                  | SPACER, bearing                                       | 2          |
| 45          | V600367        |                  | SHIM, 0.002"  | A/R        |
| 46          | V600368        |                  | SHIM, 0.003"  | A/R        |
| 47          | V600369        |                  | SHIM, 0.005"  | A/R        |
| 48          | V600370        |                  | SHIM, 0.007"  | A/R        |
| 49          | V600371        |                  | SHIM, 0.015"  | A/R        |
| 50          | V600372        |                  | SHIM, 0.020"  | A/R        |
| 51          | V600406        |                  | BEARING, reverse idler & input shaft                  | 4          |
| 52          | V603024        |                  | SHAFT, output   | 1          |
| 53          | V603025        |                  | BEARING   | 2          |
| 54          | V600784        |                  | SPACER, bearing                                       | 2          |
| 55          | V600780        |                  | SHIM  | A/R        |
| 56          | V600781        |                  | SHIM  | A/R        |
| 57          | V600782        |                  | SHIM  | A/R        |
| 58          | V600783        |                  | SHIM  | A/R        |
| 60          | V600479        |                  | BEARING, countershaft, front                          | 1          |
| 61          | V603027        |                  | BEARING   | 1          |
| 62          | V603028        |                  | WASHER, thrust  | 2          |
| 63          | V602029        |                  | COUNTERSHAFT  | 1          |
| 64          | V603030        |                  | GEAR, reverse idler                                   | 1          |
| 65          | V603031        |                  | SHAFT, input  | 1          |
| 66          | V603033        |                  | GEAR, forward primary                                 | 1          |

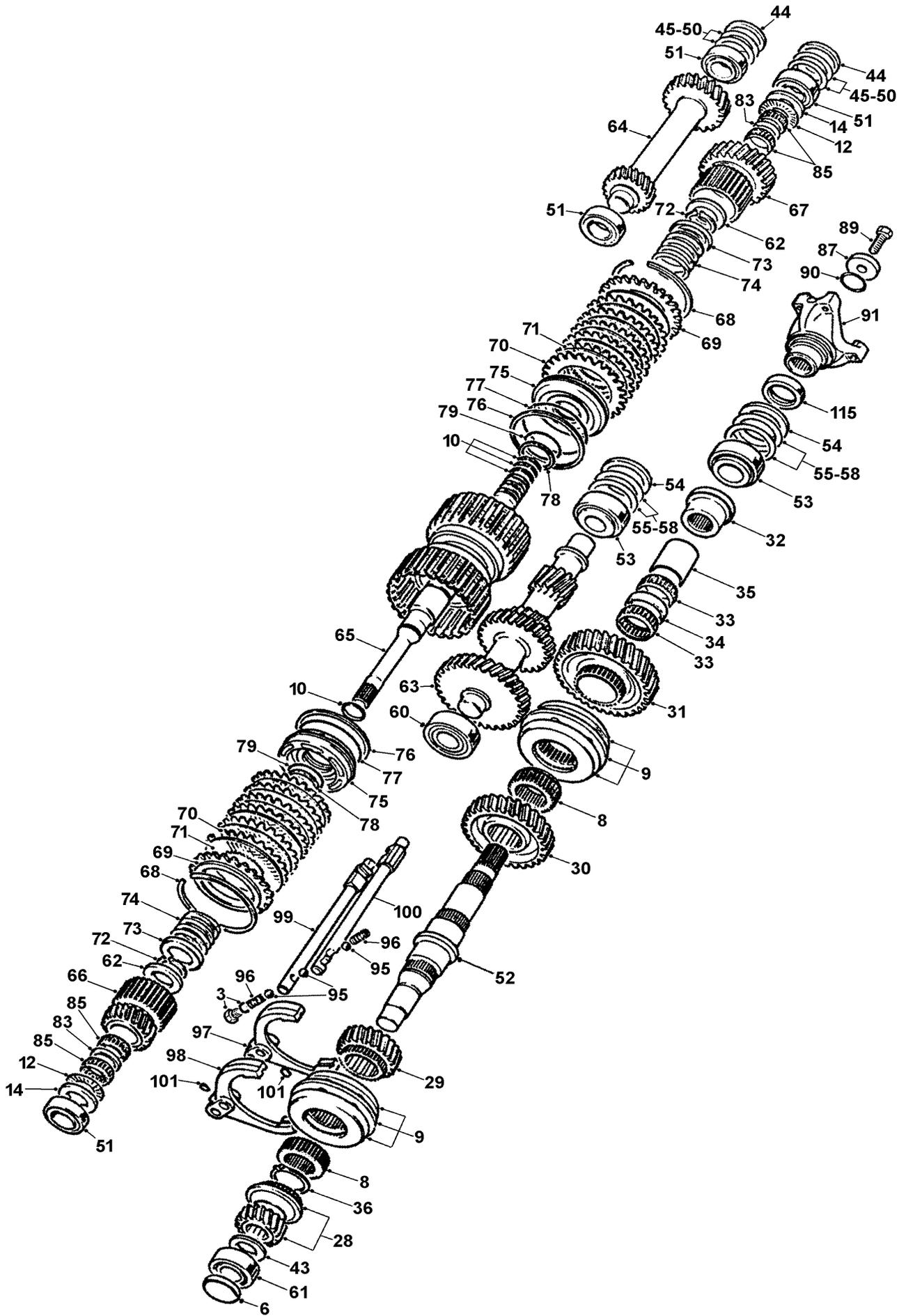


**GEARS & SHAFTS**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                    | <b>Qty</b> |
|-------------|----------------|------------------|---------------------------------------|------------|
| 67          | V603034        |                  | GEAR, 27T, reverse primary            | 1          |
| 68          | V603035        |                  | RING, retaining, clutch pack          | 2          |
| 69          | V603036        |                  | PLATE, retaining, clutch pack         | 2          |
| 70          | V603037        |                  | PLATE, clutch, steel, (6 per pack)    | 12         |
| 71          | V603038        |                  | PLATE, clutch, friction, (6 per pack) | 12         |
| 72          | V603039        |                  | CIRCLIP                               | 2          |
| 73          | V603040        |                  | RETAINER, spring                      | 2          |
| 74          | V603041        |                  | SPRING, piston return                 | 2          |
| 75          | V603042        |                  | PISTON, clutch                        | 2          |
| 76          | V603043        |                  | RING, sealing                         | 2          |
| 77          | V603044        |                  | 'O' RING, piston outer                | 2          |
| 78          | V603045        |                  | RING, sealing, piston outer           | 2          |
| 79          | V603046        |                  | 'O' RING, piston inner                | 2          |
| 83          | V603050        |                  | SPACER, needle bearings               | 2          |
| 84A         | 17S05          |                  | WASHER, spring                        | 12         |
| 85          | V600753        |                  | BEARING, needle, primary gears        | 4          |
| 87          | V603051        |                  | WASHER, output flange                 | 1          |
| 89          | V603053        |                  | SCREW                                 | 1          |
| 90          | V603054        |                  | 'O' RING                              | 1          |
| 91          | V603055        |                  | YOKE, 1410 series                     | 1          |
| 95          | V603057        |                  | BALL                                  | 3          |
| 97          | V603058        |                  | FORK, shift, 1st/2nd                  | 1          |
| 98          | V603059        |                  | FORK, shift, 3rd/4th                  | 1          |
| 99          | V603060        |                  | RAIL, shift, 1st/2nd                  | 1          |
| 100         | V603061        |                  | RAIL, shift, 3rd/4th                  | 1          |
| 101         | V600693        |                  | SCREW, shift fork                     | 2          |
| 115         | V600785        |                  | SEAL, oil                             | 1          |

**SERVICE KITS**

|       |         |  |
|-------|---------|--|
| ..... | V603542 | <b>Clutch Pack Kit</b><br><i>comprising of items: 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79</i> |
| ..... | V603543 | <b>Input Shaft Assembly Kit</b><br><i>comprising of items: 65 and kit V603542</i>                |



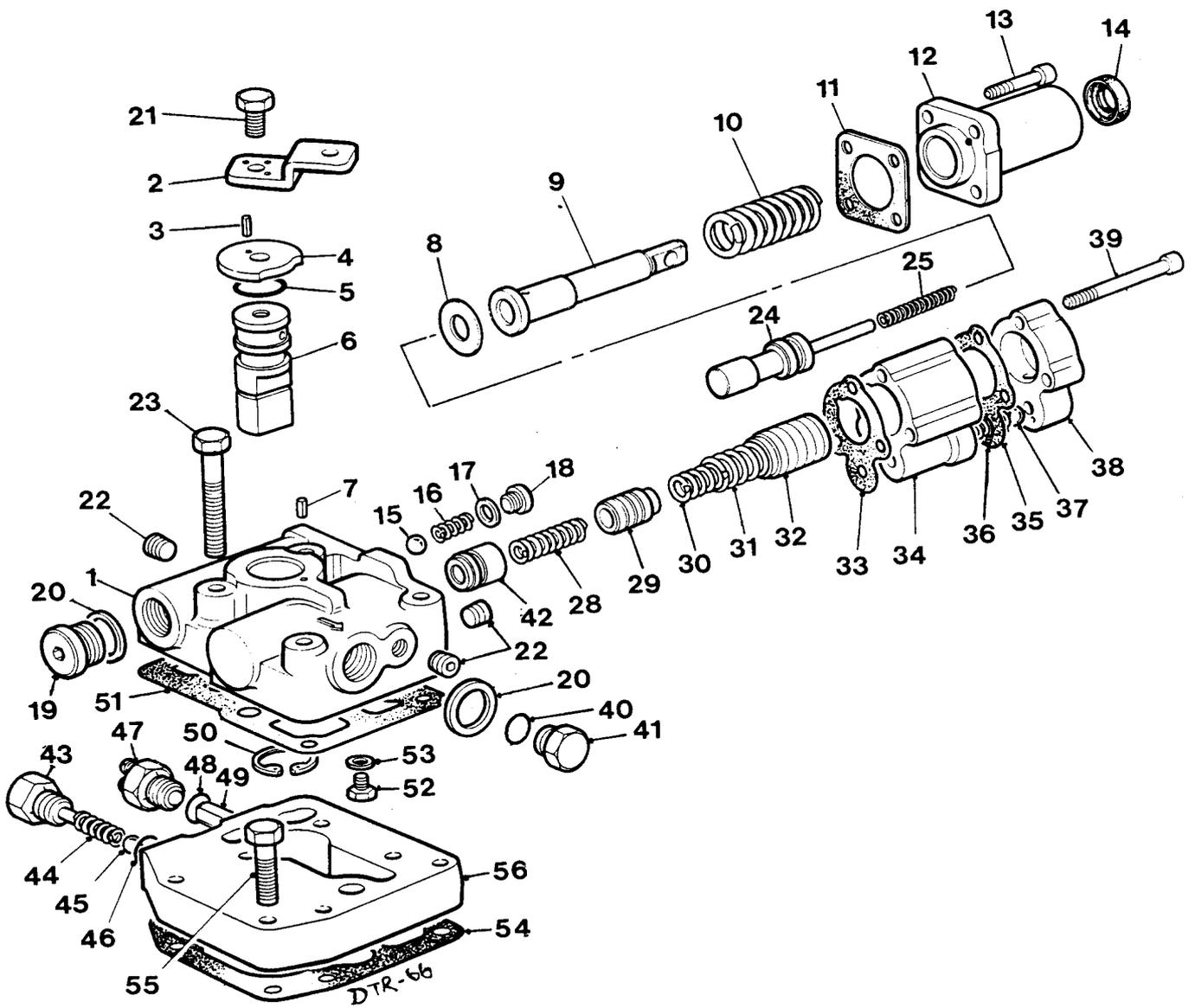
**GEARS & SHAFTS**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>  | <b>Qty</b> |
|-------------|----------------|------------------|---|------------|
| .....       | V603544        |                  | <b>Small Parts Kit</b><br><i>comprising of items: 3, 95, 96 plus items 3, 17, 18, 105, 106, 110, 111 on page 4 - B - 3</i>              |            |
| .....       | V603545        |                  | <b>Bearing Kit</b><br><i>comprising of items: 12, 33, 35, 51, 53, 60, 61, 85 plus item 59 on page 4 - B - 3</i>                         |            |
| .....       | V603546        |                  | <b>'O' Ring Kit</b><br><i>comprising of items: 77, 79, 90 plus items 3A, 19, 40, 88, 107 on page 4 - B - 3</i>                          |            |
| .....       | V603547        |                  | <b>Seal Kit</b><br><i>comprising of items: 6, 10, 76, 78, 115, plus items 11, 92A, 93, 112, on page 4 - B - 3</i>                       |            |
| .....       | V603548        |                  | <b>Snap Ring Kit</b><br><i>comprising of items: 36, 68, 72</i>  |            |
| .....       | V603549        |                  | <b>Shim Kit</b><br><i>comprising of items: 45, 46, 47, 48, 49, 50, 55, 56, 57, 58</i>   |            |
| .....       | V603550        |                  | <b>Thrust Washer Kit</b><br><i>comprising of items: 14, 43, 62</i>  |            |
| .....       | V603551        |                  | <b>Basic Overhaul Kit</b><br><i>comprising of kits: V603542, V603545, V603546, V603550, V603548, V603544, V603547, V603556, V603549</i> |            |
| .....       | V603552        |                  | <b>Pump Kit</b><br><i>comprising of items: 11, 92, 93 on page 4 - B - 3</i>   |            |
| .....       | V603553        |                  | <b>Direction Valve 'O' Ring Kit</b>   |            |
| .....       | V603554        |                  | <b>Core Tube Kit (for Direction Valve)</b>  |            |
| .....       | V603555        |                  | <b>Valve 'O' Ring Kit</b>   |            |
| .....       | V603556        |                  | <b>Gasket Kit</b>   |            |



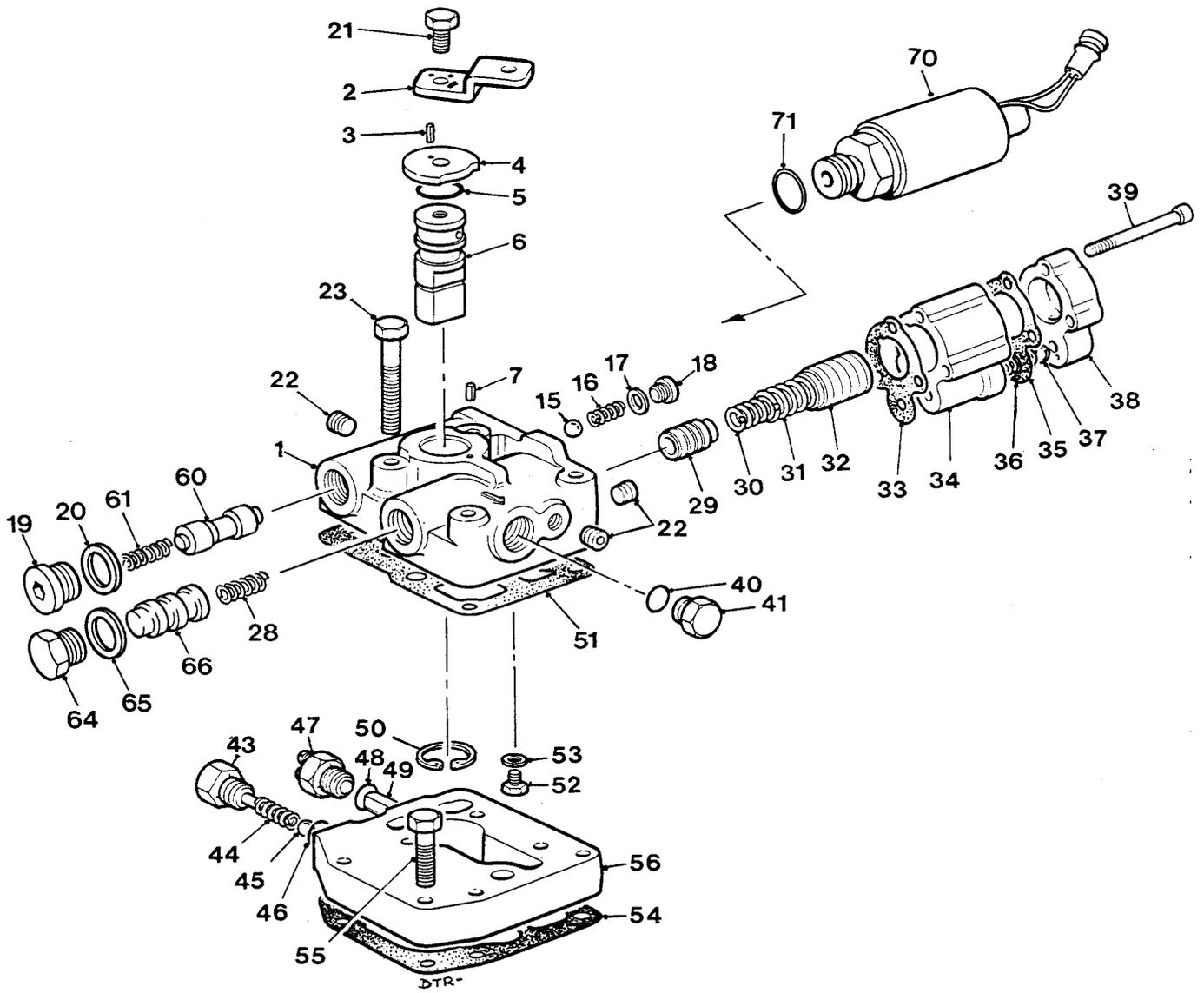
**"Compact Shuttle Transmission"****4 - B - 5****CONTROL VALVE, Mechanically operated***(Not used on "Compact Plus Transmission")*

| Item | Part no | Serial no   | Description                         | Qty |
|------|---------|-------------|-------------------------------------|-----|
|      |         | 2001 / 2407 | <b>4S4000/4S5000/4S6000 Dumpers</b> |     |
|      |         | 2001 / 2403 | <b>4S7000 Dumper</b>                |     |
| --   | V600790 |             | CONTROL VALVE, assembly             | 1   |
| 1    | V600791 |             | BODY                                | 1   |
| 2    | -----   |             | LEVER (see page 4 - D - 2)          | 1   |
| 3    | V600793 |             | PIN                                 | 1   |
| 4    | V600794 |             | STOP                                | 1   |
| 5    | V600795 |             | SEAL, 'O' ring                      | 1   |
| 6    | V600796 |             | VALVE                               | 1   |
| 7    | V600797 |             | PIN                                 | 1   |
| 8    | V600798 |             | RING                                | 1   |
| 9    | V600799 |             | VALVE                               | 1   |
| 10   | V600800 |             | SPRING                              | 1   |
| 11   | V600801 |             | GASKET                              | 1   |
| 12   | V600802 |             | BODY                                | 1   |
| 13   | V600803 |             | SCREW                               | 4   |
| 14   | V600804 |             | SEAL                                | 2   |
| 15   | V600805 |             | BALL                                | 1   |
| 16   | V600806 |             | SPRING                              | 1   |
| 17   | V600807 |             | WASHER                              | 1   |
| 18   | V600808 |             | PLUG                                | 1   |
| 19   | V600809 |             | PLUG                                | 1   |
| 20   | V600810 |             | WASHER, copper                      | 1   |
| 21   | V600673 |             | SCREW                               | 1   |
| 22   | V600811 |             | PLUG                                | 3   |
| 23   | V600812 |             | SCREW                               | 4   |
| 24   | V600813 |             | SPOOL                               | 1   |
| 25   | V600814 |             | SPRING, inner                       | 1   |
| 28   | V600816 |             | SPRING                              | 1   |
| 29   | V600817 |             | VALVE, pressure                     | 1   |
| 30   | V600818 |             | SPRING, inner                       | 1   |
| 31   | V600819 |             | SPRING, outer                       | 1   |
| 32   | V600820 |             | PISTON, soft shift                  | 1   |



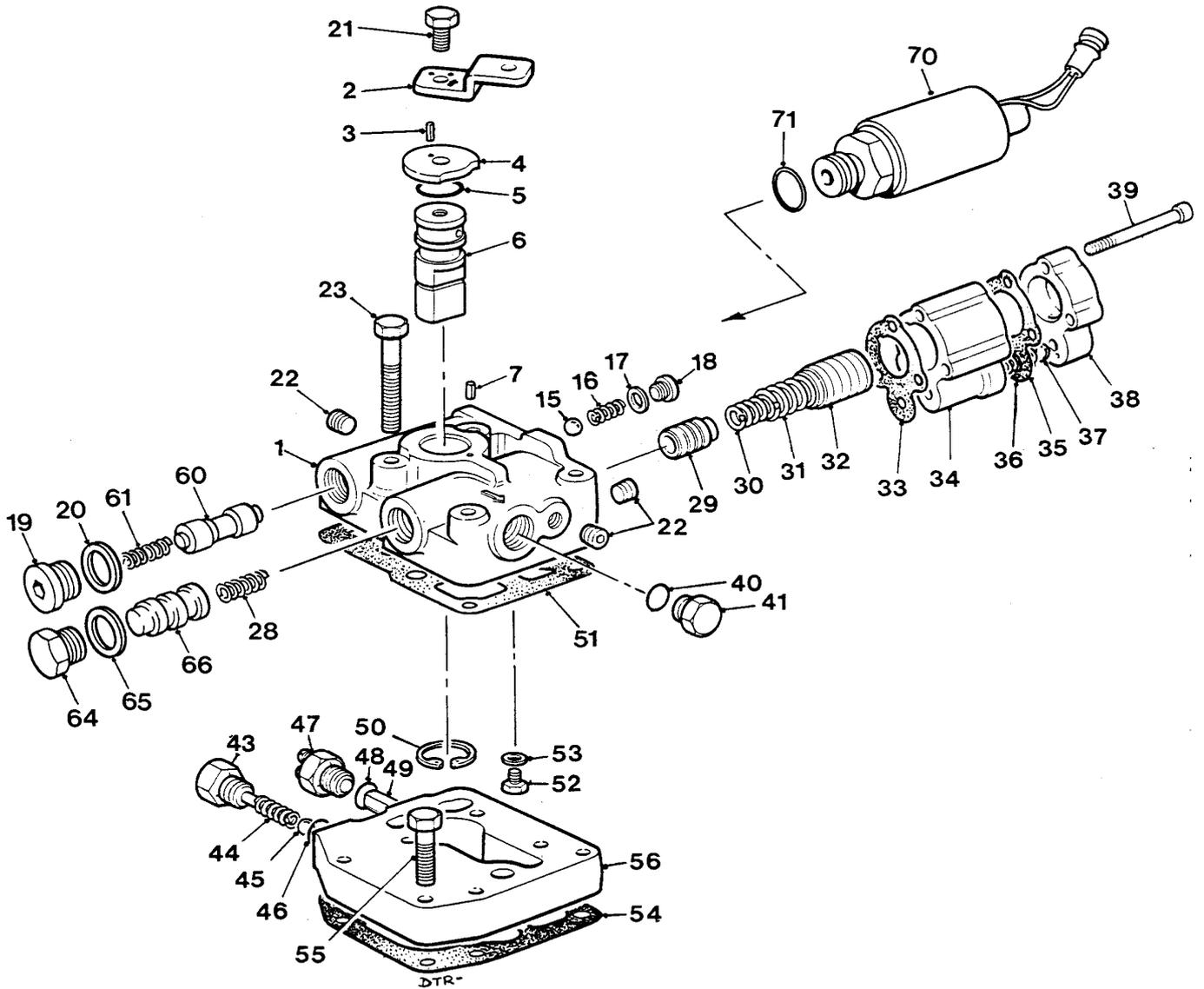
**"Compact Shuttle Transmission"****4 - B - 5****CONTROL VALVE, Mechanically operated***(Not used on "Compact Plus Transmission")*

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>   | <b>Qty</b> |
|-------------|----------------|------------------|----------------------|------------|
| 33          | V600821        |                  | GASKET               | 1          |
| 34          | V600822        |                  | BODY                 | 1          |
| 35          | V600823        |                  | GASKET               | 1          |
| 36          | V600824        |                  | SPRING               | 1          |
| 37          | V600825        |                  | BALL                 | 1          |
| 38          | V600826        |                  | COVER                | 1          |
| 39          | V600827        |                  | SCREW                | 3          |
| 40          | V600674        |                  | SEAL, 'O' ring       | 1          |
| 41          | V600688        |                  | PLUG                 | 1          |
| 42          | V600828        |                  | VALVE, low dividing  | 1          |
| 43          | V600829        |                  | GUIDE                | 1          |
| 44          | V600830        |                  | SPRING               | 1          |
| 45          | 30097A0199     |                  | BALL                 | 1          |
| 46          | V600674        |                  | SEAL, 'O' ring       | 1          |
| 47          | V600330        |                  | SWITCH, safety start | 1          |
| 48          | V600674        |                  | SEAL, 'O' ring       | 1          |
| 49          | V600832        |                  | PIN                  | 1          |
| 50          | V600833        |                  | CIRCLIP              | 1          |
| 51          | V600834        |                  | GASKET               | 1          |
| 52          | V600835        |                  | SCREW                | 1          |
| 53          | V600836        |                  | WASHER               | 1          |
| 54          | V600837        |                  | GASKET               | 1          |
| 55          | V600838        |                  | SCREW                | 2          |
| 56          | V600839        |                  | FITTING, adaptor     | 1          |



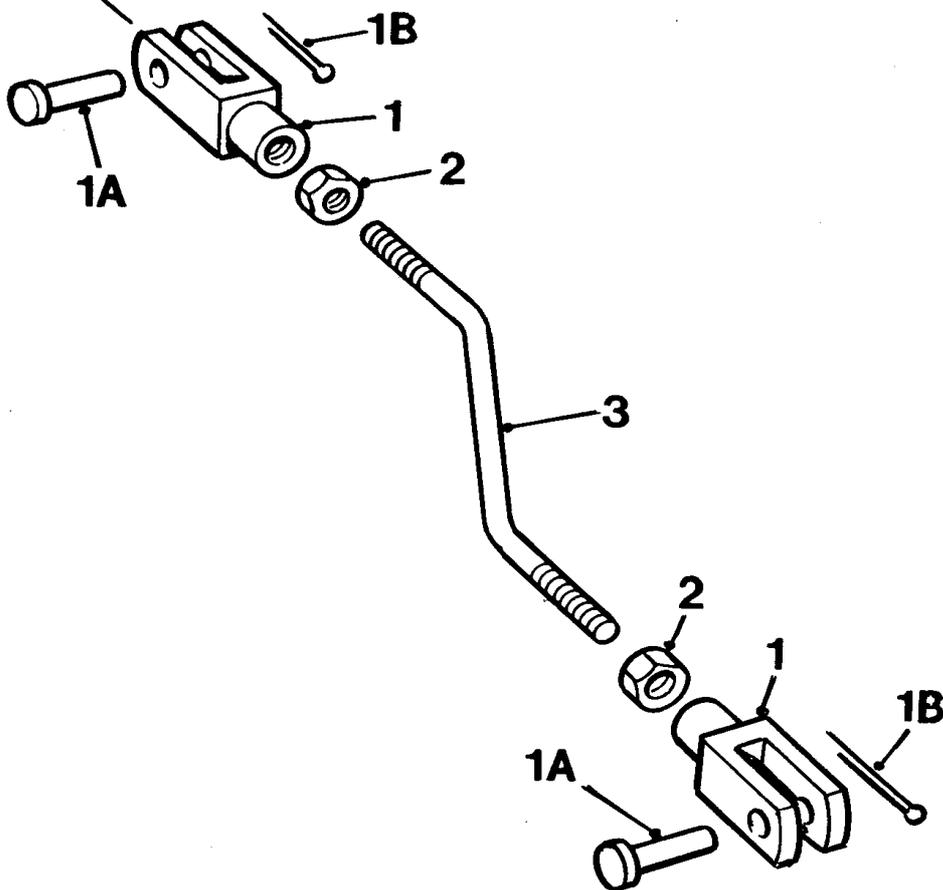
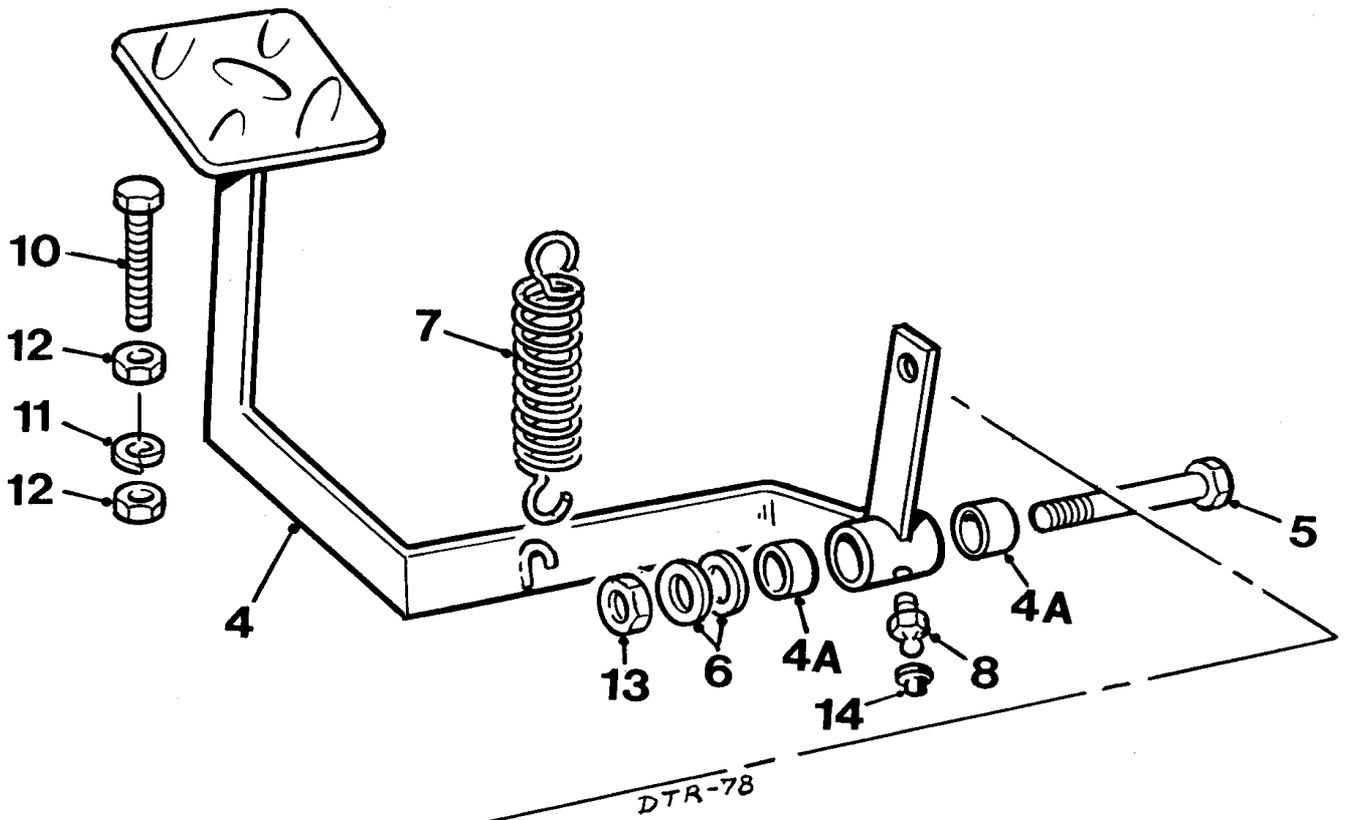
**"Compact Shuttle Transmission" with electric dump****4 - B - 6****CONTROL VALVE, (Optional)***(Not used on "Compact Plus Transmission")*

| Item | Part no  | Serial no   | Description                         | Qty |
|------|----------|-------------|-------------------------------------|-----|
|      |          | 2001 / 2407 | <b>4S4000/4S5000/4S6000 Dumpers</b> |     |
|      |          | 2001 / 2403 | <b>4S7000 Dumper</b>                |     |
| --   | V2004256 |             | CONTROL VALVE, assembly             | 1   |
| 1    | V602567  |             | BODY                                | 1   |
| 2    | -----    |             | LEVER (see page 4 - D - 2)          | 1   |
| 3    | V600793  |             | PIN                                 | 1   |
| 4    | V600794  |             | STOP                                | 1   |
| 5    | V600795  |             | SEAL, 'O' ring                      | 1   |
| 6    | V600796  |             | VALVE                               | 1   |
| 7    | V600797  |             | PIN                                 | 1   |
| 15   | V600805  |             | BALL                                | 1   |
| 16   | V602564  |             | SPRING                              | 1   |
| 17   | V600807  |             | WASHER                              | 1   |
| 18   | V600808  |             | PLUG                                | 1   |
| 19   | V600809  |             | PLUG                                | 1   |
| 20   | V600810  |             | WASHER, copper                      | 1   |
| 21   | V600673  |             | SCREW                               | 1   |
| 22   | V600811  |             | PLUG                                | 3   |
| 23   | V600812  |             | SCREW                               | 4   |
| 28   | V600816  |             | SPRING                              | 1   |
| 29   | V602568  |             | VALVE, pressure                     | 1   |
| 30   | V600818  |             | SPRING, inner                       | 1   |
| 31   | V600819  |             | SPRING, outer                       | 1   |
| 32   | V602569  |             | PISTON                              | 1   |
| 33   | V600821  |             | GASKET                              | 1   |
| 34   | V600822  |             | BODY                                | 1   |
| 35   | V600823  |             | GASKET                              | 1   |
| 36   | V600824  |             | SPRING                              | 1   |
| 37   | V600825  |             | BALL                                | 1   |
| 38   | V600826  |             | COVER                               | 1   |
| 39   | V600827  |             | SCREW                               | 3   |
| 40   | V600674  |             | SEAL, 'O' ring                      | 1   |
| 41   | V600688  |             | PLUG                                | 1   |



**"Compact Shuttle Transmission" with electric dump****4 - B - 6****CONTROL VALVE, (Optional)***(Not used on "Compact Plus Transmission")*

| Item | Part no    | Serial no | Description   | Qty |
|------|------------|-----------|---|-----|
| 43   | V600829    |           | GUIDE   | 1   |
| 44   | V600830    |           | SPRING  | 1   |
| 45   | 30097A0199 |           | BALL  | 1   |
| 46   | V600674    |           | SEAL, 'O' ring  | 1   |
| 47   | V600330    |           | SWITCH, safety start  | 1   |
| 48   | V600674    |           | SEAL, 'O' ring  | 1   |
| 49   | V600832    |           | PIN   | 1   |
| 50   | V600833    |           | CIRCLIP   | 1   |
| 51   | V600834    |           | GASKET  | 1   |
| 52   | V600835    |           | SCREW   | 1   |
| 53   | V600836    |           | WASHER  | 1   |
| 54   | V602572    |           | GASKET  | 1   |
| 55   | V600838    |           | SCREW   | 2   |
| 56   | V600839    |           | FITTING, adaptor  | 1   |
| 60   | V602566    |           | SPOOL   | 1   |
| 61   | V602565    |           | SPRING  | 1   |
| 64   | V602570    |           | PLUG  | 1   |
| 65   | V600810    |           | WASHER, copper  | 1   |
| 66   | V602571    |           | SPOOL   | 1   |
| 70   | V602563    |           | SOLENOID  | 1   |
| 71   | V602562    |           | SEAL, 'O' ring  | 1   |
| ---  | 208561000  |           | SWITCH, dump<br><i>(Positioned under inch/dump pedal<br/>and handbrake)</i> | 2   |

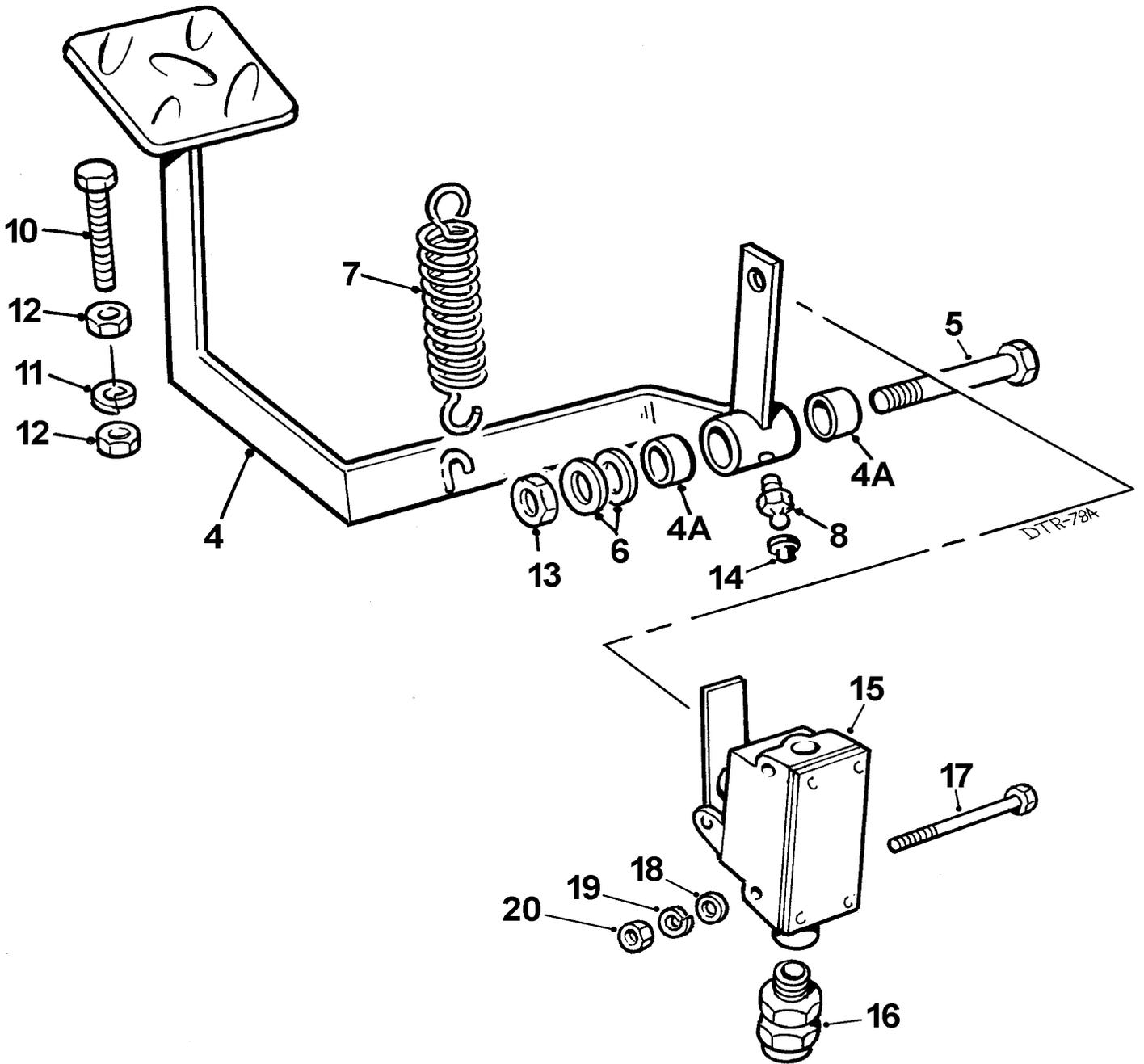


**INCH / DUMP PEDAL****4 - D - 1*****Used with "Compact Shuttle Transmission"***

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                  | <b>Qty</b> |
|-------------|----------------|------------------|-------------------------------------|------------|
|             |                | 2001 / 2355      | <b>4S4000/4S5000/4S6000 Dumpers</b> |            |
|             |                | 2001 / 2330      | <b>4S7000 Dumper</b>                |            |
| 1           | V2003509       |                  | CLEVIS                              | 2          |
| 1A          | 10650A14       |                  | PIN, clevis                         | 2          |
| 1B          | 44S02C         |                  | PIN, split                          | 2          |
| 2           | 7S03           |                  | NUT                                 | 2          |
| 3           | V2003503       |                  | ROD                                 | 1          |
| 4           | V2003092       |                  | PEDAL, assembly                     | 1          |
| 4A          | 43S03          |                  | BUSH                                |            |
| 5           | 6S05M          |                  | BOLT                                | 1          |
| 6           | 10S04          |                  | WASHER, flat                        | 2          |
| 7           | 425434000      |                  | SPRING                              | 1          |
| 8           | 131S01         |                  | NIPPLE, grease                      | 1          |
| 10          | 11S03M         |                  | SCREW, set                          | 1          |
| 11          | 17S04          |                  | WASHER, spring                      | 1          |
| 12          | 7S03           |                  | NUT                                 | 2          |
| 13          | 87S05          |                  | NUT, self-locking                   | 1          |
| 14          | 176S01         |                  | COVER, grease nipple                | 1          |

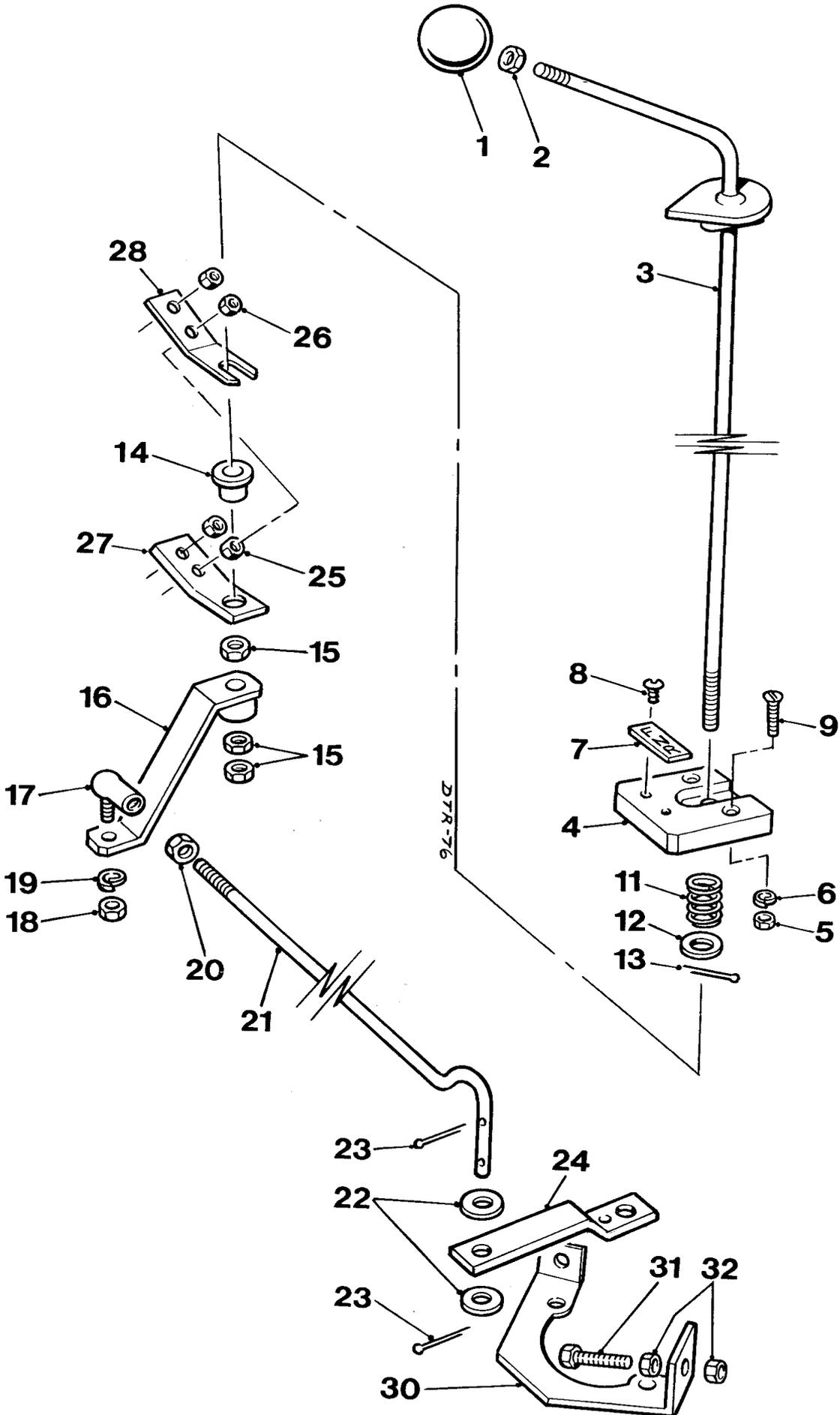
4 - D - 1A

4S4000, 4S5000, 4S6000 & 4S7000 Dumpers



**INCH / DUMP PEDAL****4 - D - 1A*****Used with "Compact Plus Transmission"***

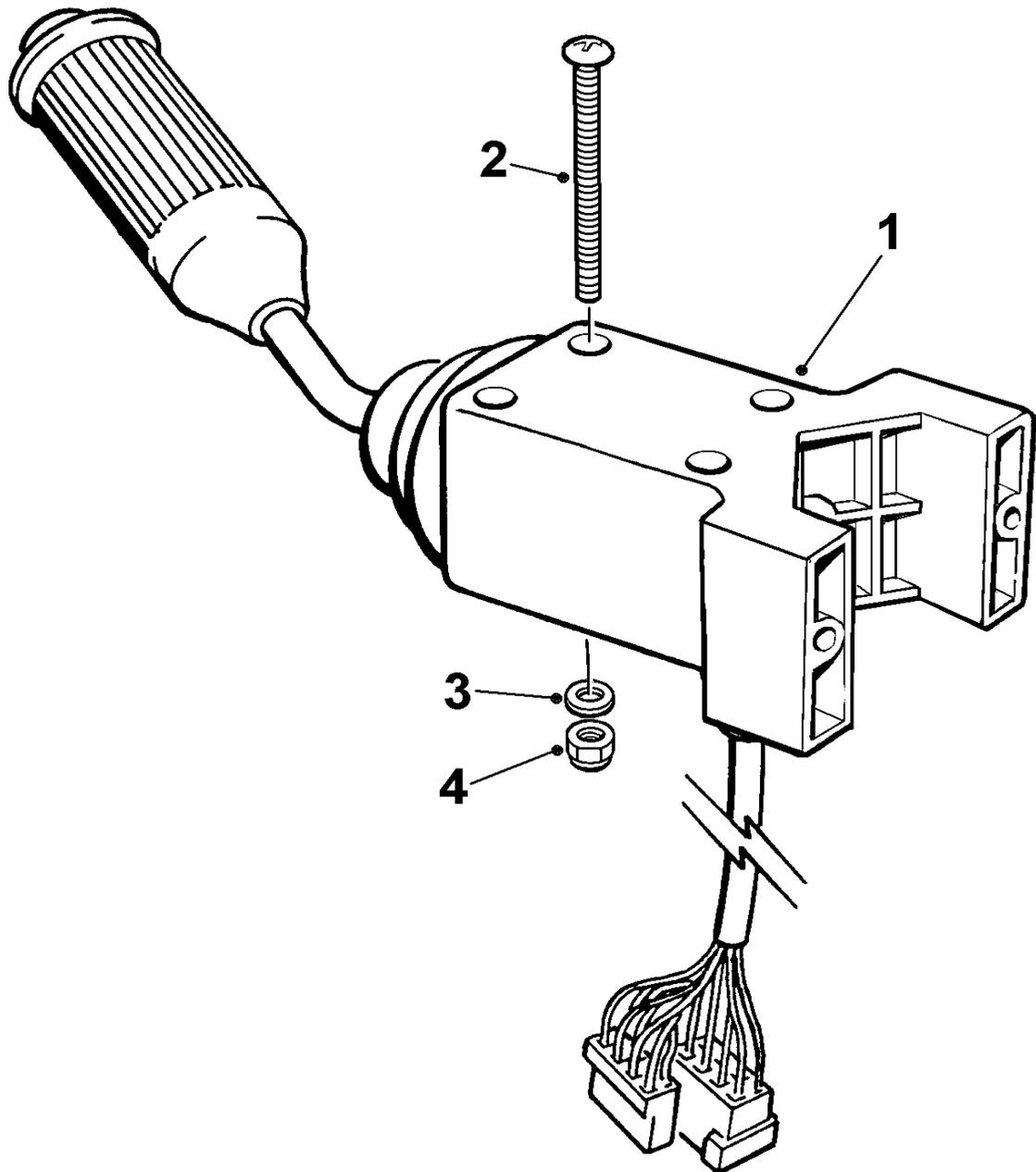
| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>   | <b>Qty</b> |
|-------------|----------------|------------------|--|------------|
|             |                | 2356 /<br>2331 / | <b>4S4000/4S5000/4S6000 Dumpers<br/>4S7000 Dumper</b>  |            |
| 4           | V2003092       |                  | PEDAL, assembly  | 1          |
| 4A          | 43S03          |                  | BUSH   |            |
| 5           | 6S05M          |                  | BOLT   | 1          |
| 6           | 10S04          |                  | WASHER, flat   | 2          |
| 7           | 425434000      |                  | SPRING   | 1          |
| 8           | 131S01         |                  | NIPPLE, grease   | 1          |
| 10          | 11S03M         |                  | SCREW, set   | 1          |
| 11          | 17S04          |                  | WASHER, spring   | 1          |
| 12          | 7S03           |                  | NUT  | 2          |
| 13          | 87S05          |                  | NUT, self-locking  | 1          |
| 14          | 176S01         |                  | COVER, grease nipple   | 1          |
| 15          | 20561000       |                  | # SWITCH, dump   | 1          |
| 16          | 250166010      |                  | # GLAND, cable   | 1          |
|             |                |                  | <i># Also used with the optional<br/>"Solenoid Operated Control Valve" fitted<br/>to "Compact Shuttle Transmission"<br/>(see page 1-D-2)</i> |            |
| 17          | 8S01F          |                  | BOLT   | 2          |
| 18          | 267S03         |                  | WASHER, flat   | 2          |
| 19          | 17S02          |                  | WASHER, spring   | 2          |
| 20          | 7S01           |                  | NUT  | 2          |



**CONTROL LEVER, forward / neutral / reverse**  
***Mechanical operation of "Compact Shuttle Transmission"***

**4 - D - 2**

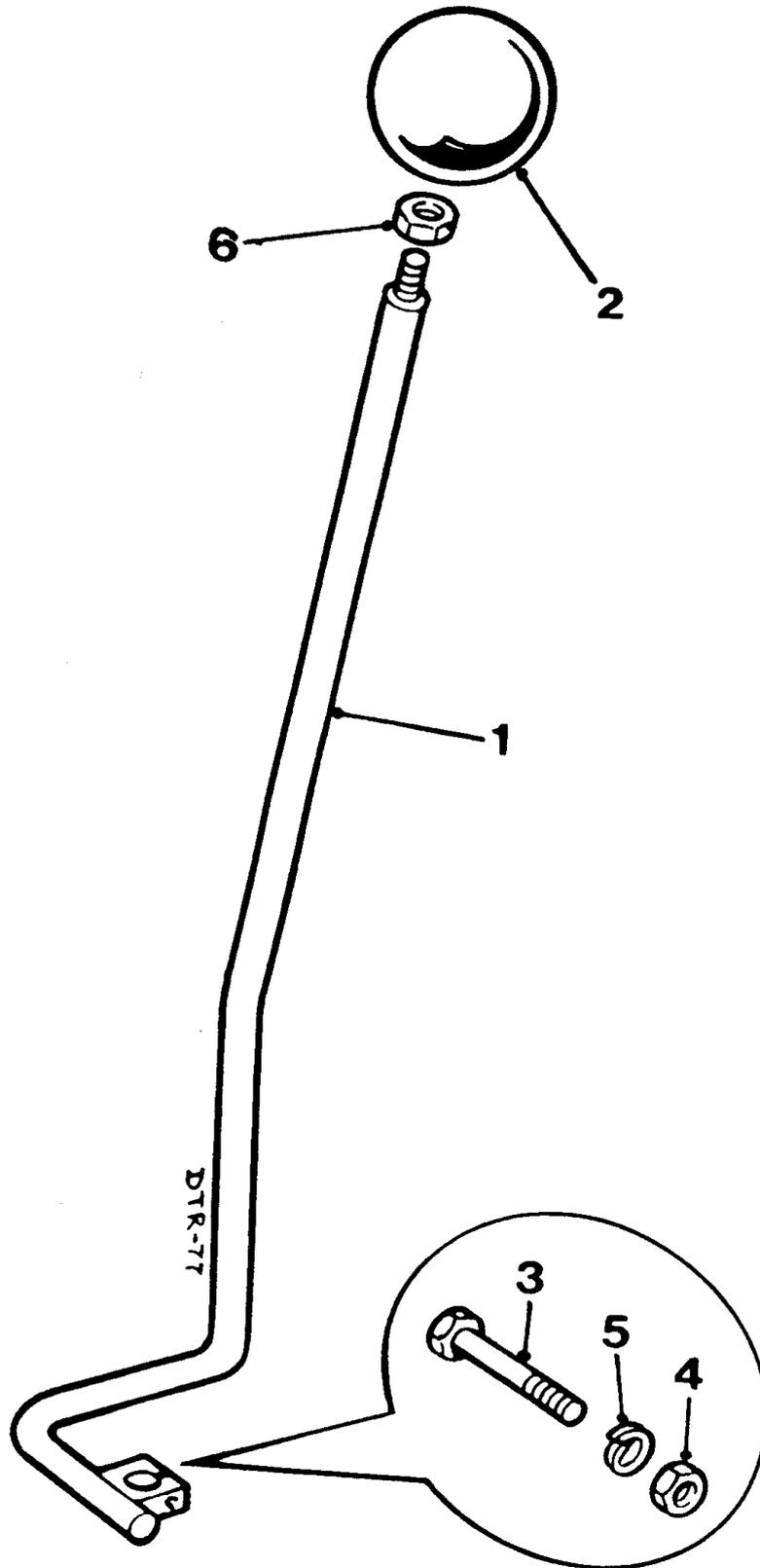
| Item | Part no   | Serial no   | Description                         | Qty |
|------|-----------|-------------|-------------------------------------|-----|
|      |           | 2001 / 2407 | <b>4S4000/4S5000/4S6000 Dumpers</b> |     |
|      |           | 2001 / 2403 | <b>4S7000 Dumper</b>                |     |
| 1    | 307120000 |             | KNOB                                | 1   |
| 2    | 203S05    |             | NUT, locking                        | 1   |
| 3    | V2003501  |             | HANDLE, lever                       | 1   |
| 4    | V2003519  |             | BLOCK                               | 1   |
| 5    | 61S02     |             | NUT, self-locking                   | 2   |
| 6    | 267S04    |             | WASHER, flat                        | 2   |
| 7    | V2003518  |             | PLATE, selector                     | 1   |
| 8    | 178SPS03D |             | SCREW                               | 2   |
| 9    | 14S04E    |             | SCREW, counter sunk head            | 2   |
| 11   | 555512300 |             | SPRING                              | 1   |
| 12   | 267S07    |             | WASHER, flat                        | 1   |
| 13   | 44S03D    |             | PIN, split                          | 1   |
| 14   | V2003250  |             | BUSH, pivot                         | 1   |
| 15   | 10582A01  |             | NUT, locking                        | 3   |
| 16   | V2003522  |             | LEVER                               | 1   |
| 17   | V2003527  |             | BALL JOINT                          | 1   |
| 18   | 7S03      |             | NUT                                 | 1   |
| 19   | 17S04     |             | WASHER, spring                      | 1   |
| 20   | 7S03      |             | NUT                                 | 1   |
| 21   | V2003504  |             | ROD                                 | 1   |
| 22   | 267S05    |             | WASHER, flat                        | 2   |
| 23   | 44S03D    |             | PIN, split                          | 2   |
| 24   | V2003539  |             | BRACKET                             | 2   |
| 25   | 7S02      |             | NUT                                 | 2   |
| 26   | 61S02     |             | NUT, self locking                   | 2   |
| 27   | V2003538  |             | BRACKET, handle support             | 1   |
| 28   | V2003676  |             | BRACKET, retaining                  | 1   |
| 30   | V2003586  |             | BRACKET                             | 1   |
| 31   | 11S02C    |             | SCREW, set                          | 2   |
| 32   | 7S02      |             | NUT                                 | 4   |



