

Rancher Ride-On Owners Manual

Model No. 1766



WARNING

- A mower is a high speed cutting tool. Safety precautions must be observed to reduce the risk of accident.
- Careless or improper use may cause serious injury.
- Be sure that you read and fully understand the contents of this Owner's Manual. Should any point me unclear, contact Rover-Scott Bonnar Limited, in your state or an authorized Rover-Scott Bonnar Service Agent for assistance.
- Keep the owners manual in a safe place for future reference. Read the Owners Manual periodically to, ensure the continued safe and proper use of the mower.

SAFETY INSTRUCTIONS

- A mower user must be in good physical condition and mental health and not under the influence of any drug or alcohol which might impair vision or judgment.

- Do not use a mower when tired or fatigued. Lack of alertness may cause serious injury.

- Know your controls.

Read and understand Owner's manual before operating mower. Learn how to stop the mower in an emergency. Refer Operator's Instructions.

- Do not lend or sell the mower without the Owner's Manual.

- Be sure that anyone using the mower reads and fully understands the information contained in this Manual and knows how to safely operate the mower.

- Do not allow children or people unfamiliar with these instructions to use the mower.

- Never mow whilst bystanders or pets are present in the mowing area.

- Never carry passengers.

- Never mow while barefoot or wearing open sandals or thongs. Wear long trousers and heavy non-slip shoes.

- It is advisable to wear suitable eye protection when operating a mower.

- Before using, always visually inspect to see that the blades, blade bolts, and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.

- Damaged blades and worn bolts are major hazards.

- Replace worn or faulty silencers.

- Always mount and dismount mower from left-hand side (opposite side to discharge chute).

- Make sure the area to be mowed is clear of sticks, stones, bones, wire and debris. They could be thrown by the blades.

- Store fuel in a cool place in a container specifically designed for that purpose. In general, plastic containers are unsuitable. Handle fuel carefully. It is highly flammable.

- Refuel outdoors only. Do not smoke when refueling engine. Add fuel before starting engine. Never remove the cap from the fuel tank or add petrol while the engine is running. Allow engine to cool for several minutes before refueling if engine is hot. If petrol is spilled, do not attempt to start the engine, but move the mower away from the area of the spill and avoid creating any source of ignition until the petrol vapors have dissipated.

- Remove the fuel cap slowly to relieve fuel tank pressure.

- Check for fuel leaks while refueling or using the mower. If a fuel leak is found, do not start or run the engine until the leak is fixed and spilled fuel is wiped away.

- Take care not to get fuel on your clothing. If this occurs, change your clothing immediately.

- Do not operate mower in confined space where exhaust fumes (carbon monoxide) can collect.

- Mow only in good daylight.

- Start the engine carefully with feet well away from the blades.

- When starting do not wrap the started rope around your hand. Do not allow the started cord to snap back. Return the started grip slowly to allow the cord to rewind properly.

- Strictly follow the operator instructions before attempting to start the machine.

- Never mow where the machine could tip or slip.

- If machine stalls going uphill, stop blades and back slowly down.

- Mow up and down slopes. Never mow across a slope. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes.

- Do not accelerate or stop the mower suddenly when on a slope.

- Be extremely careful when using a mower on slopes. Stay alert for holes in the terrain and other hidden hazards.

- Disengage cutter drive before mowing across gravel drives, walks or roads.

- Do not mow in reverse. When reversing keep a careful and continuous observation of the entire area behind the mower.

- Never use the mower unless all guards provided by Rover-Scott Bonnar Limited are in position.

- Never disconnect the safety switches and never operate the mower if any safety switch is inoperative.

- Never over-speed the engine or alter the governor settings. Excessive speed is dangerous and shortens mower life.

- Take all precautions when leaving the mower unattended. Disengage the cutter drive, set the park brake, shift into neutral, stop the engine, and remove the key.

- Stop the engine and remove the key whenever you leave the mower, even for a moment.

- Stop the engine and disconnect the spark plug lead and inspect mower if:

- a) The mower begins to vibrate abnormally: or

- b) After striking a foreign object.

Repair the damage before continuing further operation of the mower.

- Stop the engine and disconnect the spark plug lead before clearing blockages, checking or working on the mower.

- Never pick up or carry a mower while it is operating.

- Where fitted, turn fuel tap off at the conclusion of mowing.

- When transporting in a vehicle, secure the mower to prevent movement, roll-over, fuel spillage, and mower damage.

- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.

- Never modify the mower in any way. Use only replacement parts made and guaranteed by Rover-Scott Bonnar Limited.

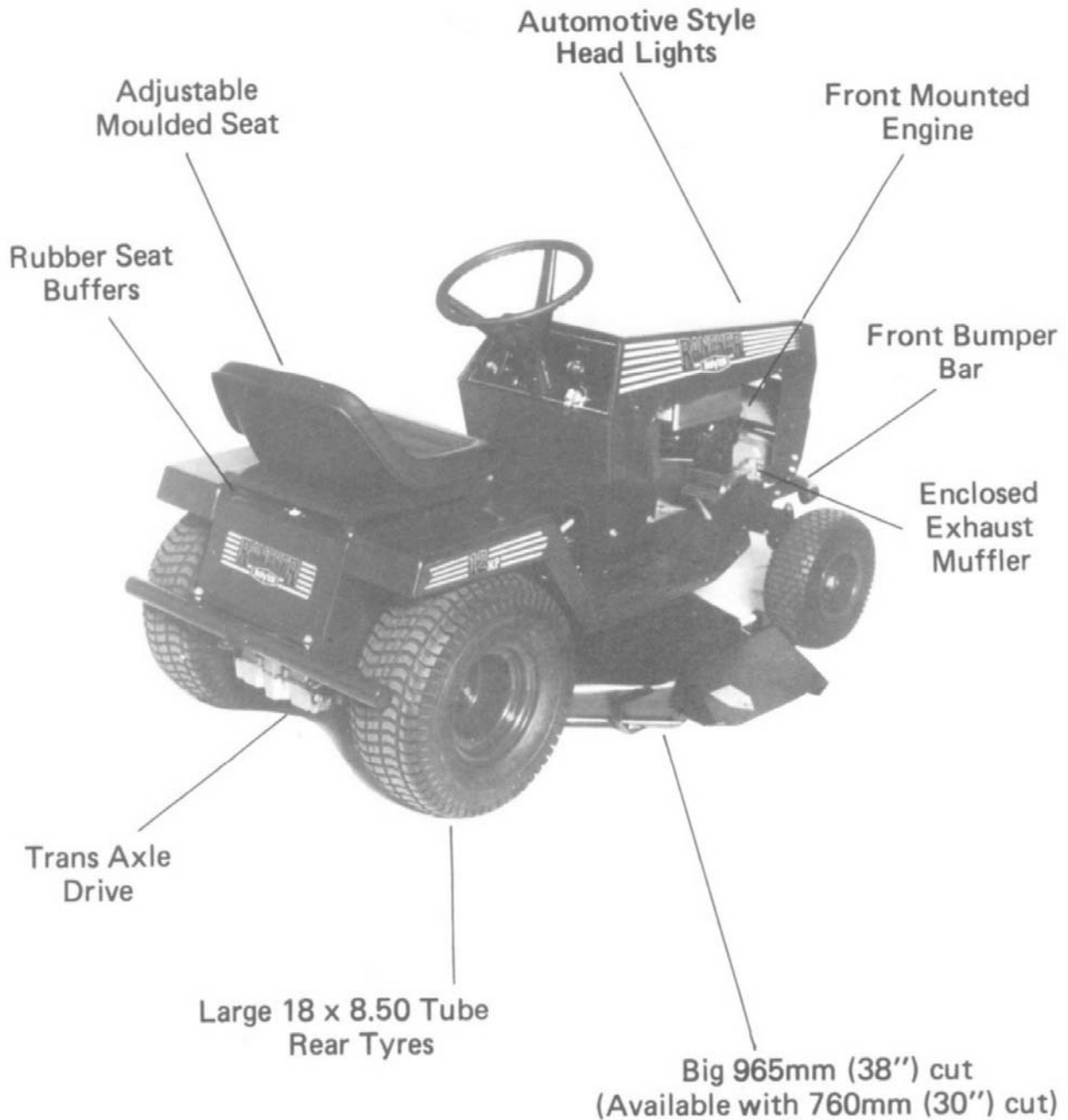
- Keep all safety devices (guards and switches) in place and working.

- Keep the engine free of grass, leaves or excessive grease – these can be a fire hazard.

- Store the mower in a well ventilated room away from naked flames such as may be found in hot water heaters.

SAFETY FEATURES

- Traction drive, blade drive and seat safety interlock:
- Enclosed engine and muffler:
- Enclosed drives:
- Full foot rest:
- Low centre of gravity stable wide track.
- Parking brake.
- Convenient – easy to operate controls



SPECIFICATIONS

ROVER RANCHER

Machine Model No.	1766
Engine Model No.	280702
Single Cylinder	Briggs & Stratton
4 Stroke	12 HP. 465cc
Fuel Capacity	4.0 Litres
Oil Capacity	1.42 Litres
Lubrication	Gear Impellor
Spark plug type	Champion CJ8
Spark Plug Gap	0.7 to 0.8
Ignition Type	Magnetron
Engine Oil	10w-30 or SAE 30

To emphasize special information the words **WARNING** and **CAUTION** are used.

WARNING: The safety of the user and others involved.

Personal injury may result should this information be disregarded.

CAUTION: Follow these instructions carefully to avoid mower damage and loss of warranty.

TRANSMISSION

Fully enclosed and permanently lubricated transaxle. Diff and gearbox combined featuring an inline selector pattern with 5 Forward speeds, Neutral and Reverse.

Reduction are –

Speed1	46.8:1	Speed 4	15.7:1
Speed 2	30.1:1	Speed5	13.3:1
Speed 3	20.1:1	Reverse	40.1:1

Primary traction drive is by an A Section, V Belt Clutch from engine to trans-axle input shaft.

Total Drive Reduction

Speed1	104:1	Speed 4	34.8:1
Speed 2	66.6:1	Speed5	29.5:1
Speed 3	44.5:1	Reverse	88.8:

Ground Speed: At 3600 RPM

Speed1	2.5 km/hr	Speed 4	7.5 km/hr
Speed 2	3.9 km/hr	Speed5	8.8 km/hr
Speed 3	5.8 km/hr	Reverse	2.9 km/hr

Note: Speeds must only be selected when machine is stationary.

CUTTING HEAD

Model 178: Full floating die cast aluminum housing with right side discharge. Width of cut 965mm (38")

Model 170: Full floating pressed steel housing with right side discharge. Width of cut 760mm (30").

Tyres

Front Tyres –
13 x5.00 Tube
Pressure 140 KPA maximum

Rear Tyres –
Tubeless
Pressure 70 KPA maximum

CONTROLS

- * Throttle control with Fast, Slow and Choke positions;
- * Key switch with Off, On and Start positions;
- * Light switch Off/On;
- * Amp Meter.

STEERING WHEEL

325mm Dia. Steering Wheel. 1-1/4 turns lock to lock.

CLUTCH BRAKE / PEDAL

Foot operated pedal. Right side of machine.

PARK BRAKE KNOB:

Hand operated catch. Right hand side. Used in conjunction with clutch/brake pedal.

SPEED SELECTOR:

Lever left hand side. 5 Forward speeds, Neutral and reverse.

CUTTING HEIGHT:

Lever right hand side. 8 heights of cut positions from 15mm to 65mm.

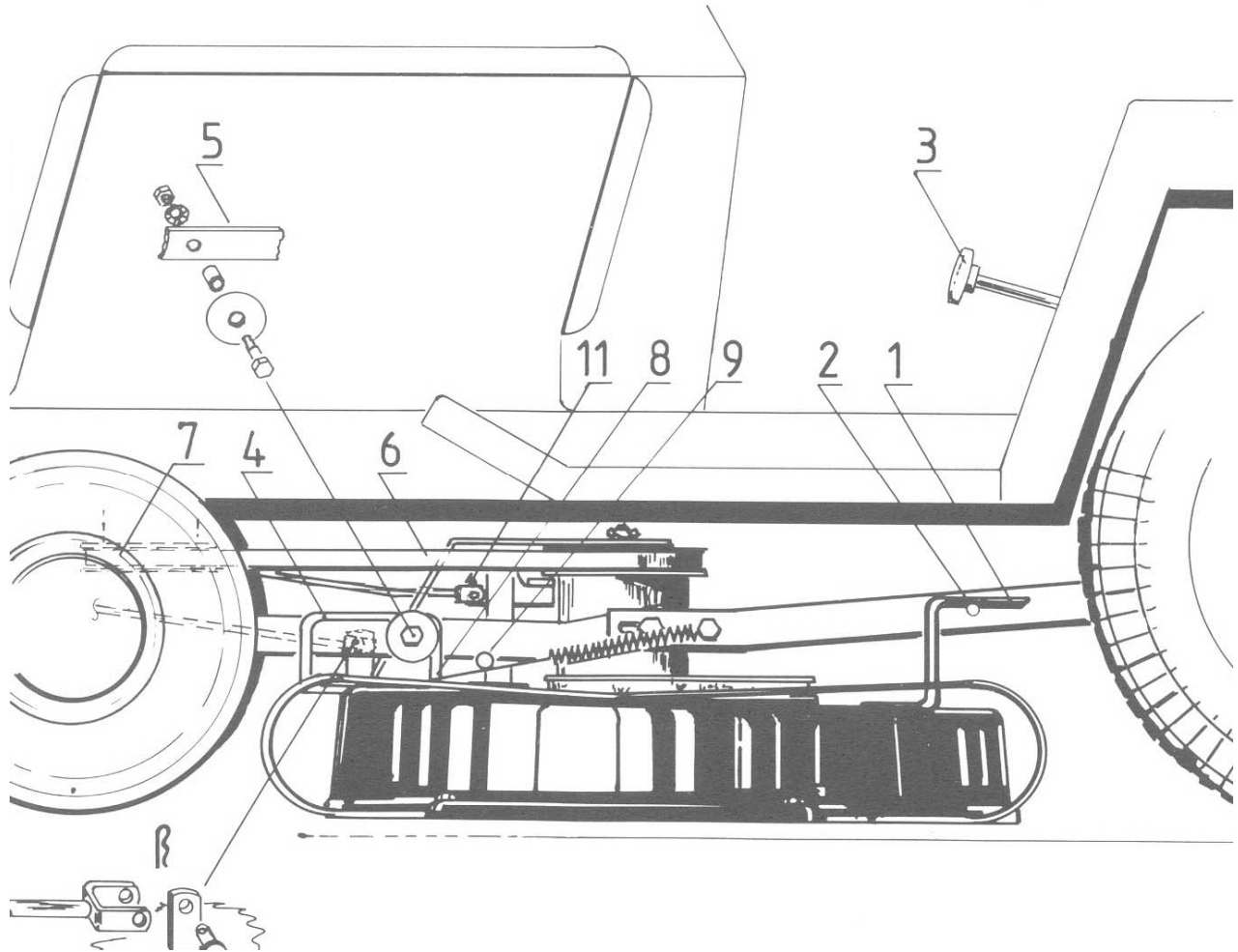
Cutter drive:

Lever in rear cowl.

GENERAL:

Wheel Base, 111cm	Length	156cm
Track 63cm R: 71cm F.	Width	83cm
Turning Circle 4.0m	Height	95cm
Turning Radius 85.0cm	Weight	180kg

FITTING OF MODEL 170-178 CUTTING DECKS TO RANCHER



1. Remove spark plug lead.
2. Move height of cut lever to high cut (3)
3. Slide cutter deck under the Rancher from the right hand side with the ejection chute facing out.
4. Move height of cut lever to low cut.
5. Lift the rear of the cutting deck and fit the support brackets (1) over the control pins (2).
6. Fit the retaining bolts, spacers and washers through the U support bracket (4) in the correct order, see illustration (5).
7. Fit the drive belt (6) to the engine pulley (7).
8. Attach the tension springs to the cutter head through the holes (8).
A piece of wire through the loops (9) in the spring will assist this operation.
9. Attach cutter head pushrods (10) as shown in illustration. (Pins on outside)
Refer page 10, fig 18 for cutter drive adjustment.
10. Attach and adjust cutter head brake rod. (11)
Refer page 10, Fig 19 for adjustment.

REFER TO PAGE 11 FOR CUTTERHEAD TILT ADJUSTMENT

LOOSE PARTS KIT

DESCRIPTION	QTY	USE
Steering wheel	1	On steering shaft
Roll Pin	1	Secure steering wheel to shaft
Stone Guard Assembly	1	Fitted to cutter head
Spring – Stone Guard	1	On stone guard pivot rod
‘E’ Clip	1	In groove in pivot rod
Ignition keys	2	To start machine
Plug Spanner	1	To remove spark plug

SETTING UP INSTRUCTIONS

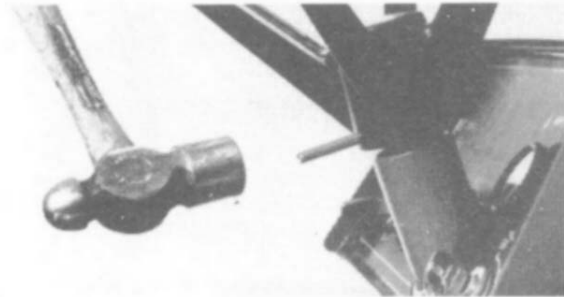


Fig.2
INSTALL STEERING WHEEL

1. Slip steering wheel over steering shaft and align the wheel hole with the shaft hole;
2. Insert drift punch – partially through the holes to maintain alignment and insert roll pin in the opposite side; See Fig.2.
3. Drive roll pin in until flush with the outside of the wheel.

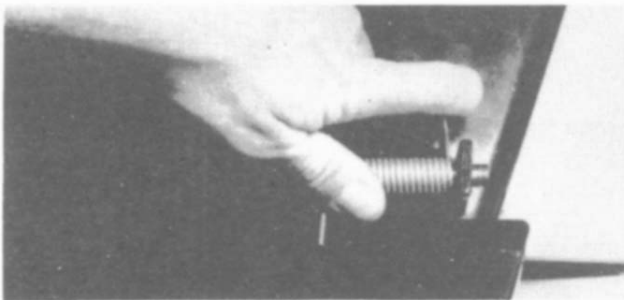


Fig.3
FIT STONE GUARD

1. Slip spring onto stone guard pivot rod so that the short leg rests on top on the stone guard;
2. Now twist the spring as shown and fed the end of the pivot rod into the forward pivot bracket; See fig.3
3. Insert the short end of the pivot rod fully into the rearward pivot bracket;
4. Release the spring. It should spring down onto the top of the cutter head and be tensioning the stone guard down;

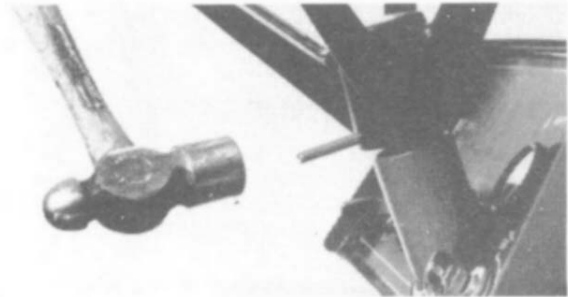


Fig.4

5. Secure by clipping an ‘E’ Clip into the groove on the pivot rod. See Fig.4.

INSTALLING THE BATTERY

BATTERY

1. Remove battery as follows;
 - (a) Remove terminal cable from battery
 - (b) Undo wing nuts and remove clamp bar.
2. The battery is not fitted with Electrolyte. This should be done by adding 33% strength battery acid to each cell until plates are covered. Electrolyte must be purchased from a local battery supply outlet.

IMPORTANT: DO NOT OVERFILL BATTERY. ACID WILL OVERFLOW INTO OTHER PARTS OF THE MACHINE AND SEVERE CORROSION AND DETERIORATION WILL RESULT.

3. Leave filler caps off and connect battery charger to battery terminal. Charge at the rate indicated in the instructions supplied with the battery.
4. After charging, check that Electrolyte is still covering plates, if not, add to correct level. Install filler caps.
5. Replace battery and secure.
6. Install the positive (red) cable to the positive (+) terminal and the negative (black) cable to the negative (-) terminal.

BEFORE OPERATING

FILL CRANKCASE WITH OIL.

The rider mower may be delivered with out oil in the crankcase. Oil must be added before attempting to start the engine.

1. Place machine on level surface. Open the bonnet. Ensure that the oil plug is securely tightened. Clean around dipstick.
2. Unscrew and remove dipstick from oil filler tube.
3. Insert funnel into filler tube and slowly add oil in accordance with the engine manufacturer's direction.