**CONTROL LEVER, forward / neutral / reverse**  
***Electronic operation of "Compact Plus Transmission"***

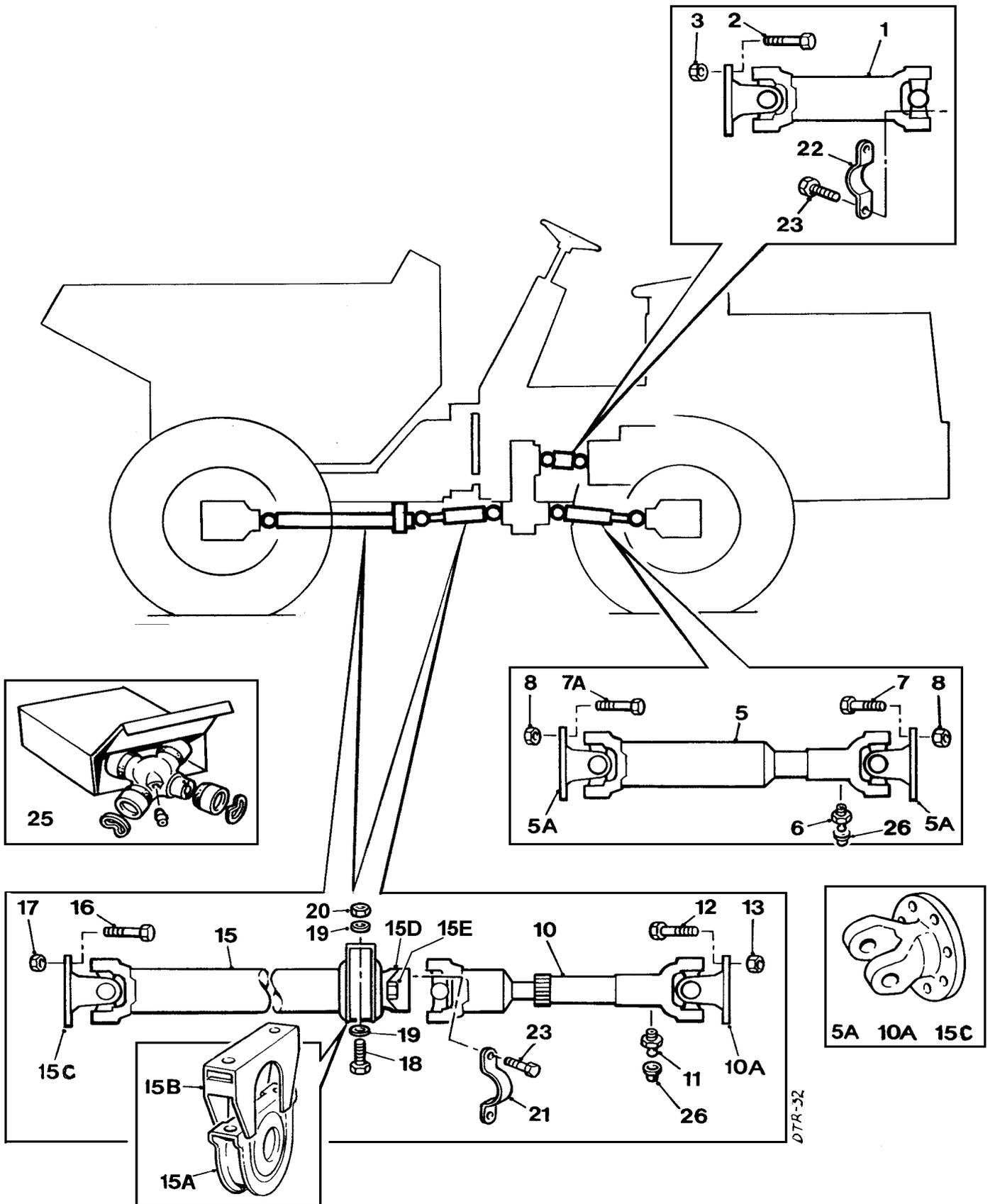
**4 - D - 2A**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>  | <b>Qty</b> |
|-------------|----------------|------------------|---|------------|
|             |                | 2408 /<br>2404 / | <b>4S4000/4S5000/4S6000 Dumpers</b><br><b>4S7000 Dumper</b> |            |
| 1           | V2004691       |                  | SWITCH, forward / neutral / reverse                         | 1          |
| 2           | 198S09K        |                  | SCREW, posidrive head, special                              | 4          |
| 3           | 267S03         |                  | WASHER, flat  | 4          |
| 4           | 218S15         |                  | NUT, "Nyloc"  | 4          |



**GEAR LEVER****4 - D - 3**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b>           | <b>Description</b>   | <b>Qty</b> |
|-------------|----------------|----------------------------|--|------------|
|             |                | 2001 / 2407<br>2001 / 2403 | <b>4S4000/4S5000/4S6000 Dumpers<br/>4S7000 Dumper</b>          |            |
| 1           | V2001679       |                            | LEVER, gear<br><i>Used with "Compact Shuttle" transmission</i> | 1          |
|             |                | 2408 /<br>2404 /           | <b>4S4000/4S5000/4S6000 Dumpers<br/>4S7000 Dumper</b>          |            |
| 1           | V2004689       |                            | LEVER, gear<br><i>Used with "Compact Plus" transmission</i>    | 1          |
| 2           | 307120000      |                            | KNOB   | 1          |
| 3           | 8S05G          |                            | BOLT   | 1          |
| 4           | 7S05           |                            | NUT  | 1          |
| 5           | 17S06          |                            | WASHER, spring   | 1          |
| 6           | 230S05         |                            | NUT, locking, thin   | 1          |



**PROPELLER SHAFTS**

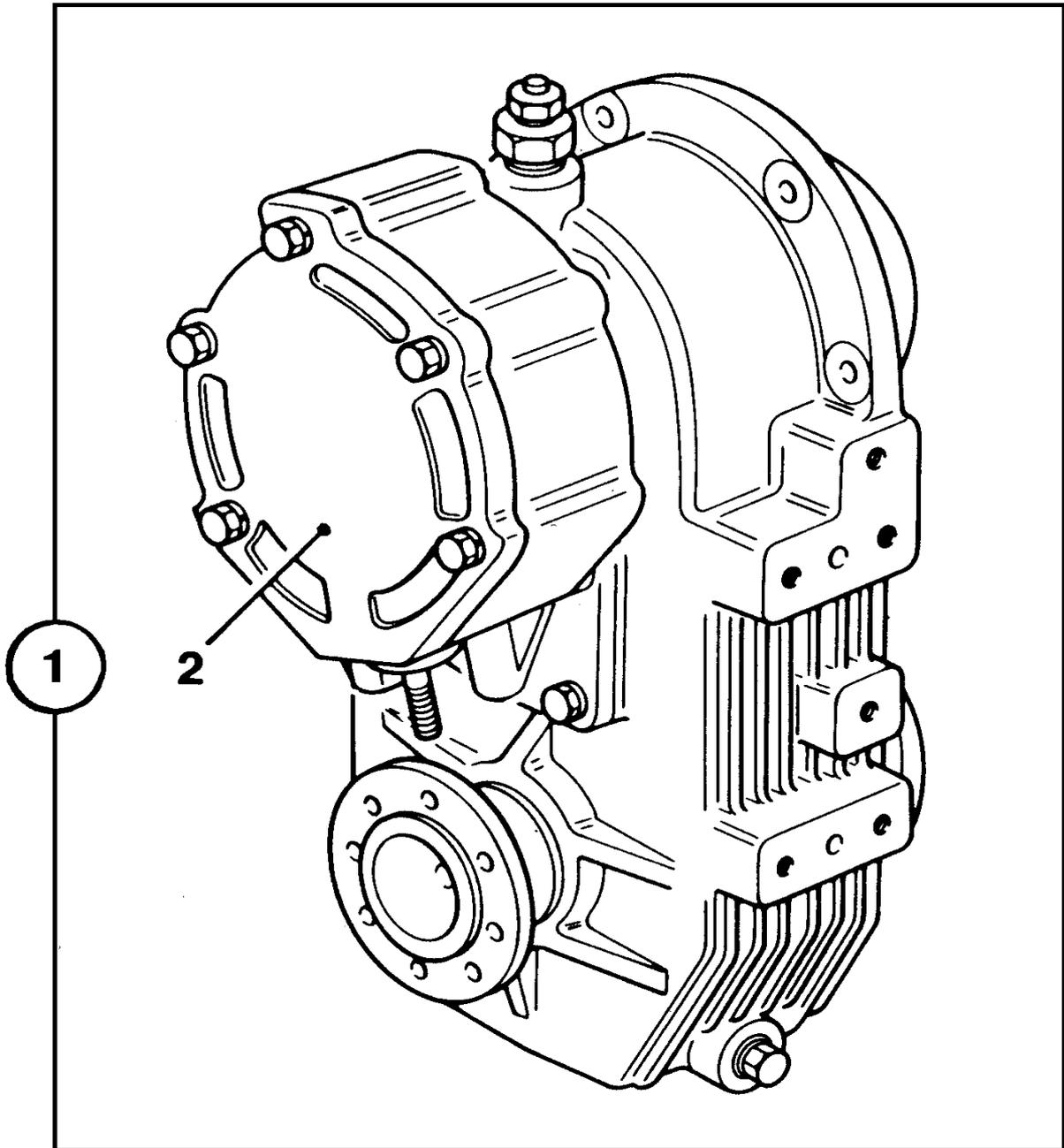
**4 - E - 1**

| Item | Part no  | Serial no   | Description   | Qty |
|------|----------|-------------|---|-----|
|      |          | 2001 / 2407 | <b>4S4000/4S5000/4S6000 Dumpers</b>   |     |
|      |          | 2001 / 2403 | <b>4S7000 Dumper</b>  |     |
| 1    | V2001612 |             | PROPELLER SHAFT, fixed length.<br>"Compact Shuttle" transmission to<br>transfer gearbox | 1   |
| 1A   | V602487  |             | FLANGE, prop shaft fixed length   | 1   |
|      |          | 2408 /      | <b>4S4000/4S5000/4S6000 Dumpers</b>   |     |
|      |          | 2404 /      | <b>4S7000 Dumper</b>  |     |
| 1    | V2004695 |             | PROPELLER SHAFT, sliding joint.<br>"Compact Plus" transmission to<br>transfer gearbox   | 1   |
| 1A   | V600413  |             | FLANGE, prop shaft variable length  | 1   |
| 2    | 6S03A    |             | BOLT  | 8   |
| 3    | 87S03    |             | NUT, self locking   | 8   |
| 5    | V2001640 |             | PROPELLER SHAFT,<br>transfer gearbox to rear axle                                       | 1   |
| 5A   | V600413  |             | YOKE / FLANGE   | 2   |
| 6    | 131S01   |             | NIPPLE, grease, straight  | 1   |
| 7    | 6S03A    |             | BOLT  | 8   |
| 7A   | 6S03GB   |             | BOLT  | 8   |
| 8    | 87S03    |             | NUT, self locking   | 16  |
| 10   | V2002313 |             | PROPELLER SHAFT, transfer gearbox<br>to front axle                                      | 1   |
| 10A  | V600413  |             | YOKE / FLANGE   | 1   |
| 11   | 131S01   |             | NIPPLE, grease, straight  | 1   |
| 12   | 6S03A    |             | BOLT  | 8   |
| 13   | 87S03    |             | NUT, self locking   | 8   |
| 15   | V2002314 |             | PROPELLER SHAFT, from short shaft<br>to front axle                                      | 1   |
| 15A  | V601530  |             | CARRIER, bearing  | 1   |
| 15B  | V2004180 | 2051 /      | GUARD, bearing carrier  | 1   |
| 15C  | V600413  |             | YOKE / FLANGE   | 1   |
| 15D  | V602787  |             | END YOKE  | 1   |
| 15E  | V602788  |             | NUT   | 1   |
| 16   | 6S03A    |             | BOLT  | 8   |
| 17   | 87S03    |             | NUT, self-locking   | 8   |



**PROPELLER SHAFTS****4 - E - 1**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>          | <b>Qty</b> |
|-------------|----------------|------------------|-----------------------------|------------|
| 18          | 11S05E         |                  | SCREW, set, bearing carrier | 2          |
| 19          | 267S07         |                  | WASHER, flat                | 4          |
| 20          | 61S05          |                  | NUT, self locking           | 2          |
| 21          | V2003333       |                  | STRAP, bearing              | 2          |
| 22          | V2003333       |                  | STRAP, bearing              | 2          |
| 23          | V2003334       |                  | BOLT, bearing strap         | 8          |
| 25          | 10307A01       |                  | KIT, U.J. repair            | AR         |
| 26          | 176S01         |                  | COVER, grease nipple        | 9          |

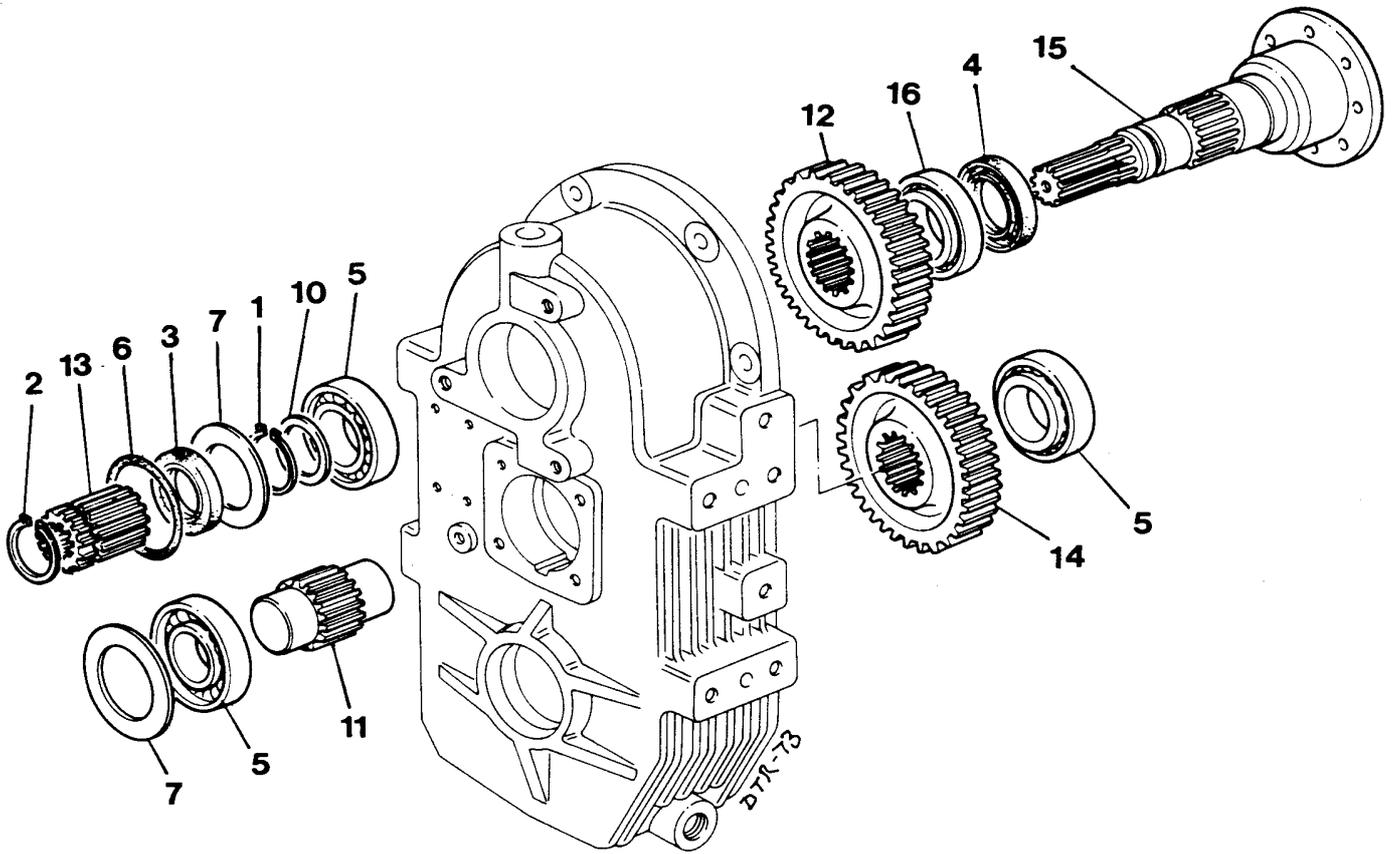


DTR-72

# TRANSFER GEARBOX, assembly

4 - F - 1

| Item | Part no  | Serial no | Description                         | Qty |
|------|----------|-----------|-------------------------------------|-----|
| 1    | V2000938 | 2001 /    | TRANSFER GEARBOX, assembly          | 1   |
| 2    | -----    |           | BRAKE, parking (see Brakes Section) |     |



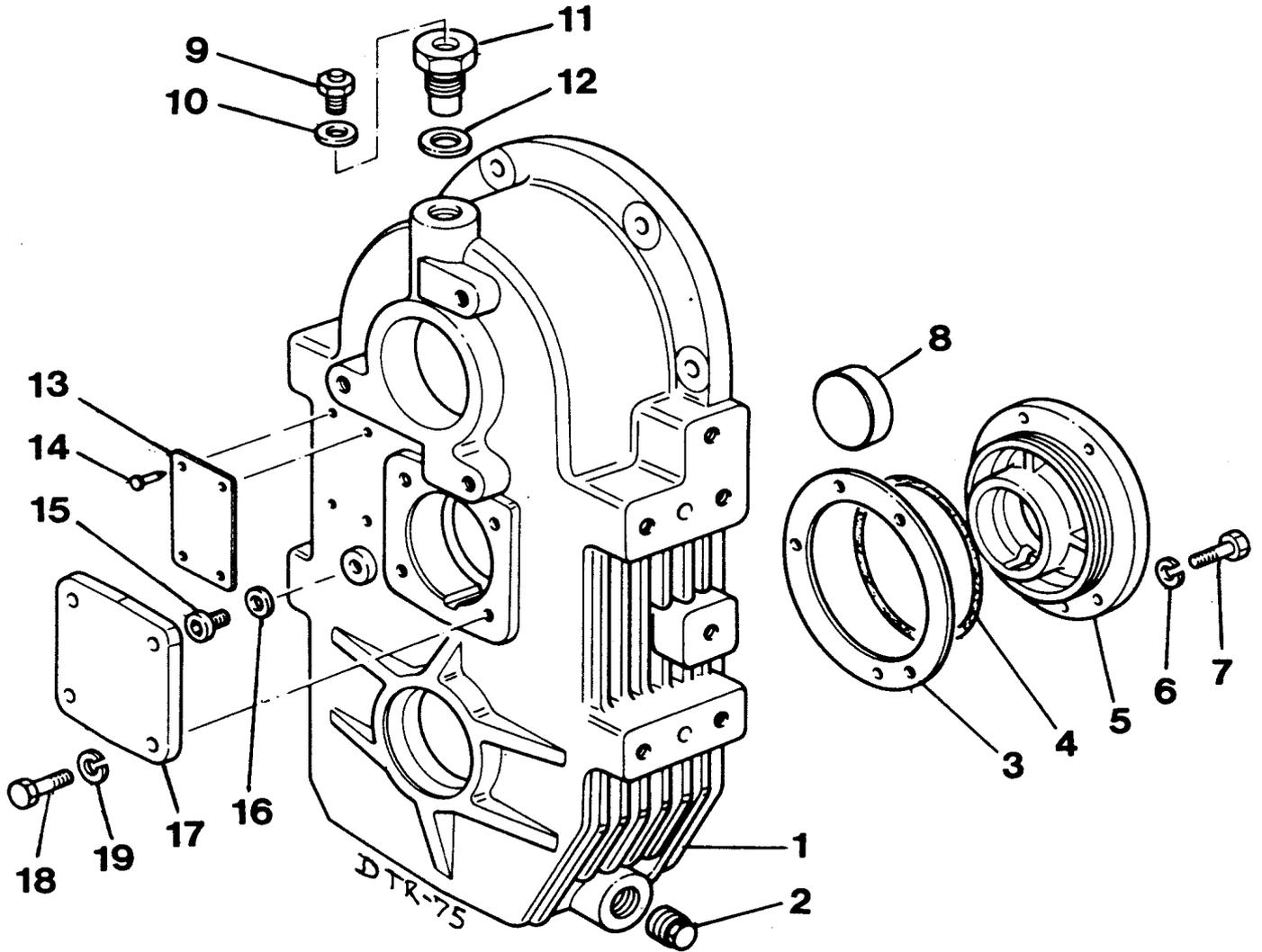
**INPUT & IDLER SHAFT, transfer gearbox****4 - F - 2**

| Item | Part no    | Serial no | Description    | Qty |
|------|------------|-----------|----------------|-----|
| 1    | V600422    | 2001 /    | CIRCLIP        | 1   |
| 2    | V600840    |           | CIRCLIP        | 1   |
| 3    | V600433    |           | SEAL, oil      | 1   |
| 4    | V600434    |           | SEAL, oil      | 1   |
| 5    | V600841    |           | BEARING        | 3   |
| 6    | V600437    |           | SEAL           | 1   |
| 7    | V600442    |           | SHIM, 0.3mm    | AR  |
| 7    | V600443    |           | SHIM, 0.1mm    | AR  |
| 7    | V600444    |           | SHIM, 0.05mm   | AR  |
| 10   | V600445    |           | WASHER, thrust | 1   |
| 11   | V600456    |           | SHAFT, idler   | 1   |
| 12   | V600458    |           | GEAR           | 1   |
| 13   | V600842    |           | SLEEVE         | 1   |
| 14   | V600458    |           | GEAR           | 1   |
| 15   | V600844    |           | SHAFT, input   | 1   |
| 16   | 30156A0180 |           | BEARING        | 1   |



**OUTPUT SHAFT, transfer gearbox****4 - F - 3**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b> | <b>Qty</b> |
|-------------|----------------|------------------|--------------------|------------|
| 1           | V600016        | 2001 /           | FLANGE             | 1          |
| 2           | V600434        |                  | SEAL, oil          | 1          |
| 3           | 30156A0180     |                  | BEARING            | 1          |
| 4           | V600845        |                  | BEARING            | 1          |
| 5           | V600015        |                  | SPACER             | 1          |
| 6           | V600014        |                  | SHAFT, output      | 1          |
| 7           | V600458        |                  | GEAR               | 1          |
| 8           | V600432        |                  | SEAL, oil          | 1          |
| 9           | V600449        |                  | RING, centralising | 1          |
| 10          | V600438        |                  | SEAL, 'O' ring     | 1          |
| 11          | V600436        |                  | SEAL, 'O' ring     | 1          |
| 12          | V600431        |                  | RING, locking      | 1          |



# HOUSING, transfer gearbox

4 - F - 4

| Item | Part no | Serial no   | Description                                      | Qty |
|------|---------|-------------|--|-----|
| 1    | V600868 | 2001 /      | HOUSING, transfer gearbox                        | 1   |
| 2    | V600078 |             | PLUG, drain                                      | 1   |
| 3    | V600452 |             | SHIM, 0.10mm                                     | AR  |
| 3    | V600453 |             | SHIM, 0.19mm                                     | AR  |
| 3    | V600454 |             | SHIM, 0.35mm                                     | AR  |
| 4    | V600439 |             | SEAL, "O" ring                                   | 1   |
| 5    | V600013 |             | COVER  | 1   |
| 6    | 17S05   | / April '98 | WASHER, spring                                   | 5   |
| 7    | 11S04D  |             | SCREW  | 5   |
| 8    | V600420 |             | COVER  | 1   |
| 9    | V600440 |             | PLUG, breather                                   | 1   |
| 10   | V600847 |             | WASHER   | 1   |
| 11   | V600457 |             | ADAPTOR, breather                                | 1   |
| 12   | V600848 |             | WASHER, flat                                     | 1   |
| 13   | V600450 |             | PLATE, serial number                             | 1   |
| 14   | V600849 |             | RIVET  | 4   |
| 15   | 11S03A  |             | SCREW, set                                       | 1   |
| 16   | V600850 |             | WASHER, flat                                     | 1   |
| 17   | V600455 |             | COVER  | 1   |
| 18   | 11S03C  | / April '98 | SCREW, M8x25<br>(use <b>with</b> washer 17S04)   | 4   |
| 18   | 11S03Y  | April '98 / | SCREW, M8x22<br>(use <b>without</b> washer)      | 4   |
| 19   | 17S04   | / April '98 | WASHER, spring<br>(use <b>with</b> screw 11S03C) | 4   |

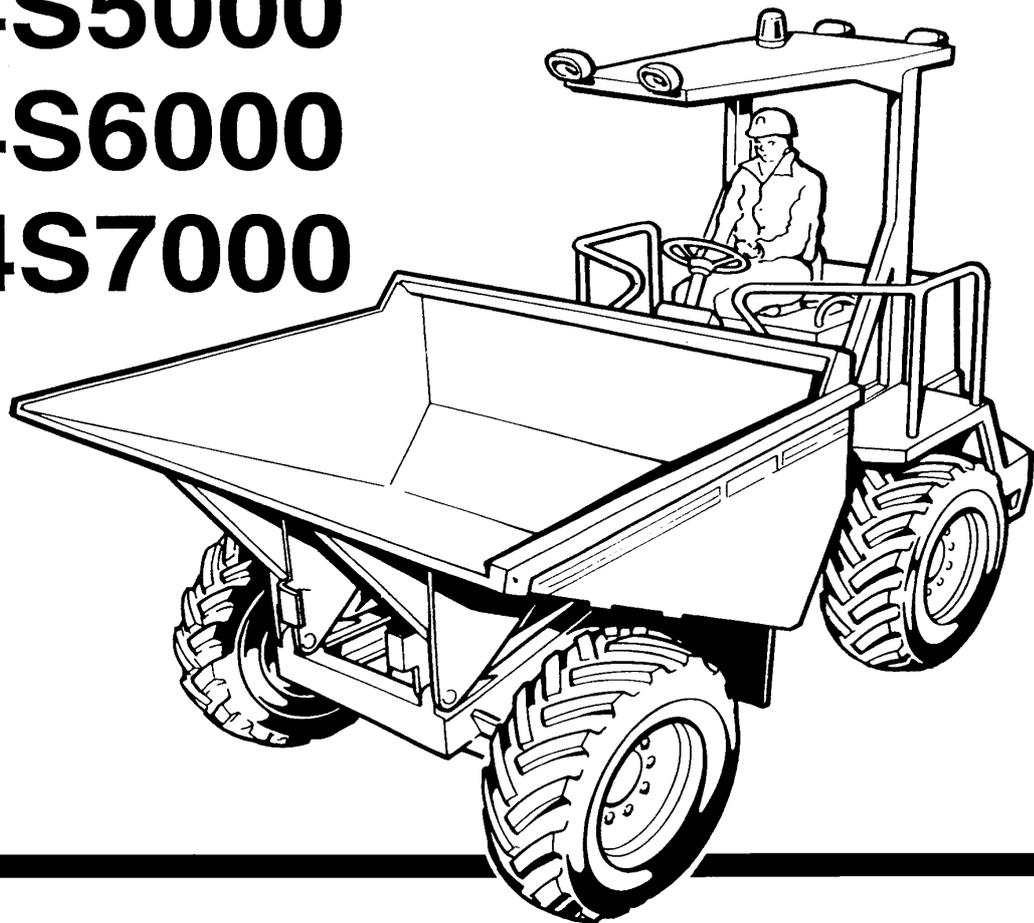
# **'S' Series Dumpers**

**4S4000**

**4S5000**

**4S6000**

**4S7000**



# ***Electrics***

|                       |                  |
|-----------------------|------------------|
| <b>MAIN ELECTRICS</b> | <b>5 - A - 1</b> |
|-----------------------|------------------|

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|                                  |                  |
|----------------------------------|------------------|
| <b>REVERSE ALARM &amp; TIMER</b> | <b>5 - A - 2</b> |
|----------------------------------|------------------|

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|               |                  |
|---------------|------------------|
| <b>BEACON</b> | <b>5 - A - 3</b> |
|---------------|------------------|

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|  |                  |
|--|------------------|
| <b>WORKING LIGHTS, used with FOPS canopy</b> | <b>5 - A - 4</b> |
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|   |                   |
|---|-------------------|
| <b>WORKING LIGHTS, used with ROPS frame</b> | <b>5 - A - 4A</b> |
|---|-------------------|

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|                    |                  |
|--------------------|------------------|
| <b>ROAD LIGHTS</b> | <b>5 - A - 5</b> |
|--------------------|------------------|

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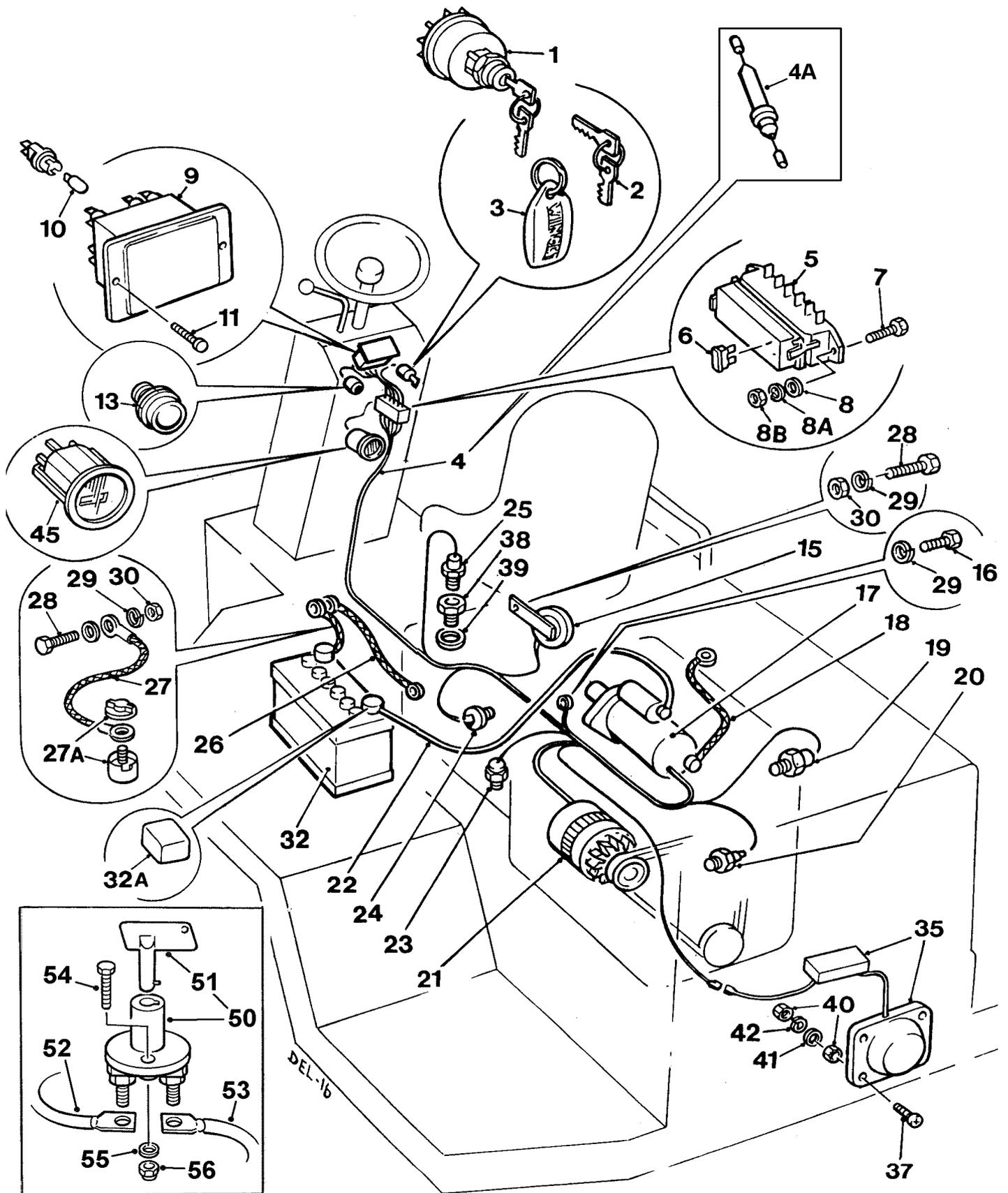
|                      |                  |
|----------------------|------------------|
| <b>CAB ELECTRICS</b> | <b>5 - A - 6</b> |
|----------------------|------------------|

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|                                    |                  |
|------------------------------------|------------------|
| <b>SCREEN WIPERS &amp; WASHERS</b> | <b>5 - A - 7</b> |
|------------------------------------|------------------|

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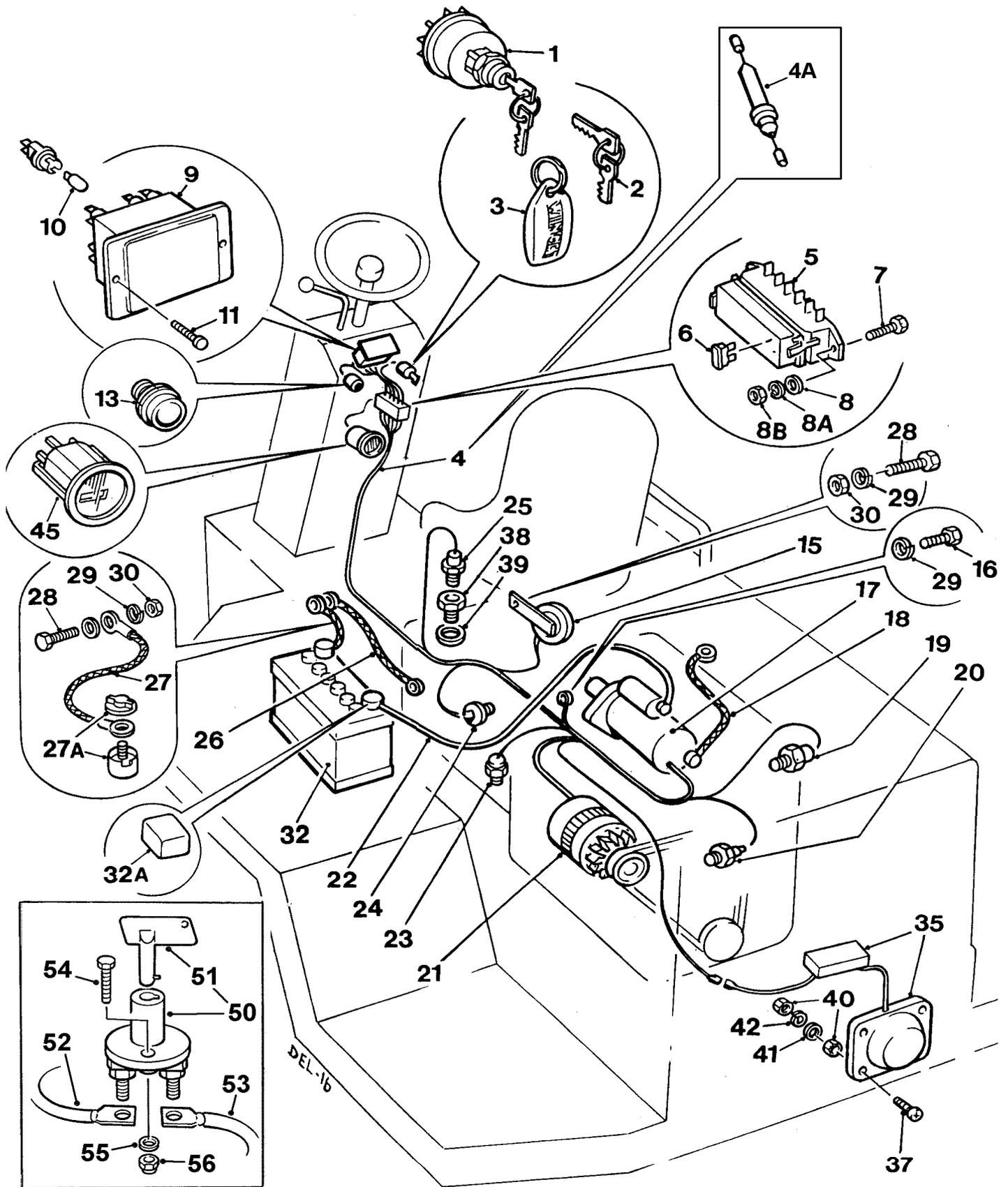
[\*\*<<< To beginning of Parts\*\*](#)



# MAIN ELECTRICS

# 5 - A - 1

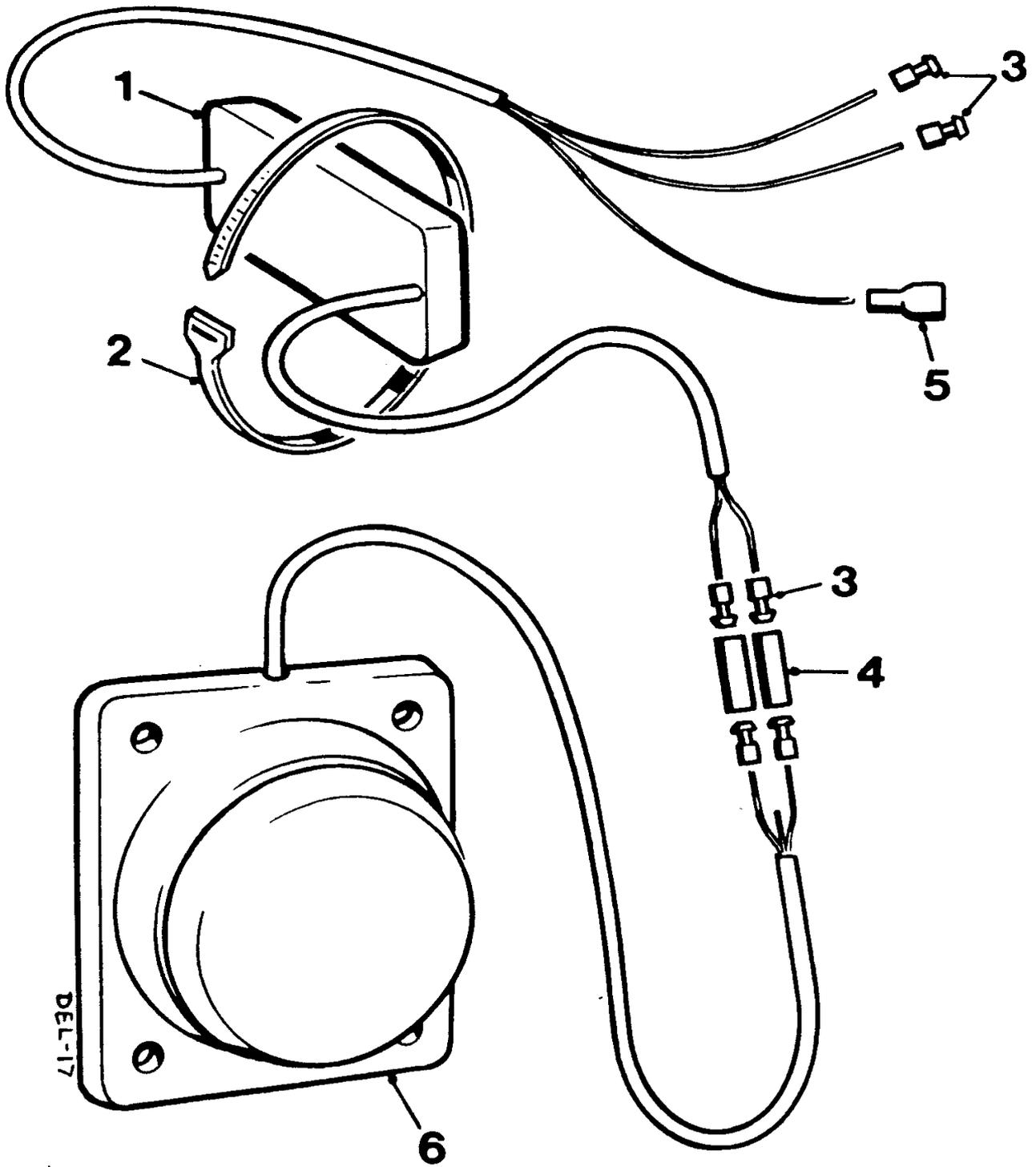
| Item   | Part no  | Serial no   | Description                                     | Qty |
|--|----------|-------------|---|-----|
| 1  | V2003561 | 2001 /      | START SWITCH                                    | 1   |
| 2  | V601179  |             | KEY   | 1   |
| 3  | V2003540 |             | RING, key                                       | 1   |
| <i>Used with "Compact Shuttle" Transmission</i>                    |          |             |   |     |
| 4  | V2002875 | 2001 / 2407 | # LOOM, ( <b>Not 4S7000</b> )                   | 1   |
| 4  | V2002875 | 2001 / 2403 | # LOOM, ( <b>4S7000 Only</b> )                  | 1   |
| <i>Used with "Compact Plus" Transmission</i>                       |          |             |   |     |
| 4  | V2005205 | 2408 /      | # LOOM, ( <b>Not 4S7000</b> )                   |     |
| 4  | V2005205 | 2404 /      | # LOOM, ( <b>4S7000 Only</b> )                  |     |
| <b># NOTE:</b> Loom V2005205 can be used in place of loom V2002875 |          |             |   |     |
| 4A   | V2004257 |             | DIODE, part of loom V2005205                    | 1   |
| 5  | V601177  |             | FUSEBOX, assembly                               | 1   |
| 6  | V601171  |             | FUSE, 5 amp, light brown                        | 1   |
| 6  | V601172  |             | FUSE, 7.5 amp, dark brown                       | 1   |
| 6  | V601173  |             | FUSE, 10 amp, red                               | 1   |
| 6  | V601174  |             | FUSE, 15 amp, blue                              | 1   |
| 6  | V601175  |             | FUSE, 20 amp, yellow                            | 1   |
| 6  | V601176  |             | FUSE, 25 amp, white                             | 1   |
| 7  | 11S01A   |             | SCREW, set                                      | 2   |
| 8  | 267S03   |             | WASHER, flat                                    | 2   |
| 8A   | 17S02    |             | WASHER, spring                                  | 2   |
| 8B   | 7S01     |             | NUT   | 2   |
| 9  | V2002661 |             | PANEL, warning lights, assembly                 | 1   |
| 10   | -        |             | BULB  | AR  |
| 11   | 311S03B  |             | SCREW, c/sunk head                              | 2   |
| 13   | V2003570 |             | BUTTON, horn                                    | 1   |
| 15   | V2003144 |             | HORN  | 1   |
| 16   | 11S03A   |             | SCREW, set                                      | 1   |
| 17   | -        |             | MOTOR, starter ( <i>see Engine Parts Book</i> ) |     |
| 18   | V2003510 |             | CABLE, earth, starter motor                     | 1   |
| 19   | V600588  |             | SENDER, coolant                                 | 1   |
| 20   | V600601  |             | SENDER, oil pressure                            | 1   |
| 21   | -        |             | ALTERNATOR ( <i>see Engine Parts Book</i> )     |     |
| 22   | 10989A01 |             | CABLE, battery to starter motor                 | 1   |
| 23   | V600732  |             | SENDER, transmission oil temperature            | 1   |



# MAIN ELECTRICS

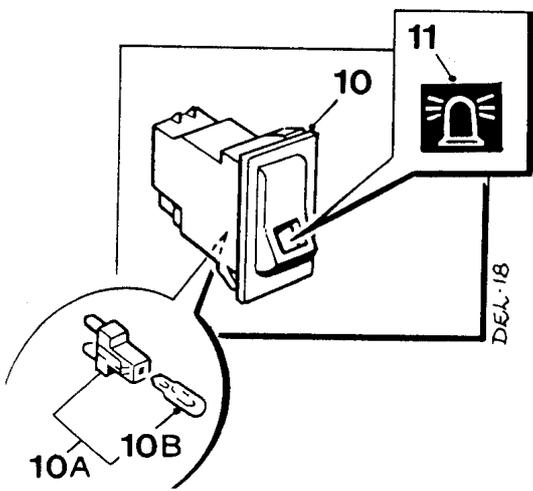
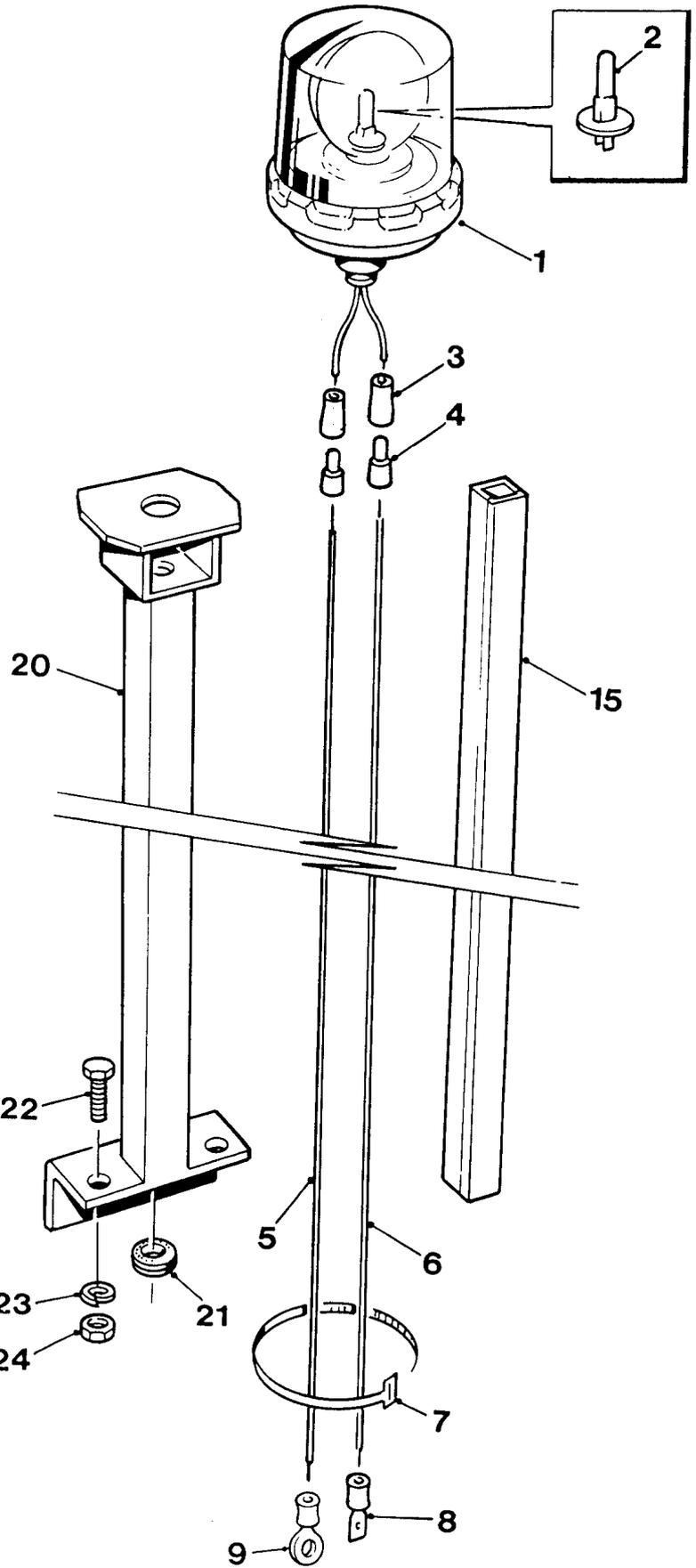
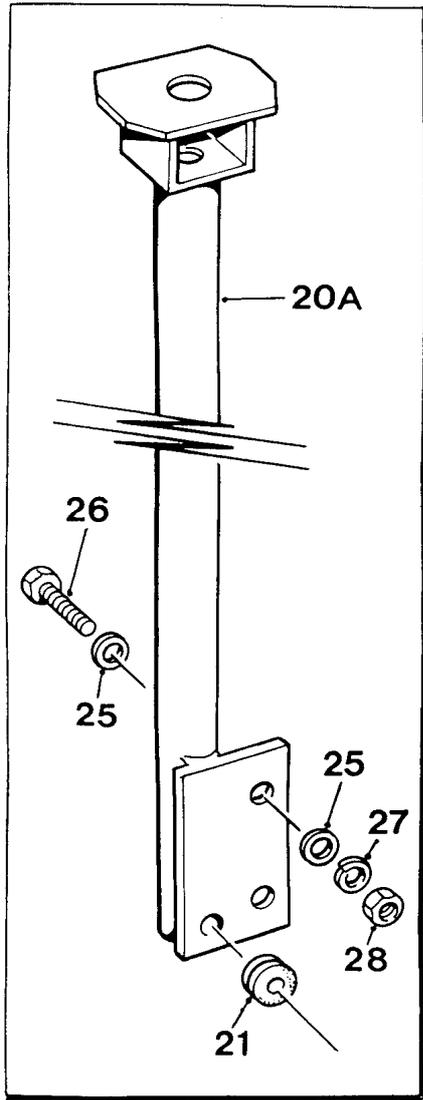
# 5 - A - 1

| Item | Part no   | Serial no   | Description   | Qty |
|------|-----------|-------------|---|-----|
| 24   | V600330   |             | SWITCH, safe start  | 1   |
| 25   | V2003529  |             | SWITCH, reversing alarm   | 1   |
| 26   | V2003510  |             | CABLE, earth, transmission  | 1   |
| 27   | 10990A08  | 2001 / 2070 | CABLE, earth, battery   | 1   |
| 27   | V2004216  | 2071 /      | CABLE, earth, battery   | 1   |
| 27A  | V2004214  | 2071 /      | ISOLATOR, battery earth   | 1   |
| 28   | 11S03C    |             | SCREW, set  | 2   |
| 29   | 17S04     |             | WASHER, spring  | 3   |
| 30   | 7S03      |             | NUT   | 2   |
| 32   | V2003511  |             | BATTERY   | 1   |
| 32A  | V2004204  | 2071 /      | COVER, battery terminal   | 1   |
| 35   | -----     |             | ALARM, reversing ( <i>see page 5 - A - 2</i> )  | 1   |
| 37   | 11S02C    |             | SCREW, set  | 4   |
| 38   | V2003530  |             | ADAPTOR, male   | 1   |
| 39   | 100S02    |             | SEAL, bonded  | 1   |
| 40   | 7S02      |             | NUT   | 4   |
| 41   | 7S02      |             | NUT   | 4   |
| 42   | 267S04    |             | WASHER, flat  | 4   |
| 43   | 17S03     |             | WASHER, spring  | 4   |
| 45   | V2003123  | 2052 /      | GAUGE, hour meter   | 1   |
| 50   | V2004794  |             | SWITCH, isolator  | 1   |
| 51   | V602757   |             | KEY, isolator switch  | 1   |
| 52   | 10989A01  |             | * CABLE, positive, 1200mm long  | 1   |
| 53   | 513359400 |             | * CABLE, positive, 1000mm long  | 1   |
|      |           |             | * <b>Note:</b> <i>When fitting Isolator switch (50) cables (52 &amp; 53) are used in place of cable (22).</i> |     |
| 54   | 11S01B    |             | SCREW, set  | 2   |
| 55   | 59S13     |             | NUT, Nyloc, self-locking  | 2   |
| 56   | 267S03    |             | WASHER, flat  | 2   |