Note: Avoid premature engine failure by ensuring the funnel is clean so contaminants are not introduced into the crankcase. Wipe any oil spills so it will not cause dirt to collect on the engine

4. Ensure oil level is at the full mark on the dipstick, when screwed completely in. When finished replace dipstick and retighten.

Note: See Maintenance Instructions

FILL FUEL TANK – See Safety Instructions.

Use only regular grade or unleaded petrol.

Do not mix oil with petrol. – Engine damage may result.

1. Open bonnet and clean around fuel tank cap so foreign matter cannot enter fuel tank when cap is removed.
2. Using a funnel, fill tank with regular grade or unleaded petrol. Replace the cap.
3. Wipe up any petrol that may have spilled.
4. Close and secure bonnet.

CHECK TYRE PRESSURE.

Check and maintain tyre pressure at 140 KPA (20 PSI) front and 70 KPA (10 PSI) rear maximum

ADJUSTING THE SEAT

Tip the seat forward, loosen the seat securing screws. Relocate the seat for operator comfort. Tighten the seat securing screws and lower the seat

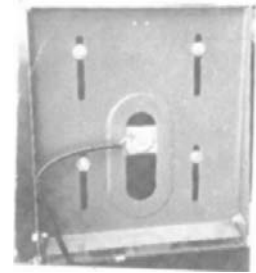


Fig 5

CONTROLS

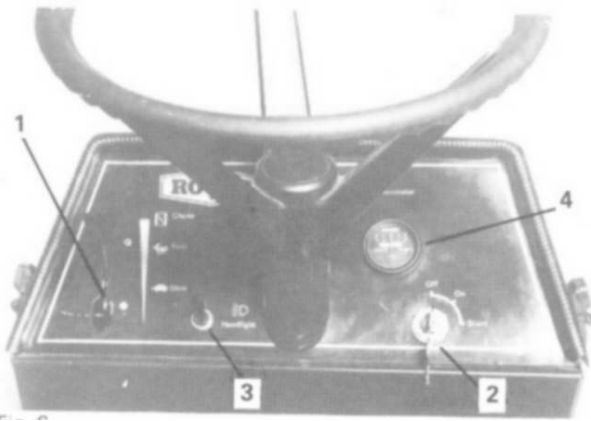


Fig 6

1. **Throttle control** – Mounted on the dash panel and connected to the engine carburetor controls. Has the symbols for Slow, Fast and Choke.
2. **Ignition Switch** – This switch is part of the battery ignition system and has three positions marked for Off, On and Start. The switch is key operated and automatically returns to the On position from Start position when released.
3. **Light Switch** – On/Off toggle switch on dash panel for actuating the headlights. Lights will not function when engine is not running.
4. **Amp Meter** – Mounted in the dash panel it indicates the battery charging current and discharge.
5. **Brake/Clutch** – Foot operated pedal on right side of machine. Depressing the pedal disengages the drive belt and engages Brake Disc .



6. **Parking Brake** – Hand operated knob right hand side. Depressing the brake clutch foot pedal enables this knob to be engaged and disengaged. Brake is locked on with knob in up position.
7. **Speed Selector** – Located on left of seat. In line selector with speeds 1, 2, 3, 4 and 5 Down from Neutral and Reverse through spring gate and up from Neutral.
8. **Cutting Height Adjuster** – Located on right of seat with low cut at bottom and high cut at top of setting.
9. **Cutter Drive** – Lever located on left hand side of seat mounting box. Down position disengages blade drive and applies blade brake, Up position engages blades.

OPERATING INSTRUCTIONS

TO START THE ENGINE:

Note the engine will not start unless the cutter drive is disengaged, and clutch/brake pedal is depressed.

- Depress clutch/brake pedal – Apply the park brake;
- Move the speed selector to neutral;
- Disengage the cutter drive;
- Move the throttle lever to the choke position;
- Turn the ignition key to the start position and release;
- when the engine starts;
- Move the throttle lever to about 1/4 position.

TO MOW OR DRIVE:

- Depress clutch/brake pedal;
- Disengage the parking brake;
- Select height of cut;
- Move throttle to about 3/4 position;
- Engage cutter drive;
- Select desired speed;
- Slowly release clutch/brake pedal to move off.

TO STOP ENGINE:

- Depress clutch/brake pedal;
- Move the speed selector to neutral;
- Disengage the cutter;
- Apply the parking brake;

- Move the throttle lever to the slow position;
- Turn the ignition key to Off. Remove the keys;

IMPORTANT:

- The parking brake should always be applied before leaving the machine;
- The parking brake must be released before attempting to drive;
- Depress the clutch/brake pedal when selecting or changing speed;
- Do not select speed while the machine is moving.

ENGAGING CLUTCHES:

- When engaging the cutter drive lever or releasing the clutch/brake pedal, always operate slowly. Do not use a jerking motion. Moving these controls too fast could possibly overload and stall the engine.

CAUTION:

- **To avoid loss of control always come to a complete stop before selecting speeds and slow down when turning.**

REMEMBER:

- Always look behind the machine before reversing;
- Do not refuel when the engine is running or while it is hot;
- Keep bystanders away – Keep hands and feet clear of moving parts;
- Keep the machine clear of grass and debris;
- Keep all guards in place;

MAINTENANCE INSTRUCTIONS

Periodically check the machine and cutting mechanism. If parts are worn or need replacing do so by using only Genuine Rover Replacement Parts.

There is a comprehensive Rancher Spare Parts List contained in this book to help you select the right part quickly.

Before working on the mower, disconnect the spark plug lead from the spark plug and place it where it cannot contact the spark plug.

CHECK YOUR Rover rancher frequently for loose nuts, bolts, belts, etc., and keep these items correctly tightened and adjusted.

Note: A check after the first two hours operation is recommended. Engine failure or rapid engine wear mainly result from the following causes –

1. Dirt or abrasives entering the engine via the air cleaner due to –

- a). The air cleaner element not being serviced regularly;
 - b). The air cleaner damaged or dislodged.
2. Dirt or abrasives entering the engine via the oil filler tube due to –
 - a). Using a funnel not cleaned of dirt and grit,
 - b). Topping up with contaminated oil. Oil stored in an unclean container.
 3. Lack of oil. It is important to –
 - a). Check the oil level regularly (every 5 hours of operation),
 - b). Maintain a full sump.

MAINTENANCE INTERVAL CHART

	See page	5 Hours	25 Hours	PERIODIC SERVICE EVERY 25 HOURS						
				50	75	100	125	150	175	200
Change oil (Initial)	7	x								
Change oil (Periodic)	7		x							
Check Interlock	11	x	x							
Check Cutting Blades	-	x	x							
Check Cutting Unit Brake	10		x							
Check Rear Wheels Brake	10		x							
Lubricate Pivot Points	8		x							
Lubricate Throttle Cable	8		x							
Grease Front Axle Spindles	8		x							
Service Air Cleaner	7		x							
Check Spark Plug	7		x							
Check Drive Belts	-		x							
Check Tyre Pressure	5		x							
Clean Outside Of Engine	-		x							
Clean Cutter Housing	-		x							
Paint Chipped Surfaces	-		x							

AIR CLEANER: Dual Element Type –

1. Remove two cover knobs and remove air cleaner cover.
2. Remove foam pre-cleaner, if so equipped.
 - (a). Wash pre-cleaner in liquid detergent and warm water to remove dirt.
 - (b). Wrap pre-cleaner in cloth and squeeze dry.
 - (c). Saturate foam in engine oil. Squeeze to remove excess oil.
3. Remove two nuts from top of cartridge.
4. Remove cartridge and clean air cleaner body carefully to prevent dirt from entering carburetor. Brush dirt from lower air cleaner body into duct.
5. Clean cartridge by gently tapping on flat surface.
 - (a). If very dirty, replace cartridge or wash in low or non sudsing detergent and warm water solution.
 - (b). Rinse out thoroughly from INSIDE OUT until water is clear.
 - (c). Cartridge must be allowed to stand and air dry thoroughly before using.
6. Reassemble air cleaner.

Note: Nuts holding air cleaner cartridge must be installed with fiber washers down on cartridge plate to prevent dirt from entering carburetor. Tighten nuts by hand. Over tightening could collapse cartridge.

Note: Petroleum solvents, such as kerosene, are not to be used to clean cartridge. They may cause deterioration of the cartridge. DO NOT OIL CARTRIDGE. DO NOT USE PRESSURIZED AIR TO CLEAN OR DRY THE CARTRIDGE.

OIL CHANGE

See engine manufacturer's instructions.

1. Place engine on a level surface. Start and run engine for a period to warm the oil;

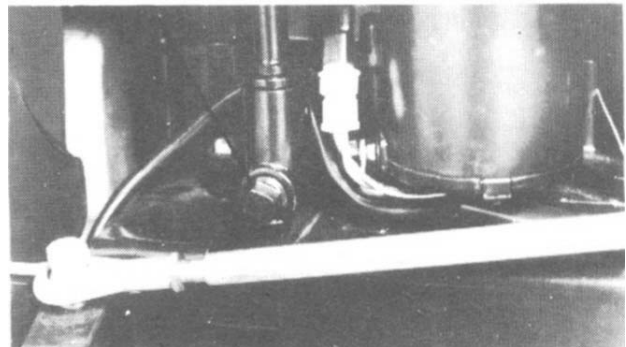


Fig 8

2. Place an oil pan under oil drain channel in side on chassis.
3. Remove oil drain plug and allow to drain completely.
4. Refit oil drain plug and tighten. Refill sump with new oil. For correct viscosity and service classification see the engine manufactures Instruction

SPARK PLUG:

The spark plug gap gradually increases during engine running and should be checked periodically and whenever the engine malfunctions.

1. Clean around spark plug area so that dirt will not enter engine when plug is removed;
2. Disconnect spark plug lead and remove spark plug;
3. Check condition of electrodes and ensure there is no damage to insulator;
4. Carefully clean the spark plug. Do not grit blast.
5. Set gap to .8mm (.030")
6. Install in engine and tighten to 20Nm. If a torque wrench is not available hand tighten plug. Then with tube spanner tighten plug about 1/12 of 1 turn.
7. Refit high tension lead. Push onto plug firmly.

MAINTENANCE

COOLING SYSTEM:

The Rancher has an air cooled 4 stroke engine. It must be cleaned frequently. Remove any build up of grass, dirt or other debris from the –

1. Cylinder;
2. Cylinder head cooling fins;
3. Cooling air intake screen and
4. Carburettor governor levers and linkages.

This will ensure adequate cooling and correct engine speed.

COOLING SYSTEM:

Proper choke and stop switch operation is dependant on adjustment of remote controls –

1. Loosen outer cable under clamp screw (D) on engine; See Fig. 9.
2. Set throttle control to choke position;
3. Adjust outer cable under clamp plate so that choke is operated;
4. Tighten clamp plate screw and check –
 - (a). Choke does not operate in fast position, and Stop switch operates correctly.

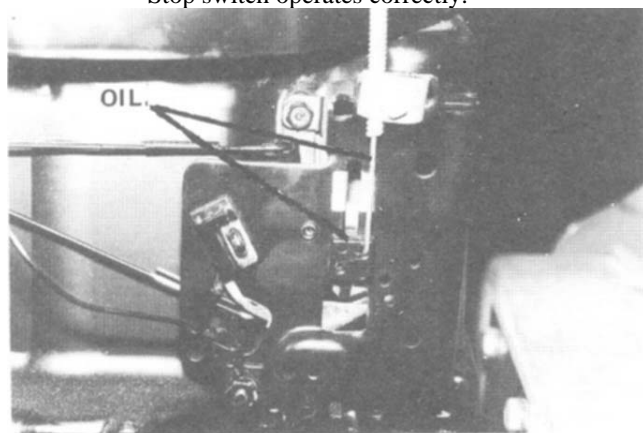


Fig. 9

CARBURETTOR ADJUSTMENT:

The carburettor has been factory set and should only require occasional fine tuning. See Figs 9 and 10.

1. Close high speed needle valve (A) in bottom of carburettor bowl. Close finger tight in clockwise direction;
2. Open (anti-clockwise) the needle valve two turns (that is an approx. setting);
3. Start engine and let it warm up. Approx two minutes. Cutter drive must be disengaged. Speed selector must be in neutral position, air cleaner must be fitted and secured and fuel tank must be half full.
4. With the engine running at high speed, adjust the needle valve 1/8 turn at a time. Clockwise or anti-clockwise until engine runs smoothly.

Note: Allow several seconds between each adjustment for engine to adapt to new settings.

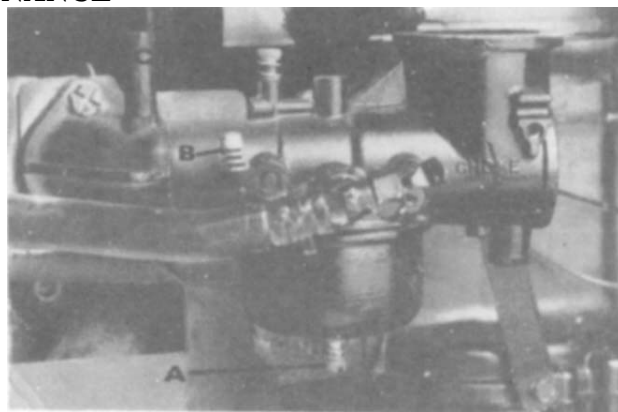


Fig. 10

5. Move throttle to the slow position and adjust the slow running stop screw (B) to give an engine speed of 1700 to 1800 RPM.
6. Adjust the idle needle valve (C) slowly in (lean) and out (rich) until engine idles smoothly.
7. Reset engine idle speed.
8. Check operation. Engine should increase speed without hesitation when throttle control is moved quickly from slow to fast. If the engine tends to die out, adjust the high speed needle valve 1/8 turn anti-clockwise until engine accelerates smoothly.
 - Never tamper with engine governor setting.
 - Changing of engine governor speed will void engine warranty.

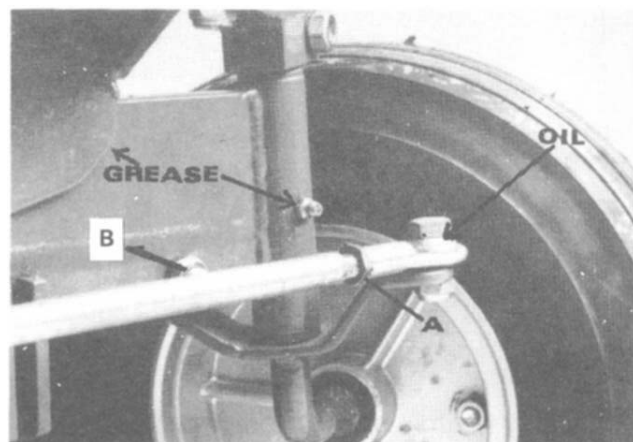


Fig. 11

LUBRICATION GENERAL:

Using General Purpose Grease –

- Grease nipples on front wheel pivots. See Fig.11
- Front axle beam guides.
- Grease nipples on steering pivot blocks Fig.21
- Steering gears Fig. 21

Using Clean Engine Oil –

- Jockey pivot arms
- Throttle control cable fig.9

MAINTENANCE

- Cutter Drive Lever Pivot;
- Clutch/brake pedal pivot; See Fig.15
- Tie rod ball ends; See Fig. 11
- All connecting rod pivot points.

Note: All ball bearings are sealed and require no maintenance.

TRANSAXLE:

This transmission is fully enclosed and permanently lubricated. No maintenance necessary.

CUTTING UNIT:

Remove spark plug lead and disengage cutter drive before working on cutter unit, to prevent accidental starting of the machine.

Before using machine always inspect cutting unit to see that then cutting disc, blades and blade fixings are not worn or damaged.

Always check after striking a solid object. Do not operate machine when unusual vibration occurs.

Replace worn or damaged blades in sets to preserve balance.

Remove any build-up of grass or clogging within the cutting unit or discharge chute or safety flap.

CUTTING UNIT REMOVAL:

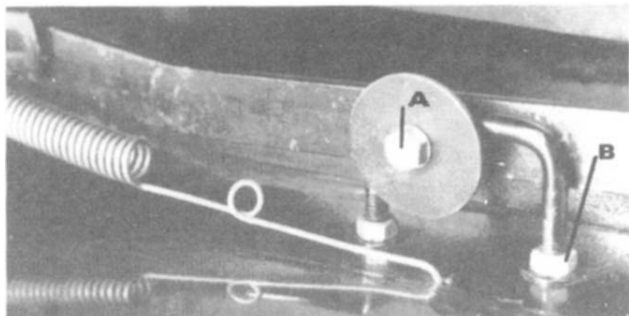


Fig. 12

1. Remove drive belt. Run it off of front pulley.
2. Remove tension springs. A loop has been provided on the spring to assist in this operation; See Fig.12.
3. Disconnect cutter deck push rods and blade brake rod.
4. Undo and remove large retaining bolts (A).
5. Slide the cutter head forward this will allow the rear to be lowered to the ground.
6. The cutter head can now be slid out from under the machine.
7. Replace in reverse order.

WHEEL REMOVAL:



Fig. 13

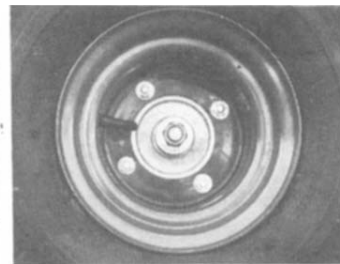


Fig. 14

CAUTION: Always deflate tyre before removing rim nuts on front wheel only.

Front –

1. Chock wheels and remove axle nut; See Fig. 13
2. Raise front of engine;
3. Slide wheel from shaft;
4. Replace in reverse order;
5. Retighten axle nut firmly.

Rear–

1. Chock front and rear wheels of machine,
2. Remove four wheel nuts.
3. Slide wheel from hub.
4. Replace wheel nuts and tighten.

ADJUSTMENTS

CLUTCH ROD ADJUSTMENT

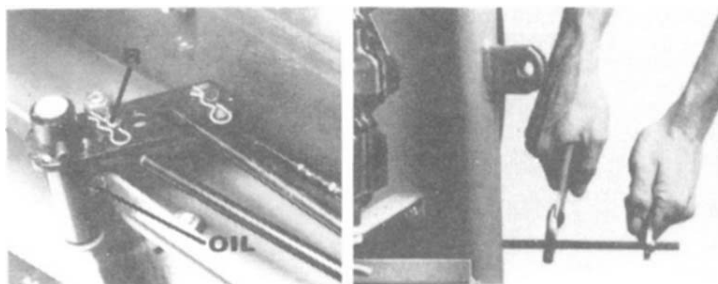


Fig. 15

Required to take up transmission belt stretch.

1. Remove (R) clip from pedal pivot. See Fig. 15.
2. Slip rod to rear of machine.
3. Adjust nut on rod so that it is 3mm clear of pivot block when pedal is in a fully up position;
4. Check for operation.

MAINTENANCE

BRAKE ROD ADJUSTMENT

Should not normally require resetting.

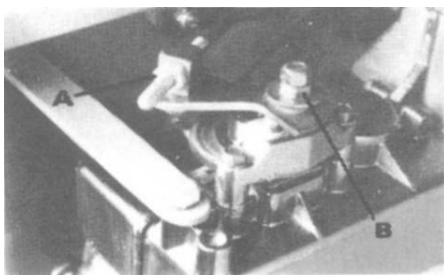


Fig. 17

1. Loosen lock nuts; (A) See Fig. 17
2. Adjust pivot block position;
3. Retighten nuts.

BRAKE ADJUSTMENT

Required to take up brake pad wear.

1. Loosen lock nut; (B) See Fig. 17.
2. Adjust nut a small amount to take up wear;
3. Retighten lock nut;
4. Check operation.

Do not over-adjust. Set so that park brake knob engages.

PARKING BRAKE

Should always be checked for operation after clutch / brake rods have been adjusted.

CUTTER DRIVE ADJUSTMENT

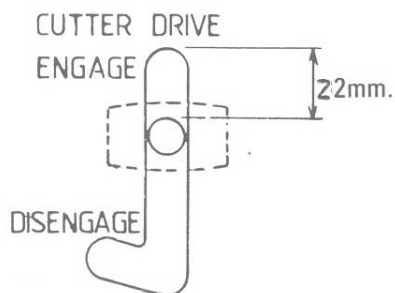


Fig 18

1. Mover cutter head lever to engaged position and lower deck to low cut.
2. Adjust length of push rods so that cutter head engagement shaft lugs are vertical.
3. Adjust nyloc nuts on engagement lever rod to give approx. 32mm gap between top of lever and end of slot. Fig. 18.