**REVERSE ALARM AND TIMER****5 - A - 2**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                    | <b>Qty</b> |
|-------------|----------------|------------------|---------------------------------------|------------|
| 1           | V2003748       | 2001 /           | TIMER                                 | 1          |
| 2           | V2003111       |                  | TIE                                   | 2          |
| 3           | 191901800      |                  | BULLET, male                          | 6          |
| 4           | 191901100      |                  | CONNECTOR, sleeve                     | 2          |
| 5           | 191906000      |                  | CONNECTOR, lucar, 1/4" 'f', insulated | 1          |
| 6           | V2003528       |                  | ALARM, reverse                        | 1          |



| Item | Part no   | Serial no | Description                | Qty |
|------|-----------|-----------|----------------------------|-----|
| 1    | V2003576  | 2001 /    | BEACON, assembly           | 1   |
| 2    | V600430   |           | BULB, beacon               | 1   |
| 3    | 191901100 |           | CONNECTOR, 'Bullet' female | 2   |
| 4    | 191901800 |           | CONNECTOR, 'Bullet' male   | 2   |
| 7    | V2003111  |           | TIE, nylon                 | 2   |
| 8    | V2003583  |           | CONNECTOR, 'Lucar', male   | 1   |
| 9    | 191901700 |           | CONNECTOR, ring            | 1   |
| 10   | V2003577  |           | SWITCH, off/on, assembly   | 1   |
| 10A  | V602399   |           | RETAINER & BULB, assembly  | 1   |
| 10B  | V601800   |           | BULB                       | 1   |
| 11   | V2003578  |           | INSERT, beacon switch      | 1   |

**Beacon with ROPS**

|    |           |  |                         |   |
|----|-----------|--|-------------------------|---|
| 5  | 144776002 |  | WIRE, orange (3 metres) | 1 |
| 5  | 144779002 |  | WIRE, black (3 metres)  | 1 |
| 15 | V2004043  |  | CONDUIT                 | 1 |
| 21 | V2003252  |  | GROMMET                 | 1 |

**Beacon without ROPS**

|     |           |     |                           |   |
|-----|-----------|-----|---------------------------|---|
| 5   | 144776001 |     | WIRE, orange (1.5 metres) | 1 |
| 6   | 144779001 |     | WIRE, black (1.5 metres)  | 1 |
| 20  | V2003567  | / # | SUPPORT, beacon           | 1 |
| 20A | V2004999  | # / | SUPPORT, beacon           | 1 |
| 21  | V2003573  |     | GROMMET, open             | 1 |
| 22  | 11S04D    | / # | SCREW, set                | 3 |
| 23  | 17S05     | / # | WASHER, spring            | 3 |
| 24  | 7S04      | / # | NUT                       | 3 |
| 25  | 17S05     | # / | WASHER, flat              | 4 |
| 26  | 11S04D    | # / | SCREW, set                | 2 |
| 27  | 17S05     | # / | WASHER, spring            | 2 |
| 28  | 7S04      | # / | NUT                       | 2 |

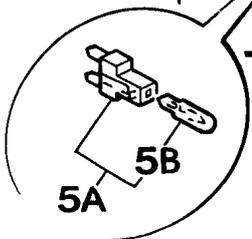
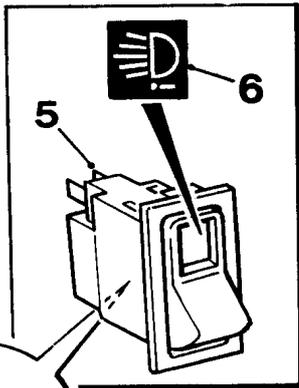
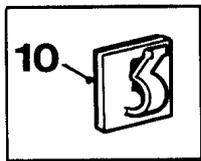
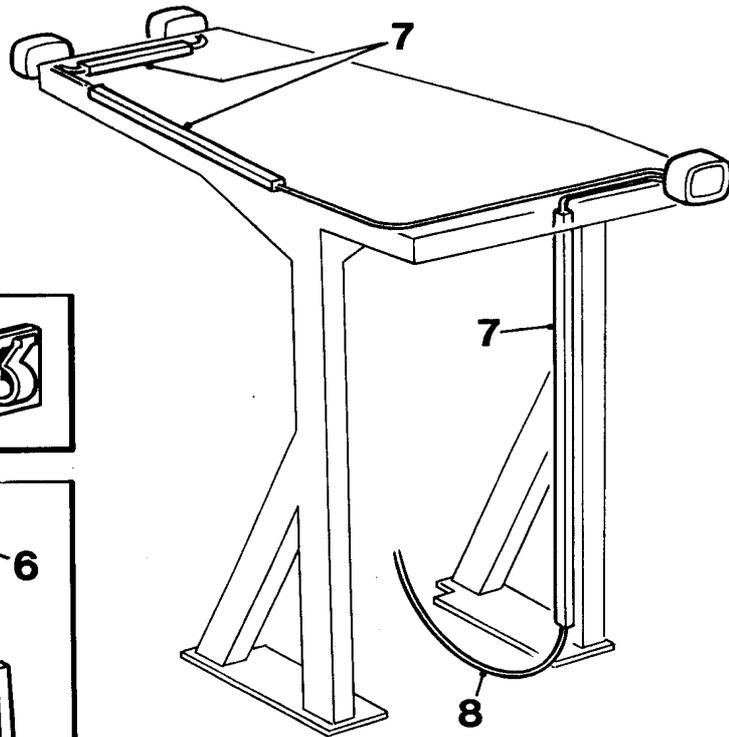
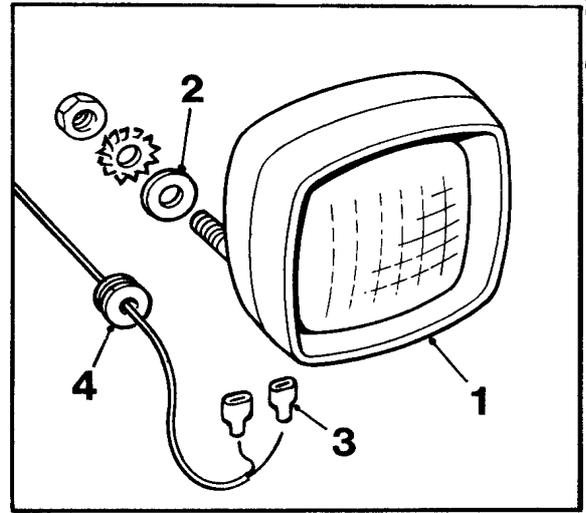
*/ # Up to and from serial numbers*

*/ 2152*

2153 / **4S4/5/6000**

*/ 2121*

2122 / **4S7000**

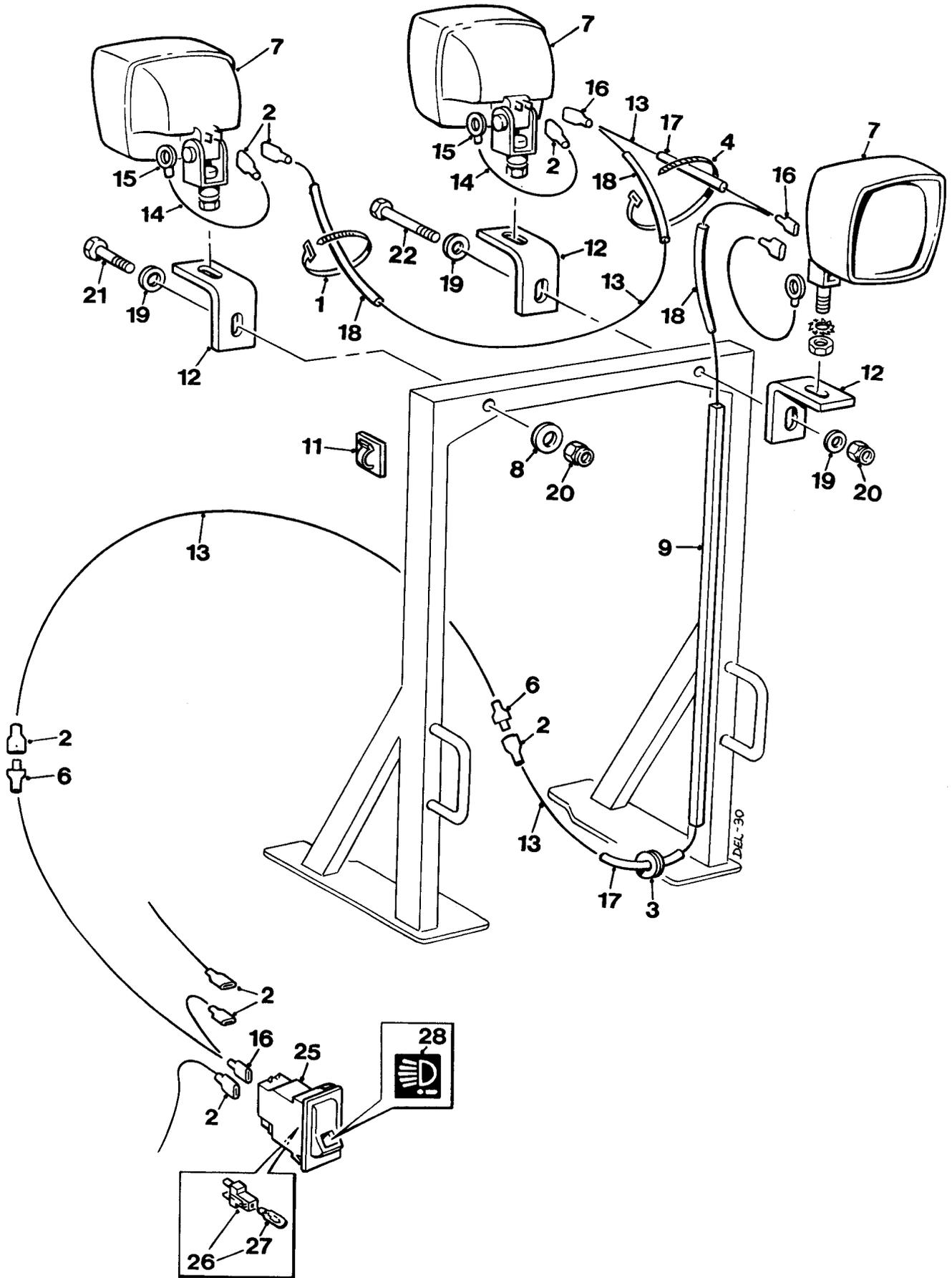


**WORKING LIGHTS, used with FOPS canopy****5 - A - 4**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                   | <b>Qty</b> |
|-------------|----------------|------------------|--------------------------------------|------------|
| 1           | V2003638       |                  | LIGHT, working                       | 3          |
| 2           | V2004220       |                  | WASHER, Special <i>(as required)</i> | 3          |
| 3           | V2003233       |                  | CONNECTOR, female Lucar              | 6          |
| 4           | V2003252       |                  | GROMMET                              | 3          |
| 5           | V2003577       |                  | SWITCH, on/off assembly              | 1          |
| 5A          | V601800        |                  | RETAINER & BULB, assembly            | 1          |
| 5B          | V602399        |                  | BULB                                 | 1          |
| 6           | V2004219       |                  | INSERT, working light                | 1          |
| 7           | V2004043       |                  | CONDUIT (order by metre)             | AR         |
| 8           | 144779003      |                  | WIRE, black                          | 5 metres   |
| 8           | 144772000      |                  | WIRE, red / yellow                   | 5 metres   |
| 10          | V2004355       |                  | CLIP, self-adhesive                  | 2          |

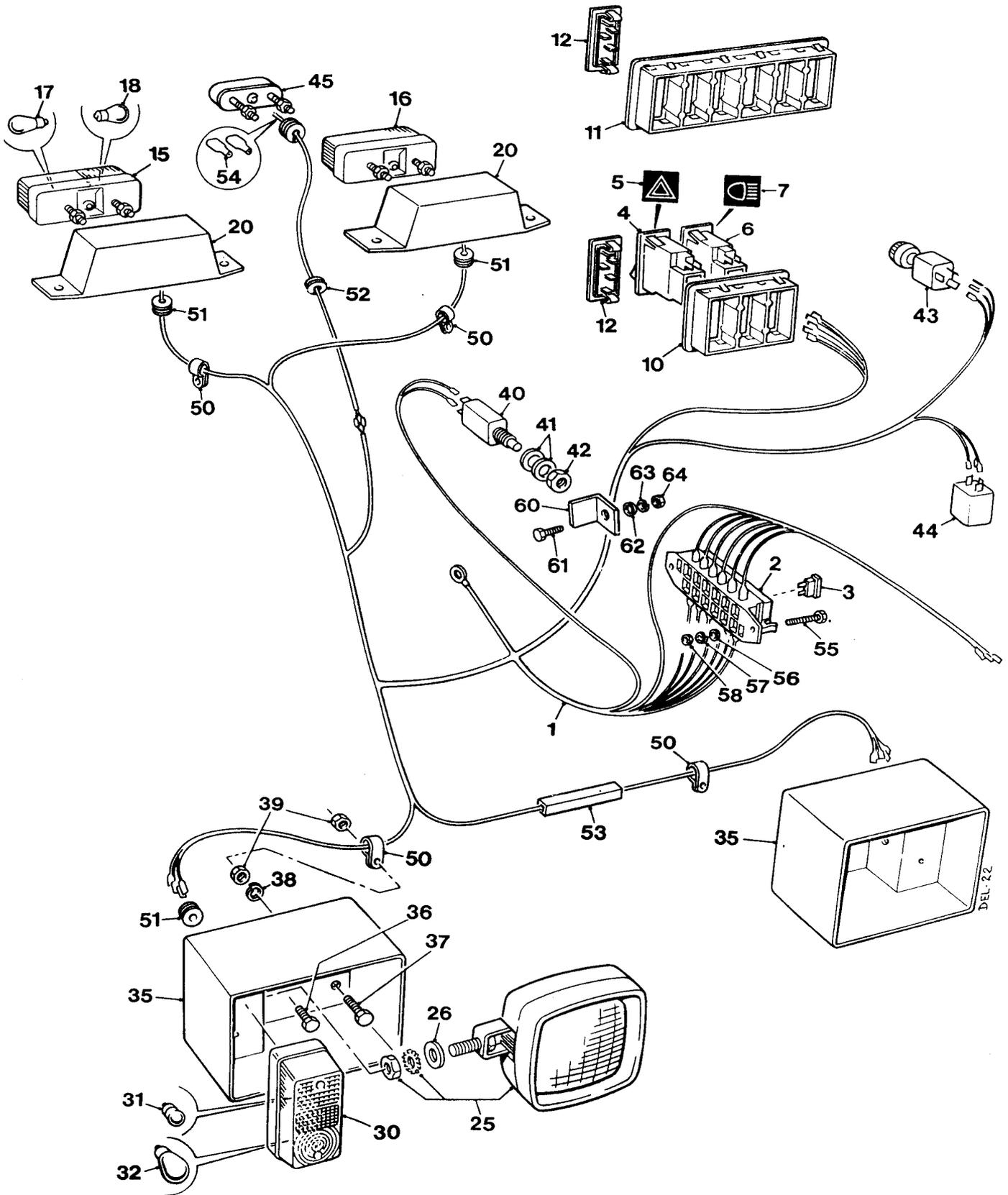
# 5 - A - 4A

## 4S4000, 4S5000, 4S6000 & 4S7000 Dumpers



**WORKING LIGHTS used with ROPS frame****5 - A - 4A**

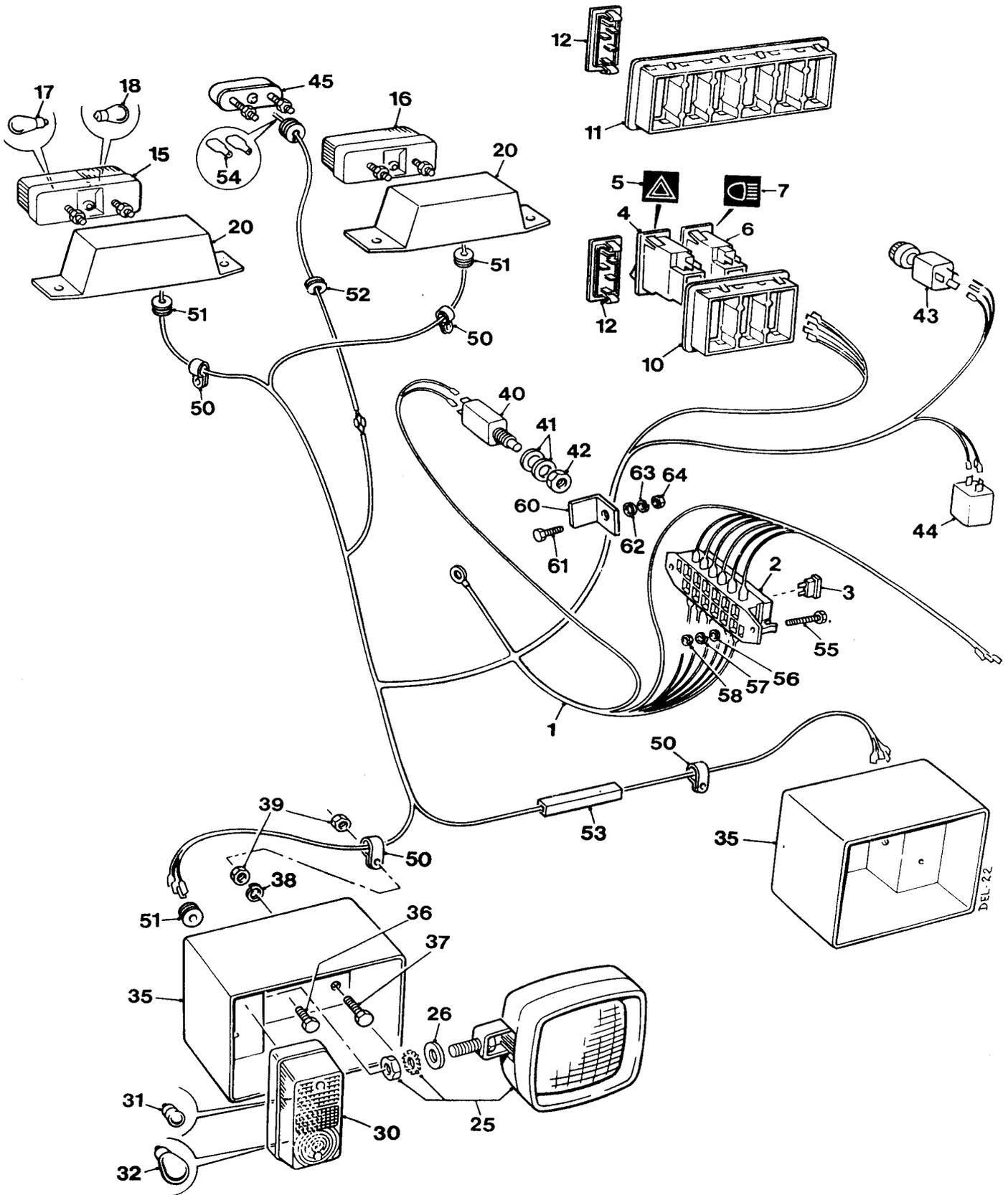
| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>              | <b>Qty</b> |
|-------------|----------------|------------------|---------------------------------|------------|
| 1           | V2003111       |                  | TIE, nylon, cable               | 10         |
| 2           | V2003233       |                  | TERMINAL, Lucar female          | 10         |
| 3           | V2003252       |                  | GROMMET, open                   | 1          |
| 4           | V2003253       |                  | TIE, nylon, cable               | 1          |
| 6           | V2003583       |                  | TERMINAL, Lucar male            | 2          |
| 7           | V2003638       |                  | LIGHT, working                  | 3          |
| 8           | V2003892       |                  | WASHER, Special                 | 1          |
| 9           | V2004043       |                  | CONDUIT (order by metre)        | AR         |
| 11          | V2004355       |                  | CLIP, self-adhesive             | 2          |
| 12          | V2005003       |                  | BRACKET, working light          | 3          |
| 13          | 144739001      |                  | WIRE, blue/red (order by metre) | AR         |
| 14          | 144779001      |                  | WIRE, black (order by metre)    | AR         |
| 15          | 191901700      |                  | TERMINAL, ring                  | 3          |
| 16          | 191907000      |                  | TERMINAL, Lucar female          | 3          |
| 17          | 208143001      |                  | SLEEVE, 100mm long              | 2          |
| 18          | 208143002      |                  | SLEEVE, 400mm long              | 3          |
| 19          | 267S07         |                  | WASHER, flat                    | 3          |
| 20          | 59S04          |                  | NUT, 'Nyloc' self-locking       | 2          |
| 21          | 8S05S          |                  | BOLT                            | 1          |
| 22          | 8S05T          |                  | BOLT                            | 1          |
| 25          | V2003577       |                  | SWITCH, on/off assembly         | 1          |
| 26          | V601800        |                  | RETAINER & BULB, assembly       | 1          |
| 27          | V602399        |                  | BULB                            | 1          |
| 28          | V2004219       |                  | INSERT, working light           | 1          |



## ROAD LIGHTS

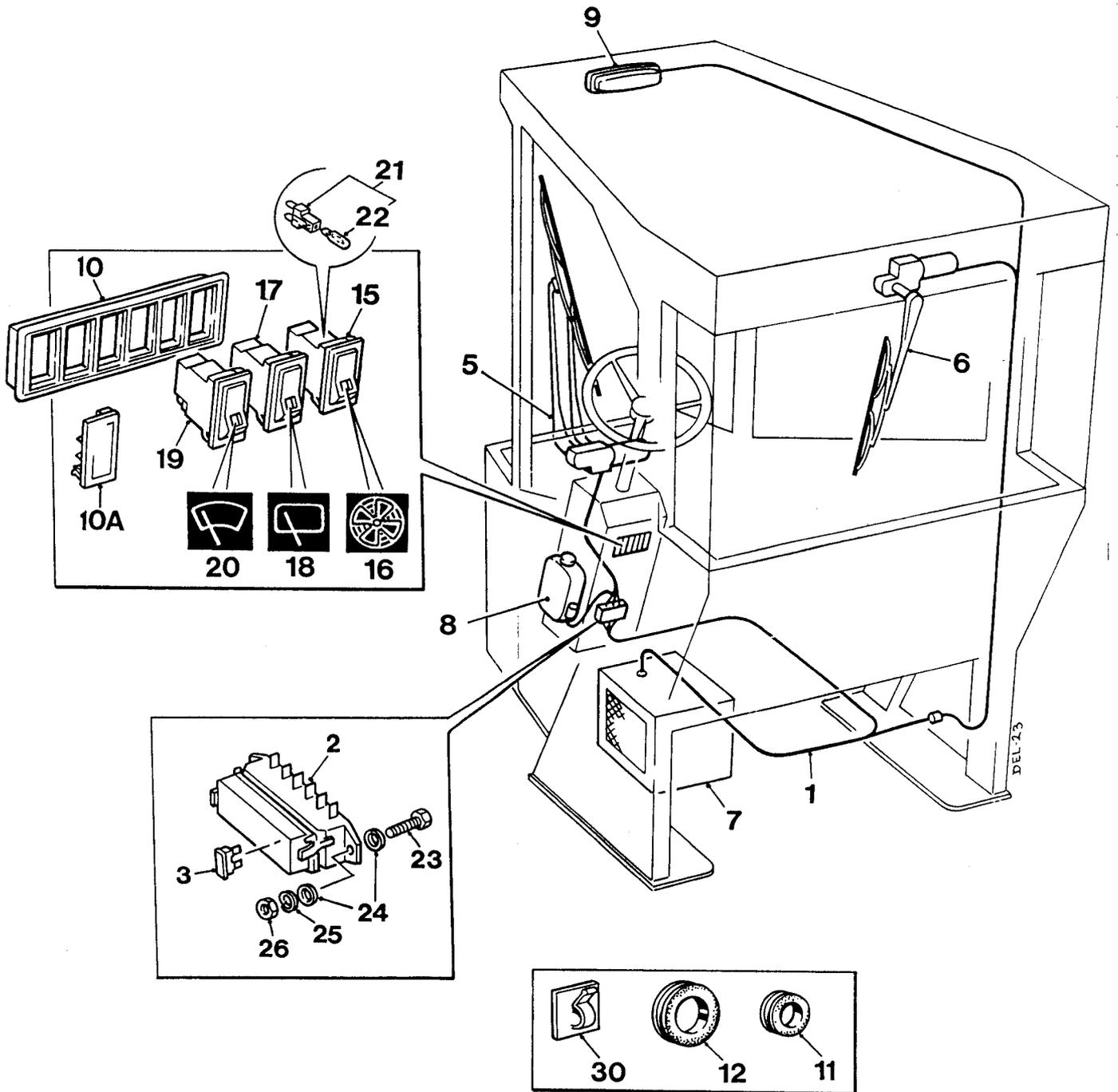
5 - A - 5

| Item | Part no  | Serial no | Description                                  | Qty |
|------|----------|-----------|--|-----|
| 1    | V2003645 |           | LOOM, assembly                               | 1   |
| 2    | —        |           | FUSEBOX                                      | 1   |
| 3    | —        |           | FUSE   |     |
| 4    | V2003641 |           | SWITCH, hazard lights                        | 1   |
| 5    | V2003647 |           | INSERT, hazard lights                        | 1   |
| 6    | V2003644 |           | SWITCH, head lights                          | 1   |
| 7    | V2003646 |           | INSERT, main beam                            | 1   |
| 10   | V2003643 |           | PANEL, three switch                          | 1   |
| 11   | V2004285 |           | PANEL, six switch                            | 1   |
| 12   | V2003348 |           | BLANK, switch panel                          | 6   |
| 15   | V2003651 |           | LIGHT, R.H. rear, assembly                   | 1   |
| 16   | V2003636 |           | LIGHT, L.H. rear, assembly                   | 1   |
| --   | V2004358 |           | LENSE  | 1   |
| 17   | V2003130 |           | BULB, indicator, 12V 21W                     | 1   |
| 18   | V2003145 |           | BULB, brake/rear sidelight, 12V 21/5W        |     |
| 20   | V2003635 |           | COWL, rear light                             | 2   |
| 25   | V2003638 |           | LIGHT, head                                  | 2   |
| 26   | V2004220 |           | WASHER, Special                              | 2   |
| 30   | V2003652 |           | LIGHTS, R.H. front, assembly                 | 1   |
| —    | V2003637 |           | LIGHTS, L.H. front, <i>(not illustrated)</i> | 1   |
| ---  | V2004356 |           | LENS   | 1   |
| 31   | V2003137 |           | BULB, sidelight 12V 5W                       | 1   |
| 32   | V2003130 |           | BULB, indicator 12V 21W                      | 1   |
| 35   | V2003634 |           | COWL, head & sidelights                      | 2   |
| 36   | 11S05C   |           | SCREW, set                                   | 2   |
| 37   | 11S05E   |           | SCREW, set                                   | 2   |
| 38   | 17S06    |           | WASHER, spring                               | 4   |
| 39   | 7S05     |           | NUT  | 6   |
| 40   | V2003168 |           | SWITCH, brake                                | 1   |
| 41   | 10S04    |           | WASHER, flat                                 | 2   |
| 42   | 95S05    |           | NUT  | 1   |
| 43   | V2003642 |           | SWITCH, indicator                            | 1   |
| 44   | V2003640 |           | UNIT, flasher                                | 1   |
| 45   | V2003639 |           | LIGHT, number plate                          | 1   |

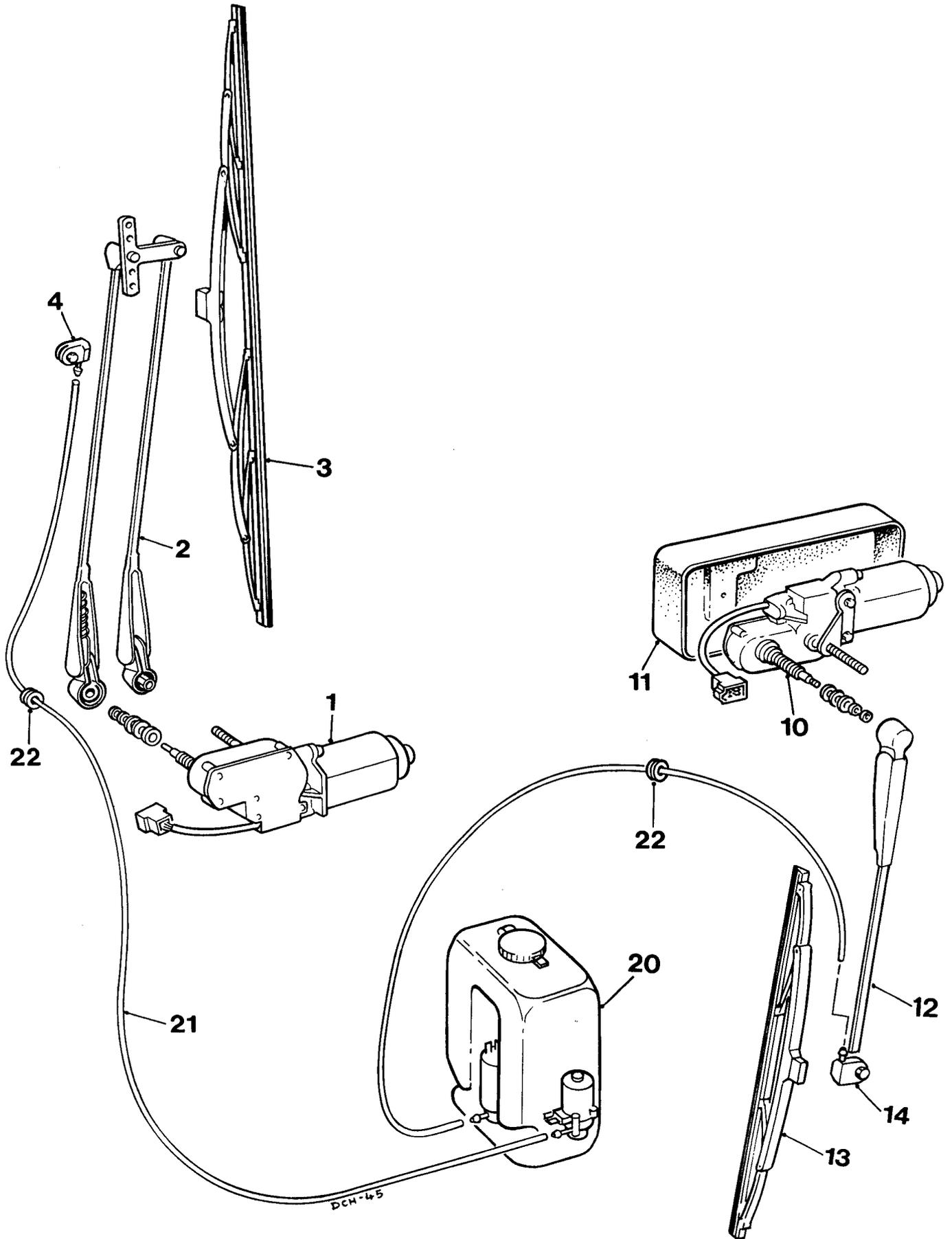


**ROAD LIGHTS****5 - A - 5**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>              | <b>Qty</b> |
|-------------|----------------|------------------|---------------------------------|------------|
| 50          | V2003557       |                  | CLIP, 'P' type                  | 5          |
| 51          | V2003252       |                  | GROMMET                         | 5          |
| 52          | V2003573       |                  | GROMMET                         | 1          |
| 53          | V2004043       |                  | CONDUIT                         | AR         |
| 54          | 191906000      |                  | CONNECTOR, 1/4" female Lucar    | 2          |
| 55          | 11S01A         |                  | SCREW, set                      | 2          |
| 56          | 267S03         |                  | WASHER, flat                    | 2          |
| 57          | 17S02          |                  | WASHER, spring                  | 2          |
| 58          | 7S01           |                  | NUT                             | 2          |
| 60          | V2004768       |                  | BRACKET, brake switch operation | 1          |
| 61          | 11S03C         |                  | SCREW, set                      | 1          |
| 62          | 267S05         |                  | WASHER, flat                    | 1          |
| 63          | 17S04          |                  | WASHER, spring                  | 1          |
| 64          | 7S03           |                  | NUT                             | 1          |



| Item | Part no   | Serial no | Description                                | Qty |
|------|-----------|-----------|--|-----|
| 1    | V2004745  | 2086 /    | LOOM, c/w fusebox, plugs & switches        | 1   |
| 2    | V601177   |           | FUSEBOX                                    | 1   |
| 3    | V601171   |           | FUSE, 5 amp, light brown                   | 1   |
| 3    | V601172   |           | FUSE, 7.5 amp, dark brown                  | 1   |
| 3    | V601173   |           | FUSE, 10 amp, red                          | 1   |
| 3    | V601174   |           | FUSE, 15 amp, blue                         | 1   |
| 3    | V601175   |           | FUSE, 20 amp, yellow                       | 1   |
| 3    | V601176   |           | FUSE, 25 amp, white                        | 1   |
| 5    | —         |           | WIPER, front <i>(see page 5 - A - 7)</i>   | 1   |
| 6    | —         |           | WIPER, rear <i>(see page 5 - A - 7)</i>    | 1   |
| 7    | —         |           | HEATER <i>(see page 8 - E - 1)</i>         | 1   |
| 8    | —         |           | WASHER BOTTLE <i>(see page 5 - A - 7)</i>  | 1   |
| 9    | V602401   |           | LIGHT, interior                            | 1   |
| 10   | V2004285  |           | HOLDER, 6 switches                         | 1   |
| 10   | V2003643  |           | HOLDER, 3 switches                         | 1   |
| 10A  | V2003348  |           | INSERT, blank <i>(replaces one switch)</i> | AR  |
| 11   | V2003252  |           | GROMMET, open, 17mm O/D                    | 1   |
| 12   | V2004364  |           | GROMMET, open, 25mm O/D                    | 1   |
| 15   | V2004350  |           | SWITCH, heater fan                         | 1   |
| 16   | V2004354  |           | INSERT, heater fan                         | 1   |
| 17   | V2004351  |           | SWITCH, rear wiper                         | 1   |
| 18   | V2004352  |           | INSERT, rear wiper                         | 1   |
| 19   | V2004351  |           | SWITCH, front wiper                        | 1   |
| 20   | V2004353  |           | INSERT, front wiper                        | 1   |
| 21   | V601800   |           | RETAINER and BULB assembly                 | AR  |
| 22   | V602399   |           | BULB                                       | AR  |
| 23   | 11S01A    |           | SCREW, set                                 | 2   |
| 24   | 267S03    |           | WASHER, flat                               | 4   |
| 25   | 17S02     |           | WASHER, spring                             | 2   |
| 26   | 7S01      |           | NUT  | 2   |
| 30   | V2004355  |           | CLIP, self-adhesive                        | 2   |
| --   | 191901100 |           | TERMINAL NIPPLE <i>(not illustrated)</i>   | 3   |



# SCREEN WIPERS AND WASHER BOTTLE

# 5 - A - 7

| Item   | Part no  | Serial no | Description  | Qty |
|--|----------|-----------|--|-----|
| 1  | V602337  | 2086 /    | MOTOR, front wiper   | 1   |
| 2  | V602334  |           | ARM, front wiper   | 1   |
| 3  | V602331  |           | BLADE, front wiper   | 1   |
| 4  | —        |           | NOZZLE, front washer   | 1   |
| 10   | V602330  |           | MOTOR, rear wiper  | 1   |
| 11   | —        |           | COVER, motor   | 1   |
| 12   | V602333  |           | ARM, rear wiper  | 1   |
| 13   | V602332  |           | BLADE, rear wiper  | 1   |
| 14   | —        |           | NOZZLE, rear washer  | 1   |
| 20   | V602426  |           | BOTTLE, screen washers<br>c/w motors & pumps                           | 1   |
| <b><i>Fixings (not illustrated), for Washer Bottle</i></b> |          |           |  |     |
| --   | 11S01A   |           | SCREW, set   | 2   |
| --   | 267S03   |           | WASHER, flat   | 4   |
| --   | 17S02    |           | WASHER, spring   | 2   |
| --   | 7S01     |           | NUT  | 2   |
| 21   | V602467  |           | HOSE (6 metres)  | 1   |
| 22   | V2003252 |           | GROMMET, open  | 2   |
| --   | V2003266 |           | VALVE, non-return, <i>(not illustrated)</i><br>for rear screen washers | 1   |

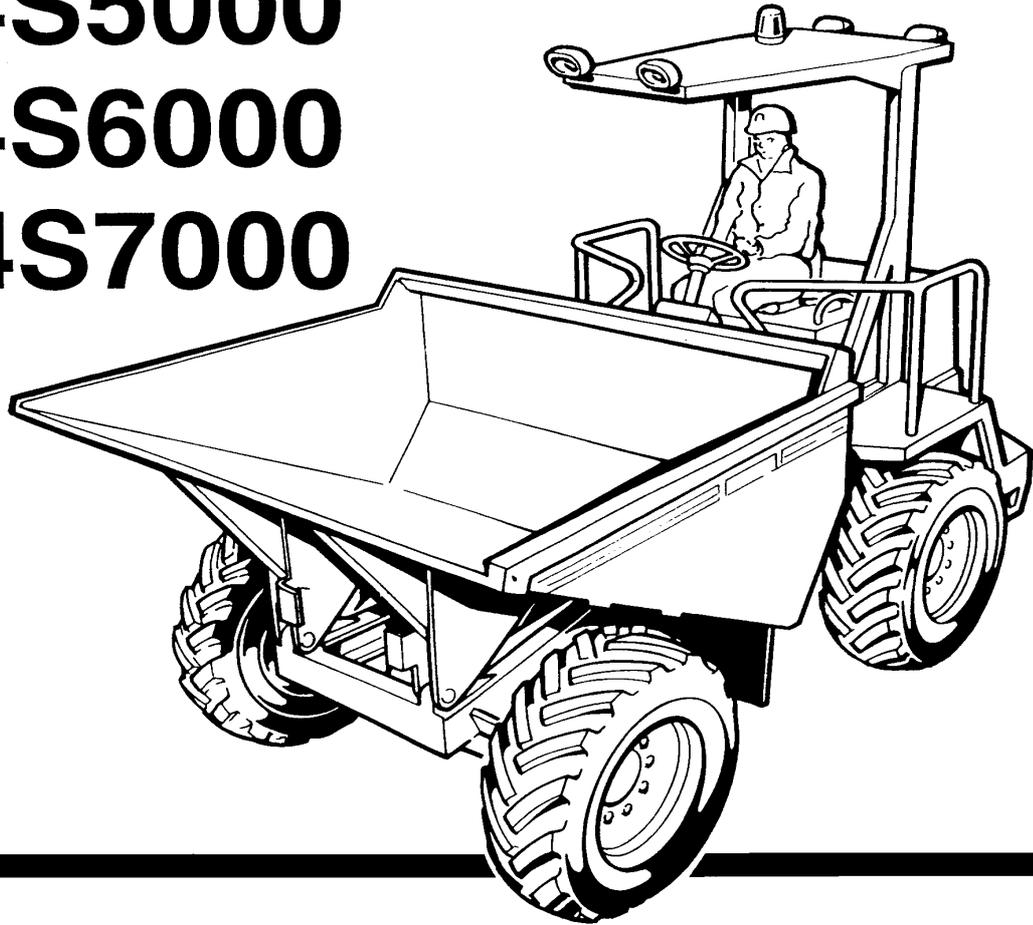
# **'S' Series Dumpers**

**4S4000**

**4S5000**

**4S6000**

**4S7000**



# ***Skips***

**FORWARD TIPPING SKIP**

**6 - A - 1**

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**ROTATING SKIP**

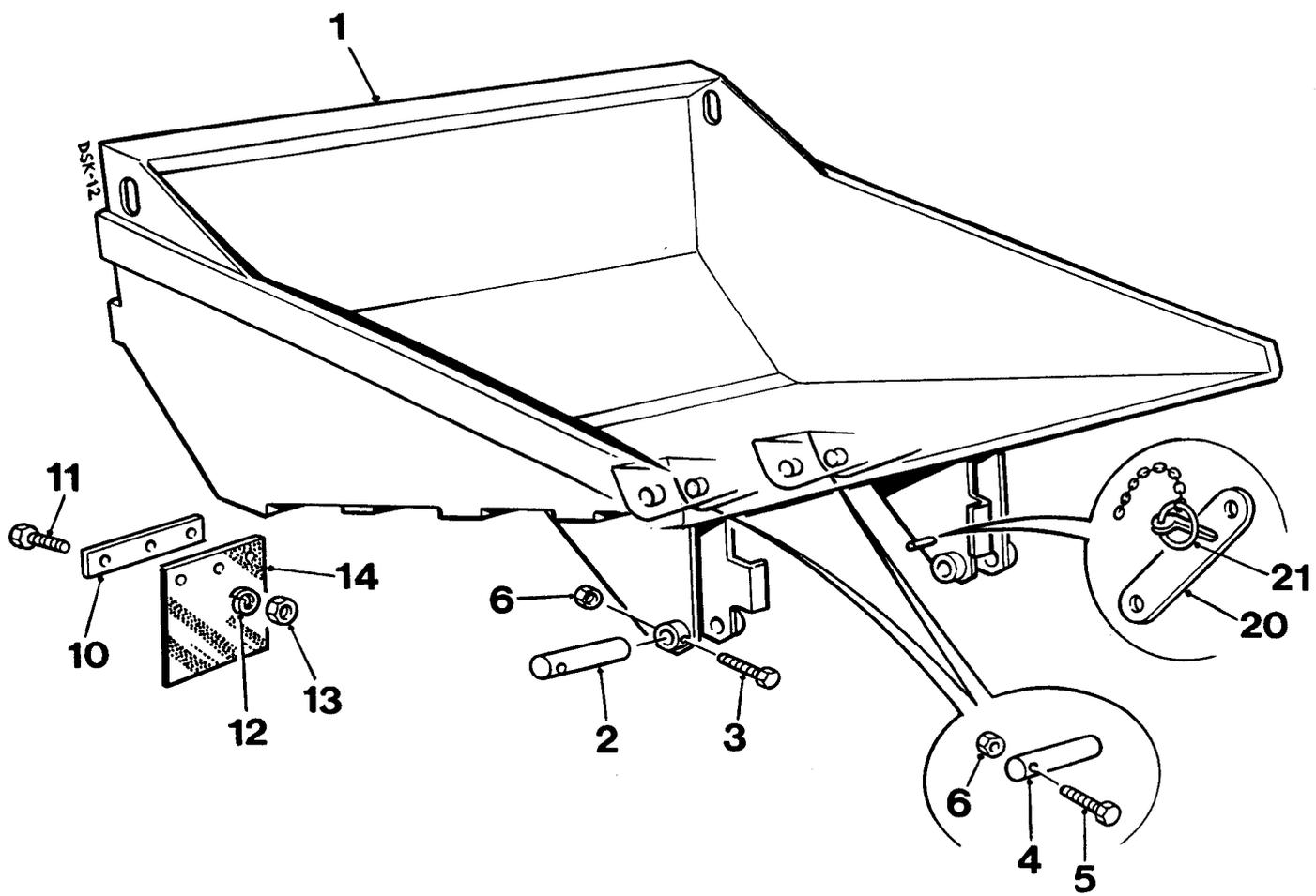
**6 - A - 2**

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**<<< To beginning of Parts**

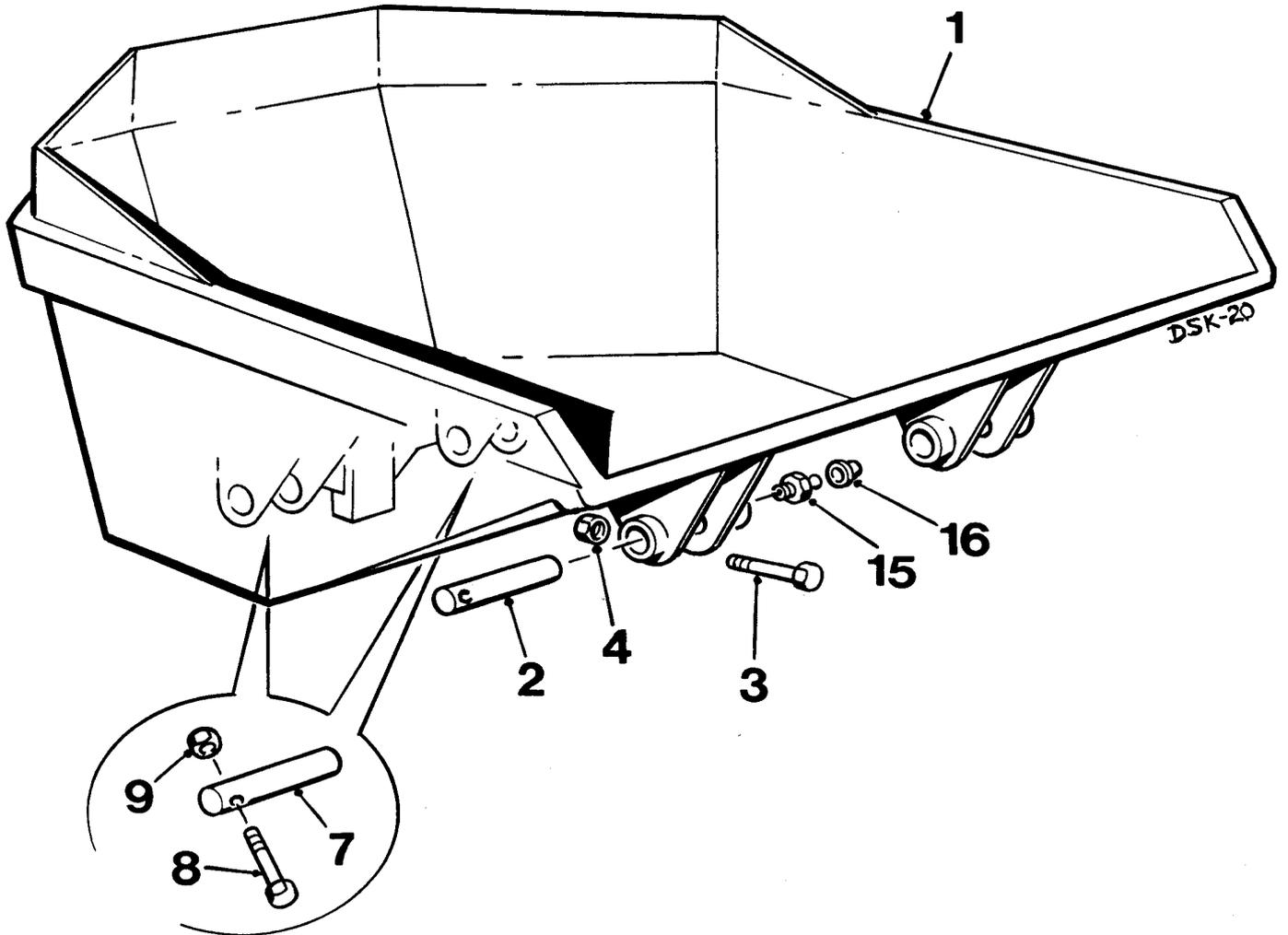
# 6 - A - 1

## 4S4000, 4S5000, 4S6000 & 4S7000 Dumpers



**SKIP, forward tipping****6 - A - 1**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b> | <b>Qty</b> |
|-------------|----------------|------------------|--------------------|------------|
|             |                |                  | <b>4S4000</b>      |            |
| 1           | V2000966       | 2001 /           | SKIP               | 1          |
|             |                |                  | <b>4S5000</b>      |            |
| 1           | V2000965       |                  | SKIP               | 1          |
|             |                |                  | <b>4S6000</b>      |            |
| 1           | V2000964       |                  | SKIP               | 1          |
|             |                |                  | <b>4S7000</b>      |            |
| 1           | V2004299       |                  | SKIP               | 1          |
| 2           | V2002619       |                  | PIN, skip pivot    | 2          |
| 3           | 11S03M         |                  | SCREW, set         | 2          |
| 4           | V2002621       |                  | PIN, ram pivot     | 2          |
| 5           | 11S03M         |                  | SCREW, set         | 2          |
| 6           | 61S03          |                  | NUT, self-locking  | 4          |
| 10          | V2003056       |                  | RETAINER, mudflap  | 2          |
| 11          | 11S03C         |                  | SCREW, set         | 6          |
| 12          | 17S04          |                  | WASHER, spring     | 6          |
| 13          | 7S03           |                  | NUT                | 6          |
| 14          | V2003500       |                  | MUDFLAP            | 2          |
| 20          | V2004004       | 2023 /           | SUPPORT            | 1          |
| 21          | 902S02         | 2023 /           | PIN, lynch         | 2          |



**SKIP, rotating****6 - A - 2**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>       | <b>Qty</b> |
|-------------|----------------|------------------|--------------------------|------------|
| 1           | V2004504       |                  | SKIP, rotating           | 1          |
| 2           | V2004565       |                  | PIN, skip pivot          | 2          |
| 3           | 11S03M         |                  | SCREW, set               | 2          |
| 4           | 61S03          |                  | NUT, "Binx" self-locking | 2          |
| 7           | V2002621       |                  | PIN, ram pivot           | 2          |
| 8           | 11S03M         |                  | SCREW, set               | 2          |
| 9           | 61S03          |                  | NUT, "Binx" self-locking | 2          |
| 15          | 131S01         |                  | NIPPLE, grease           | 2          |
| 16          | 176S01         |                  | CAP, grease nipple       | 2          |

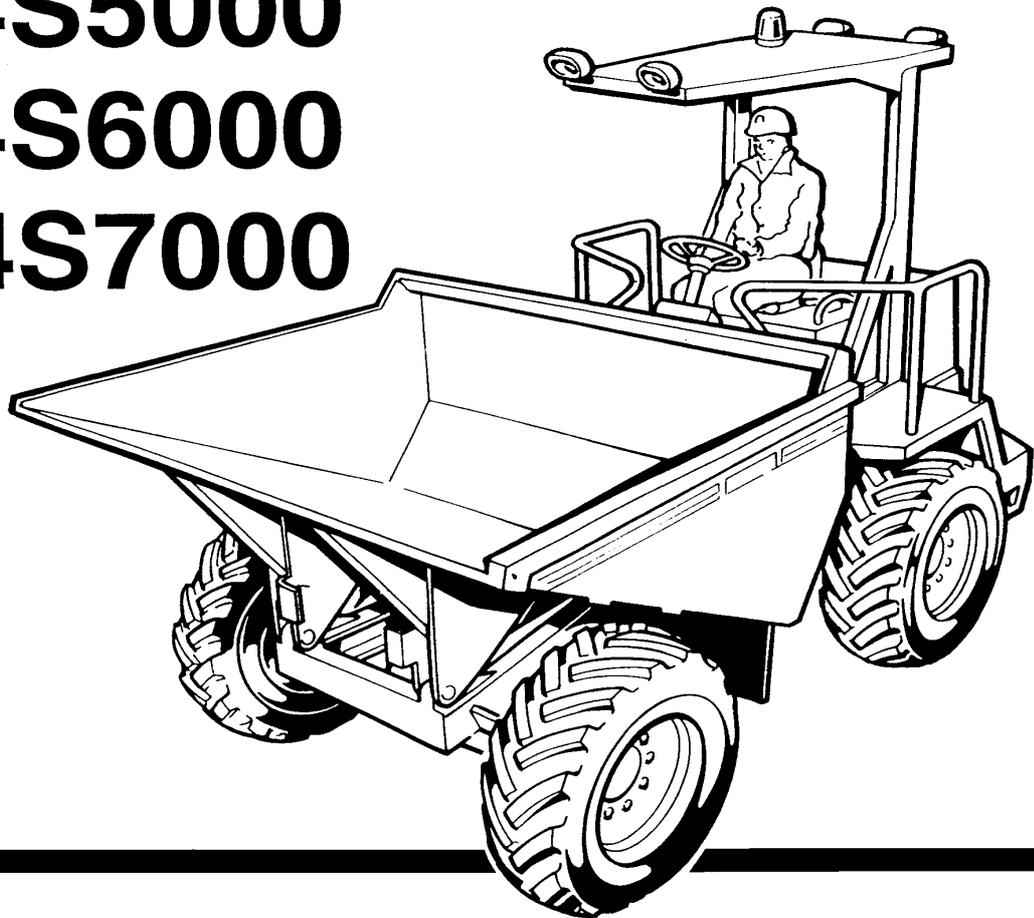
# **'S' Series Dumpers**

**4S4000**

**4S5000**

**4S6000**

**4S7000**



# *Hydraulics*

|   |                   |
|---|-------------------|
| <b>HYDRAULIC PUMP, FILTER &amp; TANK</b>                    | <b>7 - A - 1</b>  |
| <b>STEERING CIRCUIT</b>                                     | <b>7 - A - 2</b>  |
| <b>TIPPING CIRCUIT, forward tipping skip</b>                | <b>7 - A - 3</b>  |
| <b>BRACKETS &amp; HOSE PROTECTOR</b>                        | <b>7 - A - 4</b>  |
| <b>CONTROL VALVE, forward tipping skip</b>                  | <b>7 - B - 1</b>  |
| <b>'JOYSTICK' MONOBLOC CONTROL VALVE<br/>rotating skip</b>  | <b>7 - B - 2</b>  |
| <b>'JOYSTICK' monobloc control valve &amp; FITTINGS</b>     | <b>7 - B - 2A</b> |
| <b>'JOYSTICK' SECTIONAL CONTROL VALVE<br/>rotating skip</b> | <b>7 - B - 2B</b> |
| <b>'JOYSTICK' sectional control valve &amp; FITTINGS</b>    | <b>7 - B - 2C</b> |
| <b>TIPPING CIRCUIT, rotating skip</b>                       | <b>7 - B - 3</b>  |
| <b>ROTATING CIRCUIT, rotating skip</b>                      | <b>7 - B - 4</b>  |
| <b>STEERING RAM, with spherical bearings</b>                | <b>7 - R - 1</b>  |
| <b>STEERING RAM, with bushes (NOT 4S7000)</b>               | <b>7 - R - 1A</b> |
| <b>STEERING RAM, with bushes (4S7000 ONLY)</b>              | <b>7 - R - 1B</b> |
| <b>TIPPING RAM, forward tipping skip</b>                    | <b>7 - R - 2</b>  |
| <b>TIPPING RAM, rotating skip</b>                           | <b>7 - R - 3</b>  |
| <b>SWIVEL RAM, rotating skip</b>                            | <b>7 - R - 4</b>  |