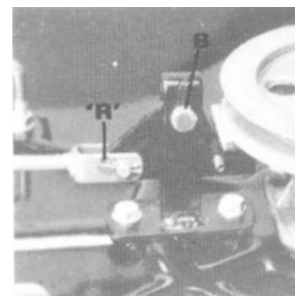
Note:- After adjusting cutter drive check blade brake adjustment.

CUTTER HEAD BRAKE

Should regularly be checked for operation.

PAD REPLACEMENT

1. Remove 'R' clip and push rod pin (See Fig. 19).
2. Remove brake rod pivot bolt (B) and two spacers (see Fig. 19).
3. Remove brake plate assembly.
4. Drill out pad retaining rivets.
5. Rivet replacement pad in position.
6. Refit in reverse order.



CUTTER HEAD BRAKE ADJUSTMENT

1. With cutter head disengaged and in low cut position.
2. Adjust nyloc nut on rod till clearance of 5mm is obtained.
3. Adjust tension on spring using lock nuts to give length of 52mm. Fig. 20.

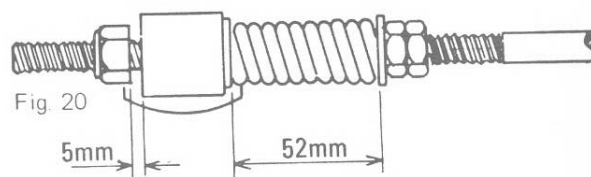


Fig. 20

SPRING GEARS

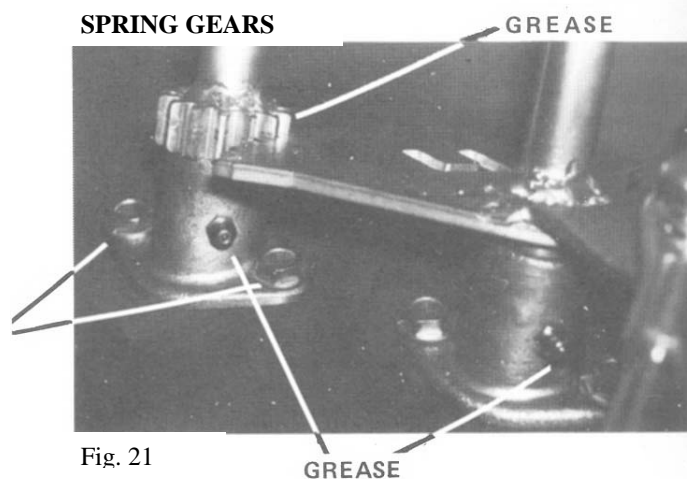


Fig. 21

To adjust out excessive play caused by wear in the gears.

1. Loosen bolts securing steering shaft pivot block (A).
2. Lightly tap pivot block towards layshaft pivot block and retighten bolts (A).
3. Check steering gear engagement. Check that there are no tight spots when turning steering wheel from lock to lock.

MAINTENANCE

STEERING RODS

Should not normally require resetting.

1. Loosen rod lock nut; (a) See Fig. 11.
2. Release the fixing bolt;
3. Turn tie rod end to adjust for length clockwise to shorten, anti-clockwise to lengthen;
4. Replace the fixing bolt and tighten;
5. Tighten rod lock nut;
6. Make sure rod is free to pivot.

CUTTER HEAD TILT

This should not normally require resetting.

1. Loosen U-Bracket nuts; (B) See Fig. 12.
2. Adjust nuts up or down to set tilt;
3. Model 178 (965 mm cut) does not require tilt. Model 170 (760 mm cut) does require back of blade circle tilted 15mm above front of blade circle in low cut position'
4. Retighten all nuts.

STEERING STOPS

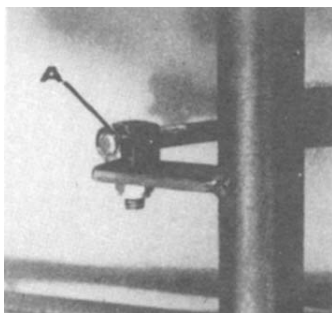
This should not normally require resetting.

1. Check if steering segment gear rotates in both directions and contacts peg on chassis. If segment gear contacts then stops are correct. If not adjust as follows.
2. Loosen lock nut on front beam axle and adjust bolt till contact is made between segment and peg. Check in both directions.
3. Retighten lock nut.

HEIGHT OF CUT ADJUSTMENT

To adjust the height of cut rotate the nyloc nut (A) situated under the centre of machine on the rear cutter support assembly.

Adjust nyloc nut to obtain low cut at front of blade circle of 15mm.



SAFETY INTERLOCK SYSTEM

The safety interlock system has been designed for your protection and should not be tampered with. It gives the Rancher the following characteristics.

The engine will not start unless the speed selector is in the neutral position, the cutter drive is disengaged and the clutch/brake pedal is depressed.

NOTE: The engine should stop if the operator leaves the seat with the speed selector and/or the cutter drive engaged.

WARNING: If the interlock system fails, see an authorized dealer. Do not operate until the fault is corrected

CAUTION: Safety switch circuit may become defective if wet. Do not spray switches and connections.

STORAGE

Never store engine with fuel in tank indoors or in poor ventilated enclosures where fuel may accumulate.

If machine is to be stored over 30 days proceed with the following:-

1. Remove all fuel from carburettor and fuel tank to prevent varnish-like gum deposits.
2. Remove spark plug and pour 30 ml of engine oil into cylinder. Crank engine several times to distribute oil. Replace spark plug.
3. Clean engine and cooling fins, etc., of any clippings, dirt and chaff.
4. Clean underside of mower and cutting unit. Paint any chips or scratches.
5. Lubricate chassis components.
6. Remove and charge battery and store in a cool dry spot. Recharge every 30 days.
7. Store machine in a clean dry spot.

REMOVAL FROM STORAGE

1. Change oil.
2. Fill fuel tank with fuel.
3. Check spark plug.
4. Check drive belts.
5. Check drive chain.
6. Lubricate drive chain.
7. Lubricate pivot points.
8. Grease front axle spindles.
9. Check tyre pressure.
10. Check safety interlock.
11. Check cutting blades.

NOTES

SAFETY AND INSTRUCTION DECALS

The following safety and instruction decals are mounted on the RANCHER Front Engine Rider. Replace any that become damaged or illegible.

⚠ WARNING

- NEVER ALLOW ANY PERSONS UNFAMILIAR WITH SAFE OPERATING PROCEDURE TO USE THE MOWER.
- NEVER CARRY PASSENGERS.
- READ THE OWNERS MANUAL AND FOLLOW SAFETY INSTRUCTIONS.

P/No. A07903

⚠ WARNING

NEVER OPERATE THIS MACHINE UNLESS ALL GUARDS ARE IN PLACE

P/N A12106

⚠ CAUTION

DO NOT REFUEL WHILE ENGINE IS RUNNING
ALLOW ENGINE TO COOL FOR 2 MINUTES BEFORE REFUELLING

P/N A12019

CAUTION!

NEVER USE THE MOWER UNLESS THE GRASSCATCHER OR GUARDS PROVIDED ARE IN POSITION

STOP ENGINE AND DISCONNECT SPARK PLUG WIRE BEFORE CLEARING BLOCKAGES, CHECKING OR WORKING ON THE MOWER.

KEEP HANDS and FEET AWAY

P/N A02571

CUTTER DRIVE

ENGAGE

DISENGAGE

P/N A07984

VEHICLE MAINTENANCE

See the Operators Manual for complete instructions

Interlock System
The engine will not start unless the Speed Selector is in neutral and the cutter drive is disengaged.

Note: — The engine should stop if the operator leaves the seat with the Speed Selector and/or the cutter engaged.
If the Interlock System fails see an authorised dealer. Do not operate until fault is corrected.

Caution: Safety switch circuit may become defective if wet. Do not spray switches and connections.

Engine:

- Check the oil level before starting the engine and after every 5 hours of use
- Change the oil after first 5 hours of operation and every 25 hours thereafter
- Change the oil more frequently when operating in dusty conditions.
- Use only high quality engine oil (see the Engine Manufacturer's Instructions for complete instructions)
- Clean the air cleaner element every 25 hours (more often when operating in dusty conditions)
- Check the spark plug every 25 hours. Reset the gap or replace the plug as necessary (see Engine Manufacturer's Instructions for complete instructions).

General

After first 5 hours of use and every 25 hours thereafter

- Grease steering gears and front wheel pivots.
- Oil steering wheel shaft, pivot pins, connecting rod pivots, pedal pivot, lever pivots, etc.

Lubricate more frequently under dusty conditions.

Blades

Inspect the cutting disc, blades and blade fixings for wear and damage every 5-10 hours, or if cutter strikes a solid object.

- Remove the spark plug lead before inspection.
- Replace worn or damaged parts in sets to maintain balance.

Cleaning:

Remove any build-up of grass or debris from engine compartment trans axle area and cutting attachment. Keep machine clean.

P/N A07785

⚠ WARNING

KEEP ENGINE BAY CLEAR OF GRASS AND FOREIGN MATTER WHICH COULD BE A FIRE HAZARD

P/N A12251

SPEED SELECTOR

P/N A07709

CUTTING HEIGHT HIGH

P/N A07710

DISENGAGE

ENGAGE

CUTTER DRIVE

⚠ WARNING

READ AND UNDERSTAND OWNERS MANUAL BEFORE OPERATING MACHINE.
IF LOST OR DAMAGED REPLACE.
KNOW LOCATION AND FUNCTION OF ALL CONTROLS.
KEEP ALL SAFETY DEVICES, GUARDS AND SWITCHES IN PLACE AND WORKING.
CHECK AREA TO BE MOWED FOR OBSTRUCTIONS.
NEVER MOW WHILE BYSTANDERS AND PETS ARE PRESENT.
NEVER CARRY PASSENGERS.
ALWAYS LOOK BEHIND MACHINE BEFORE REVERSING.
NEVER MOW WHERE MACHINE COULD TIP OR SLIP.
IF MACHINE STALLS GOING UPHILL, STOP BLADES AND BACK SLOWLY DOWN.
STOP ENGINE BEFORE ATTEMPTING TO CLIMB OR CHECK BLADES.
REMOVE KEY BEFORE LEAVING MACHINE.