[\*\*<<< To beginning of Parts\*\*](#)



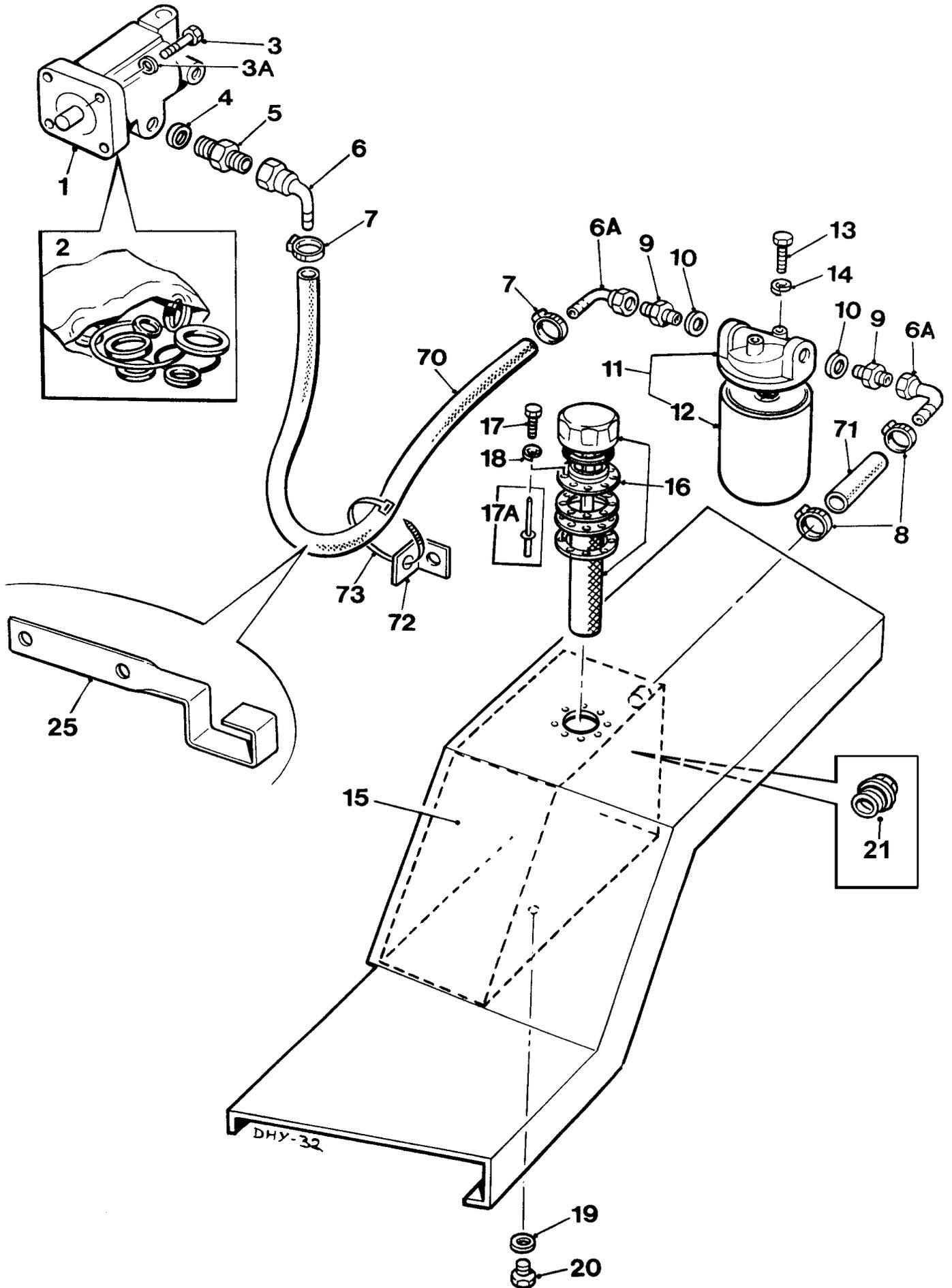
# HYDRAULIC PUMP, FILTER & TANK

# 7 - A - 1

| Item | Part no  | Serial no         | Description   | Qty |
|------|----------|-------------------|---|-----|
| 1    | V2002695 | 2001 /            | # PUMP with tapered shaft   | 1   |
| 2    | V601178  |                   | KIT, pump repair  | 1   |
| -    | V2002703 |                   | # KIT, pump adaptor ( <i>not illustrated</i> )                                    | 1   |
| 3    | V600948  |                   | SCREW   | 4   |
|      |          |                   | # <i>OBSOLETE: use the pump, screws and washers below</i>                         |     |
| 1    | V2004203 |                   | \$ PUMP with splined shaft  | 1   |
| 2    | V603609  |                   | KIT, pump repair  | 1   |
| 3    | 68S05E   |                   | SCREW   | 2   |
| 3A   | 17S05    |                   | WASHERS   | 2   |
|      |          |                   | \$ <i>See page 3 - A - 11 for pump drive assy.</i>                                |     |
| 4    | 100S06   |                   | SEAL, bonded  | 1   |
| 5    | 119S15   |                   | ADAPTOR, male   | 1   |
| 6    | 136S06F  |                   | FITTING, elbow reversable   | 1   |
| 6A   | 129S06F  |                   | ELBOW 90 deg. swept   | 2   |
| 7    | V2003232 |                   | CLAMP, hose   | 2   |
| 8    | V2003232 |                   | CLAMP, hose   | 2   |
| 9    | 119S16   |                   | ADAPTOR, male   | 2   |
| 10   | 100S09   |                   | SEAL, bonded  | 2   |
| 11   | V2000238 |                   | FILTER, assembly  | 1   |
| 12   | 10363A02 |                   | CARTRIDGE   | 1   |
| 13   | 11S03C   |                   | SCREW, set  | 2   |
| 14   | 17S04    |                   | WASHER, spring  | 2   |
| 15   | V2002274 |                   | TANK, HYDRAULIC / MUDWING   | 1   |
| 16   | V2003562 | 2001 / Oct '93    | FILLER / CAP with dipstick ( <i>obsolete: Use V2004291 with rivets 101S07F</i> )  | 1   |
| 16   | 10565A01 | Oct '93 / Jan '95 | FILLER/CAP without dipstick ( <i>obsolete: Use V2004291 with rivets 101S07F</i> ) | 1   |
| 16   | V2004291 | Jan '95 /         | FILLER / CAP, anti-splash   | 1   |
| 17   | 11S01AA  | 2001 / Oct '93    | SCREW, set  | 6   |
| 17A  | 101S07E  | Oct '93 / Jan '95 | RIVET   | 6   |
| 17A  | 101S07F  | Jan '95 /         | RIVET   | 6   |
| 18   | 17S02    | 2001 / Oct '93    | WASHER, spring  | 6   |

# 7 - A - 1

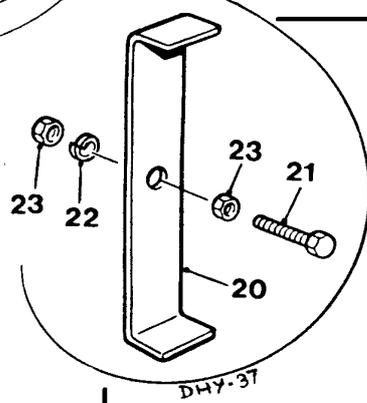
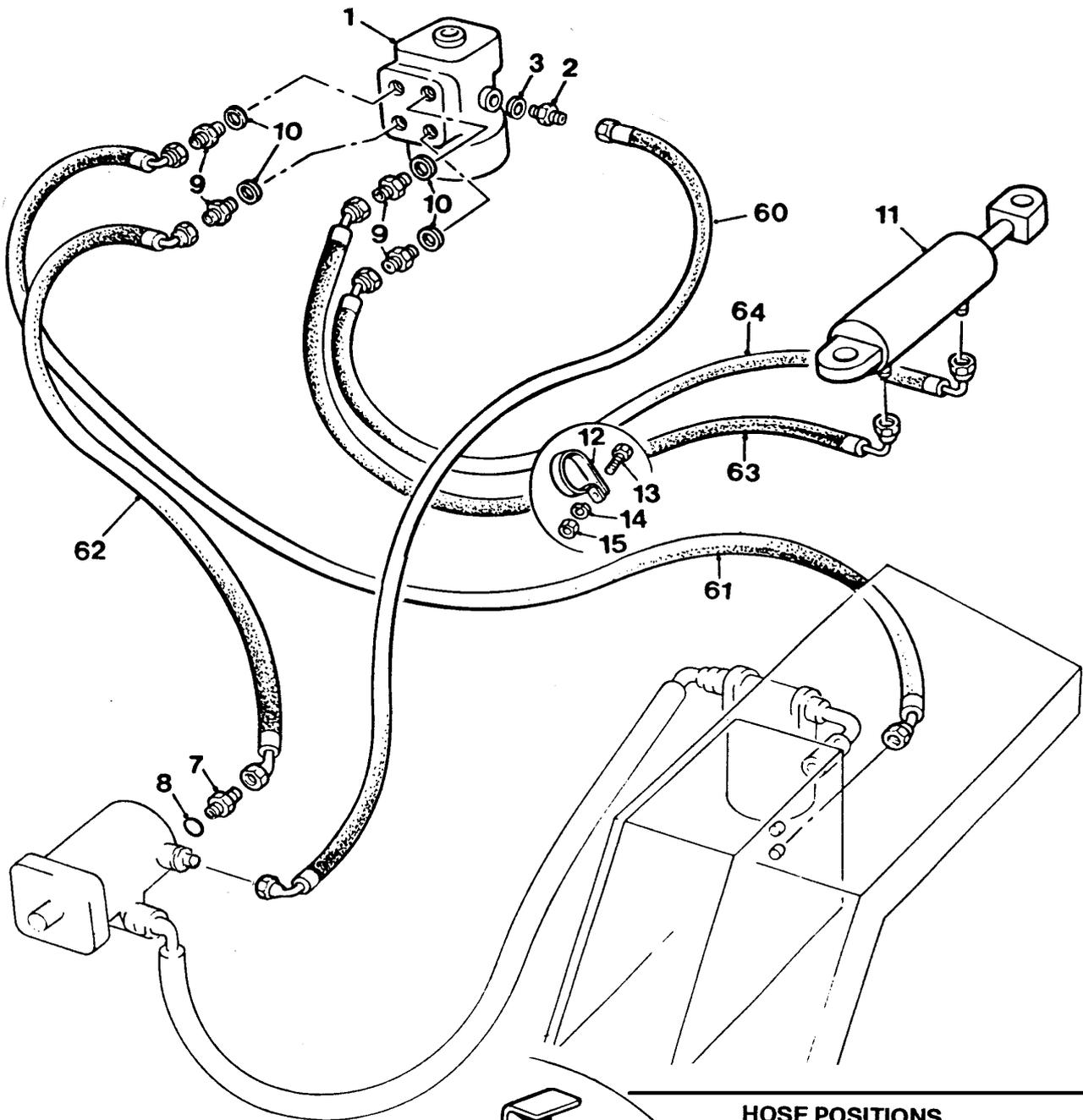
## 4S4000, 4S5000, 4S6000 & 4S7000 Dumpers



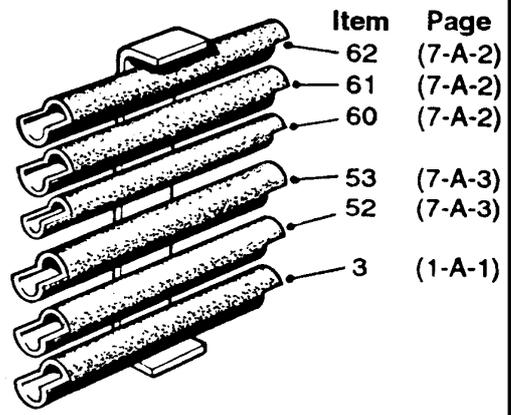
# HYDRAULIC PUMP, FILTER & TANK

# 7 - A - 1

| Item | Part no  | Date     | Description                              | Qty |
|------|----------|----------|--|-----|
| 19   | 100S04   |          | SEAL, bonded                             | 1   |
| 20   | 127S04   |          | PLUG, drain                              | 1   |
| 21   | V2004929 | Apr-00 / | Gauge, oil level                         | 1   |
| 25   | V2003051 |          | BRACKET, hoses                           | 1   |
| 70   | 37S03BE  |          | HOSE, filter to pump                     | 1   |
| 71   | 37S03BA  |          | HOSE, filter to tank                     | 1   |
| 72   | V2001605 |          | BRACKET ( <i>4S7000 only</i> )           | 1   |
| 73   | V2003253 |          | TIE, cable, nylon ( <i>4S7000 only</i> ) | 1   |



**HOSE POSITIONS**

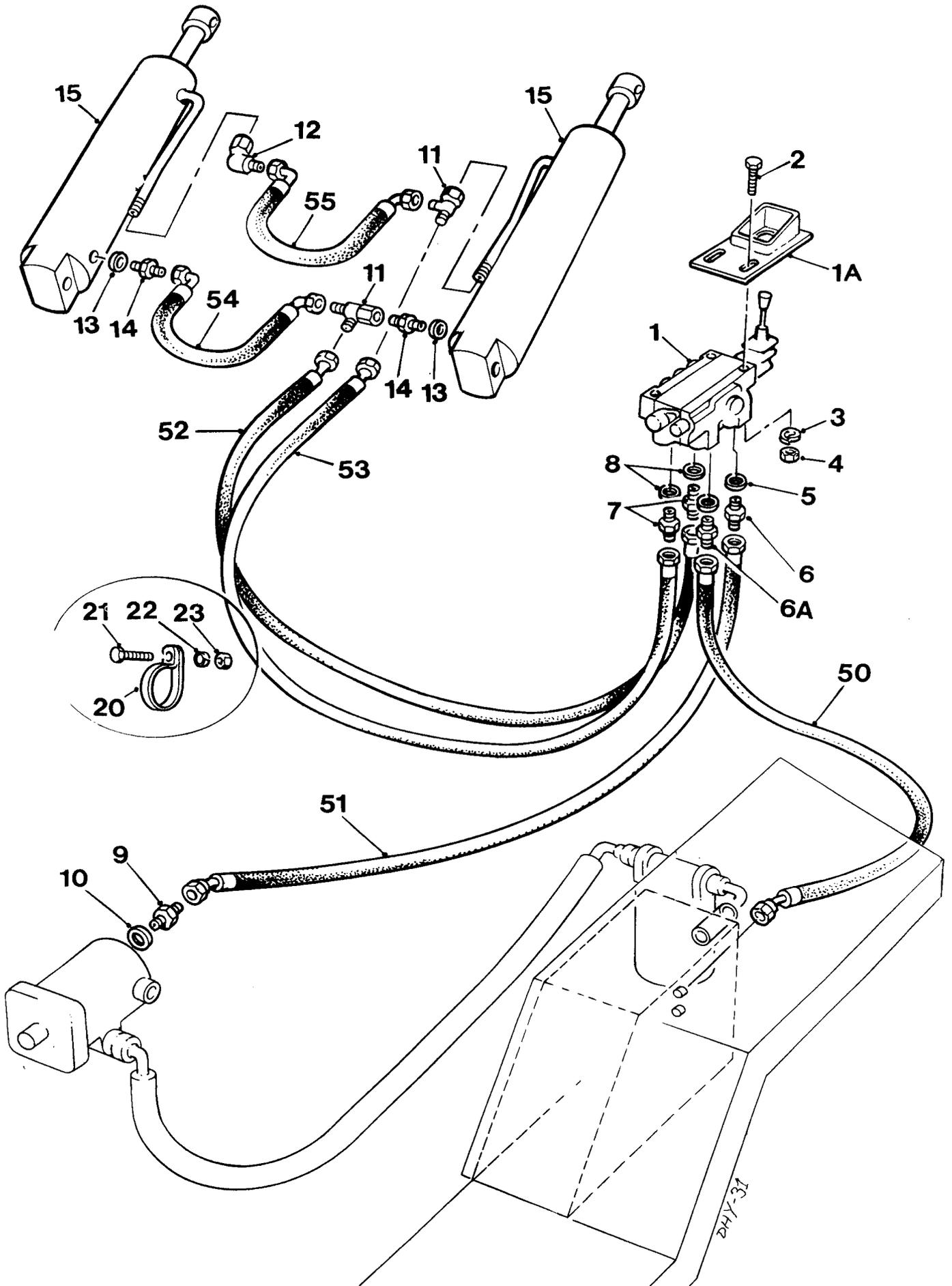


| Item | Page    |
|------|---------|
| 62   | (7-A-2) |
| 61   | (7-A-2) |
| 60   | (7-A-2) |
| 53   | (7-A-3) |
| 52   | (7-A-3) |
| 3    | (1-A-1) |

# STEERING HYDRAULIC CIRCUIT

# 7 - A - 2

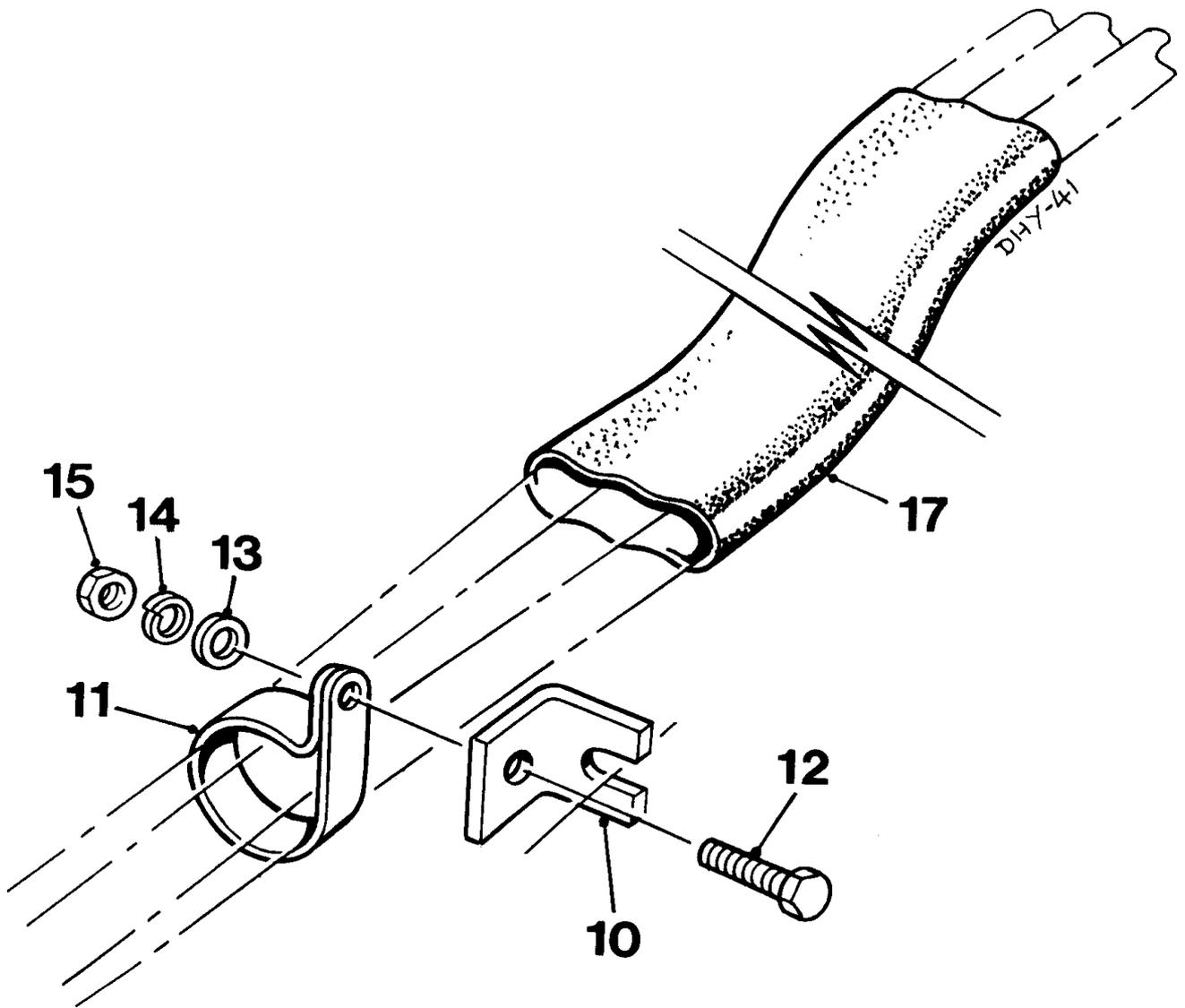
| Item | Part no  | Serial no   | Description   | Qty |
|------|----------|-------------|---|-----|
| 1    | -----    | 2001 /      | STEER UNIT ( <i>See page 2 - S - 1</i> )                        | 1   |
| 2    | 122S02   |             | ADAPTOR, male   | 1   |
| 3    | 100S02   |             | SEAL, bonded  | 1   |
| 7    | 122S03   |             | ADAPTOR, male   | 1   |
| 8    | 100S03   |             | SEAL, bonded  | 1   |
| 9    | 119S08   |             | ADAPTOR, male   | 4   |
| 10   | 100S04   |             | SEAL, bonded  | 4   |
| 11   | V2002565 | 2001 / 2041 | STEER RAM, <b>NOT 4S7000</b><br>( <i>See page 7 - R - 1</i> )   | 1   |
| 11   | V2000952 | 2042 /      | STEER RAM, <b>NOT 4S7000</b><br>( <i>see page 7 - R - 1A</i> )  | 1   |
| 11   | V2004266 |             | STEER RAM, <b>4S7000 only</b><br>( <i>see page 7 - R - 1B</i> ) | 1   |
| 12   | V2003560 |             | CLIP, "P" ( <i>fitted to transfer gearbox</i> )                 | 1   |
| ---  | 267S07   |             | WASHER, flat ( <i>not illustrated</i> )                         | 1   |
| 13   | 11S05F   |             | SCREW, set  | 1   |
| 14   | 17S06    |             | WASHER, spring  | 1   |
| 15   | 7S05     |             | NUT   | 1   |
| 20   | V2003533 |             | CLAMP, hoses  | 1   |
| 21   | 11S03H   |             | SCREW, set  | 1   |
| 22   | 17S04    |             | WASHER, spring  | 1   |
| 23   | 7S03     |             | NUT   | 1   |
| 60   | 53S01D   |             | HOSE, pump to steer unit ( <i>priority flow</i> )               |     |
| 61   | 63S02A   | / 2032      | HOSE, steer unit to tank  | 1   |
| 61   | 63S02D   | 2033 /      | HOSE, steer unit to tank  | 1   |
| 62   | 27S02A   |             | HOSE, pump to steer unit  | 1   |
| 63   | 64S02A   |             | HOSE, steer unit to ram ( <i>extend</i> )                       | 1   |
| 64   | 64S02A   |             | HOSE, steer unit to ram ( <i>retract</i> )                      | 1   |



# TIPPING CIRCUIT, forward tipping skip

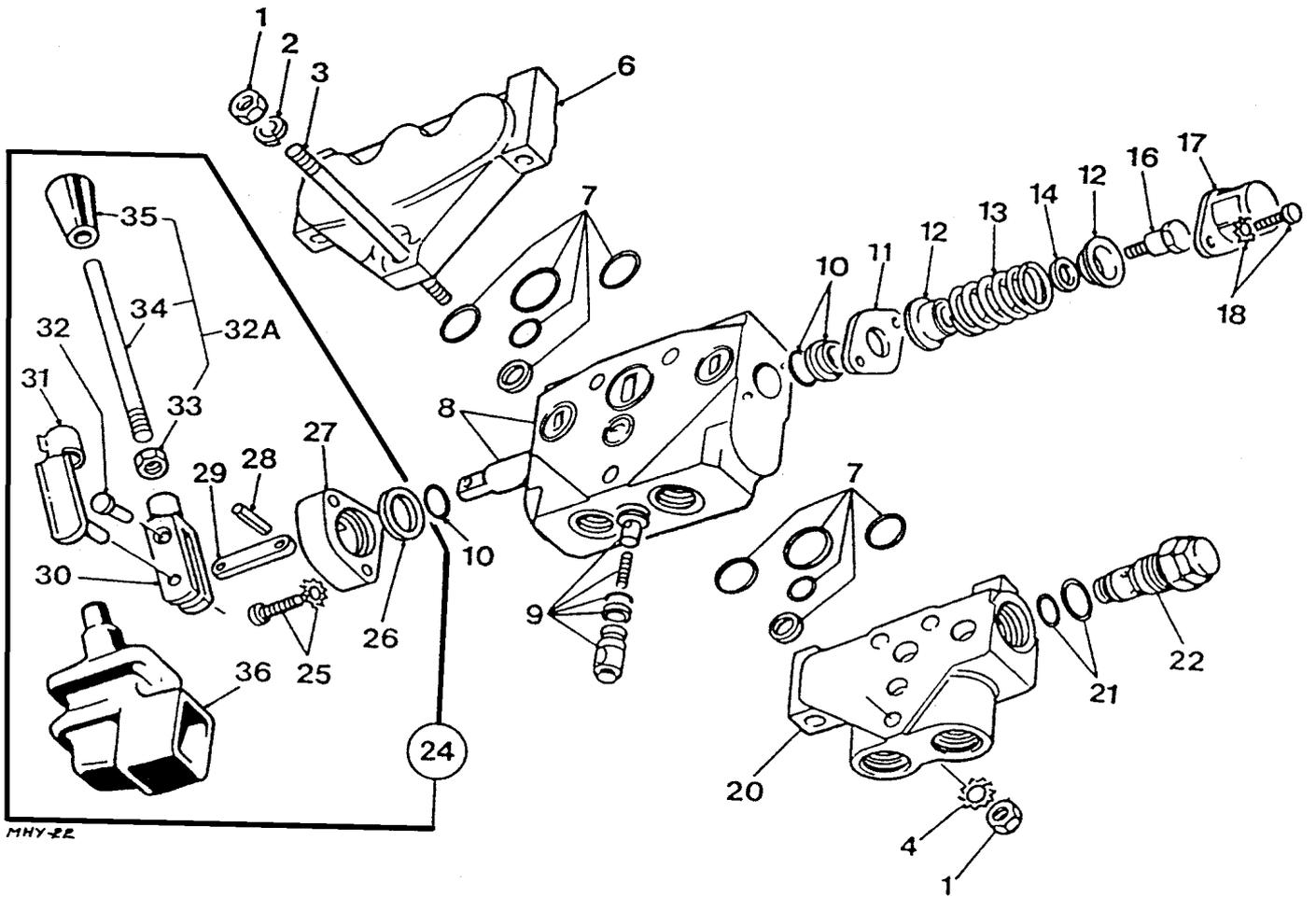
# 7 - A - 3

| Item | Part no  | Serial no | Description                           | Qty |
|------|----------|-----------|---------------------------------------|-----|
| 1    | V2002854 | 2001 /    | VALVE, control (see page 7 - B - 1)   | 1   |
| 1A   | V2004760 | Nov-97 /  | BRACKET, valve handle stop            | 1   |
| 2    | 8S04J    |           | BOLT                                  | 3   |
| 3    | 17S05    |           | WASHER, spring                        | 3   |
| 4    | 7S04     |           | NUT                                   | 3   |
| 5    | 100S06   |           | SEAL, bonded                          | 2   |
| 6    | 119S13   |           | ADAPTOR, male                         | 1   |
| 6A   | 122S06   |           | ADAPTOR, male                         | 1   |
| 7    | 119S08   |           | ADAPTOR, male                         | 2   |
| 8    | 100S04   |           | SEAL, bonded                          | 2   |
| 9    | 122S04   |           | ADAPTOR, male                         | 1   |
| 10   | 100S04   |           | SEAL, bonded                          | 1   |
| 11   | 154S02   |           | FITTING, tee, m/m/f, swivel           | 1   |
| 12   | 96S09    |           | FITTING, elbow, m/f, swivel           | 1   |
| 13   | 100S03   |           | SEAL, bonded                          | 2   |
| 14   | 122S03   |           | ADAPTOR, male                         | 2   |
| 15   | V2002474 |           | RAM, tipping (see page 7 - R - 2)     | 2   |
| 20   | -----    |           | CLIP "P" (see page 7 -A - 4)          | 1   |
| 21   | -----    |           | SCREW, set (see page 7 -A - 4)        | 1   |
| 23   | -----    |           | NUT (see page 7 -A - 4)               | 1   |
| 22   | -----    |           | WASHER, spring (see page 7 -A - 4)    | 1   |
| 50   | 31S04Q   |           | HOSE, control valve return to tank    | 1   |
| 51   | 26S03A   |           | HOSE, pump to control valve           | 1   |
| 52   | 317S02B  |           | HOSE, control valve to rams (extend)  | 1   |
| 53   | 317S02B  |           | HOSE, control valve to rams (retract) | 1   |
| 54   | 36S02UU  |           | HOSE, ram to ram (extend)             | 1   |
| 55   | 36S02UU  |           | HOSE, ram to ram (retract)            | 1   |

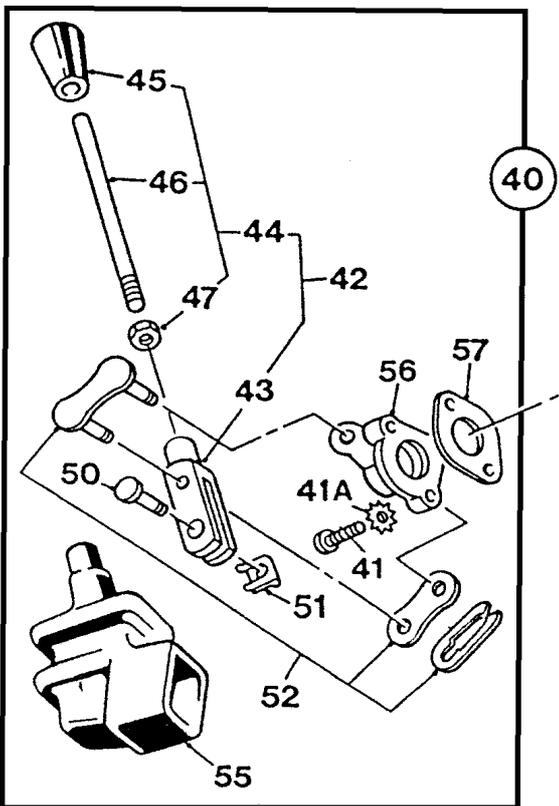


**BRACKETS & HOSE PROTECTOR****7 - A - 4**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>   | <b>Qty</b> |
|-------------|----------------|------------------|--|------------|
| 10          | V2000325       |                  | BRACKET<br><i>(Bracket is fixed behind existing screw<br/>on the transmission)</i> | 1          |
| 11          | V2003559       |                  | CLIP 'P' type  | 1          |
| 12          | 11S04B         |                  | SCREW, set   | 1          |
| 13          | 267S06         |                  | WASHER, flat   | 1          |
| 14          | 17S05          |                  | WASHER, spring   | 1          |
| 15          | 7S04           |                  | NUT  | 1          |
| 17          | V2004173       |                  | HOSE PROTECTOR   | 1          |



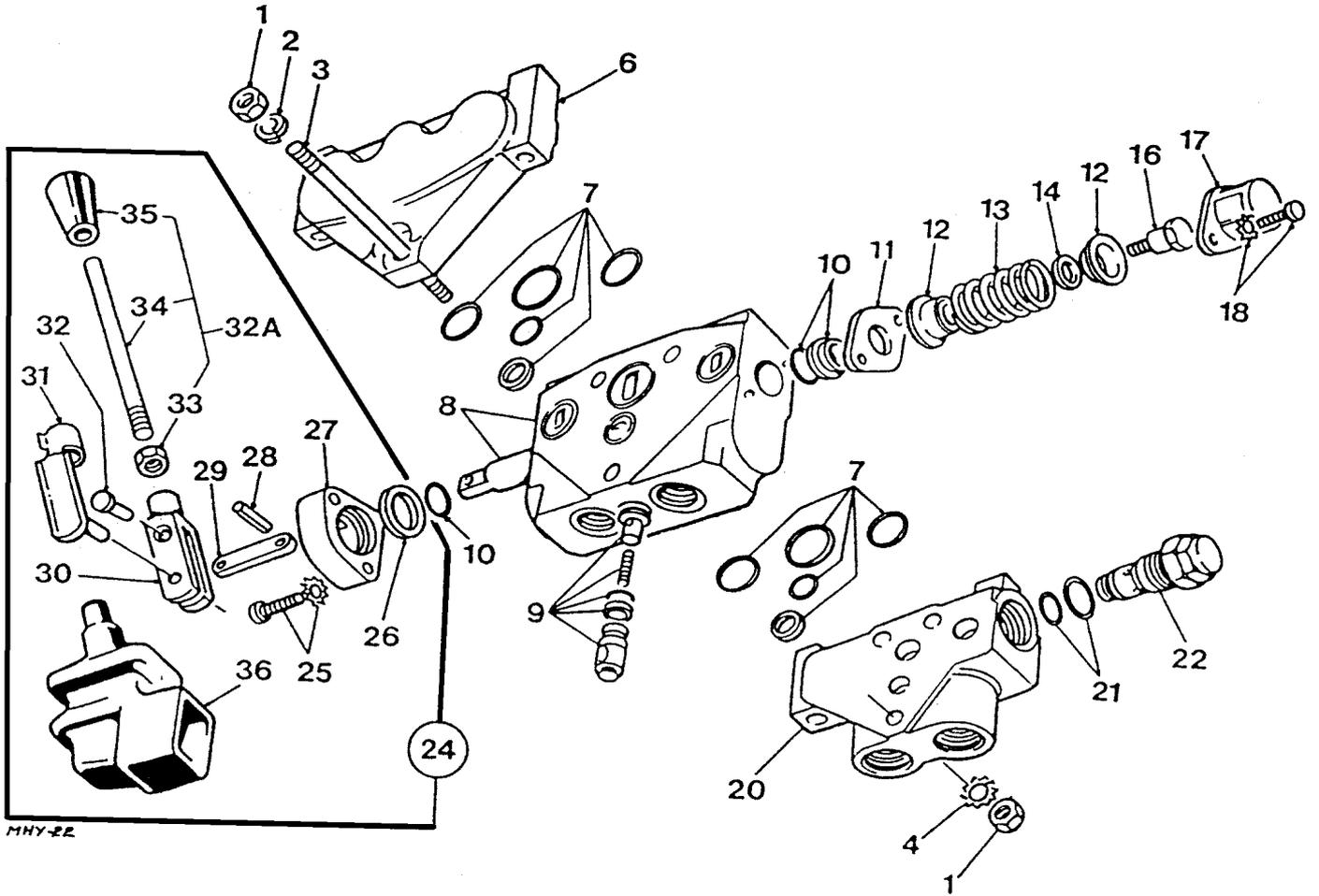
MHY-22



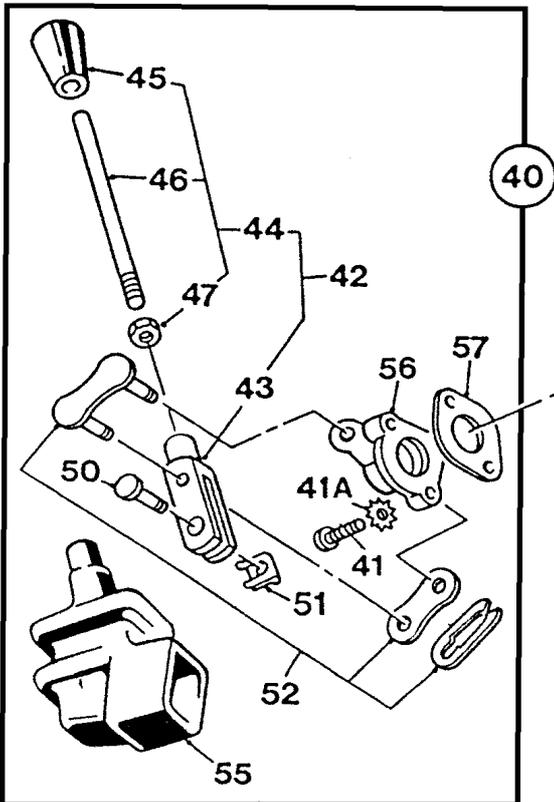
# CONTROL VALVE, forward tipping skip

# 7 - B - 1

| Item                        | Part no  | Serial no      | Description                              | Qty |
|-----------------------------|----------|----------------|--|-----|
| —                           | V2002854 | 2001 /         | VALVE, control, assembly                 | 1   |
| —                           | V601188  |                | KIT, stud , assembly                     | 1   |
| 1                           | —        |                | NUT ( <i>order assembly</i> )            | 6   |
| 2                           | —        |                | WASHER, spring ( <i>order assy</i> )     | 3   |
| 3                           | —        |                | STUD ( <i>order assembly</i> )           | 3   |
| 4                           | —        |                | WASHER, shakeproof ( <i>order assy</i> ) |     |
| <b>Alternative fittings</b> |          |                |  |     |
| 1                           | 9S03     |                | NUT                                      | 3   |
| 2                           | 41S05    |                | WASHER, spring                           | 3   |
| —                           | 10S03    |                | WASHER , flat                            | 3   |
| 3                           | 6S03N    |                | BOLT                                     | 3   |
| 4                           | —        |                | —  | —   |
| 6                           | V601184  |                | COVER, outlet                            | 1   |
| 7                           | V600178  |                | KIT, seals, inter-section                | 2   |
| 8                           | —        |                | HOUSING & SPOOL ( <i>order assy</i> )    | 1   |
| 9                           | V601183  |                | VALVE, check                             | 1   |
| 10                          | V601186  |                | KIT, seals, spool                        | 1   |
| 11                          | V601185  |                | RETAINER, seals                          | 1   |
| 12                          | V2003117 |                | SEAT, spring                             | 2   |
| 13                          | V2003114 |                | SPRING                                   | 1   |
| 14                          | V600179  |                | SPACER                                   | 1   |
| 16                          | V2003115 |                | SCREW, shoulder                          | 1   |
| 17                          | V600190  |                | CAP, end                                 | 1   |
| 18                          | V600026  |                | SCREW, c/w washer                        | 2   |
| 20                          | V2003124 |                | COVER, inlet                             | 1   |
| 21                          | V600023  |                | KIT, seals, relief valve                 | 1   |
| 22                          | V600022  |                | VALVE, relief                            | 1   |
| 24                          | V600057  | 2001 / Oct '93 | LEVER, assembly                          | 1   |
| 25                          | V600062  |                | SCREW, c/w washer                        | 2   |
| 26                          | V2003122 |                | SEAL, wiper                              | 1   |
| 27                          | V600059  |                | BRACKET, handle                          | 1   |
| 28                          | V600060  |                | PIN, roll                                | 1   |
| 29                          | V600061  |                | LINK                                     | 1   |
| 30                          | V600063  |                | CLEVIS                                   | 1   |
| 31                          | V600065  |                | PIN, clip                                | 1   |
| 32                          | V600064  |                | PIN                                      | 1   |

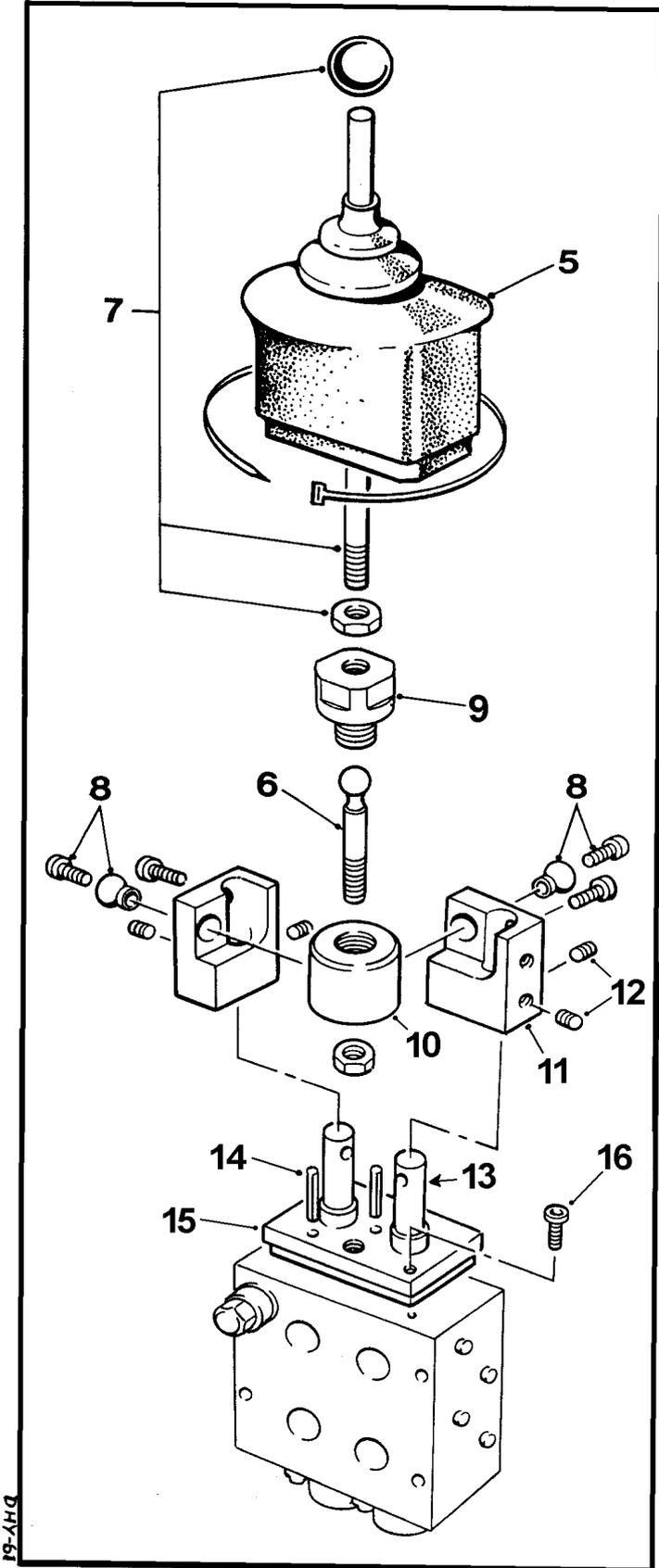
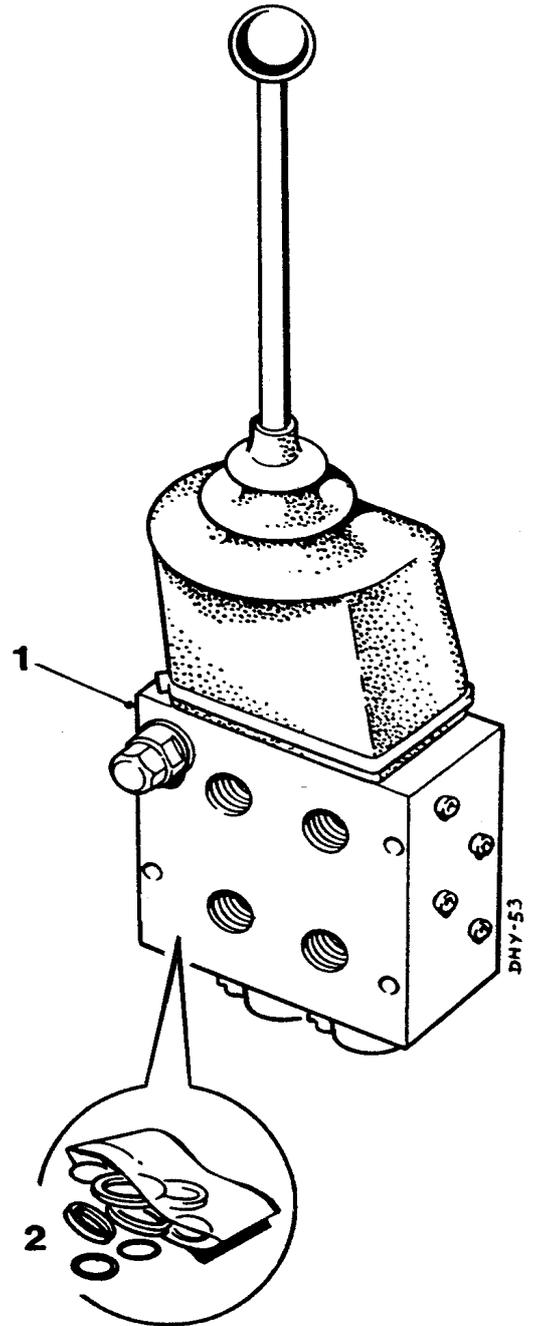


MHY-22



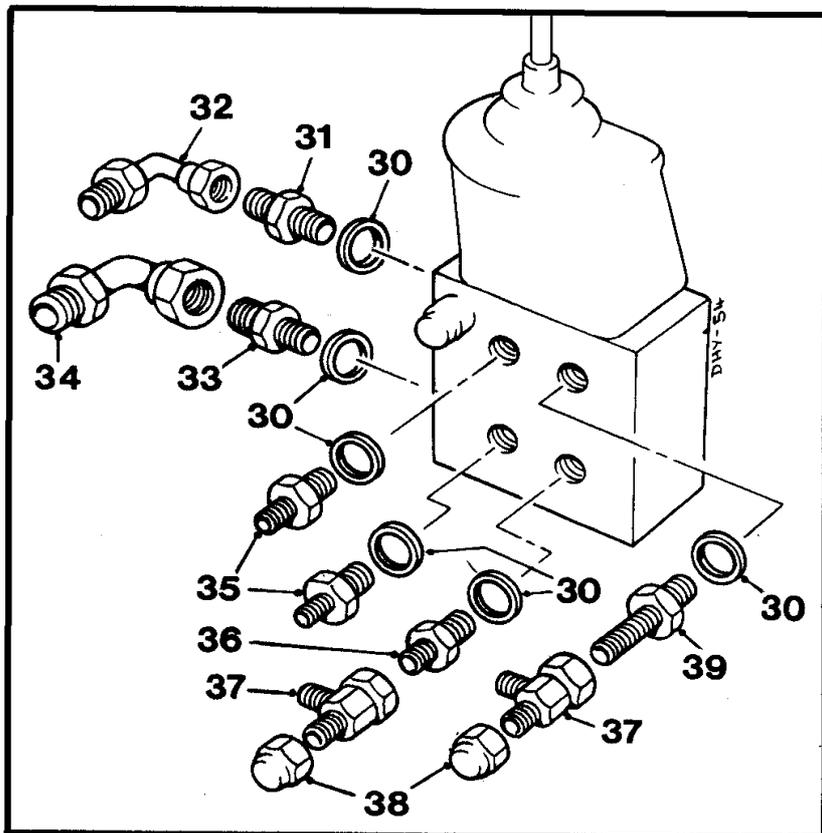
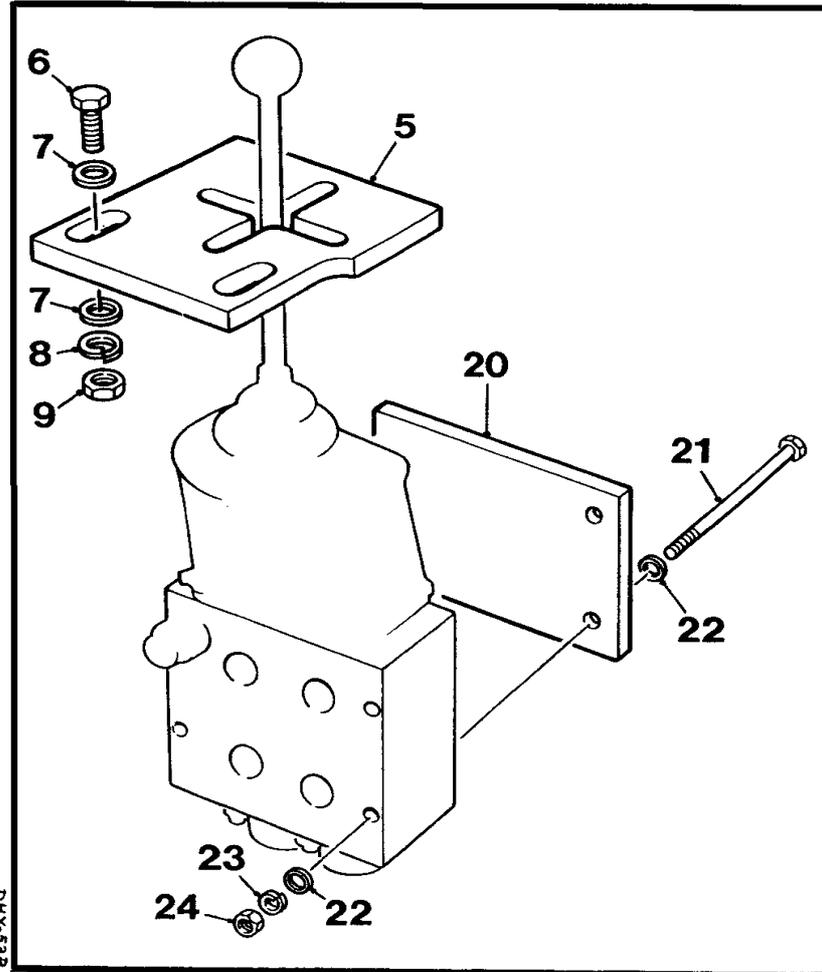
**CONTROL VALVE, forward tipping skip****7 - B - 1**

| Item | Part no | Serial no | Description                      | Qty |
|------|---------|-----------|----------------------------------|-----|
| 32A  | V600109 |           | HANDLE, assembly                 | 1   |
| 33   | V600066 |           | NUT                              | 1   |
| 34   | —       |           | HANDLE ( <i>order assembly</i> ) | 1   |
| 35   | V600068 |           | KNOB                             | 1   |
| 36   | V600069 |           | GAITER                           | 1   |
| 40   | V602479 | Oct '93 / | LEVER, assembly                  | 1   |
| 41   | V602447 |           | SCREW                            | 2   |
| 41A  | V602446 |           | WASHER                           | 2   |
| 42   | V602480 |           | LEVER & CLEVIS, assembly         | 1   |
| 43   | V602453 |           | CLEVIS                           | 1   |
| 44   | V600109 |           | LEVER, assembly                  | 1   |
| 45   | V600068 |           | KNOB                             | 1   |
| 46   | V602478 |           | LEVER                            | 1   |
| 47   | V600066 |           | NUT                              | 1   |
| —    | V602481 |           | PIN/LINK, assembly               | 1   |
| 50   | V602474 |           | PIN, clevis                      | 1   |
| 51   | V602450 |           | CLIP, spring                     | 1   |
| 52   | V602452 |           | LINK                             | 1   |
| 55   | V600069 |           | GAITER                           | 1   |
| 56   | V602449 |           | BRACKET                          | 1   |
| 57   | V602448 |           | PLATE, seal                      | 1   |



**'JOYSTICK', MONOBLOC CONTROL VALVE****7 - B - 2**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                 | <b>Qty</b> |
|-------------|----------------|------------------|------------------------------------|------------|
| 1           | V2004580       | 2001 / 2333      | VALVE, monobloc control 'JOYSTICK' | 1          |
| 2           | V602693        |                  | KIT, seals                         | AR         |
| 5           | V602689        |                  | GAITER                             | 1          |
| 6           | V602690        |                  | STEM                               | 1          |
| 7           | V602691        |                  | ROD, c/w lock-nut & knob           | 1          |
| 8           | V602692        |                  | CUP, c/w screw                     | 2          |
| 9           | V602773        |                  | STUB LEVER                         | 1          |
| 10          | V603617        |                  | HOUSING, pivot                     | 1          |
| 11          | V603618        |                  | BRACKET                            | 2          |
| 12          | 57S05C1        |                  | SCREW, grub                        | 4          |
| 13          | V603619        |                  | SPOOL                              | 2          |
| 14          | V603620        |                  | PIN, roll                          | 2          |
| 15          | V603621        |                  | PLATE                              | 1          |
| 16          | V603622        |                  | FIXINGS, for plate                 | Kit 1      |



**'JOYSTICK' monobloc control valve, & FITTINGS****7 - B - 2A**

| Item | Part no  | Serial no   | Description                 | Qty |
|------|----------|-------------|-----------------------------|-----|
| 5    | V2004761 | 2001 / 2333 | BRACKET, 'gate'             | 1   |
| 6    | 11S04C   |             | SCREW, set                  | 2   |
| 7    | 267S06   |             | WASHER, flat                | 4   |
| 8    | 17S05    |             | WASHER, spring              | 2   |
| 9    | 7S04     |             | NUT                         | 2   |
| 20   | V2004616 |             | SPACER                      | 1   |
| 21   | 8S02L    |             | BOLT                        | 3   |
| 22   | 267S04   |             | WASHER, flat                | 6   |
| 23   | 17S03    |             | WASHER, spring              | 3   |
| 24   | 7S02     |             | NUT                         | 3   |
| 30   | 100S04   |             | SEAL, bonded                | 6   |
| 31   | 122S04   |             | ADAPTOR, m/m                | 1   |
| 32   | 128S03   |             | FITTING, elbow, 90 deg. m/f | 1   |
| 33   | 119S13   |             | ADAPTOR, m/m                | 1   |
| 34   | 128S05   |             | FITTING, elbow, 90 deg. m/f | 1   |
| 35   | 119S04   |             | ADAPTOR, m/m                | 2   |
| 36   | 119S08   |             | ADAPTOR, m/m                | 1   |
| 37   | 154S02   |             | FITTING, "Tee" m/m/f swivel | 2   |
| 38   | 120S02   |             | CAP, blanking               | 2   |
| 39   | 93S10    |             | FITTING, bulkhead           | 1   |

**NOTE: Port designation**

32 = FEED from pump  
Connected to hose number 51 on page 7-A-3

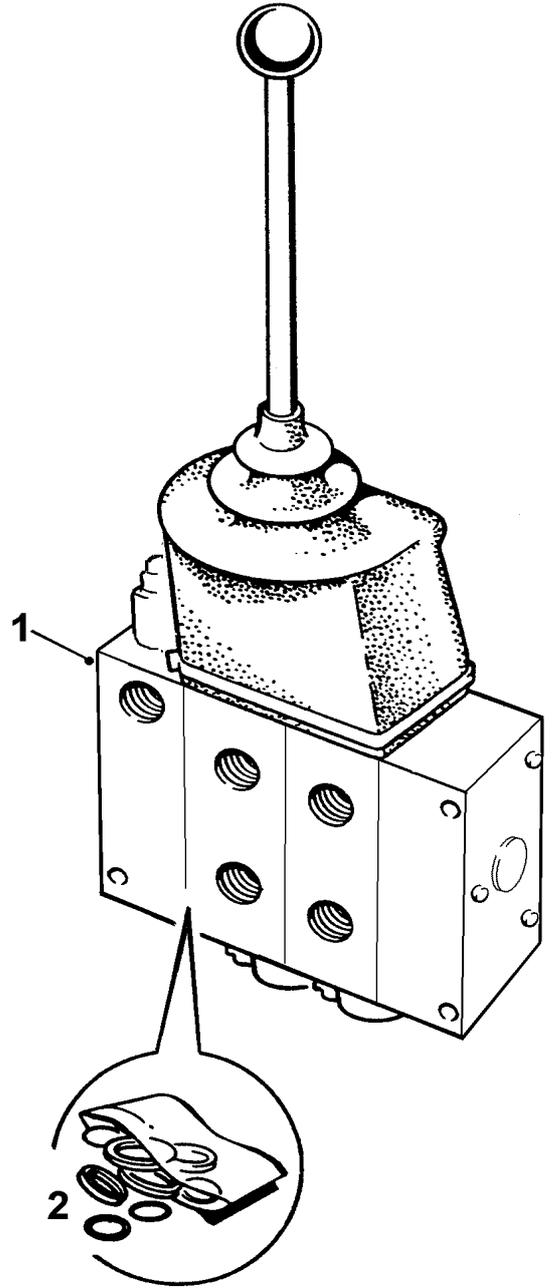
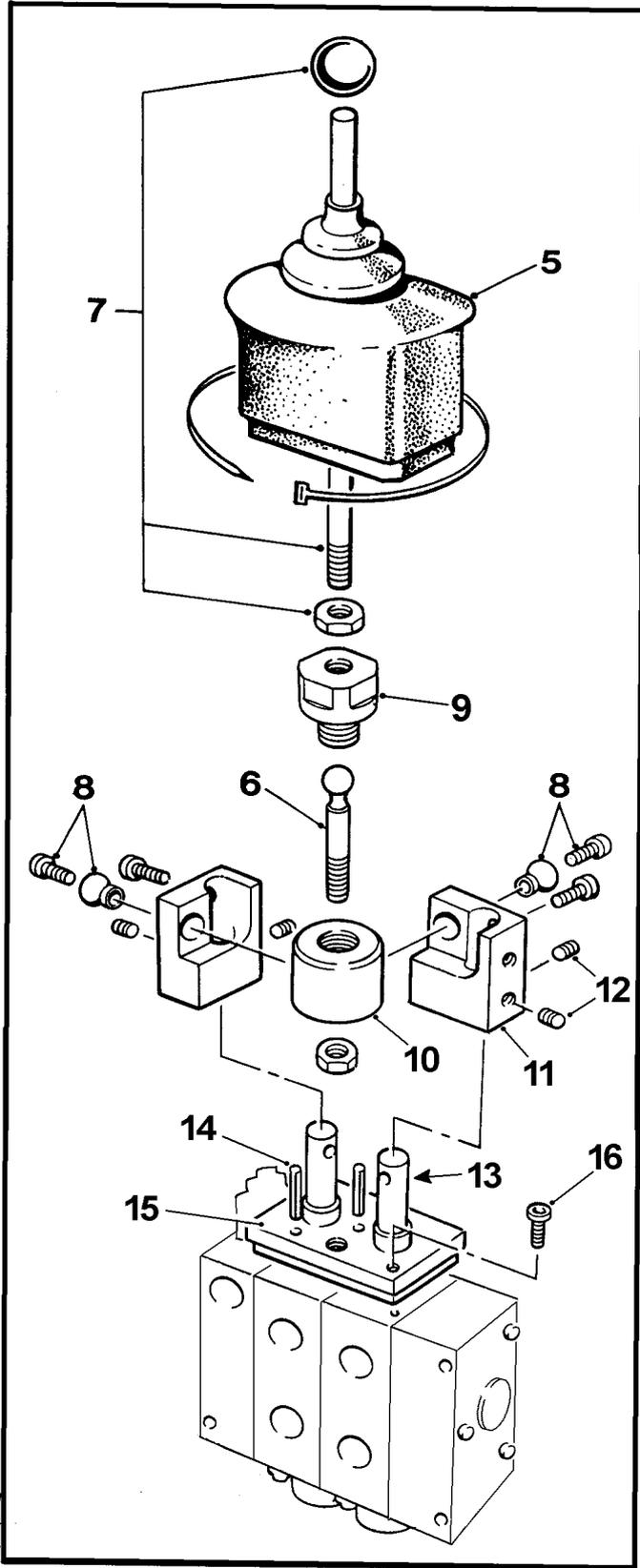
34 = RETURN to tank  
Connected to hose number 50 on page 7-A-3

35 (upper) = Rotate skip to LEFT

35 (lower) = Rotate skip to RIGHT

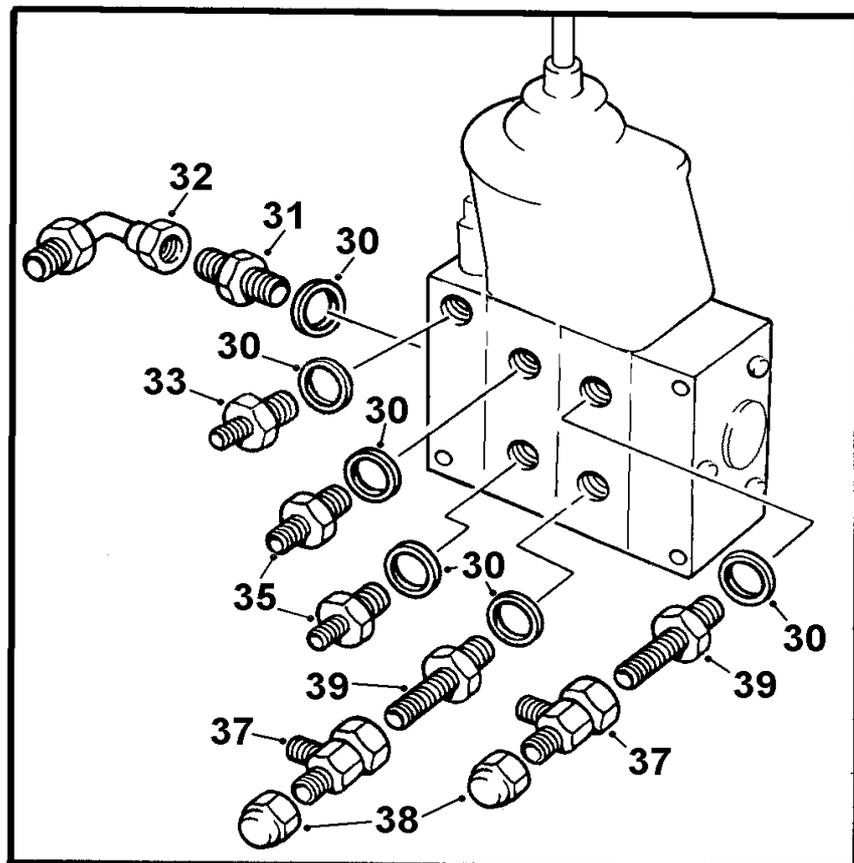
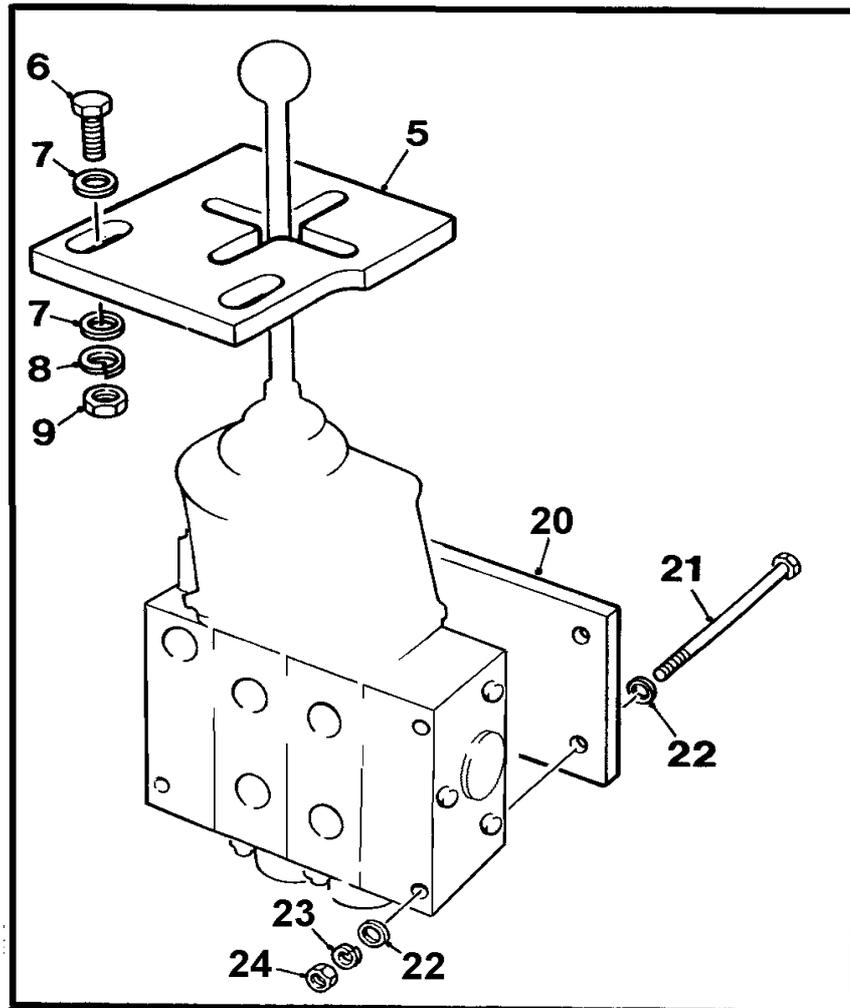
36 = Skip tip DOWN

39 = Skip tip UP



**'JOYSTICK', SECTIONAL CONTROL VALVE****7 - B - 2B**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                     | <b>Qty</b> |
|-------------|----------------|------------------|--|------------|
| 1           | V2005021       | 2334 /           | VALVE, sectional control 'JOYSTICK', 1 |            |
| 2           | V602693        |                  | KIT, seals                             | AR         |
| 5           | V602689        |                  | GAITER                                 | 1          |
| 6           | V602690        |                  | STEM                                   | 1          |
| 7           | V602691        |                  | ROD, c/w lock-nut & knob               | 1          |
| 8           | V602692        |                  | CUP, c/w screw                         | 2          |
| 9           | V602773        |                  | STUB LEVER                             | 1          |
| 10          | V603617        |                  | HOUSING, pivot                         | 1          |
| 11          | V603618        |                  | BRACKET                                | 2          |
| 12          | 57S05C1        |                  | SCREW, grub                            | 4          |
| 13          | V603619        |                  | SPOOL                                  | 2          |
| 14          | V603620        |                  | PIN, roll                              | 2          |
| 15          | V603621        |                  | PLATE                                  | 1          |
| 16          | V603622        |                  | FIXINGS, for plate                     | Kit 1      |



**'JOYSTICK' sectional control valve, & FITTINGS****7 - B - 2C**

| Item | Part no  | Serial no | Description                 | Qty |
|------|----------|-----------|-----------------------------|-----|
| 5    | V2004761 | 2334 /    | BRACKET, 'gate'             | 1   |
| 6    | 11S04C   |           | SCREW, set                  | 2   |
| 7    | 267S06   |           | WASHER, flat                | 4   |
| 8    | 17S05    |           | WASHER, spring              | 2   |
| 9    | 7S04     |           | NUT                         | 2   |
| 20   | V2005023 |           | SPACER                      | 1   |
| 21   | 8S03M    |           | BOLT                        | 3   |
| 22   | 267S05   |           | WASHER, flat                | 6   |
| 23   | 17S04    |           | WASHER, spring              | 3   |
| 24   | 7S03     |           | NUT                         | 3   |
| 30   | 100S04   |           | SEAL, bonded                | 6   |
| 31   | 122S04   |           | ADAPTOR, m/m                | 1   |
| 32   | 128S03   |           | FITTING, elbow, 90 deg. m/f | 1   |
| 33   | 119S13   |           | ADAPTOR, m/m                | 1   |
| 35   | 119S04   |           | ADAPTOR, m/m                | 2   |
| 37   | 154S02   |           | FITTING, "Tee" m/m/f swivel | 2   |
| 38   | 120S02   |           | CAP, blanking               | 2   |
| 39   | 93S10    |           | FITTING, bulkhead, m/m      | 2   |

**NOTE: Port designation**

32 = FEED from pump  
Connected to hose number 51 on page 7-A-3

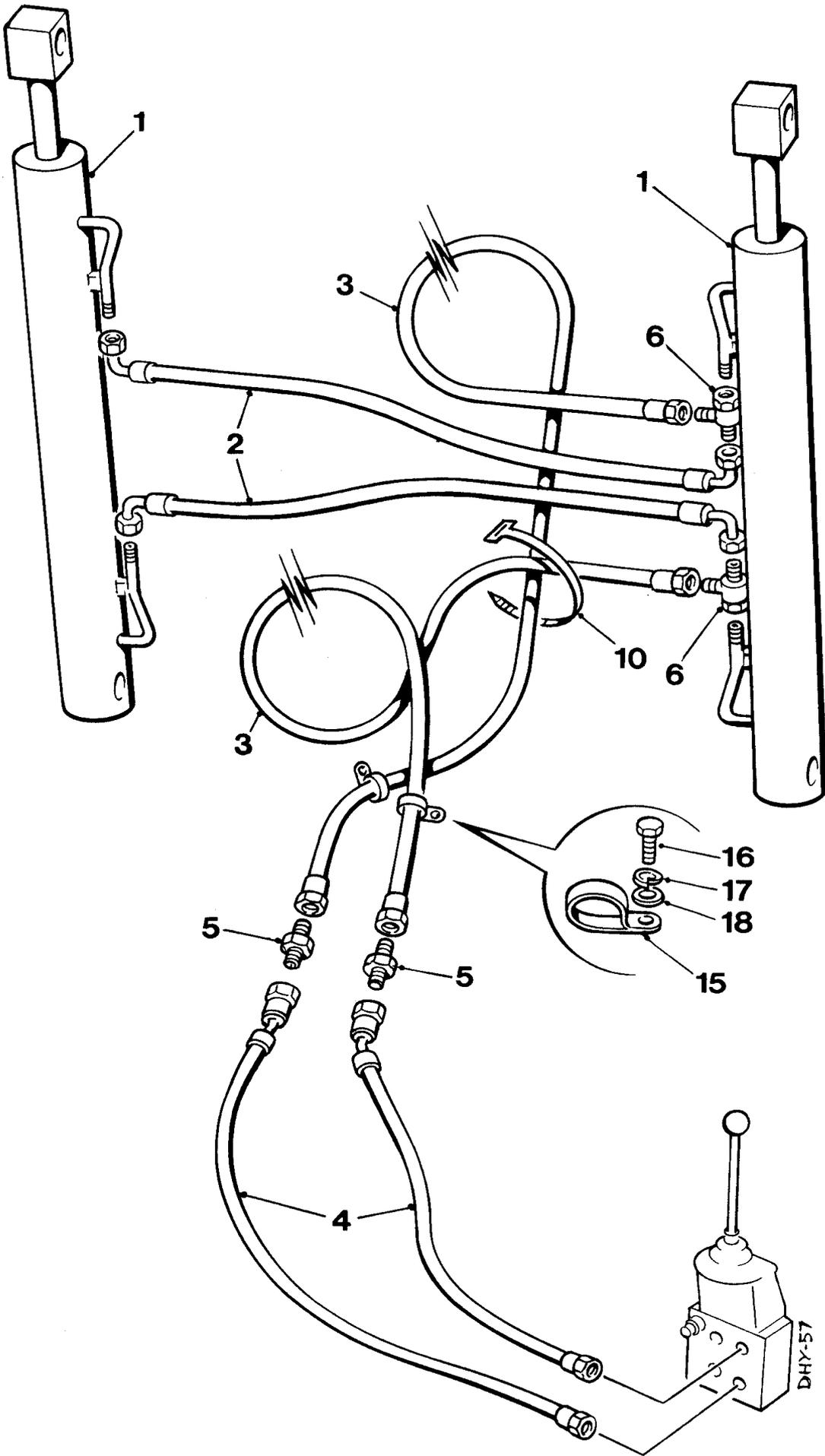
33 = RETURN to tank  
Connected to hose number 50 on page 7-A-3

35 (upper) = Rotate skip to LEFT

35 (lower) = Rotate skip to RIGHT

37 (upper) = Skip tip UP

37 (lower) = Skip tip DOWN

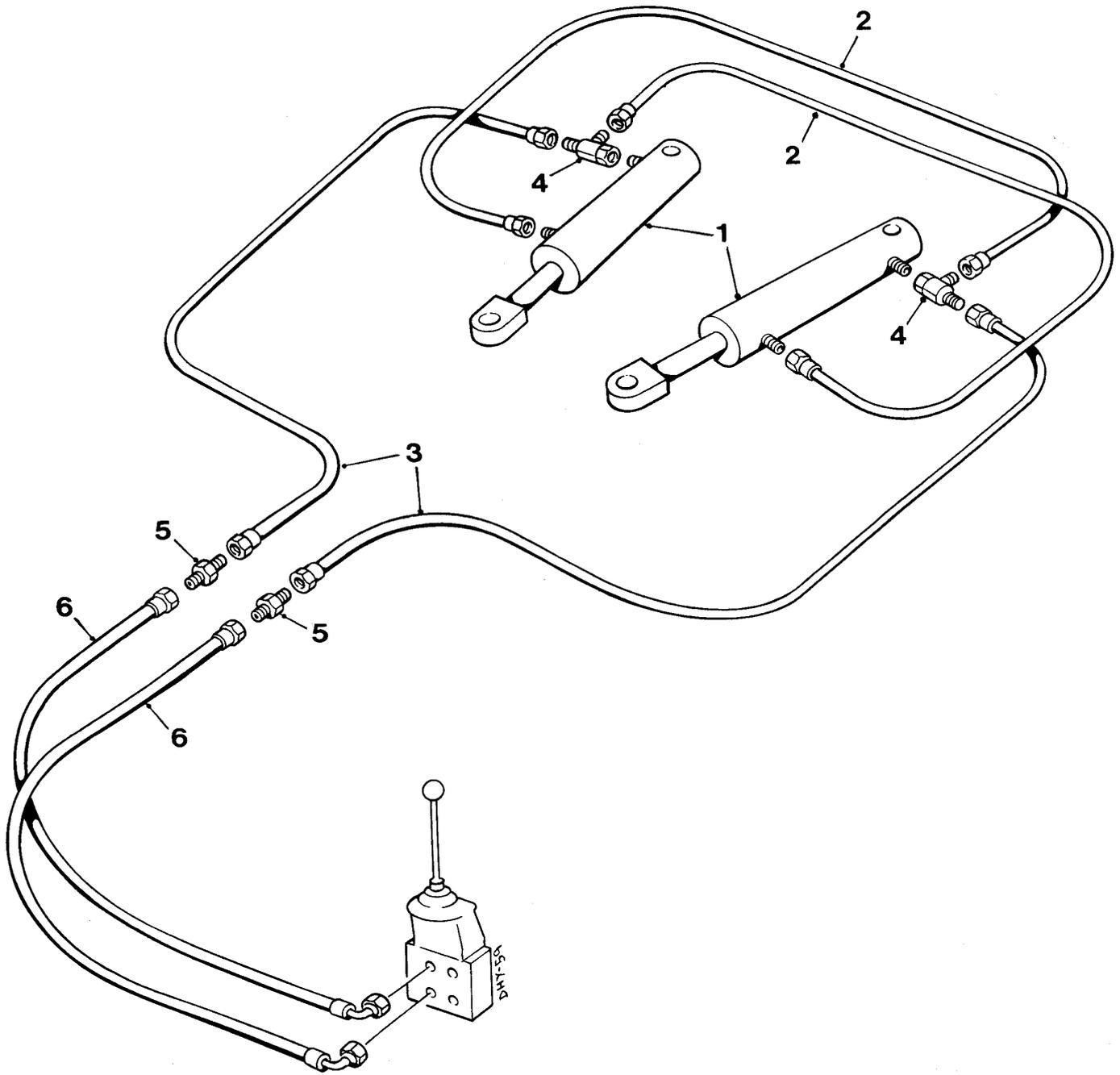


**TIPPING HYDRAULIC CIRCUIT, rotating skip****7 - B - 3**

| Item | Part no  | Serial no | Description         | Qty |
|------|----------|-----------|---------------------|-----|
| 1    | V2004466 |           | RAM, tipping        | 2   |
| 2    | 64S02A   |           | HOSE, ram to ram    | 2   |
| 3    | 321S02B  |           | HOSE, front chassis | 2   |
| 4    | 317S02B  |           | HOSE, rear chassis  | 2   |
| 5    | 122S03   |           | ADAPTOR             | 2   |
| 6    | 154S02   |           | FITTING, 'T' piece  | 2   |
| 10   | V2003253 |           | TIE                 | 6   |
| 15   | V2004537 |           | CLIP, hose          | 2   |
| 16   | 11S03C   |           | SCREW, set          | 2   |
| 17   | 17S04    |           | WASHER, spring      | 2   |
| 18   | 267S05   |           | WASHER, flat        | 2   |

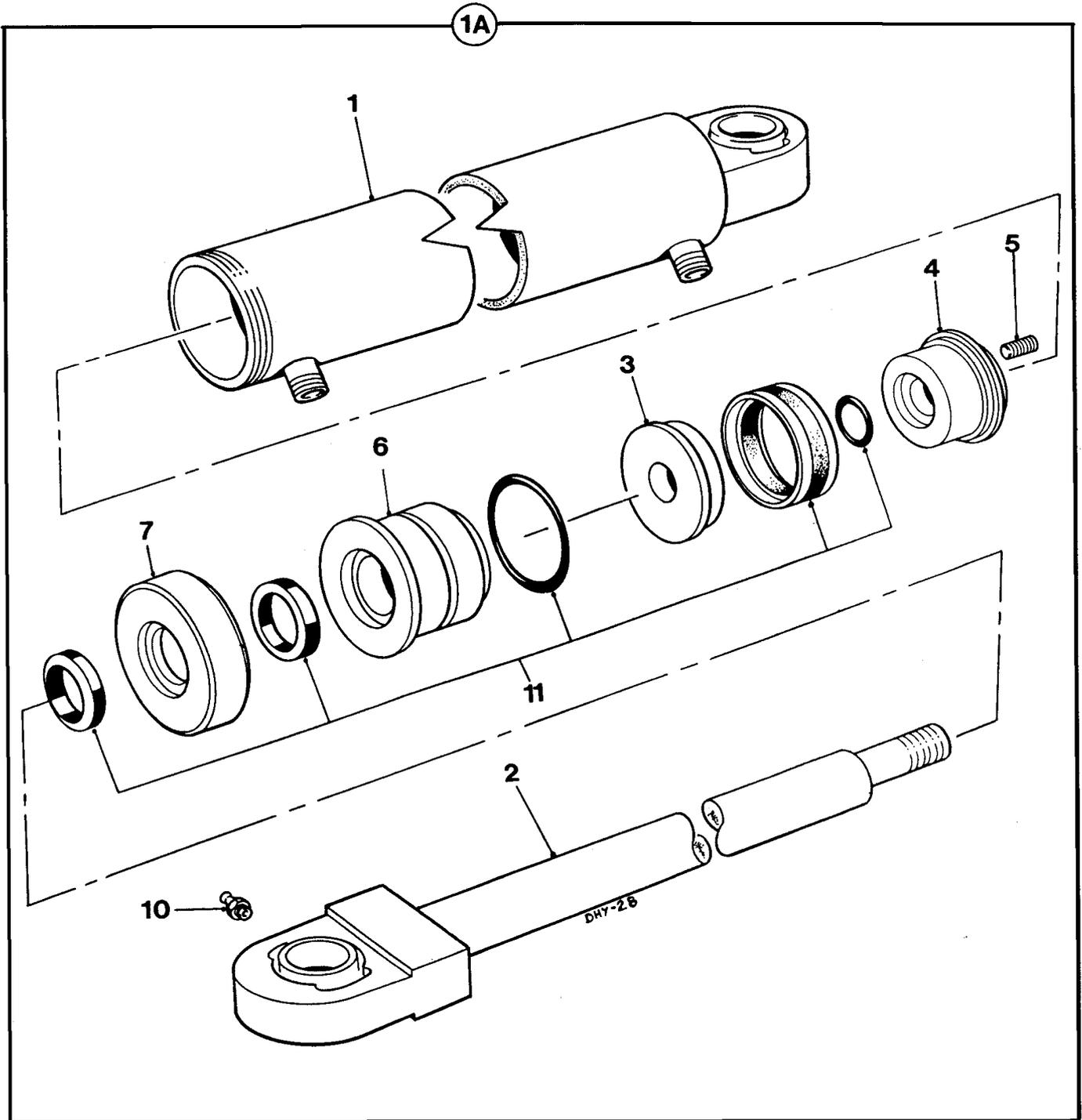
7 - B - 4

4S5000RS Dumper with rotating skip



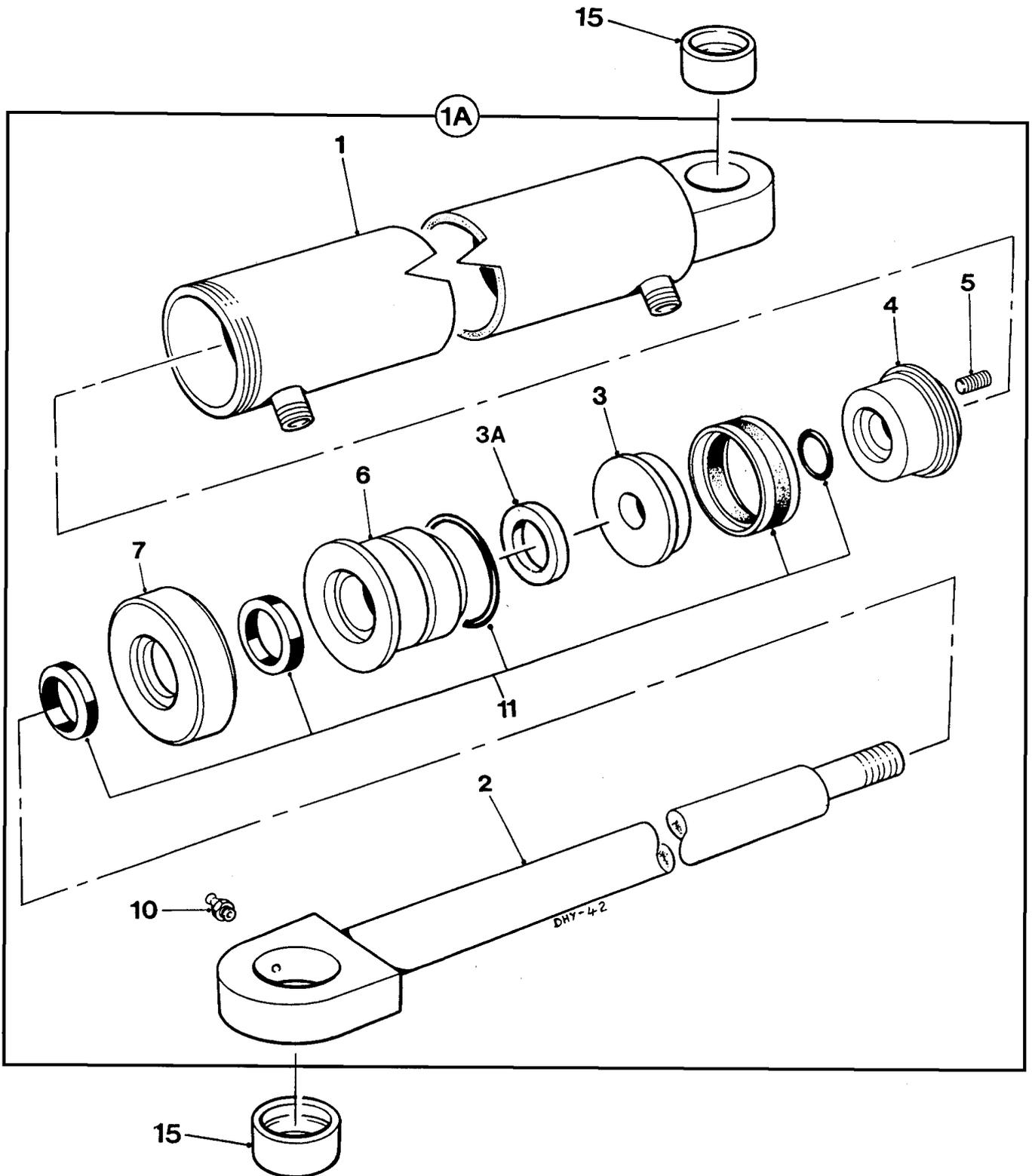
**ROTATING HYDRAULIC CIRCUIT, rotating skip****7 - B - 4**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>               | <b>Qty</b> |
|-------------|----------------|------------------|----------------------------------|------------|
| 1           | 30287A03       |                  | RAM, rotating                    | 2          |
| 2           | 25S01A         |                  | HOSE, ram to ram                 | 2          |
| 3           | 25S01A         |                  | HOSE, front chassis              | 2          |
| 4           | 154S01         |                  | FITTING, 'T' piece, m/m/f swivel | 2          |
| 5           | 122S02         |                  | ADAPTOR, m/m                     | 2          |
| 6           | 318S01D        |                  | HOSE, rear chassis               | 2          |



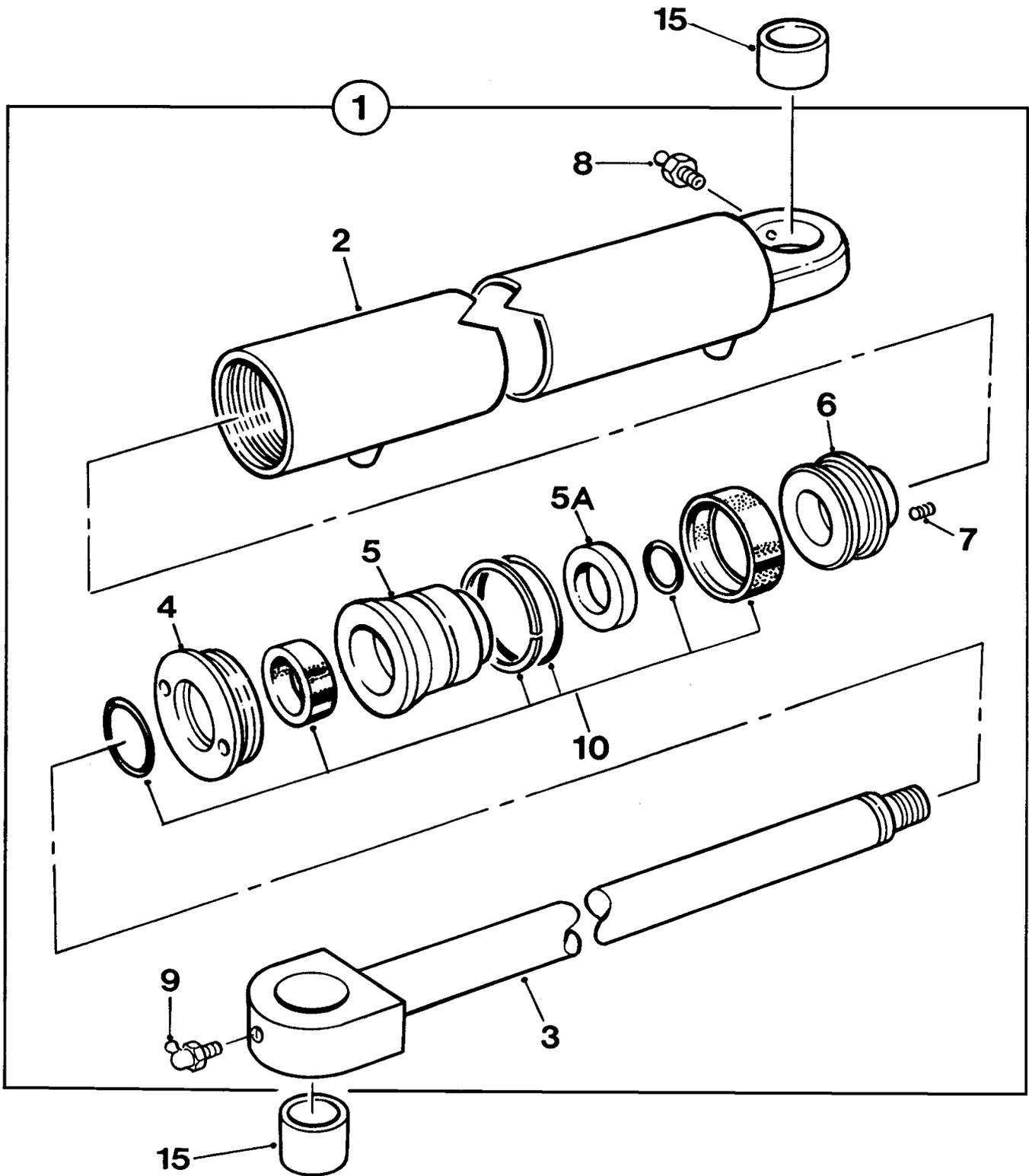
**STEERING RAM, with spherical bearings****7 - R - 1**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b> | <b>Qty</b> |
|-------------|----------------|------------------|--------------------|------------|
| 1A          | V2002565       | 2001 / 2041      | RAM, assembly      | 1          |
| 1           | V2003542       |                  | CYLINDER           | 1          |
| 2           | V2002566       |                  | ROD, ram           | 1          |
| 3           | 30121A0109     |                  | PISTON, rear       | 1          |
| 4           | 30121A0112     |                  | PISTON, front      | 1          |
| 5           | 57S04E2        |                  | SCREW, grub        | 1          |
| 6           | 30121A0303     |                  | RETAINER           | 1          |
| 7           | 30121A0105     |                  | CAP, end           | 1          |
| 10          | 131S01         |                  | NIPPLE, grease     | 2          |
| 11          | CSE204         |                  | KIT, seals         | 1          |



**STEERING RAM, with bushes****7 - R - 1A**

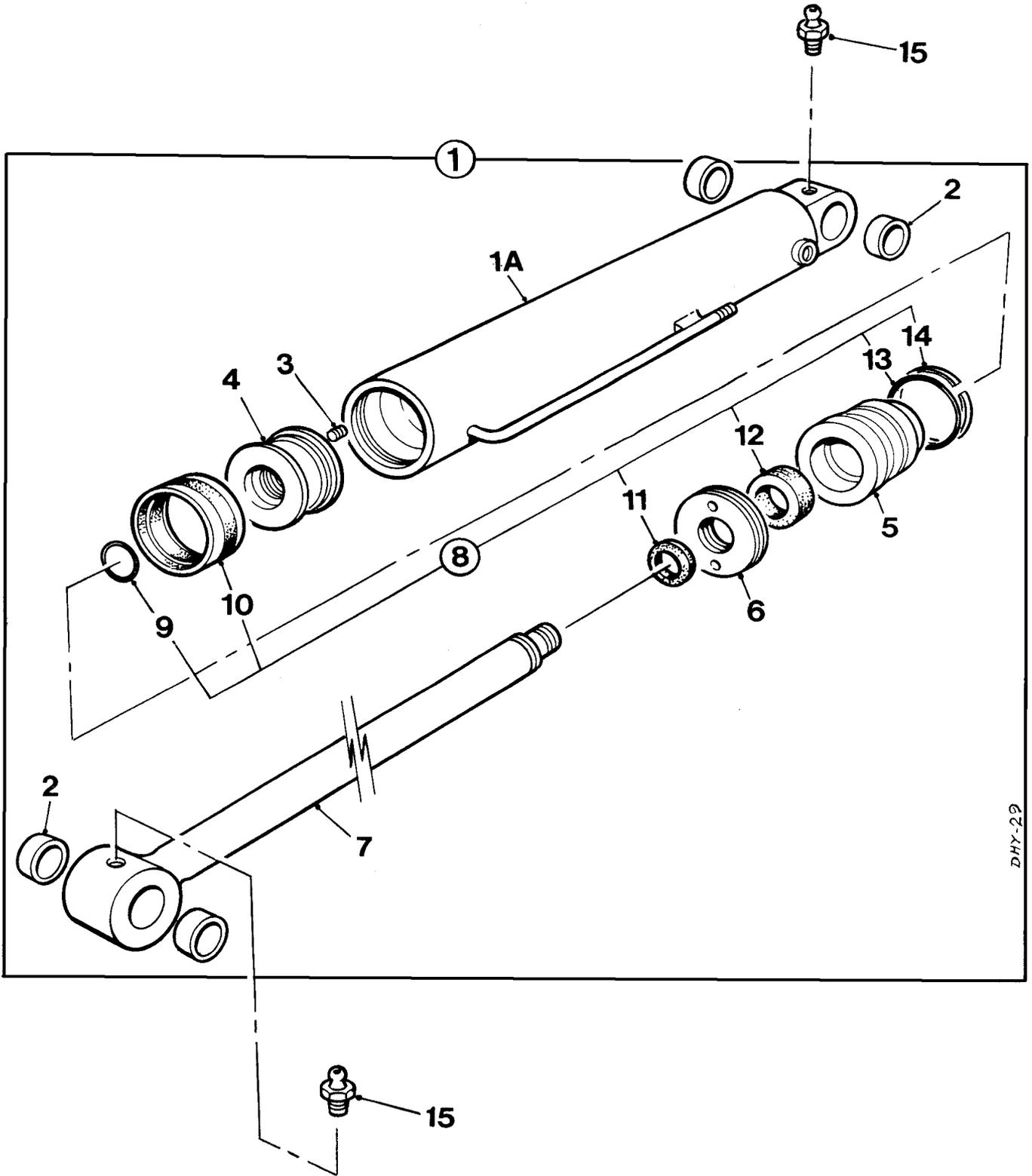
| Item | Part no    | Serial no | Description  | Qty |
|------|------------|-----------|--|-----|
| --   | V602700    | 2042 /    | RAM with BUSHES assembly   | 1   |
| 1A   | V2000952   |           | # RAM, assembly ( <i>without bushes</i> )  | 1   |
| 1    | V2004197   |           | CYLINDER   | 1   |
| 2    | V2004198   |           | ROD, ram   | 1   |
| 3    | 30121A0109 |           | PISTON, rear   | 1   |
| 3A   | V2005014   |           | RESTRICTOR (as required)   | 1   |
| 4    | 30121A0112 |           | PISTON, front  | 1   |
| 5    | 57S04E2    |           | SCREW, grub  | 1   |
| 6    | 30121A0303 |           | RETAINER   | 1   |
| 7    | 30121A0105 |           | CAP, end   | 1   |
| 10   | 131S01     |           | NIPPLE, grease   | 2   |
| 11   | CSE204     |           | KIT, seals   | 1   |
| 15   | V2004200   |           | # BUSH   | 2   |
|      |            |           | # <i>All new rams must be fitted with bushes and then drilled with grease holes before being supplied to the customer.</i> |     |



**STEERING RAM, with bushes****7 - R - 1B**

| Item | Part no  | Serial no | Description                               | Qty   |
|------|----------|-----------|---|-------|
| --   | V602701  |           | RAM with BUSHES assembly                  | 1     |
| 1    | V2004266 |           | # RAM, assembly ( <i>without bushes</i> ) | 1     |
| 2    | V2004262 |           | CYLINDER                                  | 1     |
| 3    | V2004265 |           | ROD, ram                                  | 1     |
| 4    | V2003184 |           | CAP, end                                  | 1     |
| 5    | V2003374 |           | RETAINER                                  | 1     |
| 5A   | V2005015 |           | RESTRICTOR ( <i>as required</i> )         | 1     |
| 6    | V2002476 |           | PISTON                                    | 1     |
| 7    | 57S03AB2 |           | SCREW, grub                               | 1     |
| 8    | 131S01   |           | NIPPLE, grease, straight                  | 1     |
| 9    | 131S02   |           | NIPPLE, grease, 90 deg.                   | 1     |
| 10   | V2000328 |           | KIT, seals                                | kit 1 |
| 15   | V2004200 |           | # BUSH                                    | 2     |

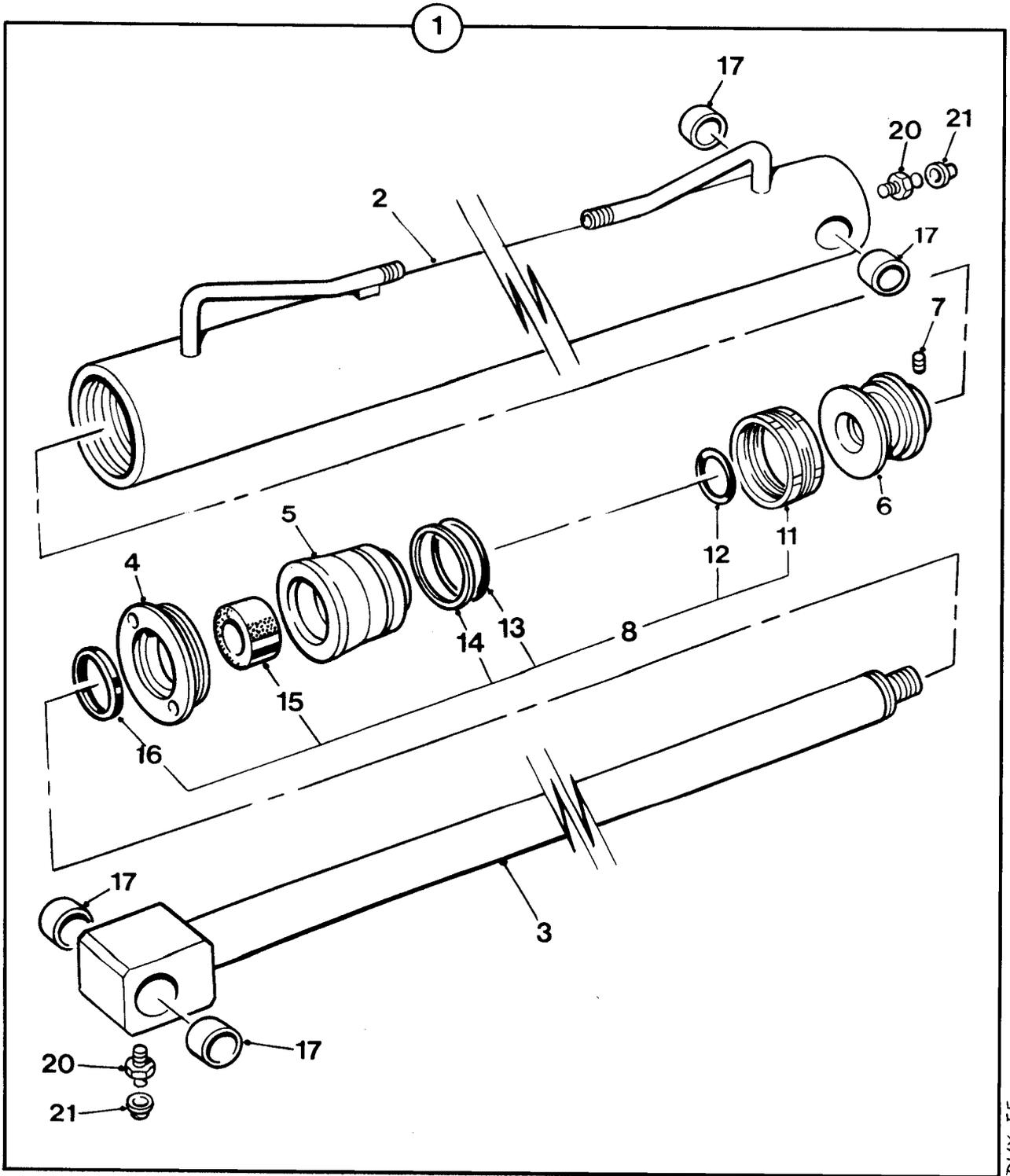
# *All new rams must be fitted with bushes and then drilled with grease holes before being supplied to the customer.*



DHY-29

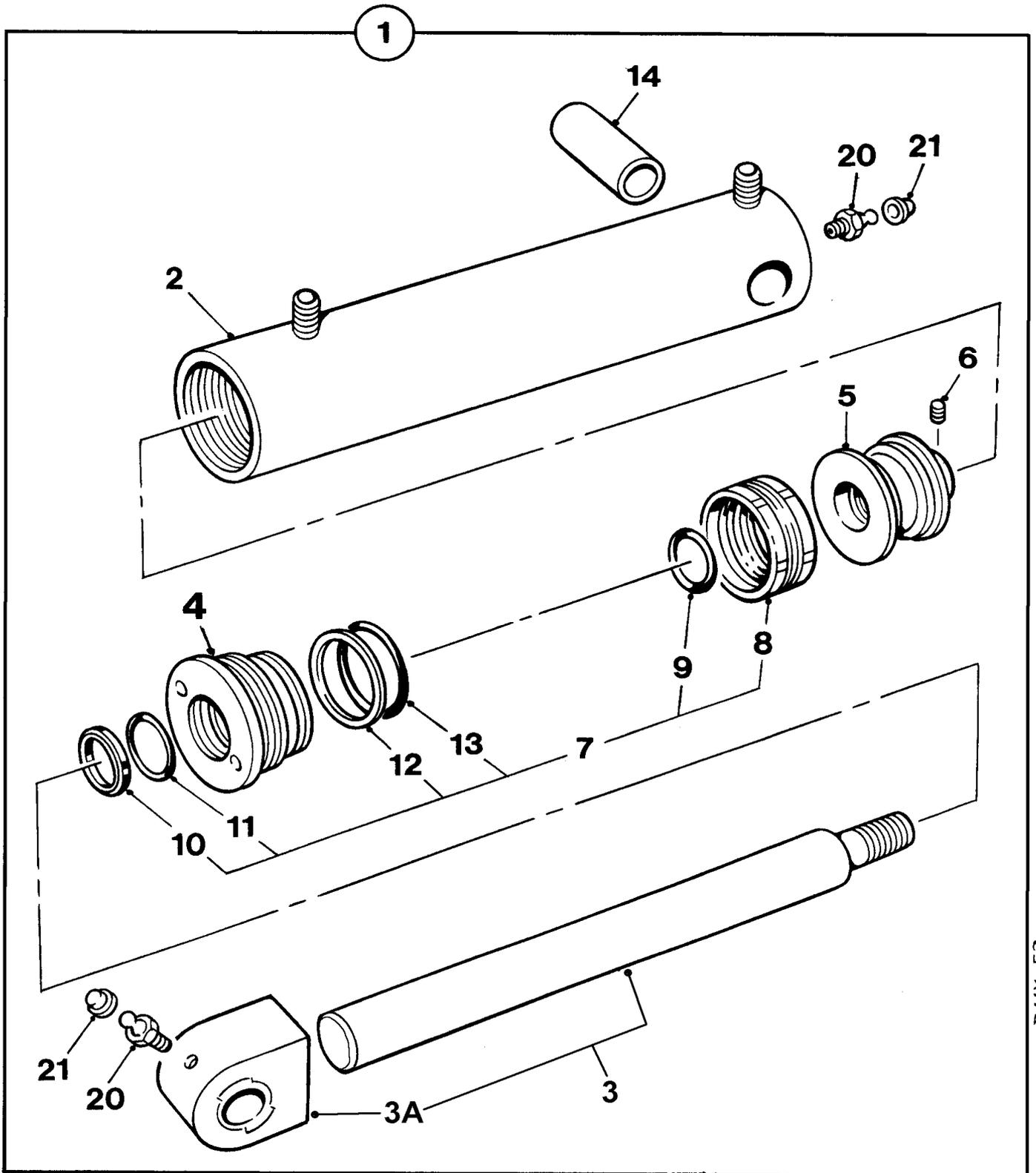
**TIPPING RAM, forward tipping skip****7 - R - 2**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>       | <b>Qty</b> |
|-------------|----------------|------------------|--------------------------|------------|
| 1           | V2002474       |                  | RAM, tipping, assembly   | 2          |
| 1A          | V2002477       |                  | CYLINDER, ram            | 1          |
| 2           | V2002620       |                  | BUSH                     | 4          |
| 3           | 57S03AB2       |                  | SCREW, grub              | 1          |
| 4           | V2002476       |                  | PISTON                   | 1          |
| 5           | V2003374       |                  | RETAINER                 | 1          |
| 6           | V2003184       |                  | CAP, end                 | 1          |
| 7           | V2000330       |                  | ROD, ram                 | 1          |
| 8           | V2000328       |                  | KIT, seals               | 1          |
| 9           | —              |                  | “O” RING                 | 1          |
| 10          | —              |                  | SEAL                     | 1          |
| 11          | —              |                  | SEAL                     | 1          |
| 12          | —              |                  | SEAL                     | 1          |
| 13          | —              |                  | “O” RING                 | 1          |
| 14          | —              |                  | RING                     | 1          |
| 15          | 131S01         |                  | NIPPLE, grease, straight | 2          |



**TIPPING RAM, for rotating skip****7 - R - 3**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>              | <b>Qty</b> |
|-------------|----------------|------------------|---------------------------------|------------|
| 1           | V2004466       |                  | RAM, tipping, for rotating skip | 2          |
| 2           | V2004470       |                  | CYLINDER, ram                   | 1          |
| 3           | V2004471       |                  | ROD, ram                        | 1          |
| 4           | V2003184       |                  | CAP                             | 1          |
| 5           | V2003374       |                  | RETAINER                        | 1          |
| 6           | V2002476       |                  | PISTON                          | 1          |
| 7           | 57S03AB2       |                  | SCREW, grub                     | 1          |
| 8           | V2000328       |                  | KIT, seals                      | 1          |
| 11          | ----           |                  | SEAL, piston                    | 1          |
| 12          | ----           |                  | "O" RING                        | 1          |
| 13          | ----           |                  | "O" RING                        | 1          |
| 14          | ----           |                  | BACKING RING                    | 1          |
| 15          | ----           |                  | SEAL                            | 1          |
| 16          | ----           |                  | SEAL, wiper                     | 1          |
| 17          | V2002620       |                  | BUSH                            | 4          |
| 20          | 131S01         |                  | NIPPLE, grease                  | 2          |
| 21          | 176S01         |                  | CAP, grease nipple              | 2          |



**RAM, swivel, for skip rotation****7 - R - 4**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                  | <b>Qty</b> |
|-------------|----------------|------------------|-------------------------------------|------------|
| 1           | 30287A03       |                  | RAM, skip rotation, assembly        | 2          |
| 2           | 30287A0304     |                  | CYLINDER, ram                       | 1          |
| 3           | 30287A0305     |                  | ROD, ram                            | 1          |
| 3A          | V2004681       |                  | EYE, <i>replaceable welded item</i> | 1          |
| 4           | 30121A0402     |                  | CAP                                 | 1          |
| 5           | 30121A0401     |                  | PISTON                              | 1          |
| 6           | 57S04D2        |                  | SCREW, grub                         | 1          |
|             |                |                  | <i>or</i>                           |            |
| 6           | 54S04N         |                  | ROLL PIN                            | 1          |
| 7           | CSE204         |                  | KIT, seals                          | 1          |
| 8           | —              |                  | SEAL, piston                        | 1          |
| 9           | —              |                  | "O" RING                            | 1          |
| 10          | —              |                  | SEAL, wiper                         | 1          |
| 11          | —              |                  | SEAL                                | 1          |
| 12          | —              |                  | BACKING RING                        | 1          |
| 13          | —              |                  | "O" RING                            | 1          |
| 14          | V2004682       |                  | BUSH                                | 1          |
| 20          | 131S01         |                  | NIPPLE, grease                      | 2          |
| 21          | 176S01         |                  | CAP, grease nipple                  | 2          |