IF THESE WARNINGS ARE NOT FOLLOWED PERSONAL INJURY MAY OCCUR

OPERATOR INSTRUCTIONS

TO START ENGINE

1. DEPRESS CLUTCH/BRAKE AND LOCK PARK KNOB
2. SHIFT SPEED SELECTOR TO NEUTRAL
3. DISENGAGE CUTTER DRIVE LEVER
4. MOVE THROTTLE LEVER TO FAST CHOKE
5. TURN KEY TO START AND RELEASE WHEN STARTED

TO DRIVE AND CUT

1. DEPRESS CLUTCH BRAKE
2. SELECT SPEED
3. ENGAGE CUTTER DRIVE
4. SELECT CUTTING HEIGHT
5. RELEASE CLUTCH BRAKE SLOWLY

TO STOP ENGINE

1. DEPRESS CLUTCH/BRAKE AND LOCK PARK KNOB
2. SHIFT SPEED SELECTOR TO NEUTRAL
3. DISENGAGE CUTTER DRIVE LEVER
4. MOVE THROTTLE LEVER TO SLOW POSITION
5. TURN KEY TO OFF AND REMOVE KEY

BEFORE CHECK USE —

ENGINE OIL
BELTS TENSION
TYRE PRESSURE
BATTERY FLUID LEVEL
CONDITION OF BLADES AND BLADE BOLTS

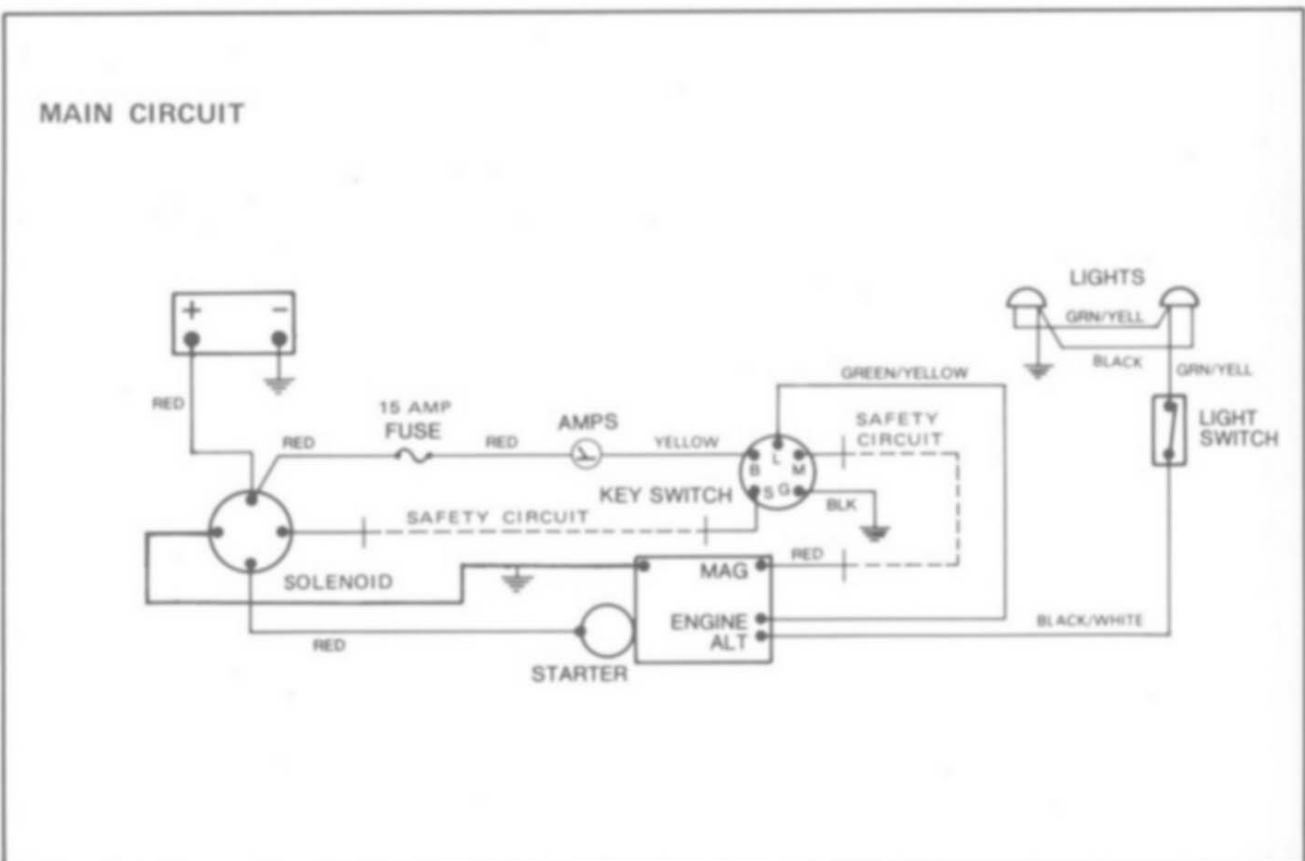
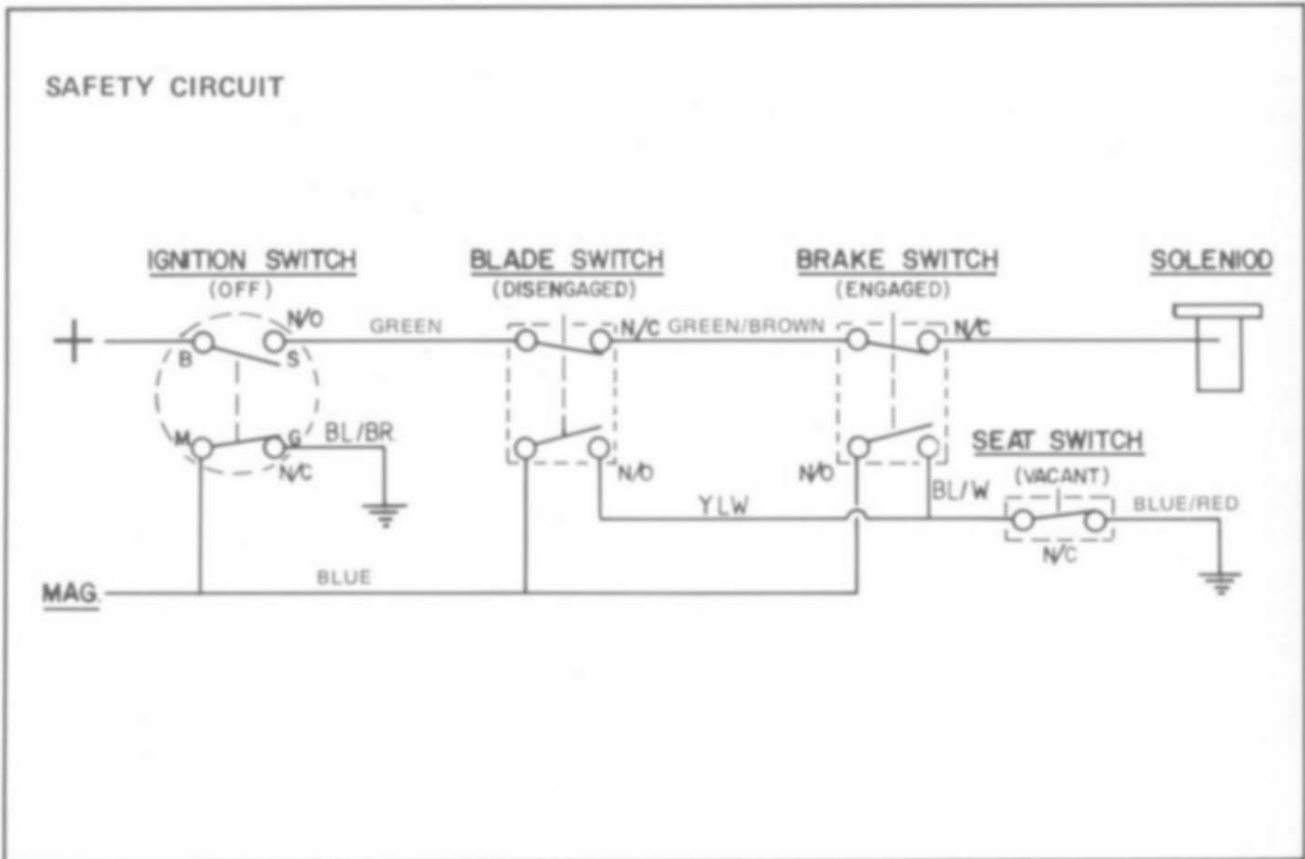
CLUTCH BRAKE

PARK BRAKE

CUTTING HEIGHT

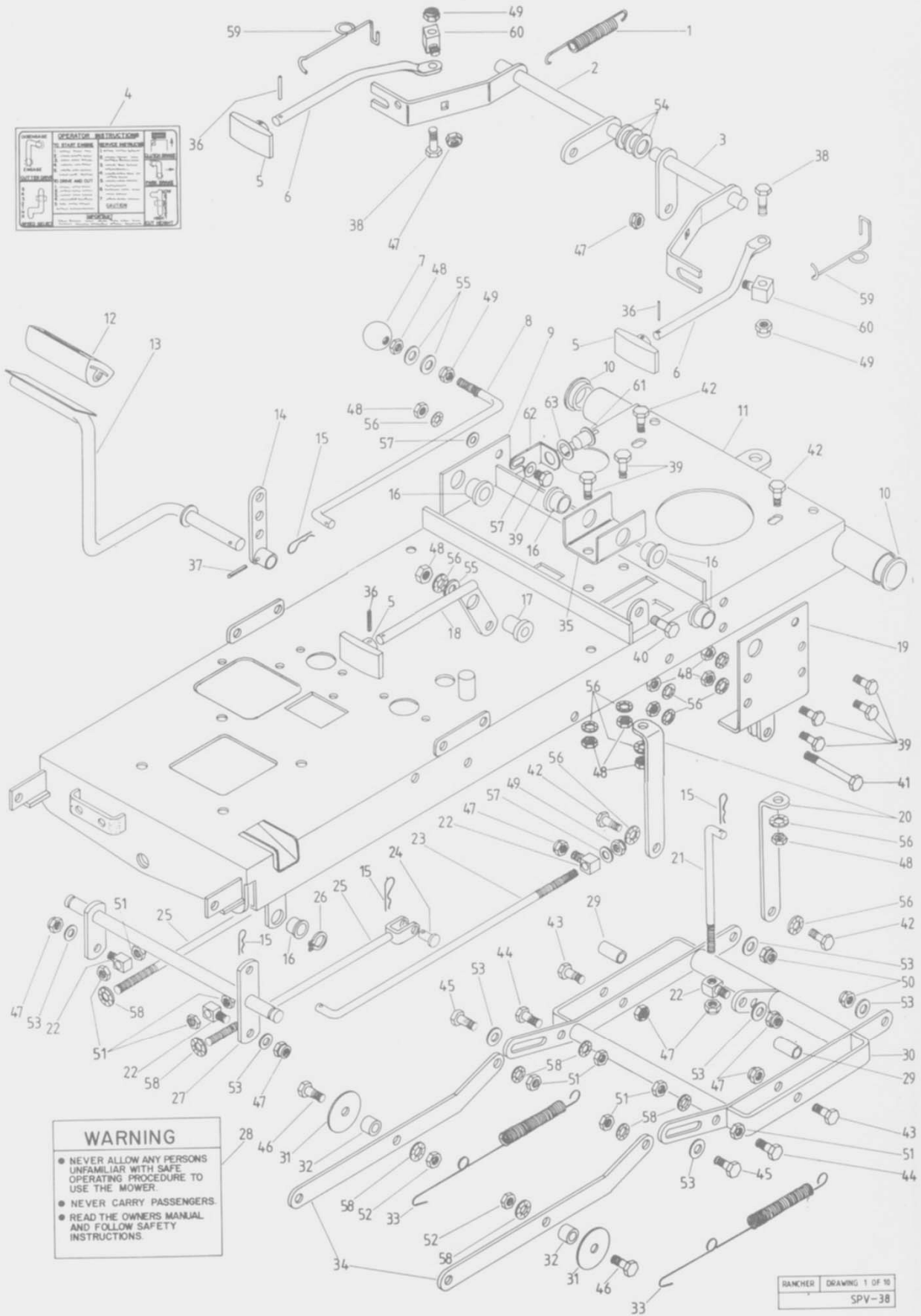
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CIRCUIT DIAGRAMS