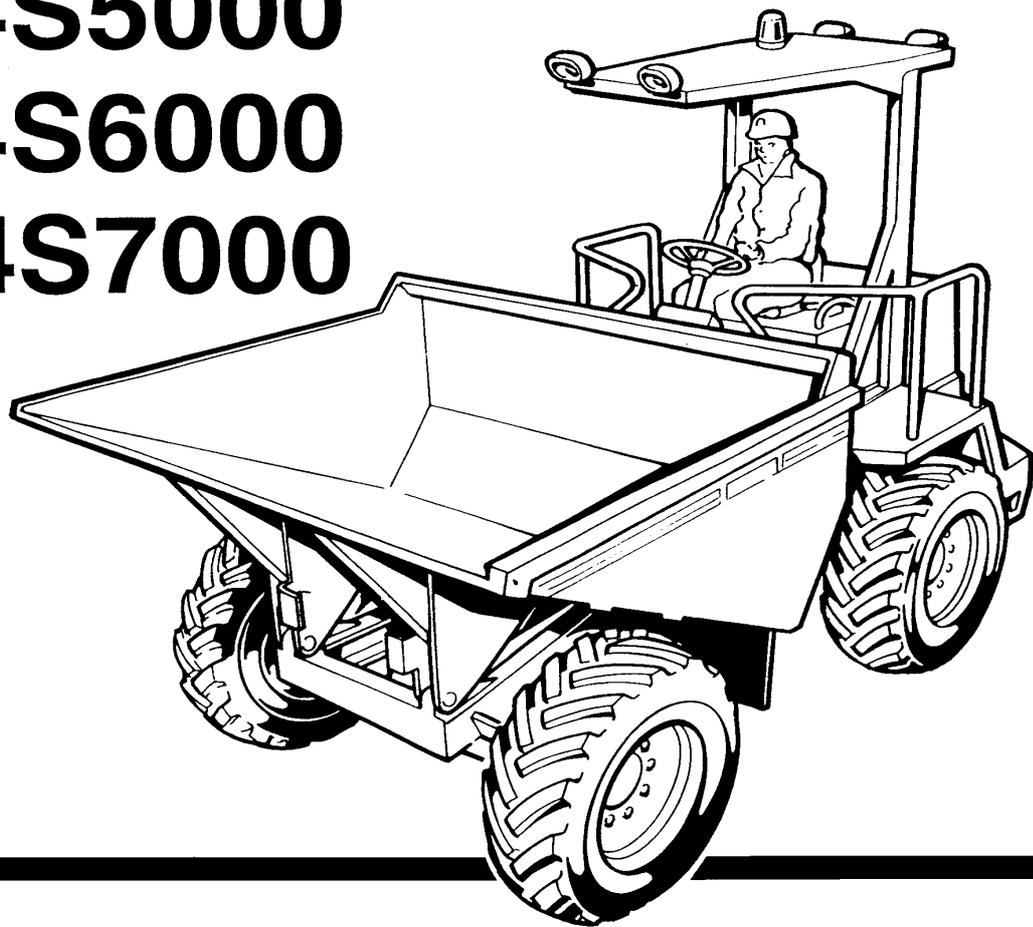
# **'S' Series Dumpers**

**4S4000**

**4S5000**

**4S6000**

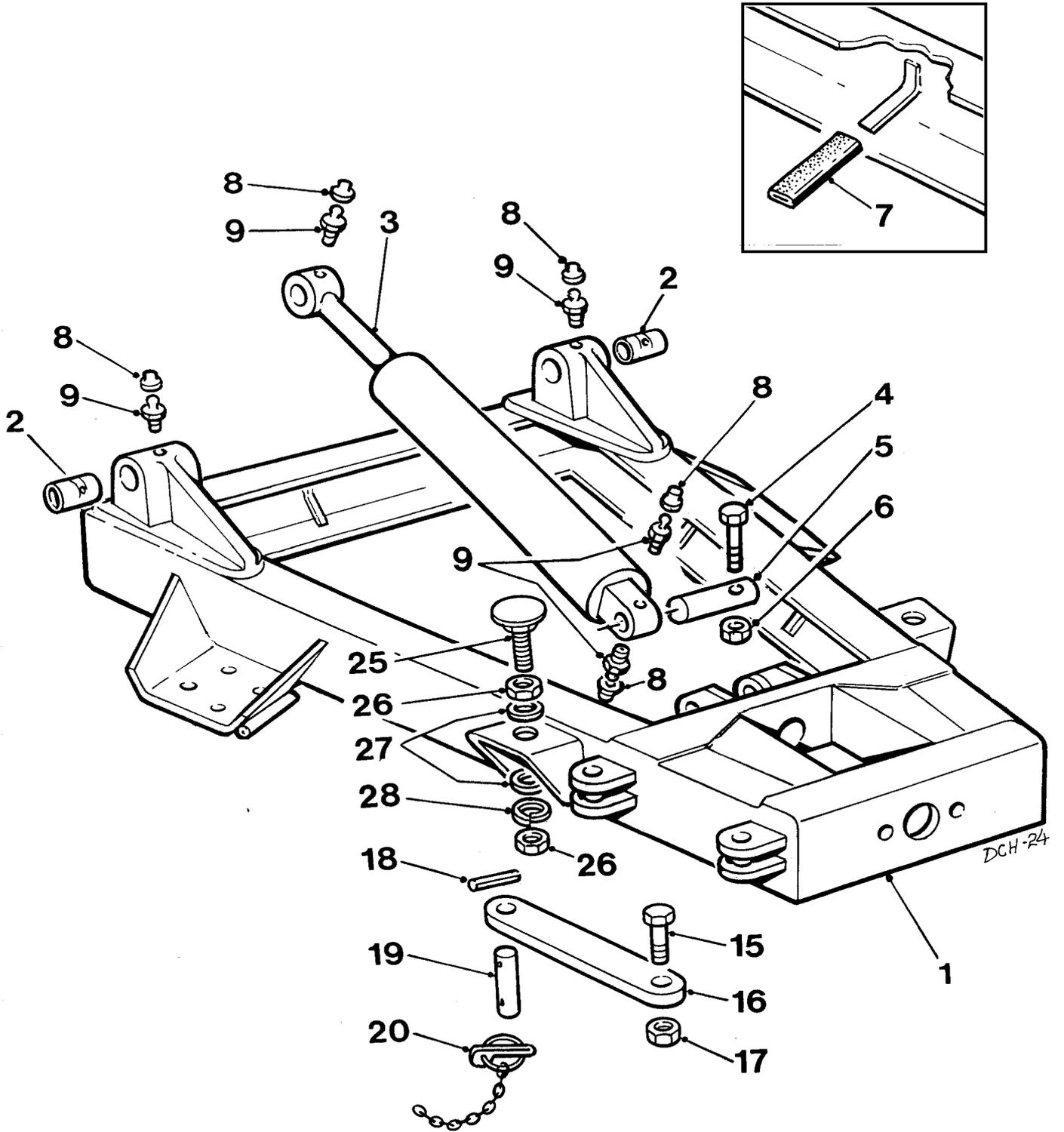
**4S7000**



# Chassis & Cab

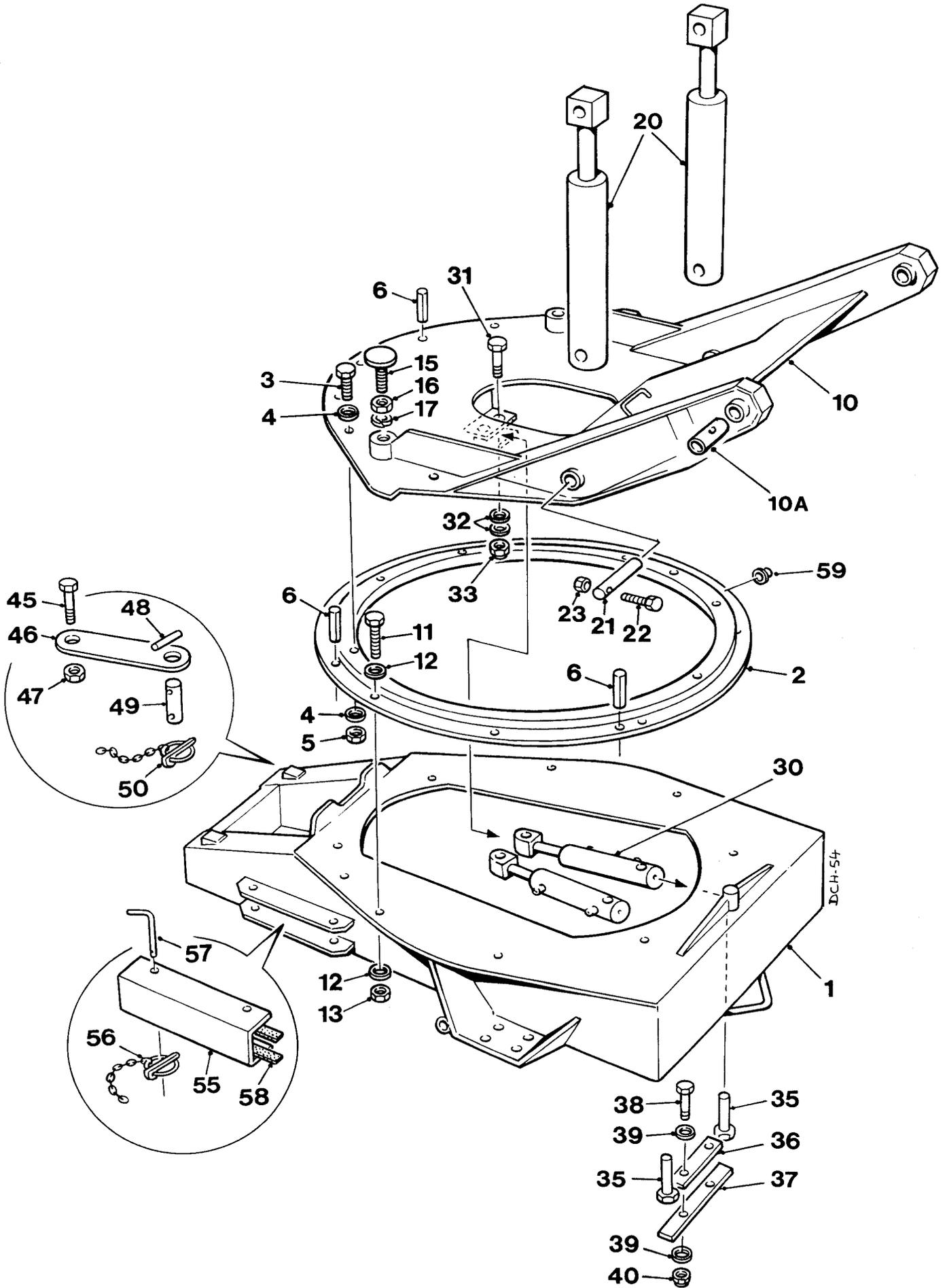
|  |            |
|--|------------|
| CHASSIS, FRONT, forward tipping skip   | 8 - A - 1  |
| CHASSIS, FRONT, rotating skip  | 8 - A - 1A |
| CHASSIS, REAR  | 8 - A - 2  |
| CENTRE YOKE  | 8 - A - 3  |
| PINS & GUARDS ( <i>NOT 4S7000</i> )<br>for steering ram with spherical bearings  | 8 - A - 4  |
| PINS & GUARDS ( <i>NOT 4S7000</i> )<br>for steering ram with bushes  | 8 - A - 5  |
| PINS & GUARDS , for steering ram ( <i>4S7000 ONLY</i> )  | 8 - A - 6  |
| PANELS   | 8 - B - 1  |
| ENGINE COVER ( <i>NOT 4S7000</i> )<br>From serial number 2001 to 2152  | 8 - B - 2  |
| REAR GUARD & ENGINE COVER<br>From serial number 2122 ( <i>4S7000 ONLY</i> )<br>From serial number 2153 ( <i>4S4/5/6000</i> ) | 8 - B - 2A |
| CASING, steering column  | 8 - B - 3  |
| FRAME (ROPS) & CANOPY (FOPS)   | 8 - B - 4  |
| SEAT, "KAB" & suspension units   | 8 - C - 1  |
| SEAT, "GRAMMER" with fittings  | 8 - C - 2  |
| SEAT, "GRAMMER", parts   | 8 - C - 3  |
| CAB FRAME & FITTINGS   | 8 - D - 1  |
| GLAZING, cab   | 8 - D - 2  |
| INSULATION, cab  | 8 - D - 3  |
| INSULATION, seatbox  | 8 - D - 4  |
| HEATER, cab  | 8 - E - 1  |

[<<< To beginning of Parts](#)



**CHASSIS, front, forward tipping****8 - A - 1**

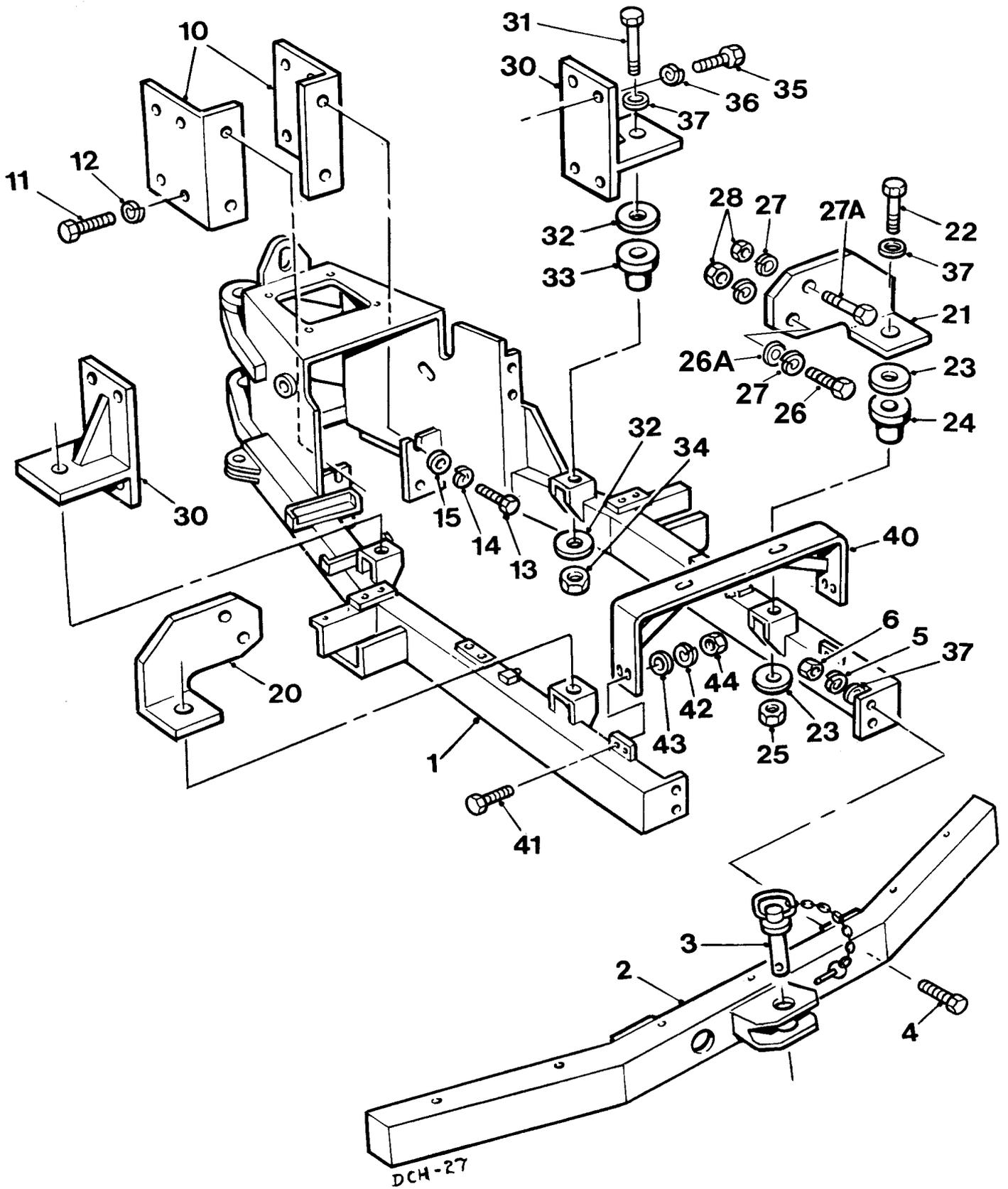
| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                             | <b>Qty</b> |
|-------------|----------------|------------------|--|------------|
| 1           | V2002577       | 2001 /           | CHASSIS, front                                 | 1          |
| 2           | V2004135       |                  | BUSH, skip pivot                               | 2          |
| 3           | V2002474       |                  | RAM, tipping ( <i>see Hydraulics Section</i> ) | 2          |
| 4           | 11S03M         |                  | SCREW, set                                     | 2          |
| 5           | V2002621       |                  | PIN  | 2          |
| 6           | 61S03          |                  | NUT, self locking                              | 2          |
| 7           | 208143000      |                  | SLEEVE, pvc                                    | 1          |
| 8           | 176S01         |                  | COVER, grease nipple                           | 8          |
| 9           | 131S01         |                  | NIPPLE, grease, straight                       | 8          |
| 15          | 8S07K          | 2042 /           | BOLT   | 1          |
| 16          | V2004004       | 2042 /           | SUPPORT, articulation lock                     | 1          |
| 17          | 61S07          | 2042 /           | NUT, self-locking                              | 1          |
| 18          | 55S02D         | 2042 /           | PIN, roll                                      | 1          |
| 19          | V2003851       | 2042 /           | PIN  | 1          |
| 20          | 902S02         | 2042 /           | PIN, lynch                                     | 1          |
| 25          | V2004234       | 2042 /           | SCREW, skip stop                               | 2          |
| 26          | 7S08           | 2042 /           | NUT  | 4          |
| 27          | 267S12         | 2042 /           | WASHER, flat                                   | 4          |
| 28          | 17S11          | 2042 /           | WASHER, spring                                 | 2          |



# CHASSIS, front, rotating skip

# 8 - A - 1A

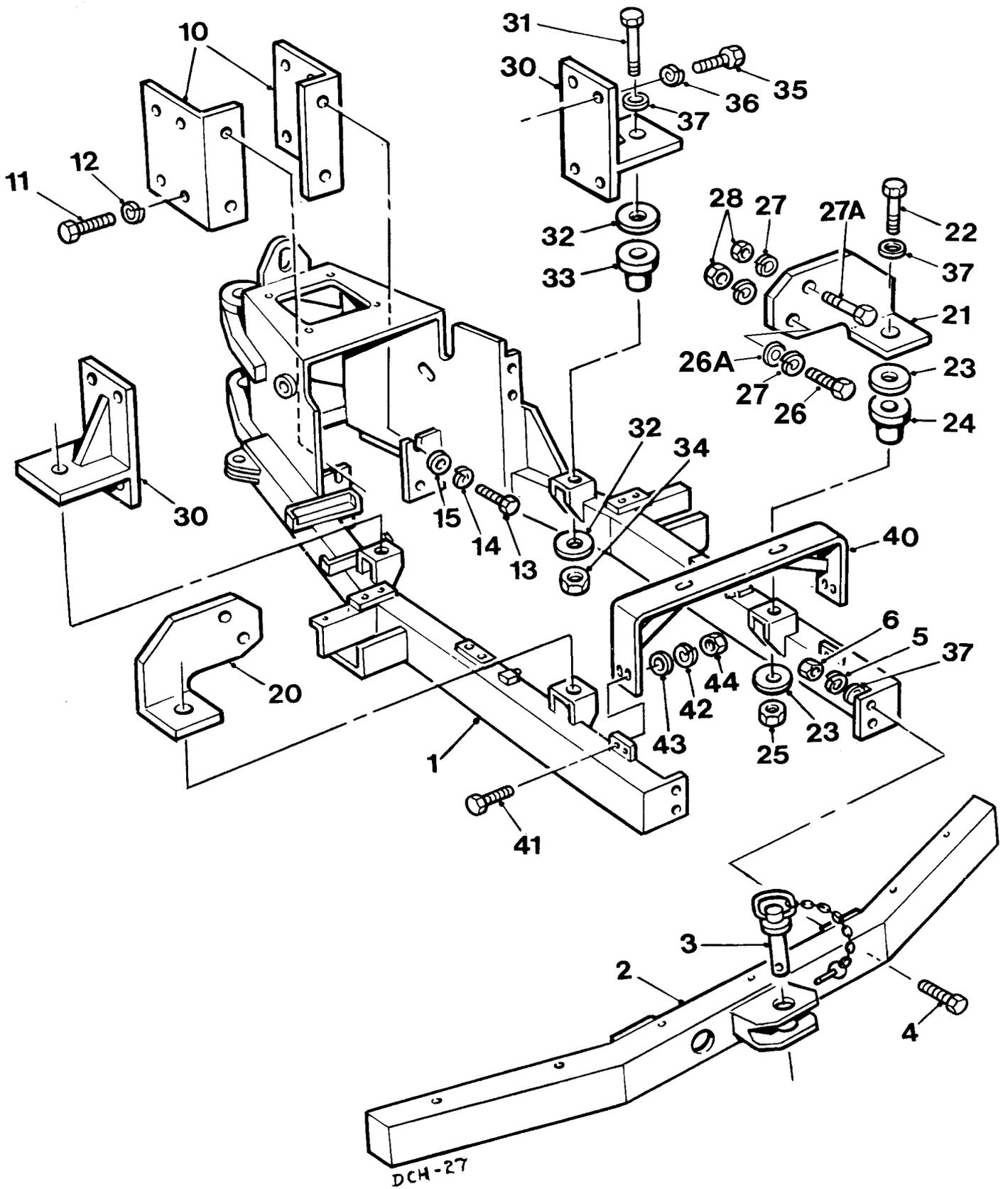
| Item | Part no   | Serial no | Description                                  | Qty |
|------|-----------|-----------|--|-----|
| 1    | V2004473  |           | CHASSIS, rotating skip                       | 1   |
| 2    | V2004579  |           | RING, bearing                                | 1   |
| 3    | 11S05F    |           | SCREW, set                                   | 12  |
| 4    | 267S07    |           | WASHER, flat                                 | 24  |
| 5    | 61S05     |           | NUT, "Binx", self-locking                    | 12  |
| 6    | 54S08J    |           | PIN, roll                                    | 4   |
| 10   | V2004493  |           | FRAME, rotating                              | 1   |
| 10A  | V2004135  |           | BUSH, skip pivot                             | 2   |
| 11   | 11S05E    |           | SCREW, set                                   | 8   |
| 12   | 267S07    |           | WASHER, flat                                 | 16  |
| 13   | 61S05     |           | NUT, "Binx", self-locking                    | 8   |
| 15   | V2004234  |           | SCREW, skip stop                             | 2   |
| 16   | 7S08      |           | NUT  | 2   |
| 17   | 17S11     |           | WASHER, spring                               | 2   |
| 20   | V2004466  |           | RAM, skip tipping ( <i>see page 7-R-3</i> )  | 2   |
| 21   | V2002619  |           | Pin, ram base pivot                          | 2   |
| 22   | 11S03M    |           | SCREW, set                                   | 2   |
| 23   | 61S03     |           | NUT, "Binx", self-locking                    | 2   |
| 30   | 30287A03  |           | RAM, skip rotating ( <i>see page 7-R-4</i> ) | 2   |
| 31   | 6S07MM    |           | BOLT, (rotating ram eye)                     | 2   |
| 32   | 10S06     |           | WASHER, flat                                 | 4   |
| 33   | 107S18    |           | NUT, "Binx" self-locking                     | 2   |
| 35   | V2004679  |           | PIN, (rotating ram base)                     | 2   |
| 36   | V2004677  |           | BAR, pin spacer                              | 1   |
| 37   | V2004678  |           | BAR, pin retainer                            | 1   |
| 38   | 8S04G     |           | BOLT   | 2   |
| 39   | 267S06    |           | WASHER, flat                                 | 4   |
| 40   | 59S03     |           | NUT, "Nyloc" self-locking                    | 2   |
| 45   | 8S07K     |           | BOLT   | 1   |
| 46   | V2004004  |           | LINK, articulation lock                      | 1   |
| 47   | 61S07     |           | NUT, "Binx" self-locking                     | 1   |
| 48   | 55S02D    |           | PIN, roll                                    | 1   |
| 49   | V2003851  |           | PIN  | 1   |
| 50   | 902S02    |           | PIN, lynch                                   | 1   |
| 55   | V2004212  |           | SAFETY SUPPORT, tip ram                      | 1   |
| 56   | 902S02    |           | PIN, lynch, c/w chain                        | 2   |
| 57   | V2004217  |           | PIN  | 2   |
| 58   | 106209000 |           | SEAL, strip, (2 metres)                      | 1   |
| 59   | 176S01    |           | CAP, grease nipple                           | 4   |



# CHASSIS, rear

# 8 - A - 2

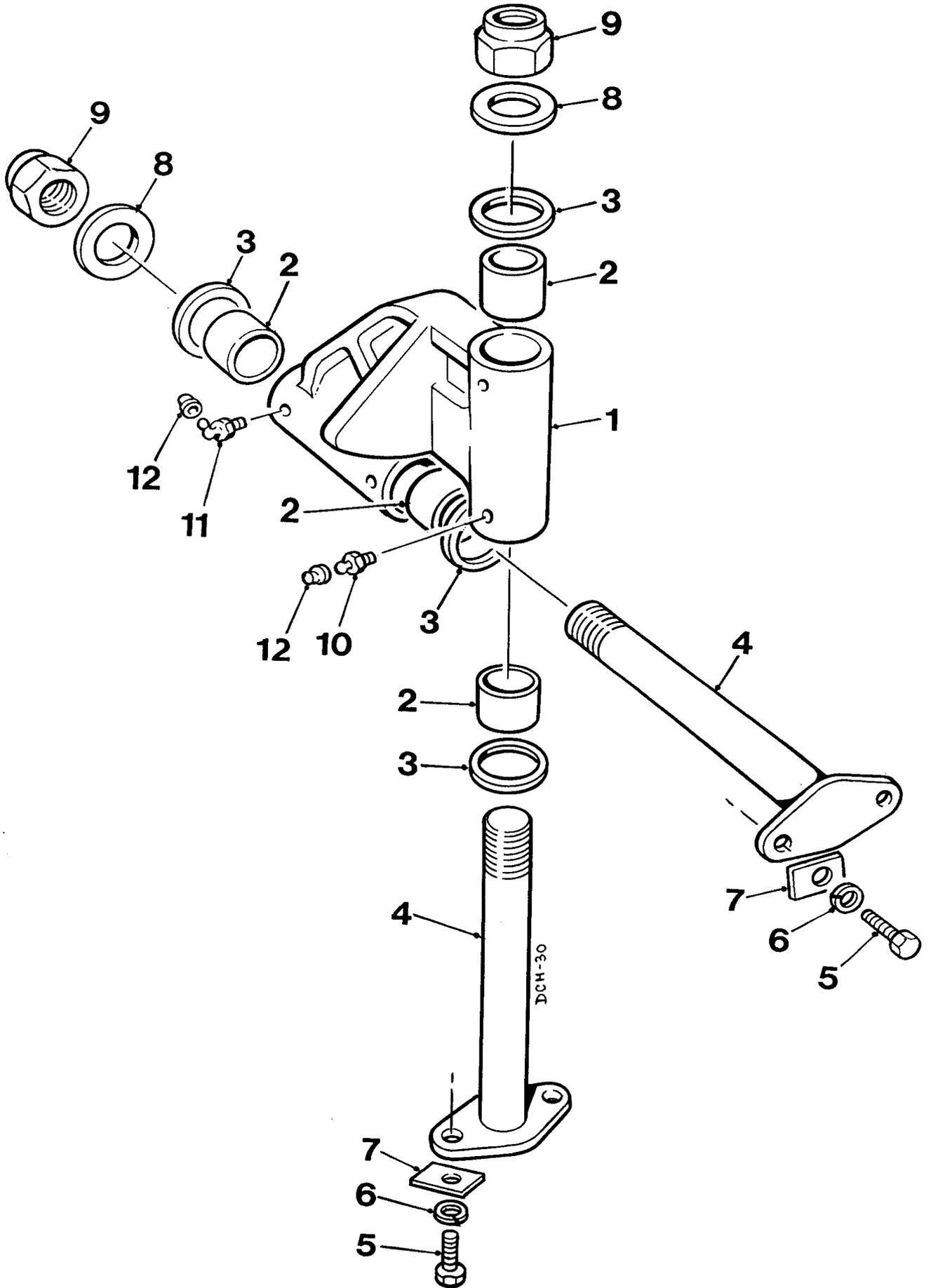
| Item | Part no  | Serial no | Description                         | Qty |
|------|----------|-----------|-------------------------------------|-----|
| 1    | V2002485 | 2001 /    | CHASSIS, rear                       | 1   |
| 2    | V2002128 |           | GUARD, bumper                       | 1   |
| 3    | V2004301 |           | PIN. drawbar                        | 1   |
| 4    | 11S06F   |           | SCREW, set                          | 4   |
| 5    | 17S08    |           | WASHER, spring                      | 4   |
| 6    | 7S06     |           | NUT                                 | 4   |
| 10   | V2002654 |           | BRACKET, mounting, transfer gearbox | 2   |
| 11   | 11S13D   |           | SCREW, set                          | 8   |
| 12   | 17S07    |           | WASHER, spring                      | 8   |
| 13   | 11S13D   |           | SCREW, set                          | 4   |
| 14   | 17S07    |           | WASHER, spring                      | 4   |
| 15   | 267S08   |           | WASHER, flat                        | 4   |
| 20   | V2002694 | / #       | BRACKET, engine mounting, L.H.      | 1   |
| 20   | V2004751 | # /       | BRACKET, engine mounting, L.H.      | 1   |
| 21   | V2002691 | / #       | BRACKET, engine mounting, R.H.      | 1   |
| 21   | V2004750 | # /       | BRACKET, engine mounting, R.H.      | 1   |
| 22   | 8S06N    |           | BOLT, to frame                      | 2   |
| 23   | V2002148 |           | WASHER, special                     | 4   |
| 24   | V2001643 |           | MOUNT, rubber                       | 2   |
| 25   | 61S06    |           | NUT, self locking                   | 2   |
| 26   | 11S06H   | / #       | SCREW, set, bracket to engine       | 2   |
| 26   | 11S06E   | # /       | SCREW, set, bracket to engine       | 2   |
| 26A  | 267S08   | # /       | WASHER, flat                        | 4   |
| 27   | 17S08    |           | WASHER, spring                      | 4   |
| 27A  | 8S06J    | / #       | BOLT, bracket to engine             | 2   |
| 27A  | 11S06E   | # /       | SCREW, set, bracket to engine       | 2   |
| 28   | 7S06     | / #       | NUT                                 | 4   |
|      |          | / 2330    | # Turbo engines                     |     |
|      |          | 2331 /    |                                     |     |
|      |          | / 2355    | # Naturally asperated engines       |     |
|      |          | 2356 /    |                                     |     |



**CHASSIS, rear**

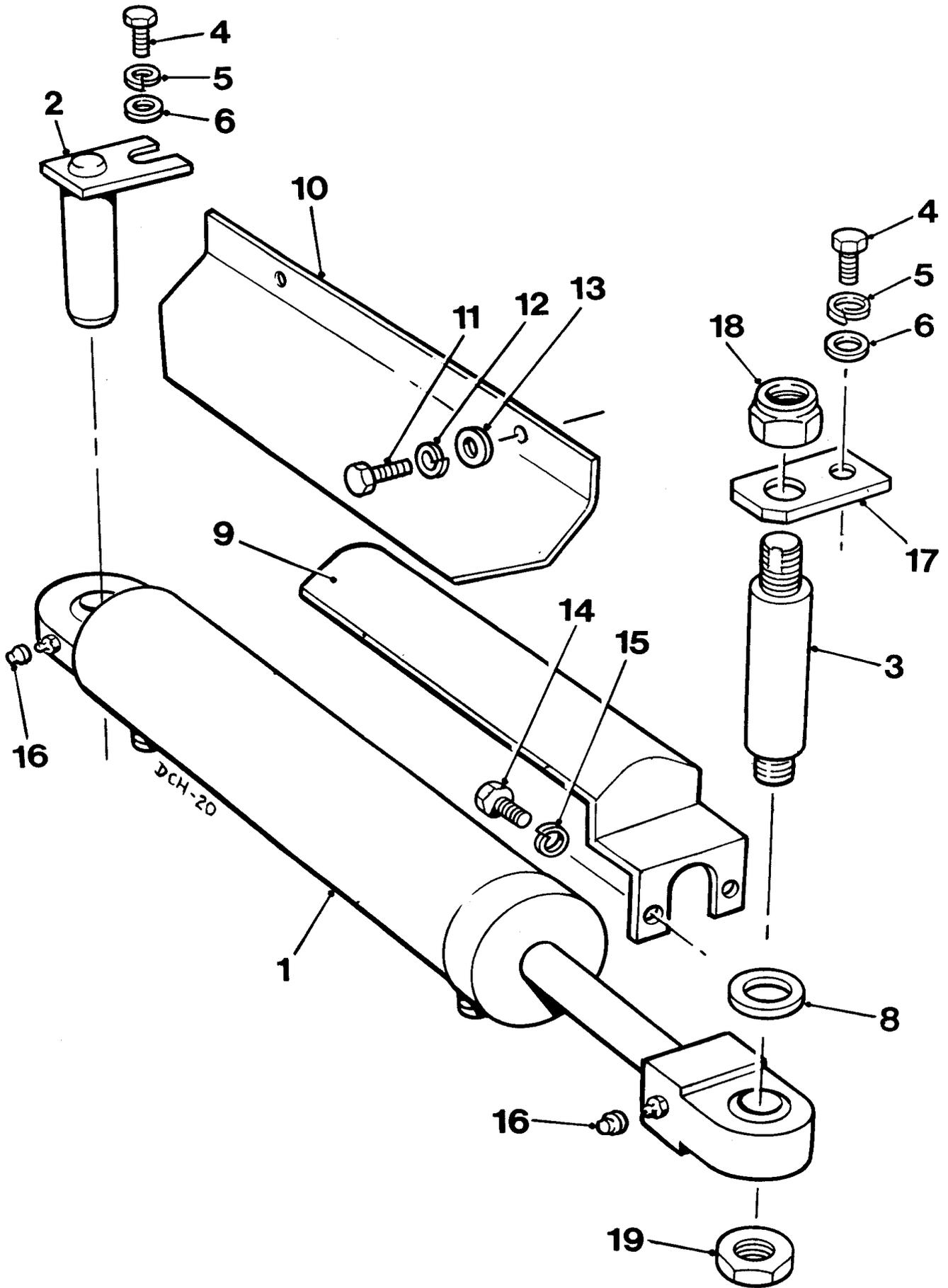
**8 - A - 2**

| Item | Part no  | Serial no | Description   | Qty |
|------|----------|-----------|---|-----|
| 30   | V2001688 | / \$      | BRACKET, transmission mounting<br>"Compact Shuttle" | 2   |
| 30   | V2004697 | \$ /      | BRACKET, transmission mounting<br>"Compact Plus"    | 2   |
|      |          | / 2407 \$ | <b>4S4000/4S5000/4S6000 Dumpers</b>                 |     |
|      |          | 2408 /    |   |     |
|      |          | / 2403 \$ | <b>4S7000 Dumper</b>                                |     |
|      |          | 2404 /    |   |     |
| 31   | 8S06N    |           | BOLT  | 2   |
| 32   | V2002148 |           | WASHER, special                                     | 4   |
| 33   | V2001643 |           | MOUNTING, rubber                                    | 2   |
| 34   | 61S06    |           | NUT   | 2   |
| 35   | 11S05E   |           | SCREW, set  | 8   |
| 36   | 17S06    |           | WASHER, spring                                      | 8   |
| 37   | 267S09   |           | WASHER, flat  | 12  |
| 40   | V2002709 |           | BRACKET, radiator to chassis                        | 1   |
| 41   | 11S04D   |           | SCREW, set  | 4   |
| 42   | 17S05    |           | WASHER, spring                                      | 4   |
| 43   | 267S06   |           | WASHER, flat  | 8   |
| 44   | 7S04     |           | NUT   | 4   |



**CENTRE YOKE****8 - A - 3**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>       | <b>Qty</b> |
|-------------|----------------|------------------|--------------------------|------------|
| 1           | V2001214       | 2001 /           | YOKE, centre             | 1          |
| 2           | V2001238       |                  | BUSH                     | 4          |
| 3           | V2003534       |                  | WASHER, thrust, 4mm      | AR         |
| 3           | V2004440       |                  | WASHER, thrust, 4.5mm    | AR         |
| 3           | V2003535       |                  | WASHER, thrust, 5mm      | AR         |
| 3           | V2004441       |                  | WASHER, thrust, 5.5mm    | AR         |
| 3           | V2003536       |                  | WASHER, thrust, 6mm      | AR         |
| 3           | V2003537       |                  | WASHER, thrust, 7mm      | AR         |
| 4           | V2001226       |                  | PIN, pivot               | 2          |
| 5           | 11S05D         |                  | SCREW, set               | 4          |
| 6           | 17S06          |                  | WASHER, spring           | 4          |
| 7           | 267S07         | / 2065           | WASHER, flat             | 4          |
| 7           | 513211900      | 2066 /           | WASHER, tab              | 4          |
| 8           | 150S15         |                  | WASHER, flat             | 2          |
| 9           | 59S16          |                  | NUT, nylon insert        | 2          |
| 10          | 131S01         |                  | NIPPLE, grease, straight | 2          |
| 11          | 131S02         |                  | NIPPLE, grease, 90 deg.  | 2          |
| 12          | 176S01         |                  | COVER, grease nipple     | 4          |



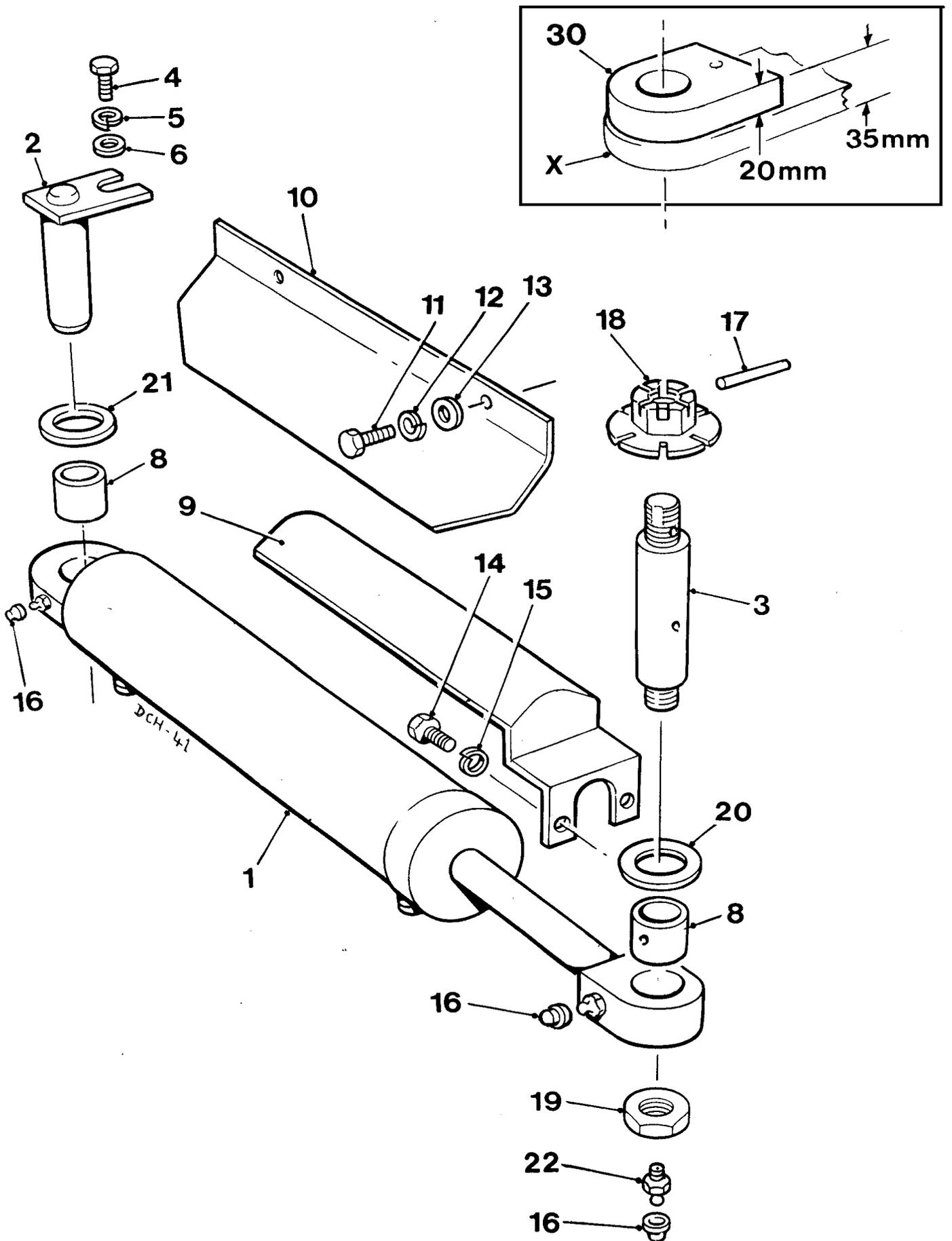
**PINS & GUARDS**  
**For steering ram with spherical bearings**

**8 - A - 4**

| Item | Part no  | Serial no   | Description  | Qty |
|------|----------|-------------|--|-----|
| 1    | V2002565 | 2001 / 2041 | \$ # RAM, steering, c/w spherical bearings<br>(see <i>Hydraulics Section</i> ) | 1   |
| 2    | V2003514 |             | PIN, steer ram rear  | 1   |
| 3    | V2003675 | / 2041      | # PIN, steer ram front   | 1   |
| 4    | 11S04B   |             | SCREW, set   | 1   |
| 4A   | 11S04B   | / 2041      | # SCREW, set   | 1   |
| 5    | 17S05    |             | WASHER, spring   | 1   |
| 5A   | 17S05    | / 2041      | # WASHER, spring   | 1   |
| 6    | 267S06   |             | WASHER, flat   | 1   |
| 6A   | 267S06   | / 2041      | # WASHER, flat   | 1   |
| 8    | V2003599 | / 2041      | \$ # SPACER, front pin   | 1   |
| 9    | V2003097 |             | GUARD, ram   | 1   |
| 10   | V2003098 |             | COVER, steering ram  | 1   |
| 11   | 11S03A   |             | SCREW, set   | 2   |
| 12   | 17S04    |             | WASHER, spring   | 2   |
| 13   | 267S05   |             | WASHER, flat   | 2   |
| 14   | 11S03A   |             | SCREW, set   | 2   |
| 15   | 17S04    |             | WASHER, spring   | 2   |
| 16   | 176S01   |             | COVER, grease nipple   | 2   |
| 17   | V2003677 | / 2041      | # RETAINER   | 1   |
| 18   | 59S07    | / 2041      | # NUT, nylon insert  | 1   |
| 19   | 56S08    |             | NUT, locking, thin   | 1   |

# *If any of the items marked # require replacing, it will be necessary to discard ALL items # and fit the components shown on page 8-A-5.*

\$ *When ram V2002565 (item 1) is fitted, the spacer V2003599 (item 8) must always be used and not the spacers 10S31 and 10S20 (items 20 & 21) on page 8-A-5.*



**PINS & GUARDS**  
**For steering ram with bushes**

**8 - A - 5**

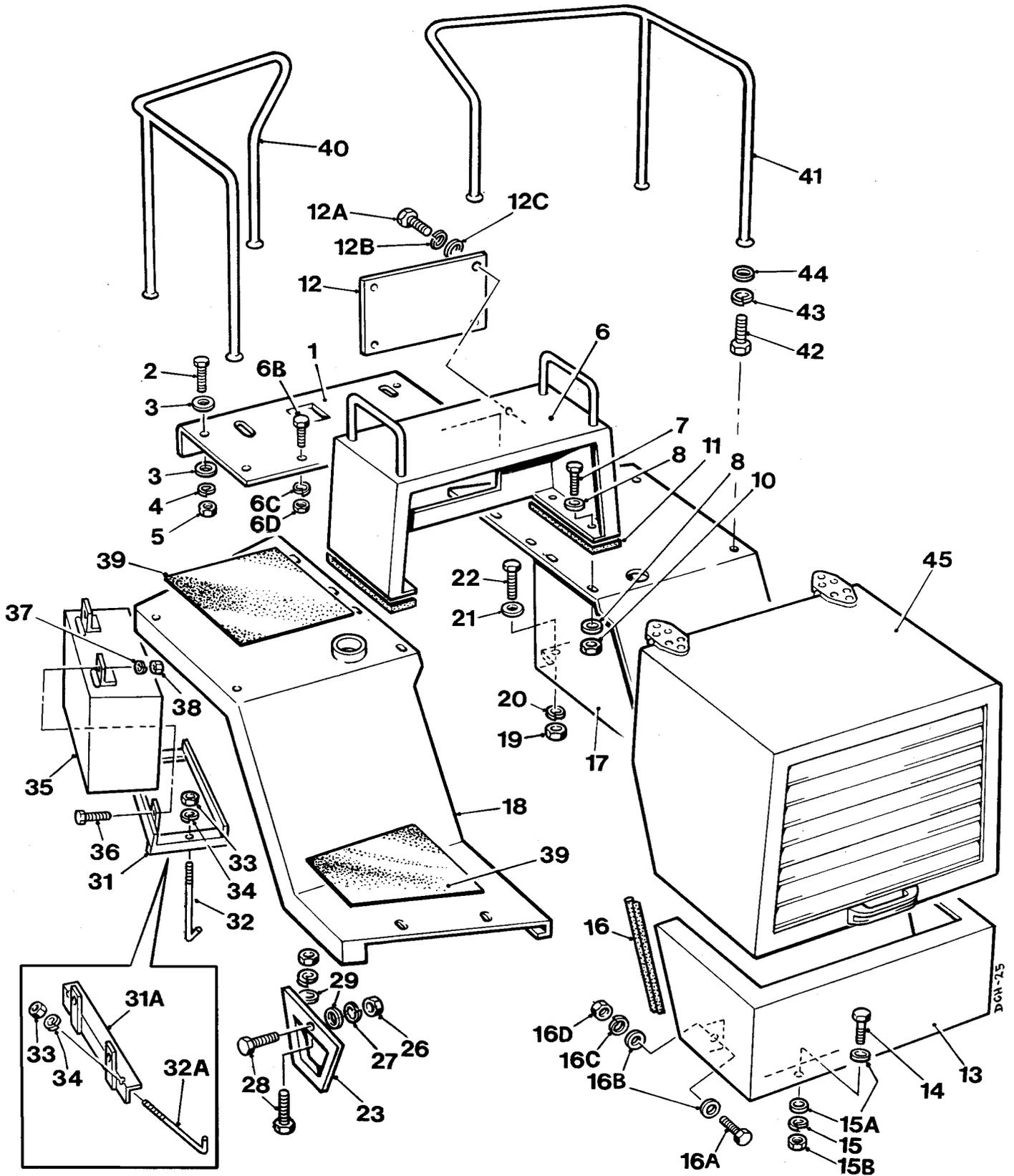
| Item | Part no   | Serial no | Description  | Qty |
|------|-----------|-----------|--|-----|
| 1    | V2000952  | 2042 /    | RAM, steering ( <i>see Hydraulic Section</i> )   | 1   |
| 2    | V2003514  | 2001 /    | PIN, steer ram rear  | 1   |
| 3    | V2004064  | 2042 /    | \$ PIN, steer ram front  | 1   |
| 4    | 11S04B    | 2001 /    | SCREW, set   | 1   |
| 5    | 17S05     | 2001 /    | WASHER, spring   | 1   |
| 6    | 267S06    | 2001 /    | WASHER, flat   | 1   |
| 8    | V2004200  | 2042 /    | BUSH   | 2   |
| 9    | V2003097  | 2001 /    | GUARD, ram   | 1   |
| 10   | V2003098  | 2001 /    | COVER, steering ram  | 1   |
| 11   | 11S03A    | 2001 /    | SCREW, set   | 2   |
| 12   | 17S04     | 2001 /    | WASHER, spring   | 2   |
| 13   | 267S05    | 2001 /    | WASHER, flat   | 2   |
| 14   | 11S03A    | 2001 /    | SCREW, set   | 2   |
| 15   | 17S04     | 2001 /    | WASHER, spring   | 2   |
| 16   | 176S01    | 2001 /    | COVER, grease nipple   | 3   |
| 17   | 54S04L    | 2042 /    | PIN, roll  | 1   |
| 18   | V2004210  | 2042 /    | NUT, "special" c/w locking tabs  | 1   |
| 19   | 56S08     | 2001 /    | # NUT, locking, thin<br># <i>Welded to under side of lower steering arm on centre pivot casting.</i>   | 1   |
| 20   | 10S31     | 2042 /    | SPACER, front pin  | 1   |
| 21   | 10S20     | 2042 /    | SPACER, rear pin   | 1   |
| 22   | 333113000 | 2042 /    | NIPPLE, grease   | 1   |
| 30   | V2004194  | 2042 /    | \$ PLATE, to thicken centre pivot  | 1   |
|      |           |           | \$ <i>When fitting pin V2004064 (item 3) to machines manufactured before serial number 2042 it is necessary to order thickening plate V2004194 (item 30) which must be welded to the top surface of the upper lug of the centre pivot (X).</i> |     |



**PINS & GUARDS, steering ram**

**8 - A - 6**

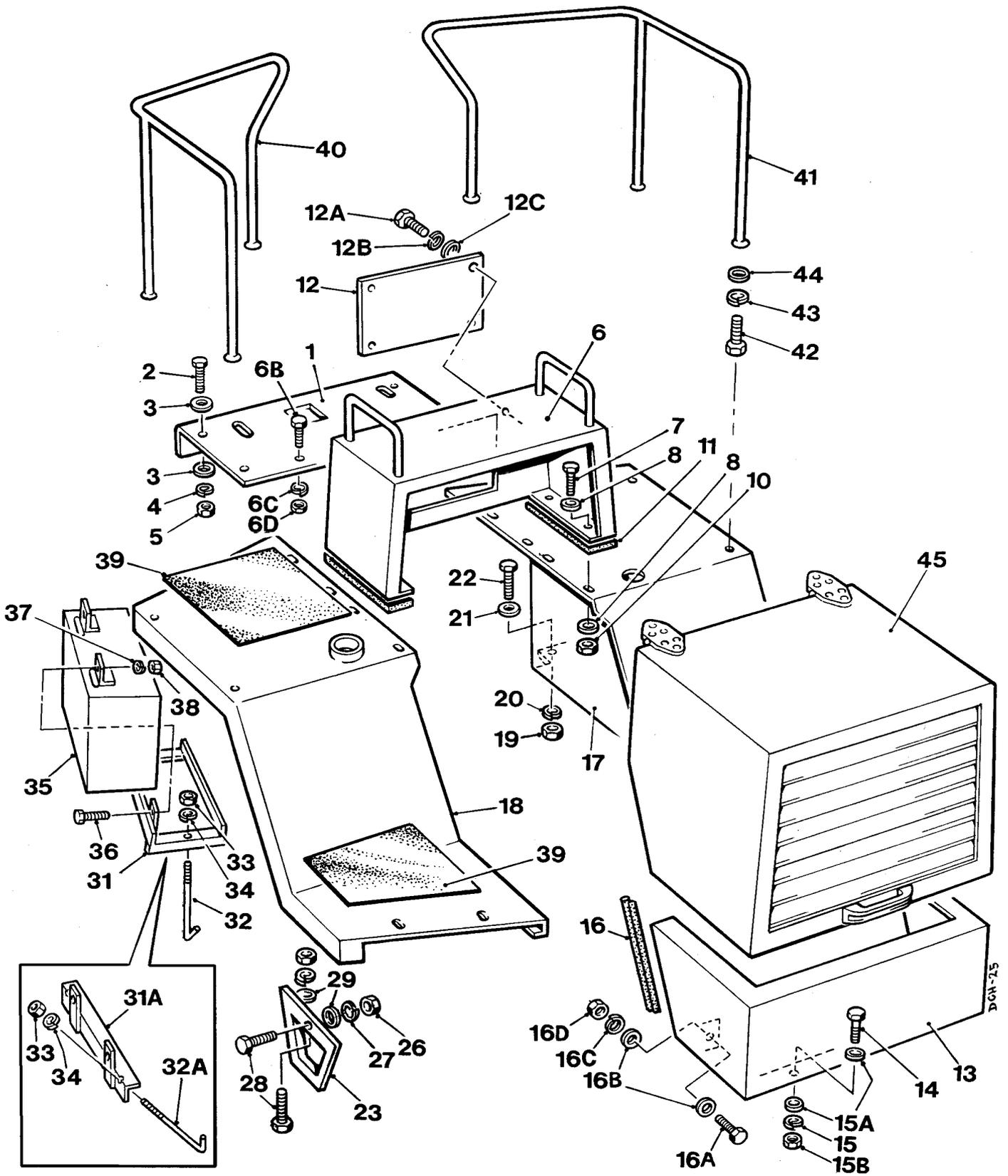
| Item | Part no   | Serial no | Description  | Qty |
|------|-----------|-----------|--|-----|
| 1    | V2004266  |           | RAM, steering ( <i>see Hydraulics Section</i> )  | 1   |
| 2    | V2003514  |           | PIN, steer ram rear  | 1   |
| 3    | V2004064  |           | PIN, steer ram front   | 1   |
| 4    | 11S04B    |           | SCREW, set   | 1   |
| 5    | 17S05     |           | WASHER, spring   | 1   |
| 6    | 267S06    |           | WASHER, flat   | 1   |
| 8    | V2004200  |           | BUSH   | 2   |
| 9    | V2004286  |           | GUARD, piston rod  | 1   |
| 10   | V2003098  |           | COVER, steer ram   | 1   |
| 11   | 11S03A    |           | SCREW, set   | 2   |
| 12   | 17S04     |           | WASHER, spring   | 2   |
| 13   | 267S05    |           | WASHER, flat   | 2   |
| 14   | 11S03D    |           | SCREW, set   | 2   |
| 15   | 17S04     |           | WASHER, spring   | 2   |
| 15A  | 267S05    |           | WASHER, flat   | 2   |
| 16   | 176S01    |           | COVER, grease nipple   | 3   |
| 17   | 54S04L    |           | PIN, roll  | 1   |
| 18   | V2004210  |           | NUT, "special" c/w locking tabs  | 1   |
| 19   | 56S08     |           | # NUT, locking, thin<br># <i>Welded to under side of lower steering arm on centre pivot casting.</i> | 1   |
| 20   | 10S31     |           | SPACER, front pin  | 1   |
| 21   | 10S20     |           | SPACER, rear pin   | 1   |
| 22   | 333113000 |           | NIPPLE, grease   | 1   |



**PANELS**

**8 - B - 1**

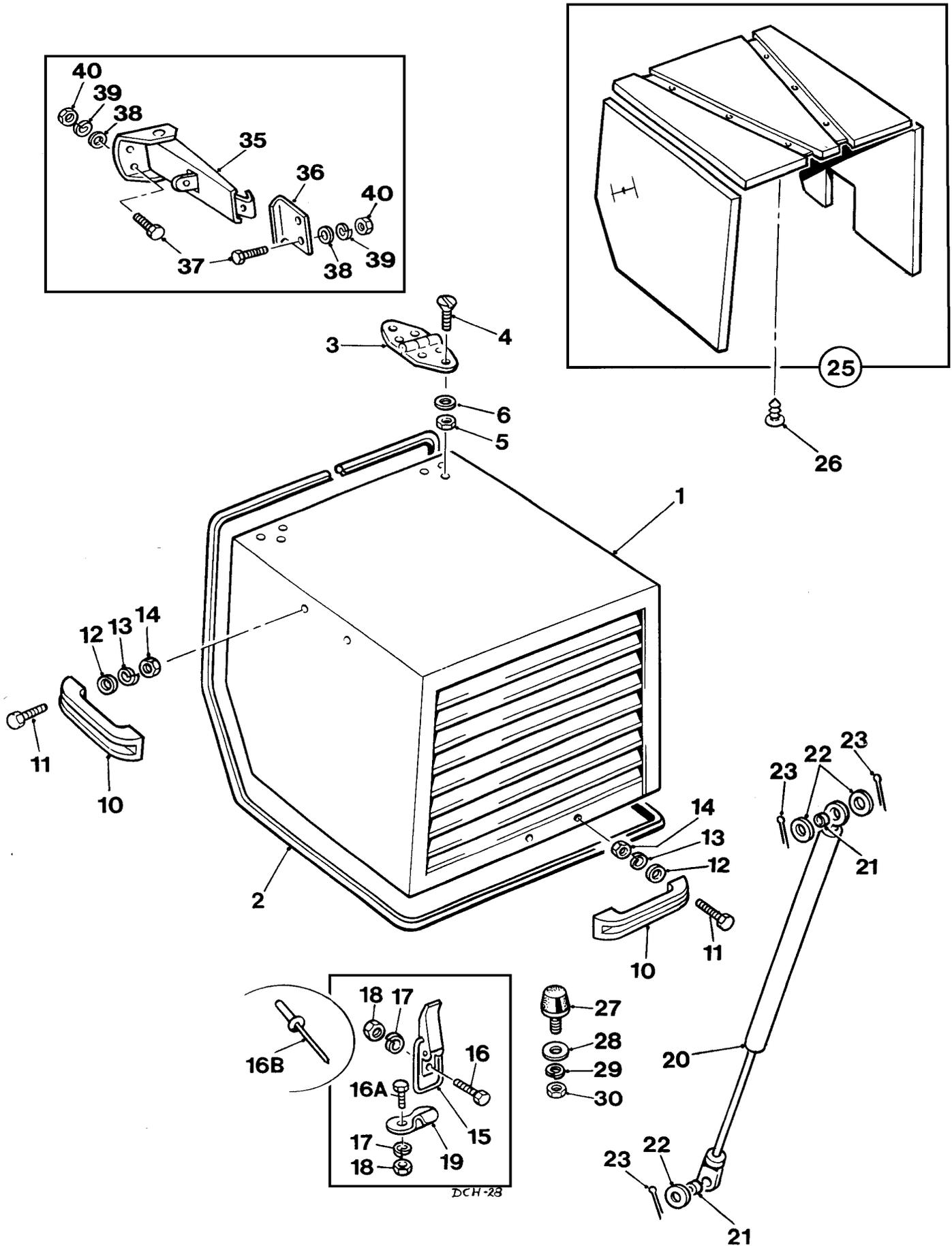
| Item                         | Part no  | Serial no   | Description                               | Qty |
|------------------------------|----------|-------------|---|-----|
| <b>Machines WITHOUT cabs</b> |          |             |   |     |
| 1                            | V2003093 | 2001 / #    | PLATE, floor                              | 1   |
| 1                            | V2004755 | # /         | PLATE, floor                              | 1   |
| <b>Machines WITH cabs</b>    |          |             |   |     |
| 1                            | V2004369 | 2001 / #    | PLATE, floor c/w access plate             | 1   |
| 1                            | V2005036 | # /         | PLATE, floor c/w access plate             | 1   |
| --                           | 14S04D   |             | SCREW, c/sunk for access plate            | 4   |
|                              |          | / 2330 #    | <b>Turbo engines</b>                      |     |
|                              |          | 2331 /      |   |     |
|                              |          | / 2355 #    | <b>Naturally asperated engines</b>        |     |
|                              |          | 2356 /      |   |     |
| 2                            | 11S04C   |             | SCREW, set                                | 4   |
| 3                            | 267S06   |             | WASHER, flat                              | 8   |
| 4                            | 17S05    |             | WASHER, spring                            | 4   |
| 5                            | 7S04     |             | NUT                                       | 4   |
| <b>Machines WITHOUT cabs</b> |          |             |   |     |
| 6                            | V2001815 |             | SEATBOX, c/w cover item 12                | 1   |
| <b>Machines WITH cabs</b>    |          |             |   |     |
| 6                            | V2004368 |             | SEATBOX, c/w cover item 12                | 1   |
| 6B                           | 11S02B   |             | SCREW, set                                | 2   |
| 6C                           | 17S03    |             | WASHER, spring                            | 2   |
| 6D                           | 7S02     |             | NUT                                       | 2   |
| 7                            | 11S04F   |             | SCREW, set                                | 4   |
| 8                            | 267S06   |             | WASHER, flat                              | 8   |
| 10                           | 61S04    |             | NUT, nylon insert                         | 4   |
| 11                           | V2003019 |             | SPACER ( <b>Not ROPS frame or cab</b> )   | 2   |
| 12                           | V2001689 |             | COVER, (part of item 6)                   | 1   |
| 12A                          | 11S02A   |             | SCREW, set                                | 4   |
| 12B                          | 17S03    |             | WASHER, spring                            | 4   |
| 12C                          | 267S04   |             | WASHER, flat                              | 4   |
| 13                           | V2002745 | 2001 / 2152 | GUARD, rear ( <b>4S4/5/6000 only</b> )    | 1   |
| 13                           | V2002745 |             | GUARD, rear ( <b>Not used on 4S7000</b> ) | 1   |
| 14                           | 11S04D   |             | SCREW, set                                | 3   |
| 15                           | 17S05    |             | WASHER, spring                            | 3   |
| 15A                          | 267S06   |             | WASHER, flat                              | 6   |
| 15B                          | 7S04     |             | NUT                                       | 3   |
| 16                           | V2003225 |             | SEAL (order by metre)                     | AR  |



**PANELS**

**8 - B - 1**

| Item                         | Part no  | Serial no   | Description   | Qty |
|------------------------------|----------|-------------|---|-----|
| 16A                          | 11S05F   |             | SCREW, set  | 2   |
| 16B                          | 267S07   |             | WASHER, flat  | 4   |
| 16C                          | 17S06    |             | WASHER, spring                                      | 2   |
| 16D                          | 7S05     |             | NUT   | 2   |
| 17                           | V2002274 |             | WING, R.H. / HYDRAULIC TANK<br>(See page 7 - A - 1) | 1   |
| 18                           | V2002275 |             | WING, L.H. / FUEL TANK<br>(See page 3 - A - 18)     | 1   |
| 19                           | 7S04     |             | NUT   | 10  |
| 20                           | 17S05    |             | WASHER, spring                                      | 10  |
| 21                           | 267S06   |             | WASHER, flat  | 10  |
| 22                           | 11S04D   |             | SCREW, set  | 10  |
| 23                           | V2003505 |             | STEP  | 2   |
| 26                           | 7S04     |             | NUT   | 6   |
| 27                           | 17S05    |             | WASHER, spring                                      | 6   |
| 28                           | 11S04D   |             | SCREW, set  | 6   |
| 29                           | 267S06   |             | WASHER, flat  | 6   |
| 31                           | V2003523 | / 2041      | CLAMP, battery                                      | 1   |
| 31A                          | V2004121 | 2042 /      | CLAMP, battery                                      | 1   |
| 32                           | V2002679 | / 2041      | ROD, clamp  | 2   |
| 32A                          | V2004120 | 2042 /      | ROD, clamp  | 2   |
| 33                           | 7S02     |             | NUT   | 2   |
| 34                           | 17S03    |             | WASHER, spring                                      | 2   |
| 35                           | V2003595 |             | COVER, battery                                      | 1   |
| 36                           | 11S04B   |             | SCREW, set  | 2   |
| 37                           | 17S05    |             | WASHER, spring                                      | 2   |
| 38                           | 7S04     |             | NUT   | 2   |
| 39                           | V2003183 |             | ANTI-SLIP MATERIAL (sheets)                         | 6   |
| <b>Machines WITHOUT cabs</b> |          |             |   |     |
| 40                           | V2003045 |             | GRABRAIL, L.H.                                      | 1   |
| 41                           | V2003046 |             | GRABRAIL, R.H.                                      | 1   |
| <b>Machines WITH cabs</b>    |          |             |   |     |
| --                           | V2004296 |             | GRABRAIL  | 2   |
| 42                           | 11S06D   |             | SCREW, set  | 4/6 |
| 43                           | 17S08    |             | WASHER, spring                                      | 4/6 |
| 44                           | 267S09   |             | WASHER, flat  | 4/6 |
| 45                           | .....    | 2001 / 2152 | COVER, engine ( <b>4S4/5/6000 only</b> )            | 1   |
| 45                           | .....    |             | COVER, engine ( <b>Not used on 4S7000</b> )         | 1   |

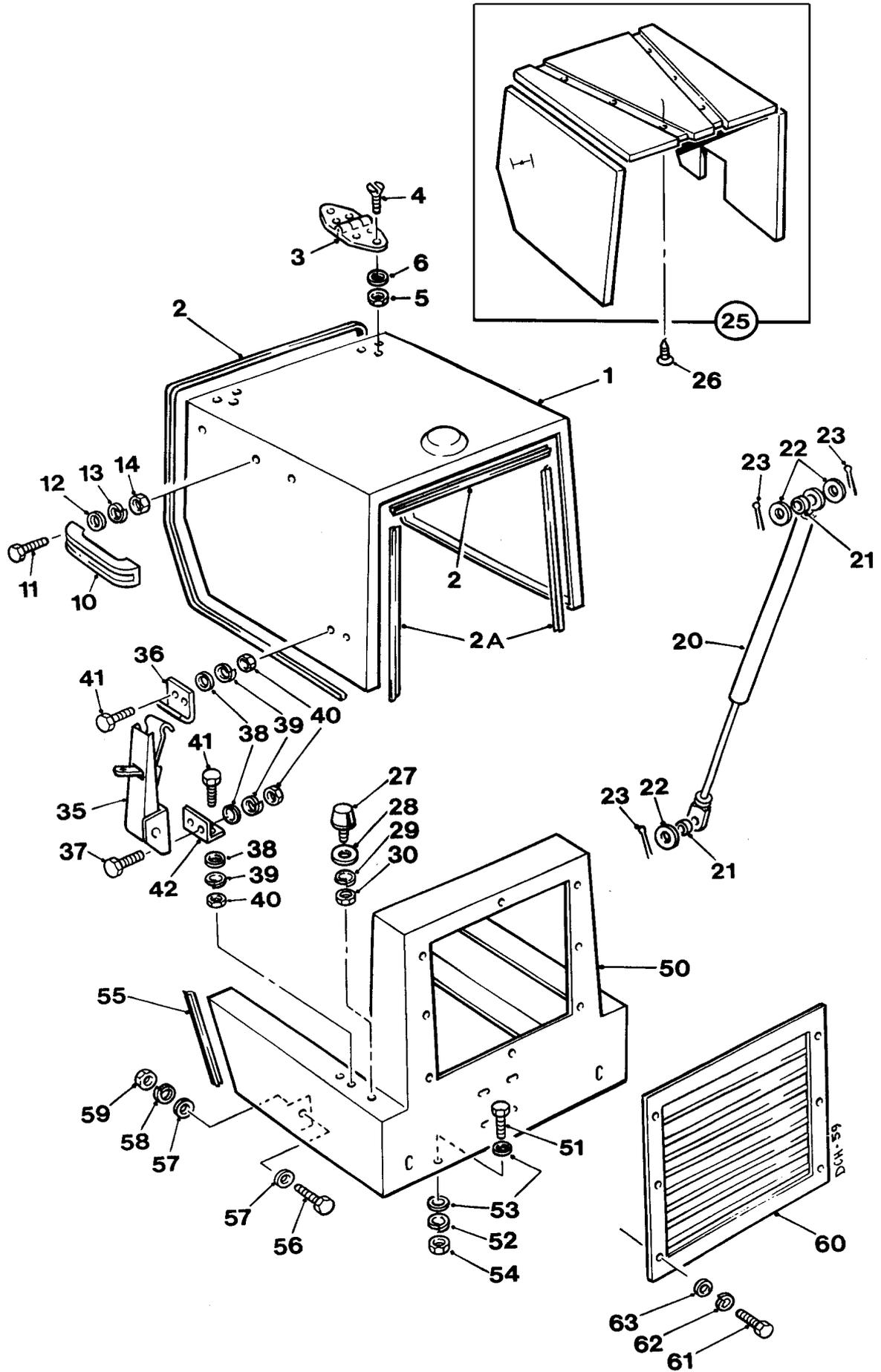


**COVER, engine****8 - B - 2**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>    | <b>Qty</b> |
|-------------|----------------|------------------|-----------------------|------------|
| 1           | V2002727       | 2001 / 2152      | COVER, rear           | 1          |
| 2           | V2003225       |                  | SEAL                  | 1          |
| 3           | V2002839       |                  | HINGE                 | 2          |
| 4           | 14S04D         |                  | SCREW, c/sunk slotted | 12         |
| 5           | 61S02          |                  | NUT, locking          | 12         |
| 6           | 267S04         |                  | WASHER, flat          | 12         |
| 10          | V2003215       |                  | HANDLE                | 3          |
| 11          | 11S02A         |                  | SCREW, set            | 6          |
| 12          | 267S04         |                  | WASHER, flat          | 6          |
| 13          | 17S03          |                  | WASHER, spring        | 6          |
| 14          | 7S02           |                  | NUT                   | 6          |
| .....       | V602725        | 2001 / 2050      | KIT, catch            | 1 kit      |
| 15          | V2003293       | 2001 / 2050      | CATCH                 | 2          |
| 16          | 11S01AA        | 2001 / 2017      | SCREW, set            | 4          |
| 16A         | 11S01A         | 2001 / 2017      | SCREW, set            | 4          |
| 16B         | 101S07E        | 2018 / 2050      | RIVET                 | 8          |
| 17          | 17S02          | 2001 / 2017      | WASHER, spring        | 8          |
| 18          | 7S01           | 2001 / 2017      | NUT                   | 8          |
| 19          | V2003294       | 2001 / 2050      | PLATE, catch          | 2          |
| 20          | V2003325       |                  | STRUT, gas            | 2          |
| 21          | V2003531       |                  | BUSH                  | 4          |
| 22          | 267S05         |                  | WASHER, flat          | 6          |
| 23          | 44S01C         |                  | PIN, split            | 6          |
| 25          | V2003571       | 2001 / 2152      | KIT, insulation       | 1          |
| 26          | V2003563       |                  | FASTENER, fir tree    | 6          |
| 27          | V2003109       | 2051 /           | STOP, rubber          | 2          |
| 28          | 267S04         | 2051 /           | WASHER, flat          | 2          |
| 29          | 17S03          | 2051 /           | WASHER, spring        | 2          |
| 30          | 7S02           | 2051 /           | NUT                   | 2          |
| .....       | V602724        | 2051 /           | KIT, catch, toggle    | 1 kit      |
| 35          | 10537A02       | 2051 /           | CATCH, toggle         | 2          |
| 36          | V2003294       | 2051 /           | PLATE, catch          | 2          |
| 37          | 11S01A         | 2051 /           | SCREW, set            | 8          |
| 38          | 267S03         | 2051 /           | WASHER, flat          | 8          |
| 39          | 17S02          | 2051 /           | WASHER, spring        | 8          |
| 40          | 7S01           | 2051 /           | NUT                   | 8          |

# 8 - B - 2A

## 4S4000, 4S5000, 4S6000 & 4S7000 Dumpers



# REAR GUARD & COVER

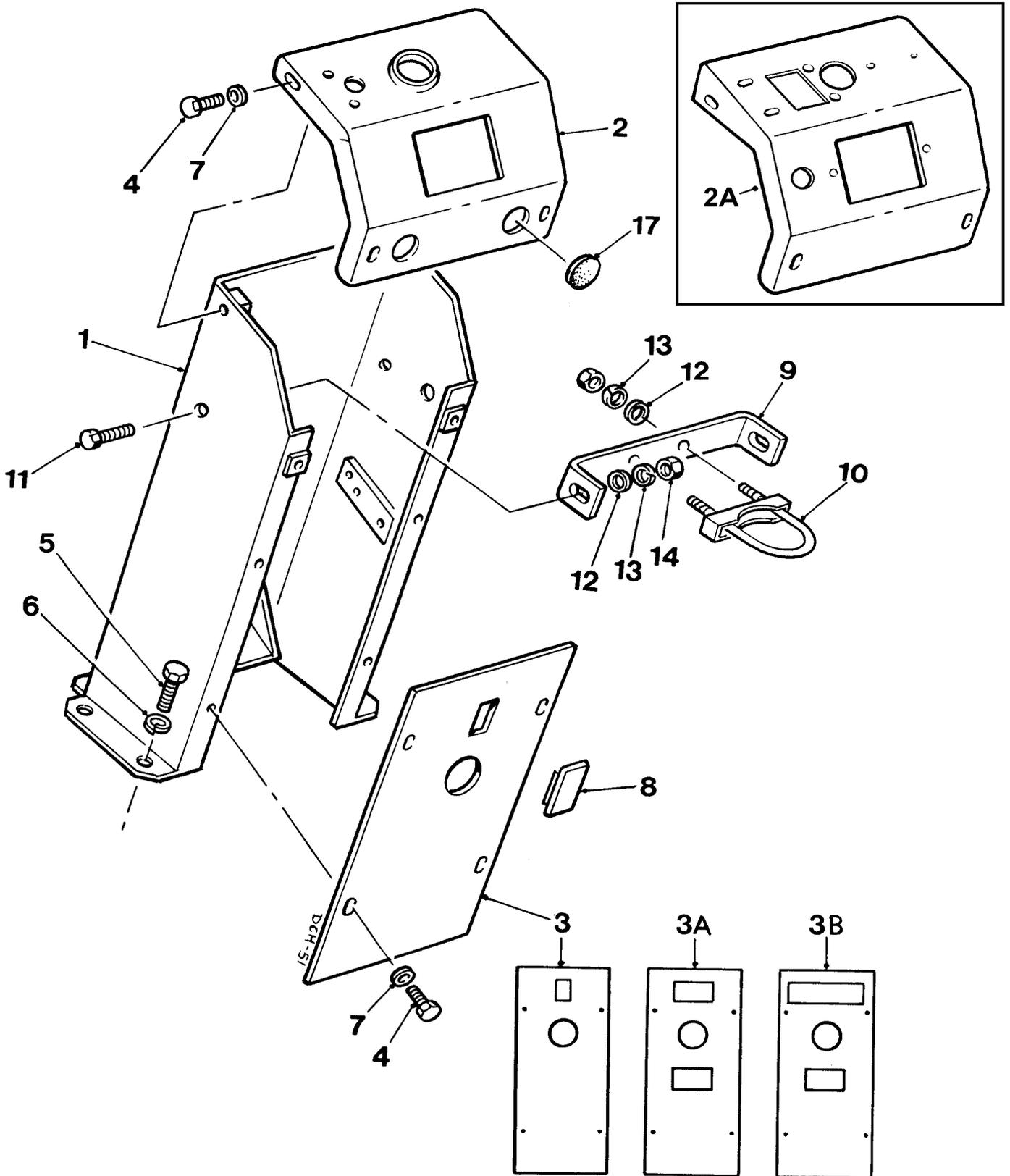
# 8 - B - 2A

| Item | Part no   | Serial no | Description  | Qty |
|------|-----------|-----------|--|-----|
| 1    | V2004372  | 2153 /    | COVER, rear ( <b>4S4/5/6000</b> )                                | 1   |
| 1    | V2004372  | 2122 /    | COVER, rear ( <b>4S7000</b> )                                    | 1   |
| ---  | 106209000 |           | SEAL, ( <i>for inside of document box.<br/>Not illustrated</i> ) | 1m  |
| 2    | V2003225  |           | SEAL, rubber   | 1   |
| 2A   | V2003587  |           | SEAL, rubber   | 1   |
| 3    | V2002839  |           | HINGE  | 2   |
| 4    | 14S04D    |           | SCREW, c/sunk slotted  | 12  |
| 5    | 61S02     |           | NUT, locking   | 12  |
| 6    | 267S04    |           | WASHER, flat   | 12  |
| 10   | V2003215  |           | HANDLE   | 3   |
| 11   | 11S02A    |           | SCREW, set   | 6   |
| 12   | 267S04    |           | WASHER, flat   | 6   |
| 13   | 17S03     |           | WASHER, spring   | 6   |
| 14   | 7S02      |           | NUT  | 6   |
| 20   | V2003325  |           | STRUT, gas   | 2   |
| 21   | V2003531  |           | BUSH   | 4   |
| 22   | 267S05    |           | WASHER, flat   | 6   |
| 23   | 44S01C    |           | PIN, split   | 6   |
| 25   | V2004464  |           | KIT, insulation  | 1   |
| 26   | V2003563  |           | FASTENER, fir tree   | 6   |
| 27   | V2003109  |           | STOP, rubber   | 2   |
| 28   | 267S04    |           | WASHER, flat   | 2   |
| 29   | 17S03     |           | WASHER, spring   | 2   |
| 30   | 7S02      |           | NUT  | 2   |
| 35   | 10537A02  |           | CATCH, toggle  | 2   |
| 36   | 10538A02  |           | PLATE, catch   | 2   |
| 37   | 11S01AA   |           | SCREW, set   | 4   |
| 38   | 267S03    |           | WASHER, flat   | 12  |
| 39   | 17S02     |           | WASHER, spring   | 12  |
| 40   | 7S01      |           | NUT  | 12  |
| 41   | 11S01A    |           | SCREW, set   | 8   |
| 42   | V2004611  |           | BRACKET  | 2   |
| 50   | V2004530  |           | GUARD, rear  | 1   |
| 51   | 11S04D    |           | SCREW, set   | 3   |



**REAR GUARD & COVER****8 - B - 2A**

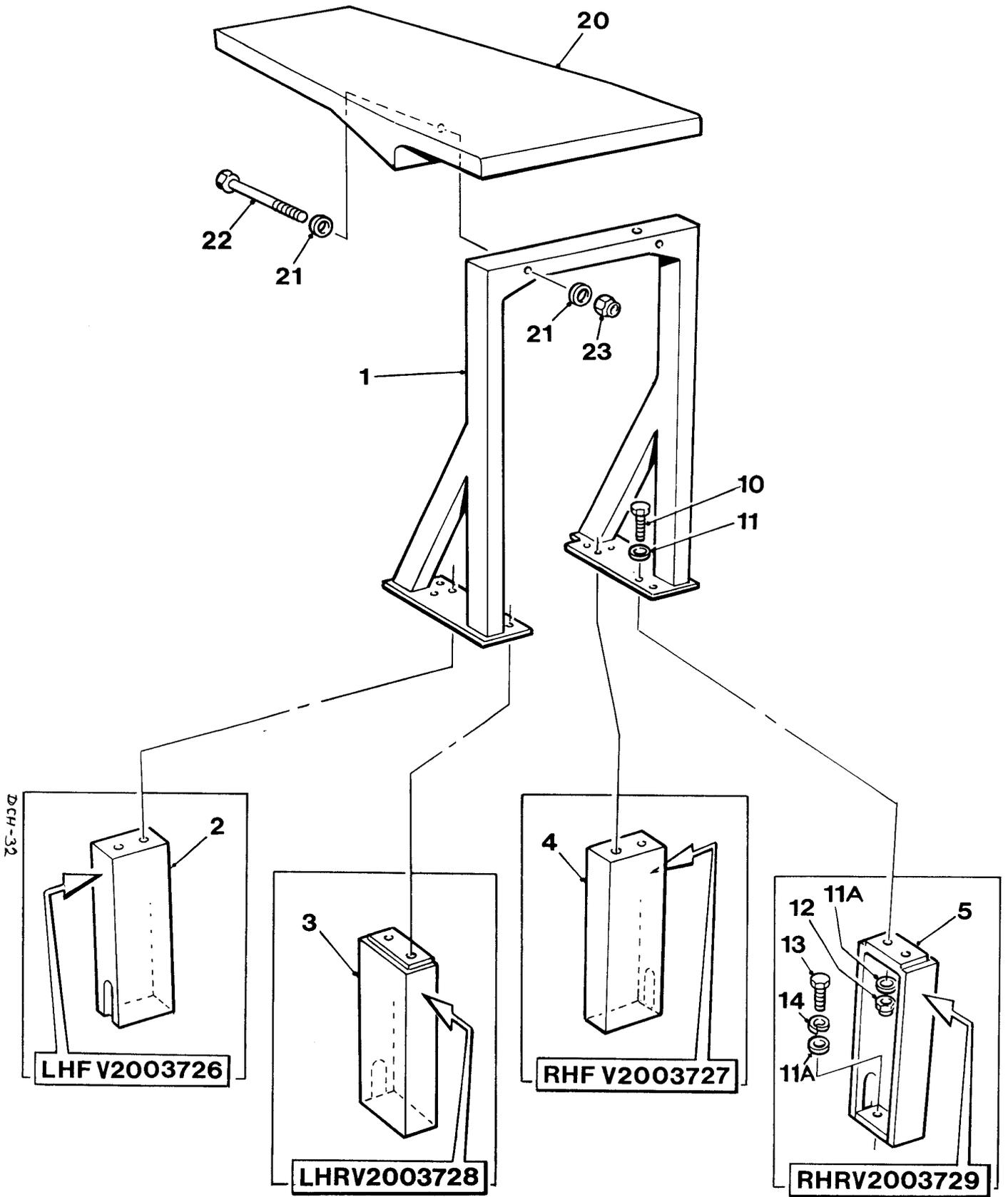
| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>    | <b>Qty</b> |
|-------------|----------------|------------------|-----------------------|------------|
| 52          | 17S05          |                  | WASHER, spring        | 3          |
| 53          | 267S06         |                  | WASHER, flat          | 6          |
| 54          | 7S04           |                  | NUT                   | 3          |
| 55          | V2003225       |                  | SEAL (order by metre) | 1m         |
| 56          | 11S05F         |                  | SCREW, set            | 2          |
| 57          | 267S07         |                  | WASHER, flat          | 4          |
| 58          | 17S06          |                  | WASHER, spring        | 2          |
| 59          | 7S05           |                  | NUT                   | 2          |
| 60          | V2004533       |                  | GRILL, guard          | 1          |
| 61          | 11S03B         |                  | SCREW, set            | 8          |
| 62          | 17S04          |                  | WASHER, spring        | 8          |
| 63          | 267S05         |                  | WASHER, flat          | 8          |



# CASING, steering column

8 - B - 3

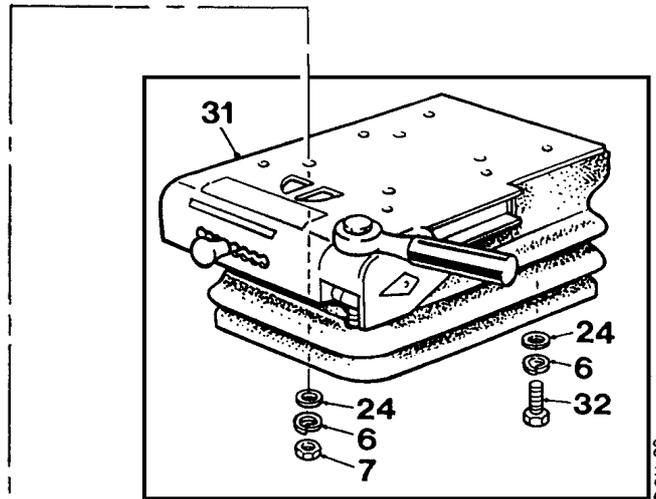
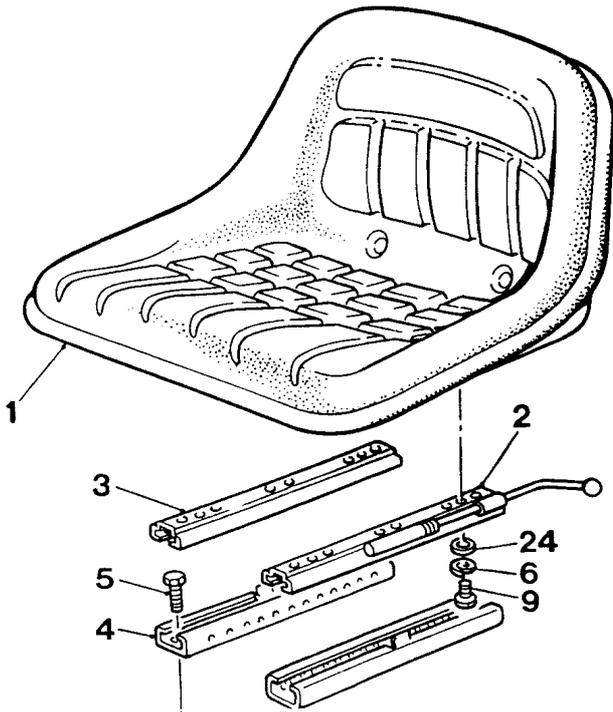
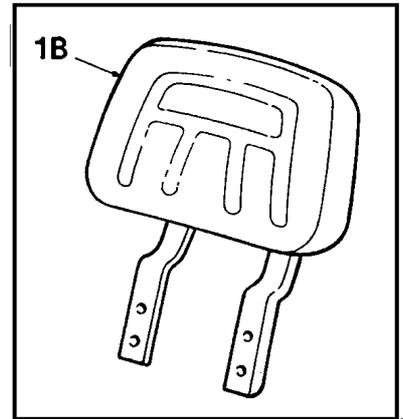
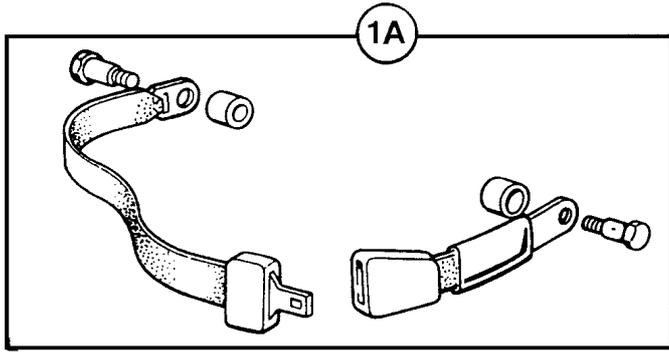
| Item | Part no  | Serial no                  | Description  | Qty |
|------|----------|----------------------------|--|-----|
| 1    | V2003085 | 2001 /                     | CASING, steering column  | 1   |
| 2    | V2003086 | 2001 / 2407<br>2001 / 2403 | # PANEL, instruments, mechanical F/N/R<br># <b>4S4000/4S5000/4S6000 Dumpers</b><br># <b>4S7000 Dumper</b>    | 1   |
| 2A   | V2004757 | 2408 /<br>2404 /           | \$ PANEL, instruments, electrical F/N/R<br>\$ <b>4S4000/4S5000/4S6000 Dumpers</b><br>\$ <b>4S7000 Dumper</b> | 1   |
| 3    | V2003087 | 2001 / 2051                | PLATE, cover, <i>without hole for gauge.</i>   | 1   |
| 3    | V2004174 | 2052 /                     | PLATE, cover, <i>with hole for gauge.</i>  | 1   |
| 3A   | V2004305 |                            | PLATE, cover, <i>holes for six switches.</i>   | 1   |
| 3B   | V2004306 | 2086 /                     | PLATE, cover, <i>holes for nine switches.</i>  | 1   |
| 4    | 11S02V   |                            | SCREW, set   | 8   |
| 5    | 11S04B   |                            | SCREW, set   | 5   |
| 6    | 17S05    |                            | WASHER, spring   | 5   |
| 7    | 267S04   |                            | WASHER, flat   | 8   |
| 8    | V2003348 |                            | PLATE, plastic blank   | 1   |
| 9    | V2003673 |                            | BRACKET, column  | 1   |
| 10   | 153S05   |                            | 'U' BOLT, c/w clamp and nuts   | 1   |
| 11   | 11S03C   |                            | SCREW, set   | 2   |
| 12   | 267S05   |                            | WASHER, flat   | 4   |
| 13   | 17S04    |                            | WASHER, spring   | 4   |
| 14   | 7S03     |                            | NUT  | 2   |
| 17   | V2004308 |                            | GROMMET, blank   | 1   |



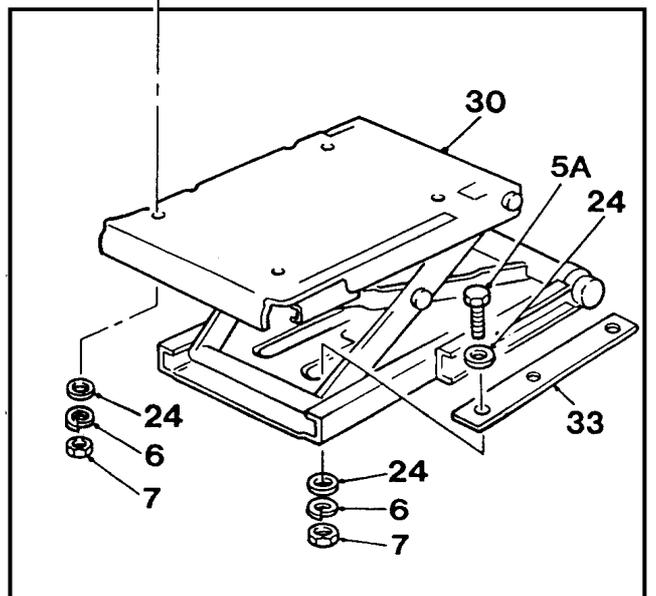
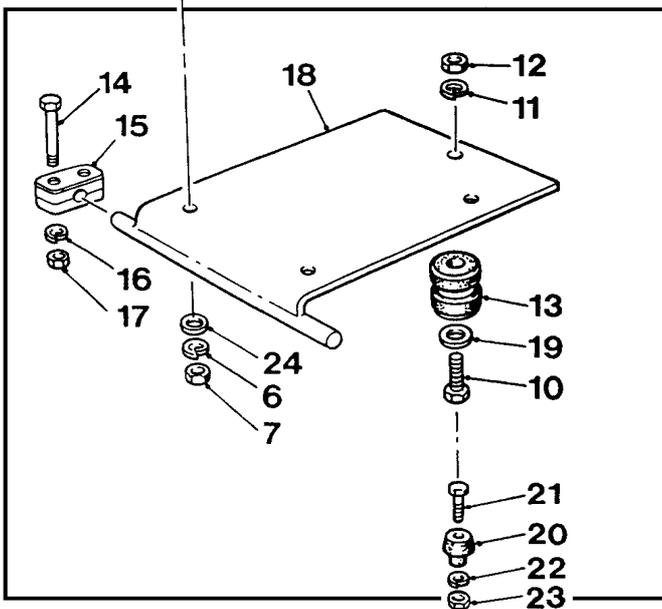
# FRAME (ROPS) & CANOPY (FOPS)

# 8 - B - 4

| Item | Part no  | Serial no | Description  | Qty |
|------|----------|-----------|--|-----|
| 1    | V2003724 | 2001      | \$ FRAME (ROPS)  | 1   |
|      |          |           | <b>\$ IMPORTANT</b><br><i>From Jan '95 all machines (including those built before Jan '95) being retro-fitted with a ROPS / FOPS frame or a cab MUST also be fitted with a "Grammer" seat.</i> |     |
| 2    | V2003726 |           | + MOUNT, front L.H.  | 1   |
| 3    | V2003728 |           | + MOUNT, rear L.H.   | 1   |
| 4    | V2003727 |           | + MOUNT, front R.H.  | 1   |
| 5    | V2003729 |           | + MOUNT, rear R.H.   | 1   |
|      |          |           | + <i>Each mount is stamped with an identification code followed by its part number. (See illustration)</i>   |     |
| 10   | 8S09H    |           | BOLT   | 8   |
| 11   | V2003892 |           | WASHER, "Special"  | 8   |
| 11A  | 267S08   |           | WASHER, flat   | 16  |
| 12   | 59S15    |           | NUT, "Nyloc", self-locking   | 8   |
| 13   | 8S09D    |           | BOLT   | 8   |
| 14   | 17S07    |           | WASHER, spring   | 8   |
| 20   | V2003725 |           | CANOPY (FOPS)  | 1   |
| 21   | 267S12   |           | WASHER, flat   | 4   |
| 22   | 8S08W    |           | BOLT   | 2   |
| 23   | 59S07    |           | NUT, "Nyloc", self-locking   | 2   |



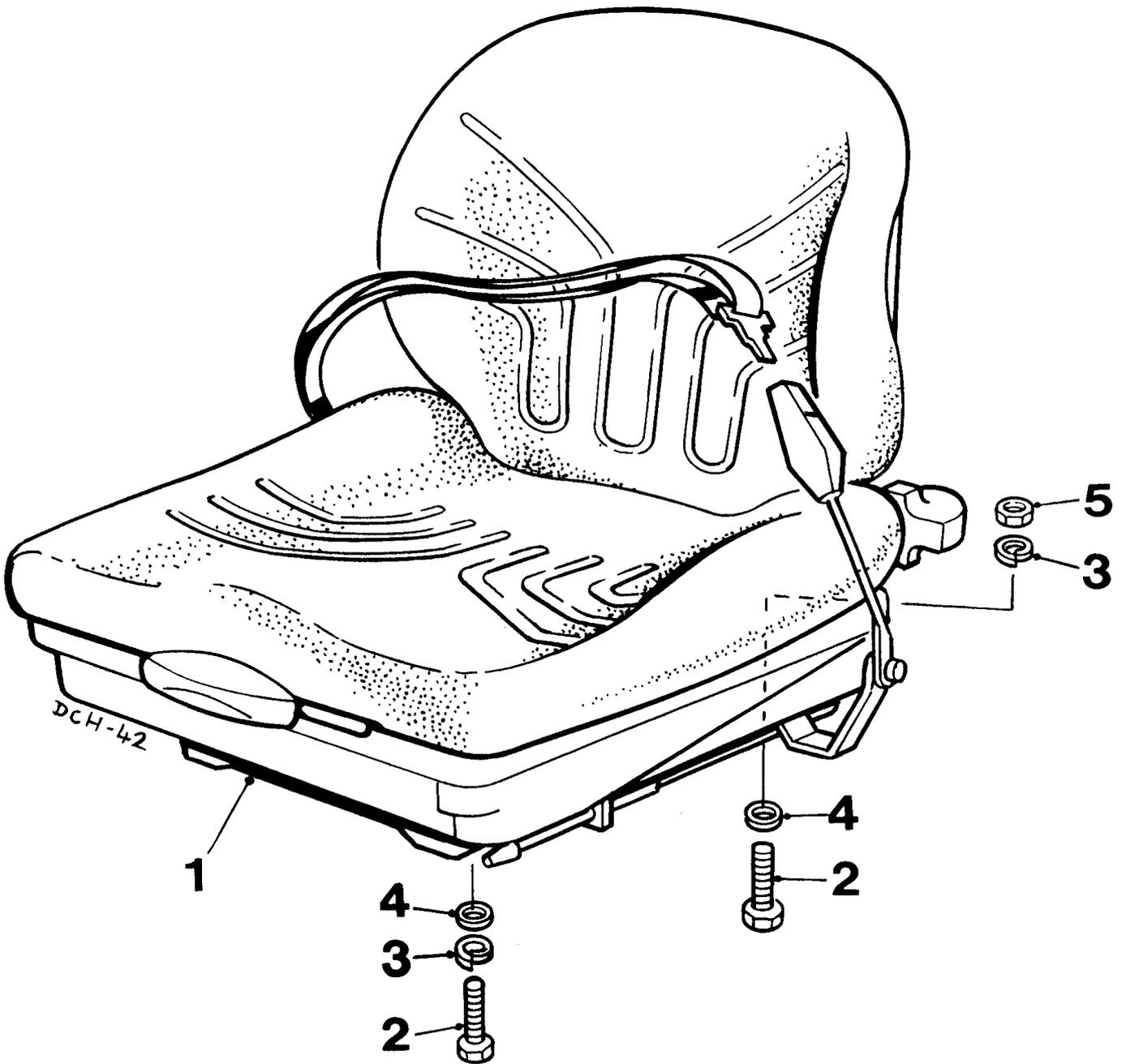
DCH:22



## SEAT

## 8 - C - 1

| Item | Part no  | Serial no   | Description                         | Qty |
|------|----------|-------------|-------------------------------------|-----|
| 1    | V2000954 | 2001 / 2172 | SEAT, "KAB",                        | 1   |
| 1A   | V2003682 | 2001 / 2172 | BELT, seat                          | 1   |
| 1B   | V2003597 | 2001 / 2172 | BACKREST, seat                      | 1   |
| -    | V2003203 | 2001 / 2172 | SLIDE RAIL, assembly                | 1   |
| 2    | .....    |             | (order assembly)                    |     |
| 3    | .....    |             | (order assembly)                    |     |
| 4    | .....    |             | (order assembly)                    |     |
| 5    | 11S03B   | 2001 / 2172 | SCREW, set                          | 4/6 |
| 5A   | 11S03C   | 2012 / 2091 | SCREW, set                          | 6   |
| 6    | 17S04    | 2001 / 2172 | WASHER, spring                      | 8   |
| 7    | 7S03     | 2001 / 2172 | NUT                                 | 4   |
| 9    | 16S08C   | 2001 / 2172 | SCREW, slotted                      | 4   |
| 10   | 11S04D   | 2001 / 2011 | SCREW, set                          | 1   |
| 11   | 17S05    | 2001 / 2011 | WASHER, spring                      | 1   |
| 12   | 7S04     | 2001 / 2011 | NUT                                 | 1   |
| 13   | 10519A01 | 2001 / 2011 | SPRING, rubber                      | 1   |
| 14   | 8S02F    | 2001 / 2011 | BOLT                                | 4   |
| 15   | 10364A02 | 2001 / 2011 | CLAMP                               | 2   |
| 16   | 17S03    | 2001 / 2011 | WASHER, spring                      | 4   |
| 17   | 7S02     | 2001 / 2011 | NUT                                 | 4   |
| 18   | V2002649 | 2001 / 2011 | PLATE, seat mounting                | 1   |
| 19   | 267S09   | 2001 / 2011 | WASHER, flat                        | 1   |
| 20   | V2000922 | 2001 / 2011 | RETAINER, male                      | 1   |
| 21   | 11S02C   | 2001 / 2011 | SCREW, set                          | 1   |
| 22   | 17S03    | 2001 / 2011 | WASHER, spring                      | 1   |
| 23   | 7S02     | 2001 / 2011 | NUT                                 | 1   |
| 24   | 267S05   |             | WASHER, flat                        | 4   |
| 30   | V2003654 | 2012 / 2091 | SUSPENSION UNIT                     | 1   |
| 31   | V2004231 | 2092 / 2172 | SUSPENSION UNIT, with rubber shroud |     |
| 32   | 11S03C   | 2092 / 2172 | SCREW, set                          | 2   |
| 33   | V2004206 | 2012 / 2091 | PLATE, clamping                     | 2   |

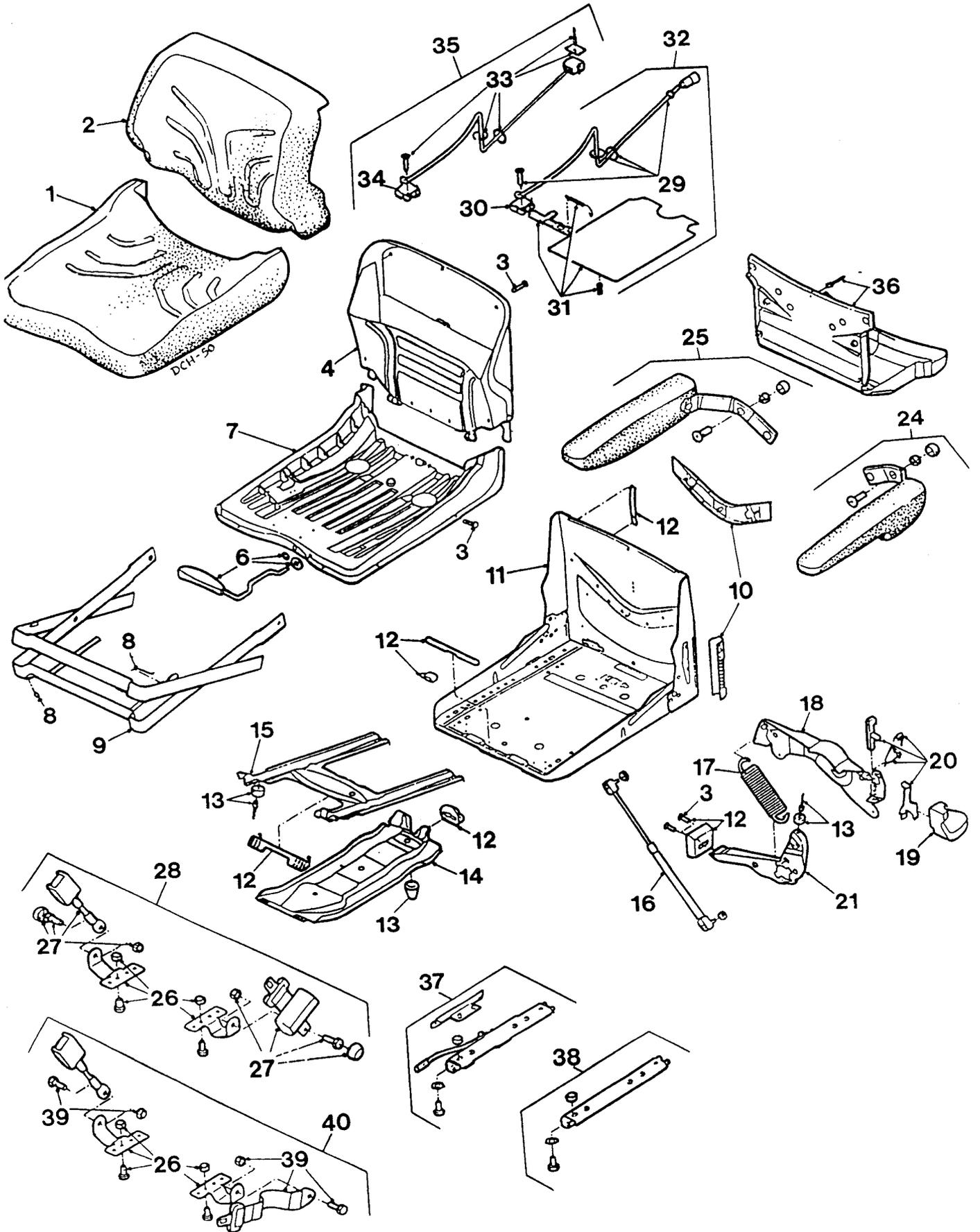


## SEAT, "Grammer", with suspension &amp; fittings

8 - C - 2

| Item | Part no  | Serial no   | Description                         | Qty |
|------|----------|-------------|-------------------------------------|-----|
| 1    | V2004218 | 2086 / 2172 | # SEAT, "GRAMMER MSG 20"            | 1   |
| 1    | V2004624 | 2173 /      | # SEAT, "GRAMMER MSG 12"            | 1   |
|      |          |             | # See page 8-C-3 for parts of seats |     |
| 2    | 11S03B   |             | SCREW, set                          | 4   |
| 3    | 17S04    |             | WASHER, spring                      | 4   |
| 4    | 267S05   |             | WASHER, flat                        | 4   |
| 5    | 7S03     |             | NUT                                 | 2   |

**NOTE:** From Jan '95 all machines (including those built before Jan '95) being retro-fitted with a ROPS / FOPS frame or a cab **MUST** also be fitted with a "Grammer" seat.