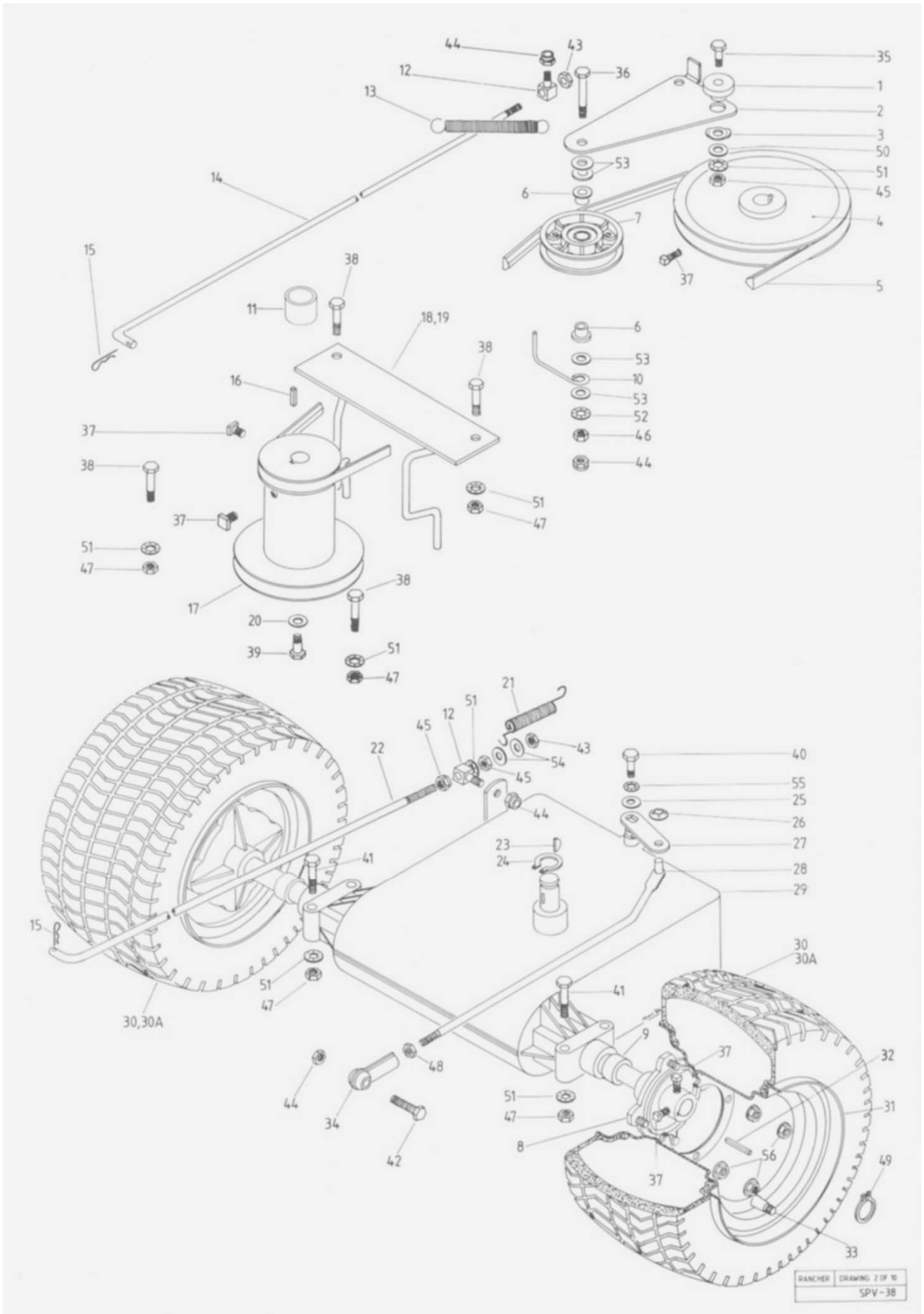
TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
Engine loses power.	<ol style="list-style-type: none"> 1. Oil level in crank case is low. 2. Cooling fins and air passages under engine blower housing are blocked. 3. Engine load is excessive. 4. Air cleaner is dirty. 5. Dirt or water is in fuel. 6. Carburettor is adjusted incorrectly. 7. Spark plug is pitted, fouled or defective in some other way. 	<ol style="list-style-type: none"> 1. Add oil to crankcase. 2. Remove obstruction from passage. 3. Select a lower speed to reduce load. 4. Clean air cleaner element. 5. Have machine serviced by an Authorized Service Dealer. 6. Adjust the carburettor. 7. Install new correctly gapped spark plug.
Engine over heats.	<ol style="list-style-type: none"> 1. Cooling fins and air passages under engine blower housing are blocked. 2. Carburettor is adjusted incorrectly. 3. Oil level in crank case is low. 4. Engine load is excessive. 	<ol style="list-style-type: none"> 1. Remove obstruction from cooling fins and air passage. 2. Adjust the carburettor. 3. Add oil to crankcase. 4. Select a lower speed to reduce load.
Mower vibrates abnormally.	<ol style="list-style-type: none"> 1. Engine mounting bolts are loose. 2. Loose cutter pulley, idler pulley or drive pulley. 3. Cutter assembly is unbalanced. 4. Cutter assembly is loose. 	<ol style="list-style-type: none"> 1. Tighten mount bolts. 2. Tighten the appropriate pulley. 3. Replace broken blades in set. 4. Tighten securing nut.
Cutter does not rotate.	<ol style="list-style-type: none"> 1. Cutter belt is worn, loose or broken. 2. Cutter drive belt is off pulley. 	<ol style="list-style-type: none"> 1. Install new cutter drive belt. 2. Install cutter drive belt.
Mower does not drive.	<ol style="list-style-type: none"> 1. Drive belt is worn, loose or broken. 2. Drive belt is off pulley. 3. Unable to select speed on transaxle. 	<ol style="list-style-type: none"> 1. Install new drive belt. 2. Install drive belt. 3. Have machine serviced by an Authorized Service Dealer.
Engine does not start, hard to start, loses power, or fails to keep running.	<ol style="list-style-type: none"> 1. Fuel tank is empty. 2. Speed selector. 3. Cutter drive is engaged. 4. Spark plug is loose. 5. Spark plug lead is loose or disconnected from spark plug. 6. Spark plug gap is incorrect. 7. Spark plug is pitted fouled or defective in some other way. 8. Wrong spark plug is used. 9. Electrical connections are loose. 10. Carburettor is adjusted incorrectly. 11. Air cleaner is dirty. 12. Vent hole in fuel tank is plugged. 13. Dirt or water in fuel system. 14. Dead battery. 15. Defective points, condenser, ignition coil, or ignition switch. 16. Module or switch is defective. 	<ol style="list-style-type: none"> 1. Fill fuel tank with petrol. 2. Select neutral. 3. Disengage cutter drive. 4. Tighten spark plug. 5. Install spark plug lead on spark plug. 6. Set gap between electrodes at 0.8mm 7. Install new correctly gapped spark plug. 8. Install correct spark plug. 9. Check electrical system to ensure good contact. 10. Adjust the carburettor. 11. Clean the air cleaner element. 12. Inspect and open vent. 13. Have machine serviced by an Authorized Service Dealer.
Engine does not idle or idles poorly.	<ol style="list-style-type: none"> 1. Air cleaner is dirty. 2. Oil level in crank case is low. 3. Cooling fins and air passages under engine blower housing are plugged. 4. Idle speed is too low or high speed mixture is incorrect. 5. Dirt or water in fuel system. 6. Vent hole in fuel tank is plugged. 7. Spark plug is pitted fouled or defective in some other way. 	<ol style="list-style-type: none"> 1. Clean air cleaner element. 2. Add oil to crankcase. 3. Remove obstruction from cooling fins and air passages. 4. Adjust the carburettor. 5. Have machine serviced by an Authorized Service Dealer. 6. Clean fuel tank vent. 7. Install new correctly gapped spark plug.