## SEATS,"Grammer", (models MGS12 and MGS20)

8 - C - 3

| Item | Part no      | Serial no | Description                         | Qty |
|------|--------------|-----------|-------------------------------------|-----|
| 1    | V602577      | 2086 /    | CUSHION                             | 1   |
| 2    | V602578      |           | BACKREST                            | 1   |
| 3    | -----        |           | FITTINGS                            | 3   |
| 4    | V602579      |           | PLATE, backrest                     | 1   |
| 6    | V602580      |           | LEVER, adjustment                   | 1   |
| 7    | V602581      |           | BASE, seat, MSG20                   | 1   |
| 7    | -----        |           | BASE, seat, MSG12                   | 1   |
| 8    | V602582      |           | FITTINGS, suspension cover, MSG20   | 1   |
| 8    | "NOT FITTED" |           | FITTINGS, suspension cover, MSG12   | 1   |
| 9    | V602583      |           | COVER, suspension, MSG20            | 1   |
| 9    | "NOT FITTED" |           | COVER, suspension, MSG12            | 1   |
| 10   | V602584      |           | FITTINGS, for seat frame            | 1   |
| 11   | -----        |           | FRAME, seat                         | 1   |
| 12   | V602585      |           | FITTINGS, for frame & swinging arms | 1   |
| 13   | -----        |           | BUMPERS (set)                       | 1   |
| 14   | -----        |           | ARM, swinging, inner                | 1   |
| 15   | -----        |           | ARM, swinging, outer                | 1   |
| 16   | V602586      |           | SHOCK ABSORBER, MSG20               | 1   |
| 16   | "NOT FITTED" |           | SHOCK ABSORBER, MSG12               | 1   |
| 17   | V602587      |           | SPRING, tensioning, MSG20           | 1   |
| 17   | -----        |           | SPRING, tensioning, MSG12           | 1   |
| 18   | V603584      |           | LEVER, weight adjustment            | 1   |
| 19   | V602588      |           | HANDLE                              | 1   |
| 20   | -----        |           | FITTINGS, handle                    | 1   |
| 21   | -----        |           | LEVER                               | 1   |
| 24   | V602589      |           | ARMREST, L.H.                       | 1   |
| 25   | V602590      |           | ARMREST, R.H.                       | 1   |
| 26   | V602591      |           | FITTINGS, safety belt               | 1   |
| 28   | "NOT FITTED" |           | BELT, safety, self-recoil type      | 1   |
| 29   | -----        |           | FITTINGS, for switch                | 1   |
| 30   | -----        |           | SWITCH                              | 1   |
| 31   | -----        |           | FITTINGS, for switch                | 1   |
| 32   | -----        |           | SWITCH & FITTINGS assembly          |     |
| 36   | "NOT FITTED" |           | BOX, literature                     | 1   |
| 37   | V602592      |           | RAIL, sliding, with lever           | 1   |
| 38   | V602593      |           | RAIL, sliding                       | 1   |
| 39   | V602594      |           | BELT, safety                        | 1   |
| 40   | V602595      |           | BELT & FITTINGS assembly            | 1   |



# CAB FRAME & FITTINGS

# 8 - D - 1

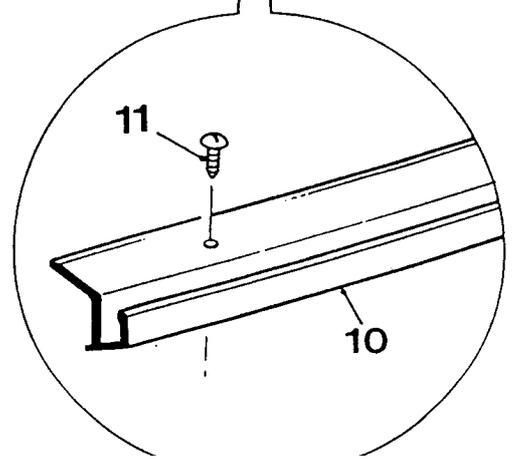
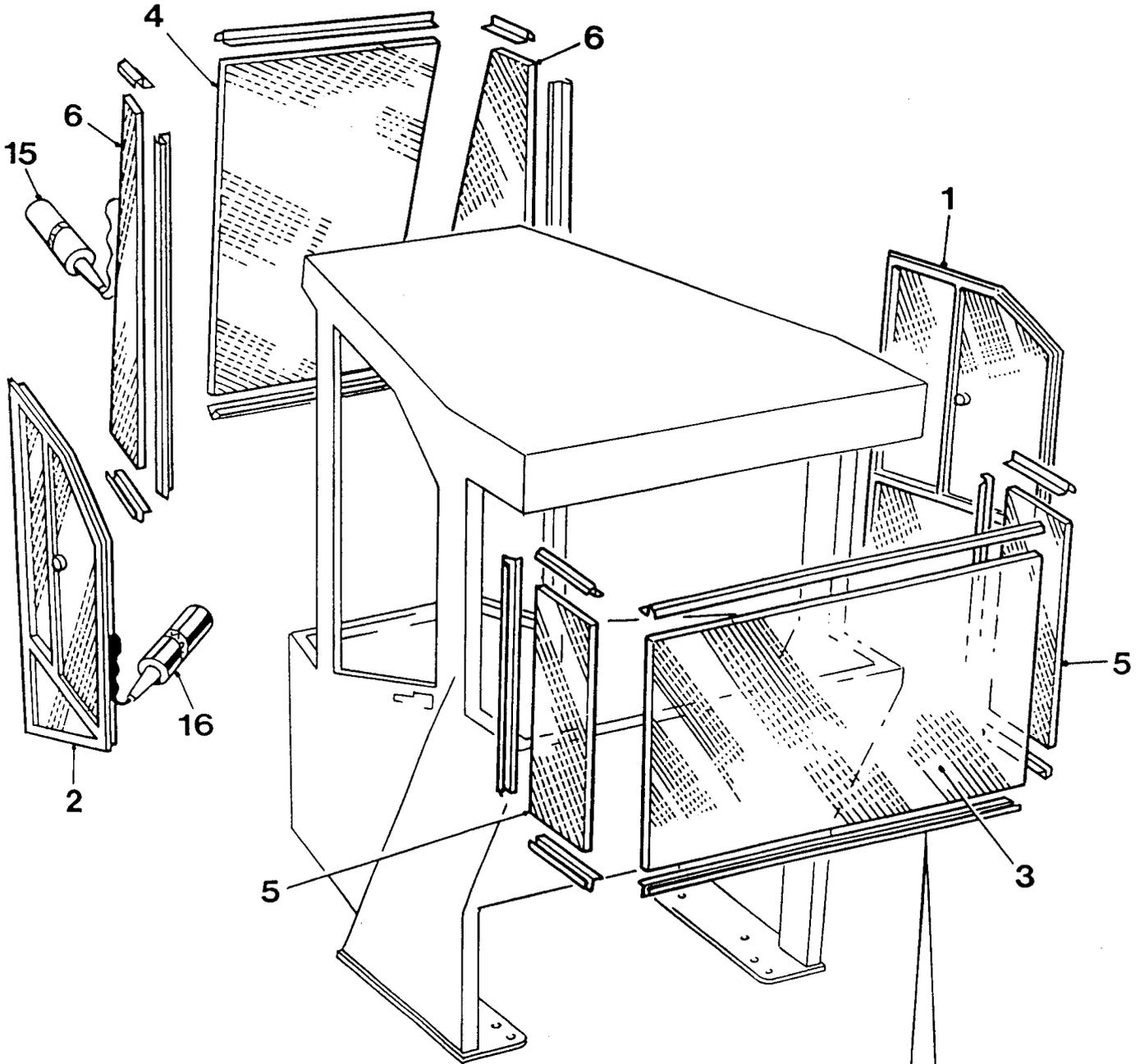
| Item | Part no  | Serial no | Description                                    | Qty |
|------|----------|-----------|--|-----|
| --   | V2004280 | 2086 /    | CAB, c/w CLADDING & GLASS                      |     |
| 1    | V2004700 |           | CAB (frame only)                               | 1   |
| 2    | V2004727 |           | DOOR, L.H. (frame only) <i>illustrated</i>     | 1   |
| --   | V2004730 |           | DOOR, R.H. (frame only) <i>not illustrated</i> |     |
| 3    | V600494  |           | WASHER, flat, brass                            | 6   |
| 4    | —        |           | NIPPLE, grease                                 | 6   |
| 5    | 176S01   |           | CAP, grease nipple                             | 6   |
| 10   | V602410  |           | HANDLE, door pull                              | 2   |
| 11   | V2003234 |           | HANDLE, exterior                               | 2   |
| 12   | V2003229 |           | LATCH, interior, L.H. <i>illustrated</i>       | 1   |
| --   | V2003228 |           | LATCH, interior, R.H. <i>not illustrated</i>   | 1   |
| 13   | 14S04E   |           | SCREW, counter sunk head                       | 4   |
| 14   | 59S14    |           | NUT, self-locking                              | 4   |
| 15   | V602412  |           | PIN & BLOCK, assembly, latch striker           | 2   |
| 16   | V2004743 |           | BLOCK, latch striker pin                       | 2   |
| --   | V602411  |           | GUARD, latch pin, <i>not illustrated</i>       | 2   |
| 17   | 11S03C   |           | SCREW, set                                     | 2   |
| 18   | 17S04    |           | WASHER, spring                                 | 2   |
| 19   | 267S05   |           | WASHER, flat                                   | 2   |
| 25   | V602405  |           | SEAL, door side & bottom                       | AR  |
| 26   | V602406  |           | SEAL, door aperture                            | AR  |
| --   | V2003200 |           | RETAINER, door, assembly                       | 2   |
| 30   | V6002403 |           | RETAINER, male                                 | 1   |
| 31   | V6002404 |           | RETAINER, female                               | 1   |
| 32   | 11S02C   |           | SCREW, set                                     | 2   |
| 33   | 11S02D   |           | SCREW, set                                     | 2   |
| 34   | 267S04   |           | WASHER, flat                                   | 6   |
| 35   | 17S03    |           | WASHER, spring                                 | 4   |
| 36   | 7S02     |           | NUT  | 4   |
| 40   | V2002506 |           | BRACKET, door retainer                         | 1   |
| 41   | 11S03B   |           | SCREW, set                                     | 2   |
| 42   | 267S05   |           | WASHER, flat                                   | 2   |
| 43   | 17S04    |           | WASHER, spring                                 | 2   |
| 44   | 7S03     |           | NUT  | 2   |
| 50   | V602425  |           | MAT, floor                                     | 1   |
| 55   | V602429  |           | SEAL, foam, 20x30mm (order by metre)           |     |
| --   | V602430  |           | SEAL, foam, 25x25mm (order by metre)           |     |



# CAB FRAME & FITTINGS

# 8 - D - 1

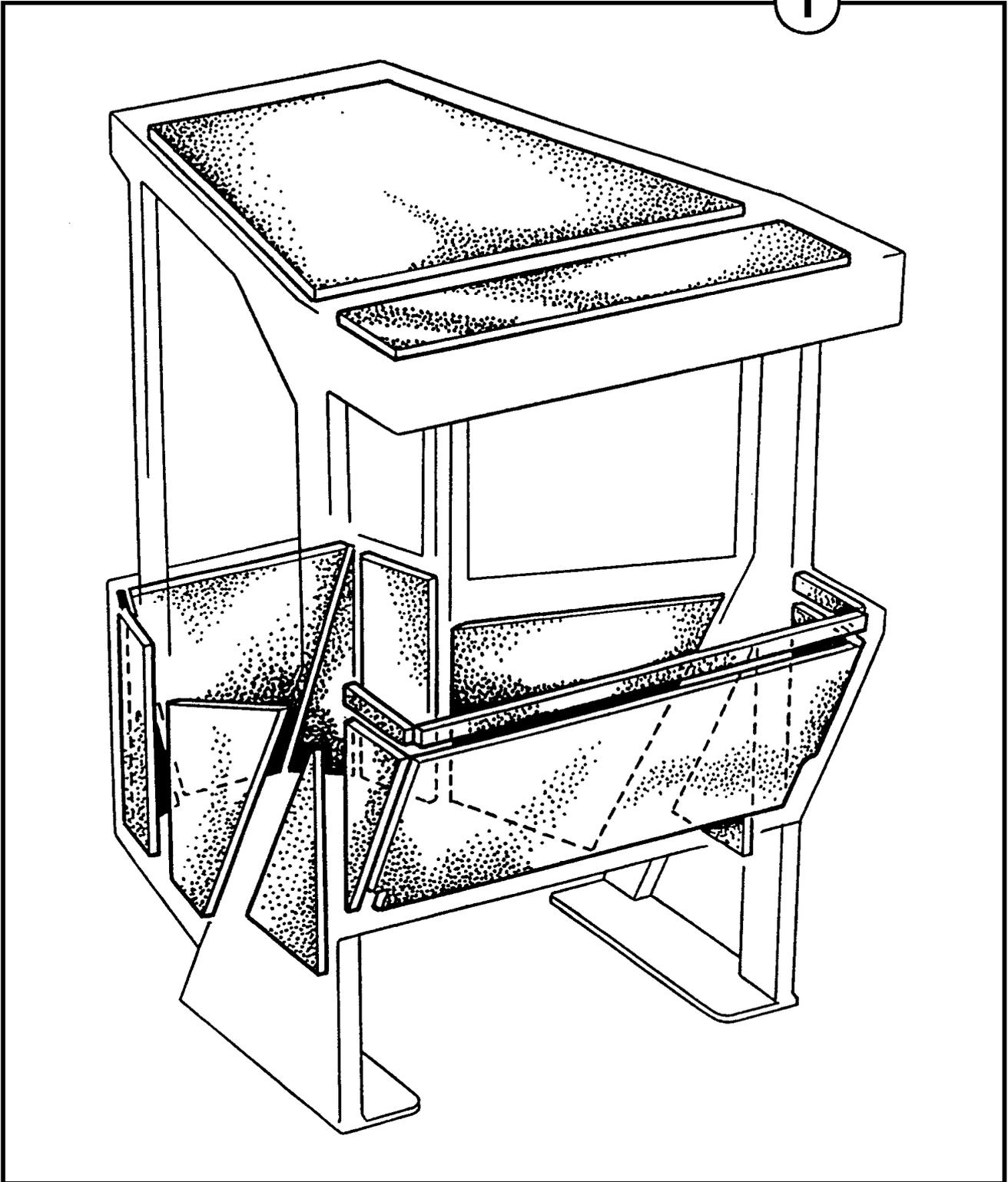
| Item | Part no   | Serial no | Description                                     | Qty                     |
|------|-----------|-----------|---|-------------------------|
| 56   | V2003199  |           | TRIM, edging strip                              | <i>(order by metre)</i> |
| 57   | V602424   |           | SEAL  | <i>(order by metre)</i> |
| 58   | V2003199  |           | TRIM, edging strip                              | <i>(order by metre)</i> |
| 60   | V601392   |           | MIRROR  | 1                       |
| --   | V2004668  |           | PLATE, foam retaining, <i>(not illustrated)</i> | 1                       |
| 61   | 178SPR05E |           | SCREW, self-tapping                             | 2                       |
| 65   | V2003568  |           | CASE, document                                  | 1                       |
| --   | 106209000 |           | SEAL, foam <i>(within Document Case)</i>        | AR                      |
| 66   | 555253800 |           | BRACKET, document case mounting                 | 2                       |
| 67   | 11S02V    |           | SCREW, set                                      | 4                       |
| 68   | 17S03     |           | WASHER, spring                                  | 4                       |
| 69   | 7S02      |           | NUT   | 4                       |
| 70   | 101S07E   |           | RIVET   | 2                       |
| 75   | V2004361  |           | PLATE, rear sides infill                        | 2                       |
| 76   | V2004362  |           | PLATE, rear top infill                          | 1                       |
| 77   | 11S01A    |           | SCREW, set                                      | 8                       |
| 78   | 267S03    |           | WASHER, flat                                    | 16                      |
| 79   | 17S02     |           | WASHER, spring                                  | 8                       |
| 80   | 7S01      |           | NUT   | 8                       |
| 81   | V2003225  |           | SEAL  | <i>(order by metre)</i> |
| 90   | —         | #         | SCREW, set                                      |                         |
| 91   | —         | #         | WASHER, "Special"                               |                         |
| 91A  | —         | #         | WASHER, flat                                    |                         |
| 92   | —         | #         | NUT, self-locking                               |                         |
|      |           | #         | <i>See FRAME (ROPS) &amp; (FOPS)</i>            |                         |
|      |           |           | <i>page 8-B-4</i>                               |                         |



**GLAZING, cab****8 - D - 2**

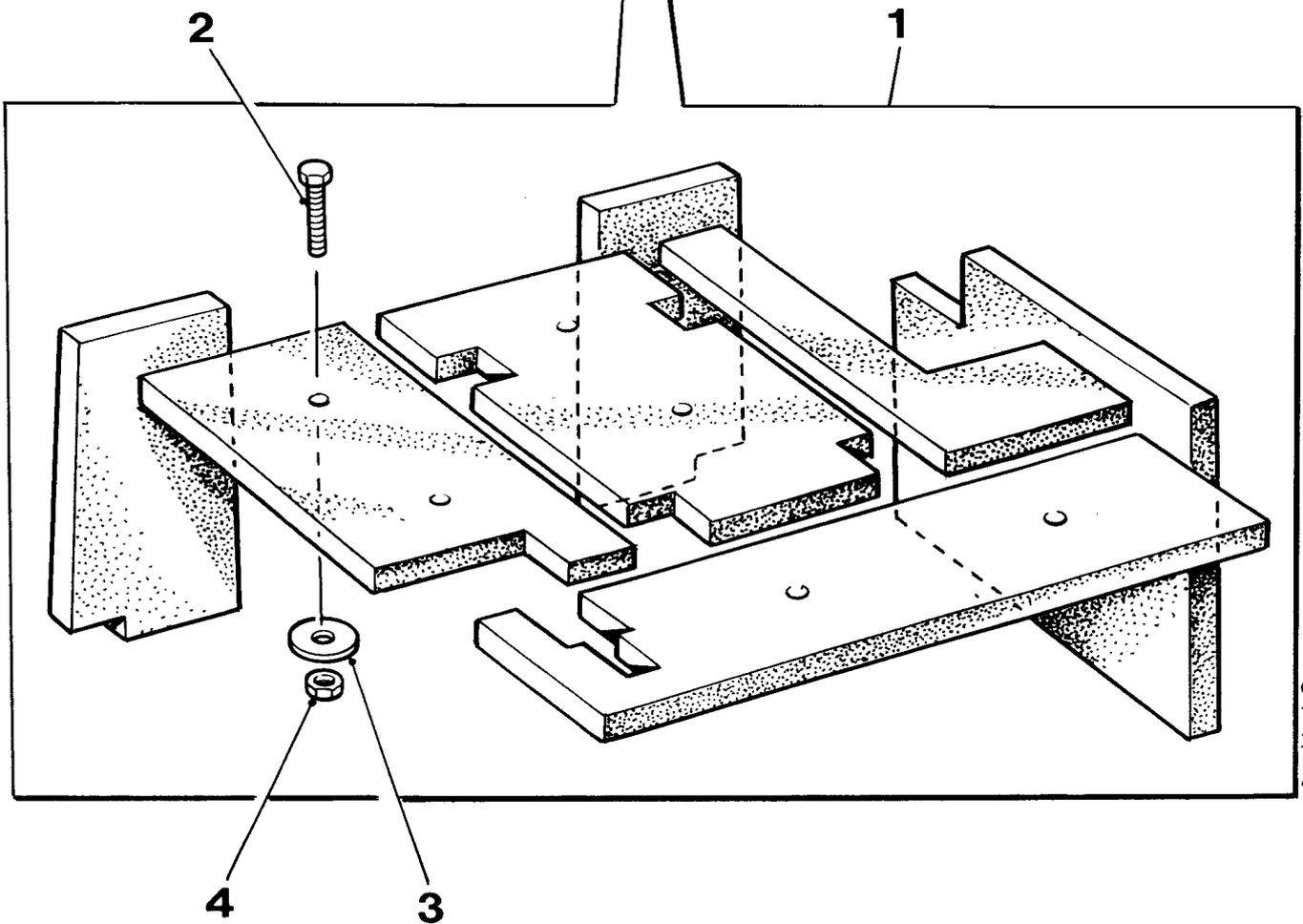
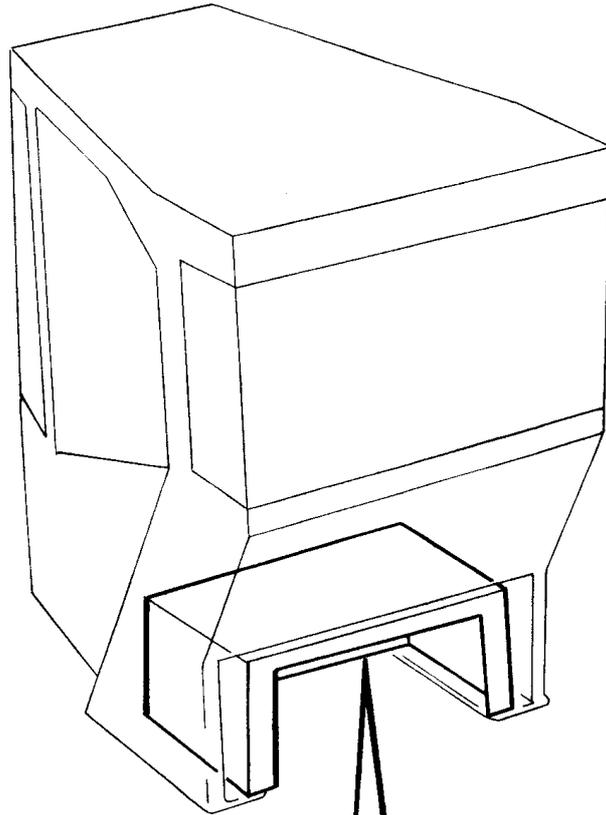
| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>                            | <b>Qty</b> |
|-------------|----------------|------------------|---|------------|
| 1           | V2004734       | 2086 /           | WINDOW, complete unit for R.H. door           | 1          |
| 2           | V2004735       |                  | WINDOW, complete unit for L.H. door           | 1          |
| 3           | V2004736       |                  | GLASS, rear screen                            | 1          |
| 4           | V2004737       |                  | GLASS, front screen                           | 1          |
| 5           | V2004738       |                  | GLASS, rear quarter                           | 2          |
| 6           | V2004739       |                  | GLASS, front quarter                          | 2          |
| 10          | V602431        |                  | SUPPORT, glass gutter <i>(order by metre)</i> |            |
| 11          | —              |                  | SCREW, self-tapping                           | AR         |
| 15          | V2000772       |                  | ADHESIVE, clear <i>(Tube)</i>                 | AR         |
| 16          | V2003235       |                  | ADHESIVE, black <i>(Tube)</i>                 | AR         |

1



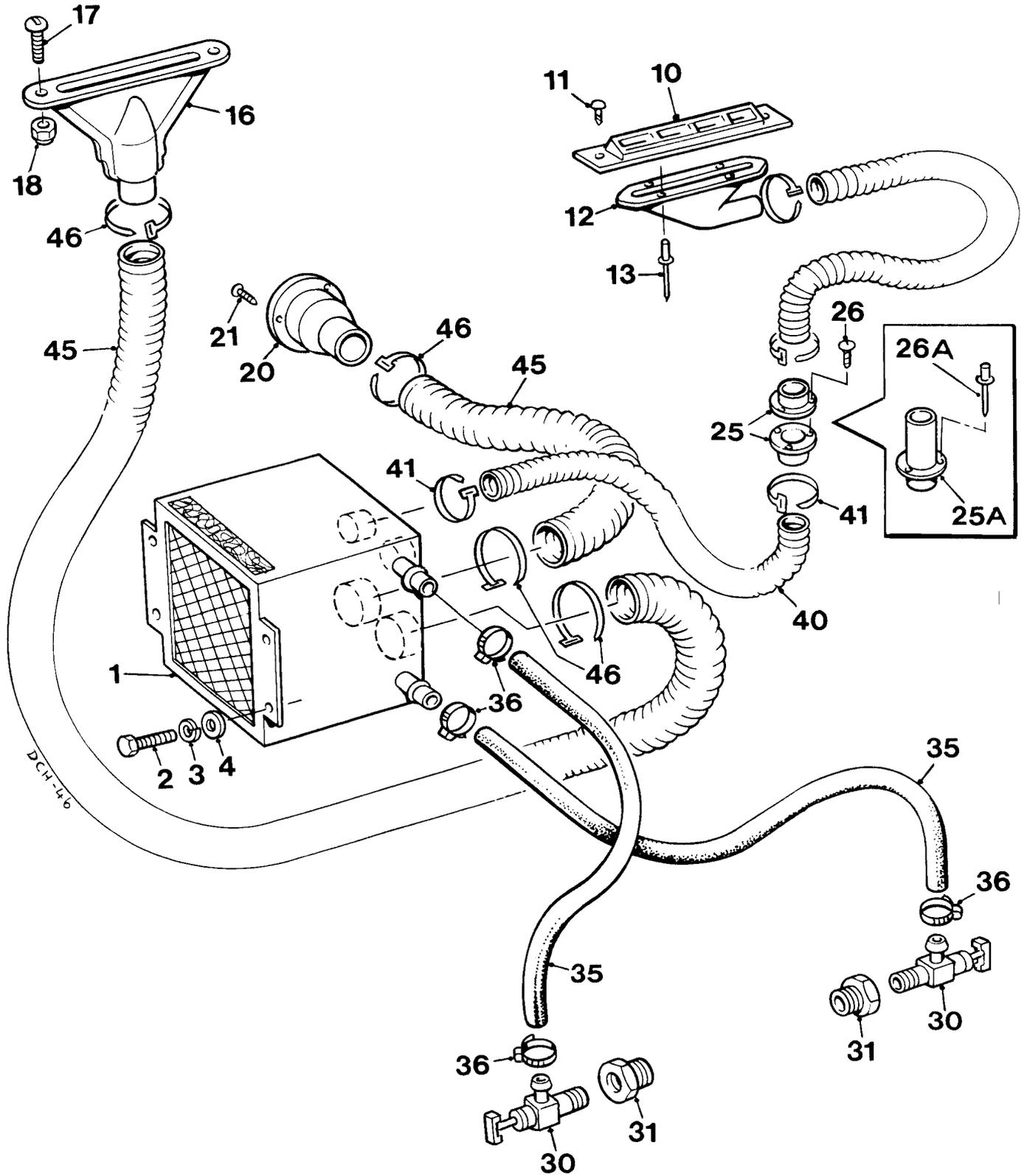
**INSULATION, cab****8 - D - 3**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>  | <b>Qty</b> |
|-------------|----------------|------------------|---|------------|
| 1           | V602463        | 2086 /           | # KIT, insulation, cab (complete)<br><br><i># The complete kit is cut from the following materials:</i> | 1          |
|             | V602427        |                  | FOAM/PVC FACED, 30mm thick sheet  | 1          |
|             | V602428        |                  | FOAM/PVC FACED, 15mm thick sheet  | 1          |
|             | V602430        |                  | SEALING STRIP, 25 x 25mm x 1metre   | 1          |



**INSULATION, seat box****8 - D - 4**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>        | <b>Qty</b> |
|-------------|----------------|------------------|---------------------------|------------|
| 1           | V2004349       | 2086 /           | KIT, insulation, seat box | 1          |
| 2           | 11S02C         |                  | SCREW, set                | 10         |
| 3           | 10S56          |                  | WASHER, flat              | 10         |
| 4           | 61S02          |                  | NUT, "binx", self-locking | 10         |



## HEATER, cab

8 - E - 1

| Item | Part no   | Serial no | Description                                      | Qty |
|------|-----------|-----------|--|-----|
| 1    | V2004740  | 2086 /    | HEATER   | 1   |
| 2    | 11S03B    |           | SCREW, set                                       | 4   |
| 3    | 17S04     |           | WASHER, spring                                   | 4   |
| 4    | 267S05    |           | WASHER, flat                                     | 4   |
| 10   | V602416   |           | OUTLET, rear demist                              | 1   |
| --   | V2004742  |           | BRACKET, rear demist ( <i>not illustrated</i> )  | 1   |
| 11   | 178SPR05E |           | SCREW, self-tapping                              | 2   |
| 12   | V602417   |           | DUCT, rear demist                                | 1   |
| 13   | 101S07E   |           | RIVET  | 4   |
| 16   | V602420   |           | OUTLET, front demister                           | 1   |
| --   | V2004741  |           | BRACKET, front demist ( <i>not illustrated</i> ) | 1   |
| 17   | 11S02A    |           | SCREW  | 2   |
| 18   | 59S14     |           | NUT, self-tapping                                | 2   |
| 20   | V602415   |           | OUTLET, "eyeball", seat box                      | 1   |
| 21   | —         |           | SCREW, self-tapping                              | 3   |
| 25   | —         |           | CONNECTOR, duct, seatbox                         | 2   |
| 25A  | —         |           | CONNECTOR, duct, seatbox                         | 1   |
| 26   | —         |           | SCREW, self-tapping                              | 2   |
| 26A  | 101S07E   |           | RIVET  | 2   |
| 30   | V602432   |           | TAP, heater                                      | 2   |
| 31   | V2004374  |           | ADAPTER, reducer, male/female                    | 1   |
| 35   | V602433   |           | HOSE, 5/8" O/D ( <i>order by metre</i> )         |     |
| 36   | 97S05     |           | CLIP, hose                                       | 4   |
| 40   | V602418   |           | DUCTING, 38mm O/D ( <i>order by metre</i> )      |     |
| 41   | V2003111  |           | TIE, nylon                                       | 16  |
| 45   | V602421   |           | DUCTING, 55mm O/D ( <i>order by metre</i> )      |     |
| 46   | V2003253  |           | TIE, nylon                                       | 8   |

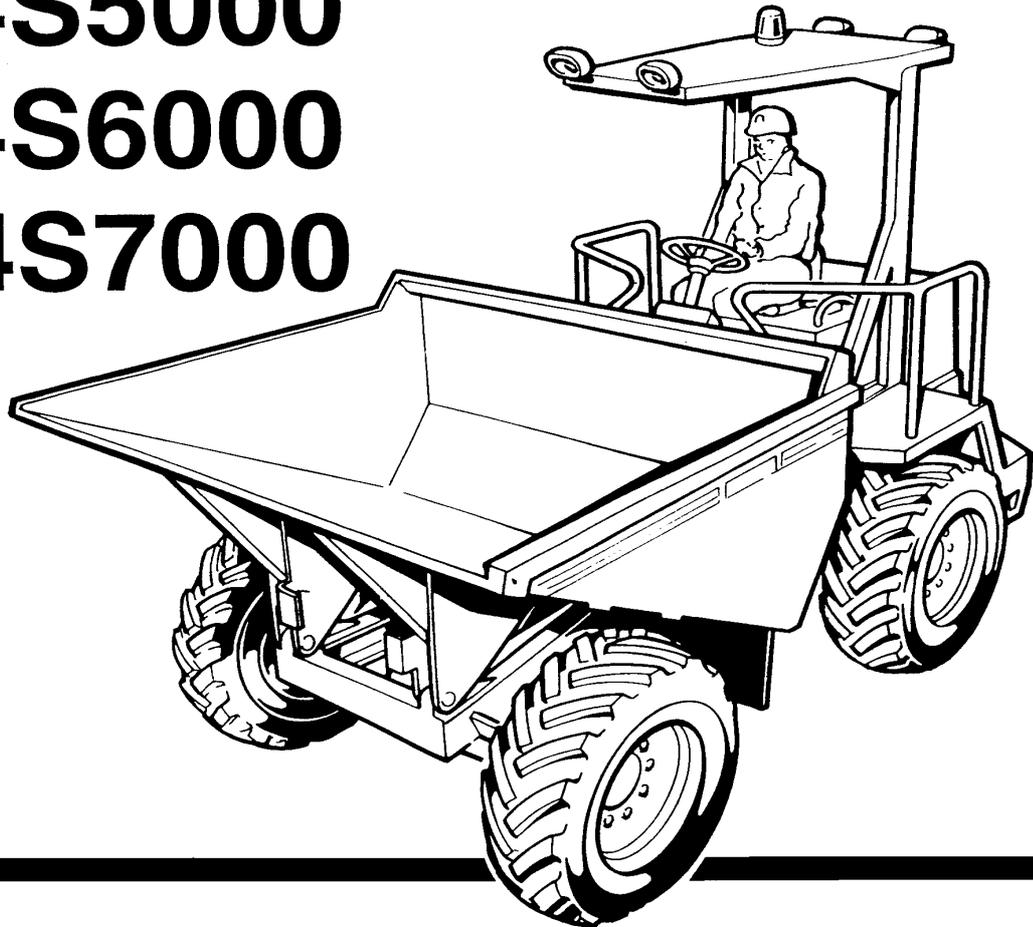
# **'S' Series Dumpers**

**4S4000**

**4S5000**

**4S6000**

**4S7000**



# ***Miscellaneous***

**DECALS & PLATES**

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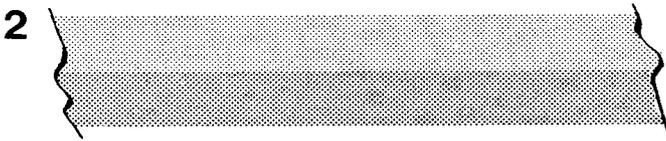
**9 - A - 1**

**SPECIAL TOOLS**

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**9 - T - 1**

**<<< To beginning of Parts**



3A **4S4000**

3B **4S5000**

3C **4S6000**

3D **4S7000**

8

10

| 4S4000     |          |            |          |
|------------|----------|------------|----------|
| 12.5/80x18 |          | 12.5/80x18 |          |
| 3.10bar    | 45 P.S.I | 1.75bar    | 25 P.S.I |
| 4S5000     |          |            |          |
| 12.5/80x18 |          | 12.5/80x18 |          |
| 3.75bar    | 55 P.S.I | 1.75bar    | 25 P.S.I |
| 4S6000     |          |            |          |
| 16.0/70x20 |          | 16.0/70x20 |          |
| 3.45bar    | 50 P.S.I | 1.75bar    | 25 P.S.I |
| 4S7000     |          |            |          |
| 16.0/70x20 |          | 16.0/70x20 |          |
| 4.62bar    | 66 P.S.I | 2.03bar    | 29 P.S.I |

4 **KEEP CLEAR OF THIS AREA WHEN ENGINE IS RUNNING**



11

5 **DANGER KEEP ENGINE HOUSING LID CLOSED WHEN ENGINE IS RUNNING**

12

6 **Top up with Hydraulic Oil ONLY DO NOT use Brake Fluid**

7 **NEGATIVE EARTH**



## DECALS &amp; PLATES

9 - A - 1

| Item | Part no   | Serial no | Description   | Qty |
|------|-----------|-----------|---|-----|
| —    | V602214   |           | # DECAL KIT,<br>4S6000 , 4S5000, 4S6000, 4S7000<br># <i>Each kit contains all decals needed for one dumper. (Discard those decals in the kit that are not relevant to a particular dumper.)</i> |     |
| 1    | V2003039  |           | DECAL, Winget   | 5   |
| 2    | V2003038  |           | DECAL, stripe, blue/red (order by metre)  |     |
| 3A   | V2001715  |           | \$ DECAL, 4S4000<br>\$ <i>The decal V2001715 is printed to read '4S4000M'. The M should be removed before fixing the decal to four tonne dumpers that have torque converter transmissions.</i>  | 2   |
| 3B   | V2001716  |           | DECAL, 4S5000   | 2   |
| 3C   | V2001717  |           | DECAL, 4S6000   | 2   |
| 3D   | V2004357  |           | DECAL, 4S7000   | 2   |
| 4    | DM198     |           | DECAL, Keep clear ( <i>obsolete: use 4A</i> )   | 2   |
| 4A   | V2004191  |           | DECAL, Keep clear of crush zone   | 2   |
| 5    | 504600900 |           | DECAL, Engine Housing Lid Closed  | 2   |
| 6    | 10848A01  |           | DECAL, Brake reservoirs   | 1   |
| 7    | 4602331   |           | DECAL, Neg. Earth ( <i>obsolete use 7A</i> )  | 1   |
| 7A   | V2004235  |           | DECAL, Negative Earth   | 1   |
| 8    | V2003037  |           | PLATE, Serial   | 1   |
| —    | 15S01A    |           | SCREW, drive type ( <i>not illustrated</i> )  | 4   |
| 10   | V2003593  |           | DECAL, Tyre pressures   | 2   |
| 11   | V2003574  |           | DECAL, Noise level  | 1   |
| 12   | V2003575  |           | DECAL, Noise level  | 1   |

**2**

**WARNING**  
DO NOT WORK UNDER  
UNPROPPED SKIP

**3**

**SAFETY WARNING**

- 1 Before starting this machine the operator should be familiar with the operating instructions issued by the manufacturer.
- 2 The manufacturer's rated capacity must never be exceeded.
- 3 Before carrying out any maintenance servicing, or greasing, always ensure that the engine has been switched off. Never work on a machine while it is running.

W504694600

**4A** **maximum payload 4000 kgs**

**4B** **maximum payload 5000kgs**

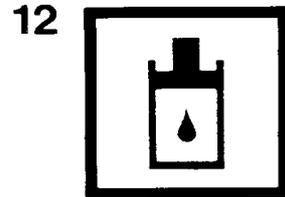
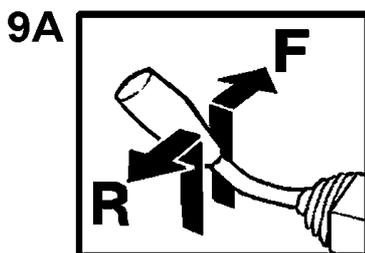
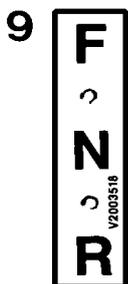
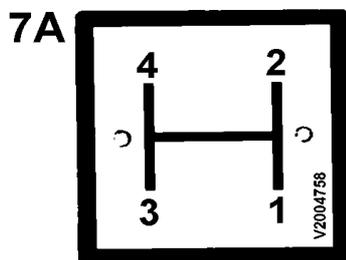
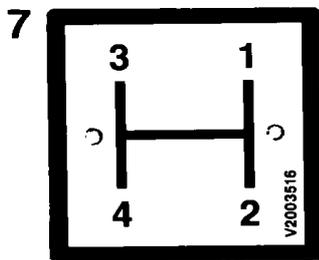
**4C** **maximum payload 6000kgs**

**5**

**TAKE EXTRA CARE WHEN TIPPING  
NON FREE RUNNING LOADS**

**6**

**WARNING!**  
TIGHTEN WHEEL  
NUTS DAILY



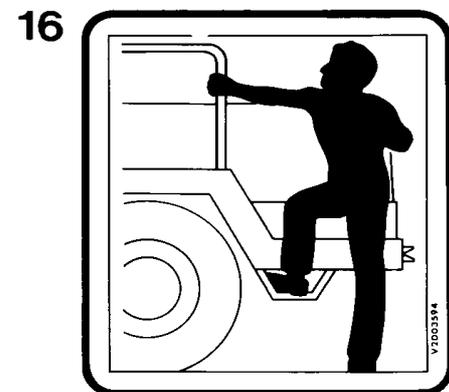
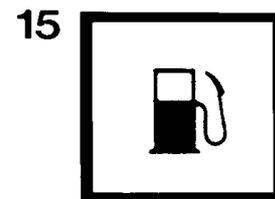
**13**

**WINGET DUMPER SAFETY**

- 1 BEFORE OPERATING THIS MACHINE, THE DRIVER SHOULD BE FAMILIAR WITH THE OPERATING INSTRUCTIONS ISSUED BY THE MANUFACTURER.
- 2 THE MANUFACTURER'S RATED PAYLOAD MUST NEVER BE EXCEEDED. THE WEIGHT OF ALL LOADS ABOVE SKIP WATER LEVEL MUST BE CHECKED.
- 3 PASSENGERS MUST NOT BE CARRIED AT ANY TIME.
- 4 USE EXTREME CARE WHEN DESCENDING STEEP GRADIENTS AND KEEP SPEED TO A MINIMUM.
- 5 DO NOT APPLY BRAKES VIOLENTLY WHEN TRAVELLING DOWN STEEP GRADIENTS.
- 6 DO NOT TOW DOWN GRADIENTS, OTHERWISE 'JACK KNIFING' MAY OCCUR.
- 7 DUMPERS ARE NOT DESIGNED AS TOWING VEHICLES, BUT LOADS (INCLUDING WEIGHT OF TRAILER) NOT EXCEEDING THE RATED PAYLOAD OF THE DUMPER MAY BE TOWED ON LEVEL GROUND IN FIRST GEAR, PROVIDING THE DUMPER SKIP IS LOADED WITH HALF THE RATED PAYLOAD TO ENSURE TYRE ADHESION WHEN BRAKING.
- 8 NEVER DRIVE THE MACHINE TOO CLOSE TO THE EDGE OF ANY EXCAVATION, ESPECIALLY IF THE GROUND IS LOOSE OR WET.
- 9 NEVER MAKE ANY ADJUSTMENTS TO THE MACHINE WHILST IT IS IN MOTION.
- 10 NEVER FILL THE FUEL TANK WITH THE ENGINE RUNNING. EXERCISE CAUTION WHEN THE ENGINE IS HOT.
- 11 ALWAYS KEEP THE FLOOR PLATES CLEAN.
- 12 NEVER DISMOUNT WHILE MACHINE IS IN MOTION.
- 13 ALWAYS APPLY HANDBRAKE BEFORE LEAVING THE DRIVERS SEAT.

**OPERATORS INSTRUCTIONS**

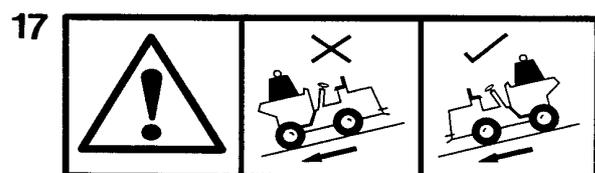
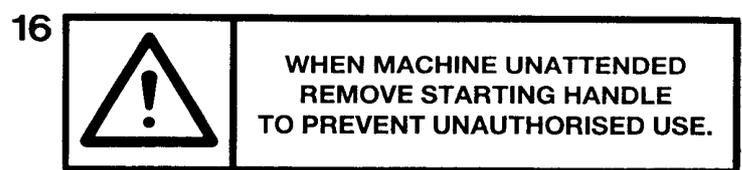
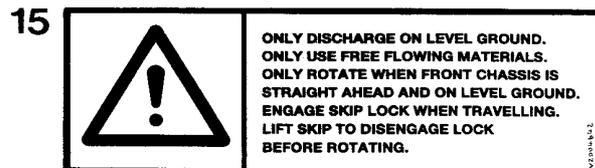
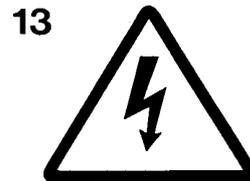
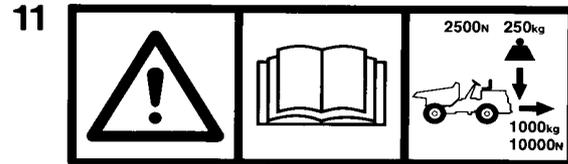
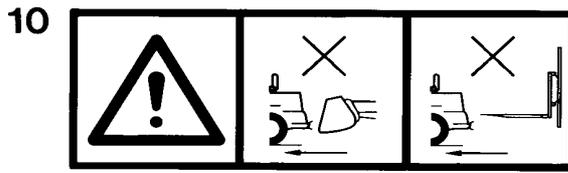
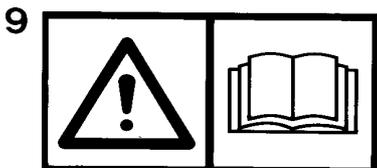
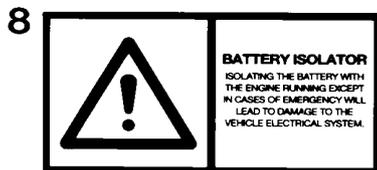
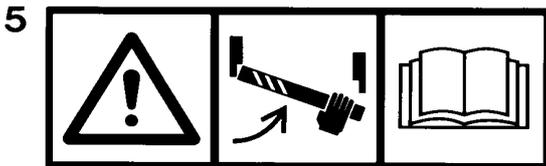
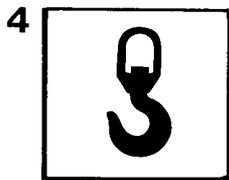
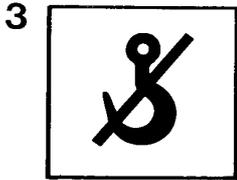
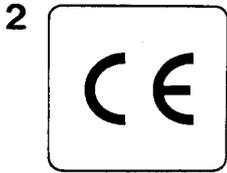
- 1 CHECK CONDITION AND PRESSURE OF TYRES DAILY.
- 2 CHANGE HYDRAULIC OIL FILTER ELEMENT AFTER FIRST 100 HOURS AND THEREAFTER EVERY 300 HOURS.
- 3 THE HANDBRAKE OF THIS VEHICLE OPERATES ON THE TRANSMISSION AND MUST ONLY BE USED FOR PARKING OR EMERGENCY STOPS. DAMAGE MAY BE CAUSED IF USED AS A SERVICE BRAKE.



# DECALS & PLATES

9 - A - 2

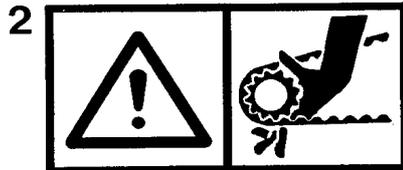
| Item | Part no   | Serial no    | Description  | Qty |
|------|-----------|--------------|--|-----|
| 2    | DM157     |              | DECAL, Do not work under unpropped skip              | 2   |
| 3    | 504694600 |              | DECAL, Dumper safety                                 | 2   |
| 4A   | 10541A27  |              | DECAL, MAX. PAYLOAD 4000 kgs                         | 1   |
| 4B   | 10541A38  |              | DECAL, MAX. PAYLOAD 5000 kgs                         | 1   |
| 4C   | 10541A39  |              | DECAL, MAX. PAYLOAD 6000 kgs                         | 1   |
| 5    | 10536A02  |              | DECAL, Non free running loads                        | 1   |
| 6    | V2003142  |              | DECAL, Tighten wheel nuts daily                      | 1   |
| 7    | V2003516  |              | PLATE, Gear positions, manual F/N/R                  | 1   |
| —    | 311S03B   |              | SCREW ( <i>not illustrated</i> )                     | 2   |
| 7A   | V2004758  |              | PLATE, Gear positions, electrical F/N/R              | 1   |
| —    | 311S03B   |              | SCREW ( <i>not illustrated</i> )                     | 2   |
| 9    | V2003518  |              | PLATE, 'F/N/R', manual selection                     | 1   |
| —    | 178SPS03D |              | SCREW ( <i>not illustrated</i> )                     | 2   |
| 9A   | V2004759  |              | DECAL, 'F/N/R', electrical selection                 | 1   |
| 11   | 10284A01  |              | DECAL, Dump / Return                                 | 1   |
| 12   | V2003100  |              | DECAL, Hydraulic oil                                 | 1   |
| 13   | 20132A02  | / (year)1993 | PLATE, dumper safety ( <i>obsolete: DO NOT USE</i> ) |     |
| 15   | V2003101  |              | DECAL, Diesel fuel                                   | 1   |
| 16   | V2003594  |              | DECAL, Access points                                 | 2   |



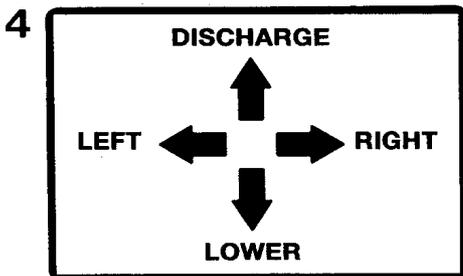
**DECALS & PLATES****9 - A - 3**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>               | <b>Qty</b> |
|-------------|----------------|------------------|----------------------------------|------------|
| 1           | V2003598       |                  | DECAL, British made              | 1          |
| 2           | V2004223       |                  | DECAL, "CE"                      | 1          |
| 3           | V2004119       |                  | DECAL, Do not sling              | 2          |
| 4           | V2003665       |                  | DECAL, Sling point               | 1          |
| 5           | V2004224       |                  | DECAL, Chassis articulation lock | 1          |
| 6           | V2004225       |                  | DECAL, ISO skip support          | 1          |
| 7           | V2004226       |                  | DECAL, Move seat forward         | 1          |
| 8           | V2004227       |                  | DECAL, Battery isolator          | 1          |
| 9           | V2004229       |                  | DECAL, Operators handbook        | 1          |
| 10          | V2004245       |                  | DECAL, No buckets, No forks      | 1          |
| 11          | V2004236       |                  | DECAL, Towbar loadings           | 1          |
| 12          | V2004282       |                  | DECAL, Hot surfaces              | 1          |
| 13          | V2004307       |                  | DECAL, Electrical hazard         | 1          |
| 14          | V2004384       |                  | DECAL, Payload 7000Kg            | 1          |
| 15          | V2004642       |                  | DECAL, Rotating hazard           | 1          |
| 16          | V2004288       |                  | DECAL, Key/Handle                | 1          |
| 17          | V2004450       |                  | DECAL, Gradients                 | 1          |

1 **THIS HANDBRAKE OPERATES ON THE TRANSMISSION AND MUST ONLY BE USED FOR PARKING OR EMERGENCY STOPS. DAMAGE MAY BE CAUSED IF USED AS A SERVICE BRAKE**



3  **ROPS/FOPS STRUCTURE NOT TO BE REPAIRED. IF DAMAGED A REPLACEMENT STRUCTURE MUST BE INSTALLED. ANY UNAUTHORISED MODIFICATION WILL VOID CERTIFICATION AND RESULT IN INJURY.**



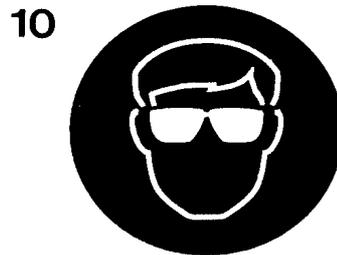
5 **TO AVOID DAMAGE TO THE TRANSMISSION, DO NOT USE THE DUMP PEDAL AS A FOOTREST**

6  **TO AVOID DAMAGE TO THE TRANSMISSION AND DRIVE TRAIN BRING MACHINE TO A STANDSTILL BEFORE CHANGING FORWARD OR REVERSE DIRECTION.**

7  **TIGHTEN SLEW RING BOLTS EVERY WEEK**

8  **DO NOT LEAVE THIS MACHINE WITH THE SKIP RAISED. BE AWARE THAT THE SKIP WILL LOWER QUICKLY TO THE CHASSIS IF THE TIPPING LEVER IS OPERATED WHEN THE ENGINE IS SWITCHED OFF.**

9  **TO AVOID INJURY DO NOT STAND BETWEEN THE SKIP AND MUDGUARDS AT ANY TIME UNLESS THE SKIP IS FULLY RAISED AND LOCKED IN POSITION.**

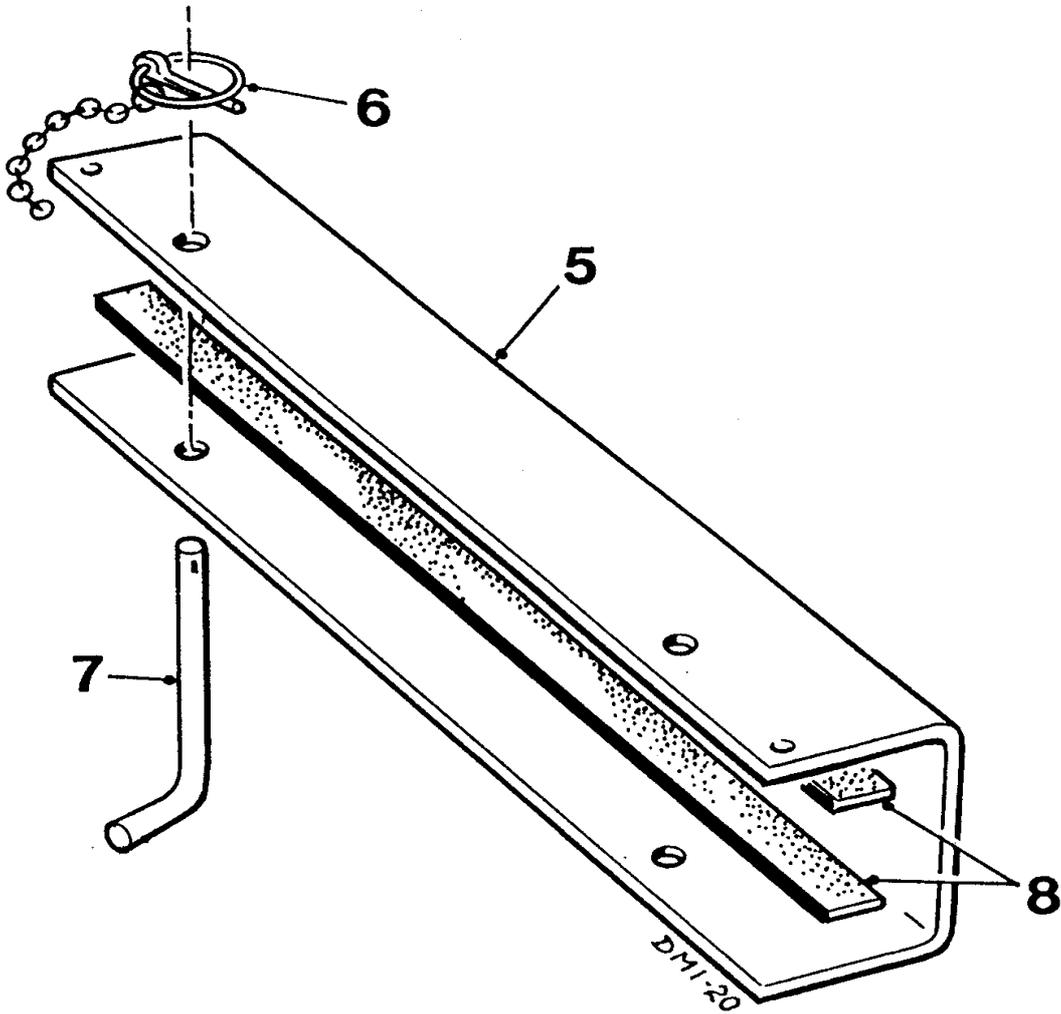
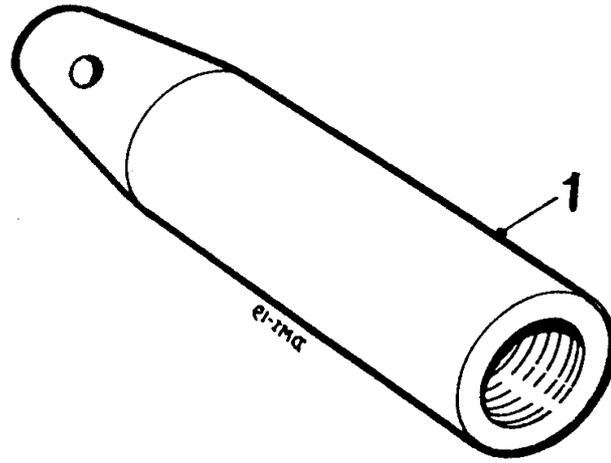


11  **BATTERY ISOLATOR ISOLATING THE BATTERY WITH THE ENGINE RUNNING EXCEPT IN CASES OF EMERGENCY WILL LEAD TO DAMAGE TO THE VEHICLE ELECTRICAL SYSTEM**

12  **ENSURE HEAPED LOAD DOES NOT RESTRICT FORWARD VISIBILITY**

**DECALS & PLATES****9 - A - 4**

| <b>Item</b> | <b>Part no</b> | <b>Serial no</b> | <b>Description</b>             | <b>Qty</b> |
|-------------|----------------|------------------|--------------------------------|------------|
| 1           | DM106          |                  | DECAL, Handbrake               | 1          |
| 2           | V2004281       |                  | DECAL, Hands clear             | 1          |
| 3           | V2004754       |                  | DECAL, Damage                  | 2          |
| 4           | V2004643       |                  | DECAL, Dump slew return        | 1          |
| 5           | V2004645       |                  | DECAL, Transmission dump pedal | 1          |
| 6           | V2004748       |                  | DECAL, Transmission damage     | 1          |
| 7           | V2004680       |                  | DECAL, Slew ring bolts         | 2          |
| 8           | V2004798       |                  | DECAL, Skip raised             | 1          |
| 9           | V2004799       |                  | DECAL, To avoid injury         | 2          |
| 10          | V2004744       |                  | DECAL, Eye protection          | 1          |
| 11          | V2004227       |                  | DECAL, Battery Isolator        | 1          |
| 12          | V2005126       |                  | DECAL, Heaped load             | 1          |



# SPECIAL TOOLS

# 9 - T - 1

| Item | Part no   | Serial no | Description                              | Qty |
|------|-----------|-----------|--|-----|
| 1    | V2003674  | 2001 /    | <b>ALIGNMENT GUIDE</b> , pivot pins      | 1   |
| 5    | V2004212  | 2082 /    | <b>ISO SAFETY SUPPORT</b> , skip tip ram | 1   |
| 6    | 902S02    |           | PIN, lynch, c\w chain                    | 2   |
| 7    | V2004217  |           | BOLT, 'special'                          | 2   |
| 8    | 106209000 |           | SEAL, strip, (2 metres)                  | 1   |

## **CALIFORNIA**

### **Proposition 65 Warning**

**Diesel engine exhaust and some of its constituents are known to the state of California to cause cancer, birth defects, and other reproductive harm.**