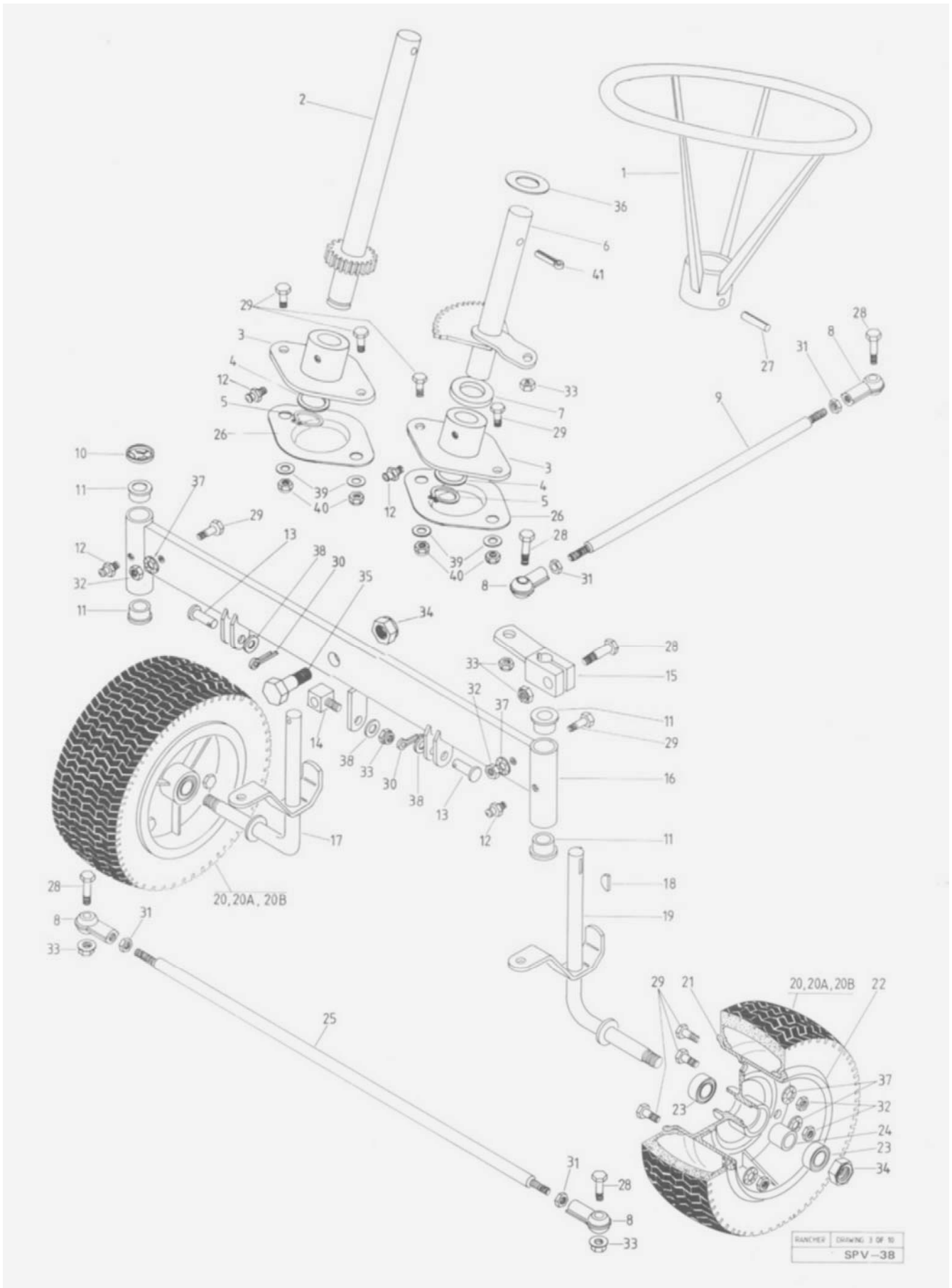
RANCHER SPARE PARTS LIST

ITEM	PART No.	DESCRIPTION
		• COMMON HARDWARE ITEM
1	A12115	Lift Spring
2	A10229	Height Selector Shaft Assy.
3	A10201	Gear Selector Shaft Assy.
4	A07919	Floor Panel Label
5	A07652	Lever Knob
6	A12114	Selector Lever
7	A07617	Knob
8	A07616	Park Brake Rod
9	A10203	R.H. Rear mount Assy.
10	A07657	End Cap
11	A10199	Chassis Assy.
12	A07615	Pedal Rubber
13	A00969	Pedal Assy.
14	A00968	Pedal Control Bush Assy.
15	A01080	Spring Clip
16	A01275	Nylon Bush
17	A07688	Pivot Bush
18	A10150	Blade Clutch Lever Assy.
19	A10202	L.H. Rear Mount assy.
20	A07913	Rear Support – Transaxle
21	A07895	Cutter head Lifting Rod
22	A07755	Swivel Block
23	A07889	Blade Clutch Rod
24	A04006	Pin
25	A10052	Push-Rod Assy.
26	A02224	Circlip
27	A010211	Pivot Shaft Assy. – C/Head Engagement
28	A07903	Warning Sticker
29	A07897	Sleeve
30	A10178	Rear Support Arm Assy.
31	A07750	Retaining Washer
32	A07751	Spacer – Retainer Washer
33	A07745	Spring
34	A07736	Front Arm – Cutter head
35	A07655	Shaft Support Bracket
36	*	1/8" x 7/8" Roll Pin
37	*	1/4" x 1 1/8" Roll Pin
38	*	5/16" x 1 1/4" UNC Hex Bolt
39	*	5/16" x 3/4" UNC Hex Setscrew
40	*	5/16" x 1 1/4" UNC Hex Bolt
41	*	3/8" x 2 1/4" UNF Hex Bolt
42	*	5/16" x 5/8" UNC Hex Head W/F. S/S.
43	*	3/8" x 2" UNC Hex Setscrew
44	*	3/8" x 1 1/2" UNC Hex Bolt
45	*	3/8" x 1" UNC Hex Setscrew
46	*	3/8" x 1 1/4" UNC Hex Setscrew
47	*	3/8" UNC Thin Nyloc Nut
48	*	5/16" UNC Hex Nut
49	*	5/16" UNC Nyloc Nut
50	*	3/8" UNF Thin Nyloc Nut
51	*	3/8" UNC Hex Nut
52	*	3/8" UNF Hex Nut
53	*	3/8" x 3/4" x 16G Flat Washer
54	*	5/8" x 1" x 16G Flat Washer
55	*	5/16" x 7/8" x 18G Flat Washer
56	*	5/16" Internal Shakeproof Washer
57	*	5/16" x 5/8" x 18G Flat Washer
58	*	3/8" Internal Shakeproof Washer
59	A12113	Return Spring
60	A07760	Swivel Block
61	A06406	Safety Switch
62	A12073	Switch Mount Plate
63	A01427	Shim



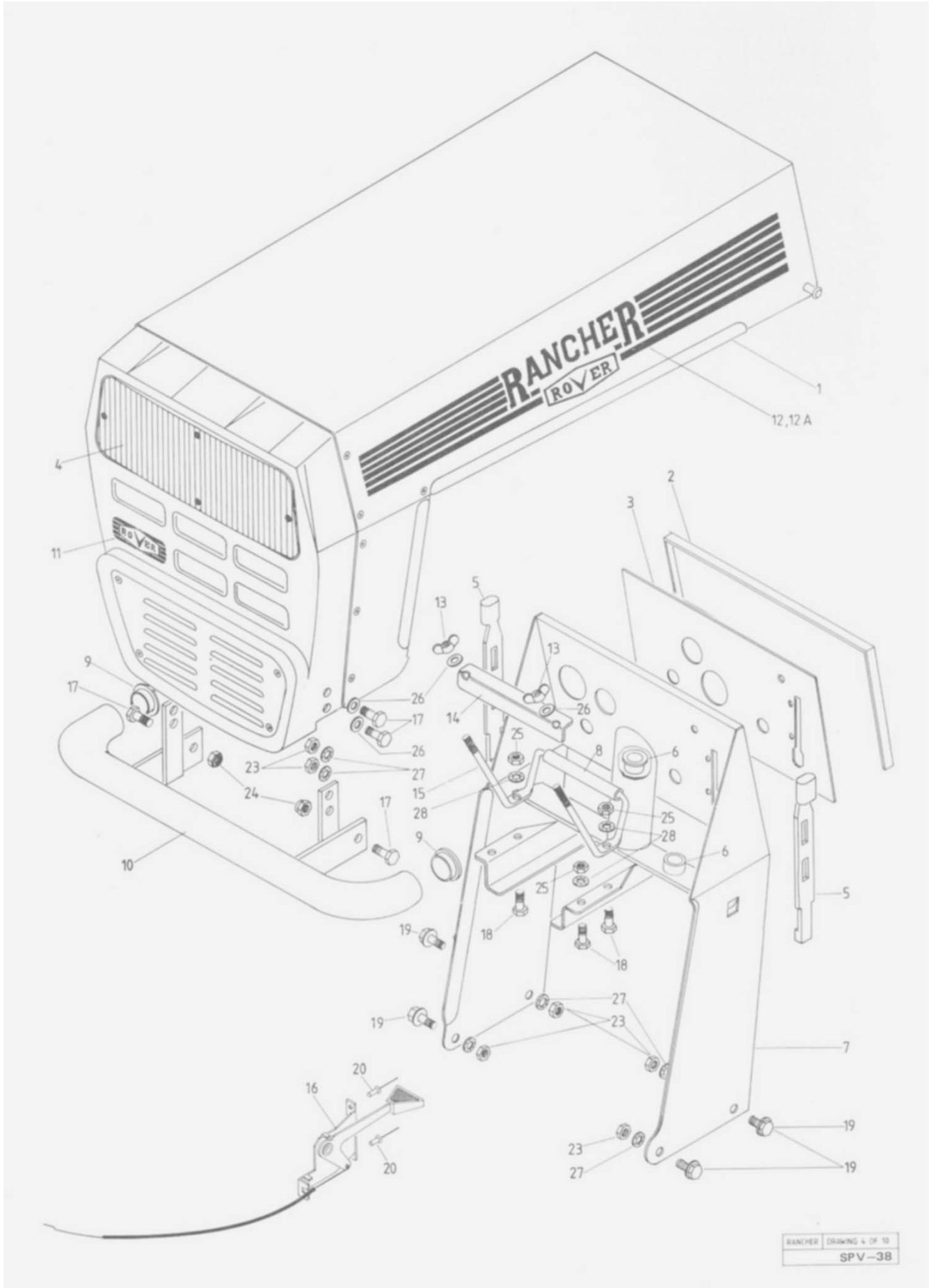
RANCHER SPARE PARTS LIST

ITEM	PART No.	DESCRIPTION
		● COMMON HARDWARE ITEM
1	A07715	Jockey Arm Pivot Bush
2	A10283	Transaxle Jockey Arm Assy.
3	A01025	Tension Washer
4	A07916	Transaxle Pulley
5	A07997	Transaxle Belt
6	A02474	Bearing Bush
7	A08585	Jockey Pulley – Transaxle
8	A12024	Wheel Hub
9	A12025	Spacer
10	A07805	Belt Guide
11	A12022	Engine Pulley Spacer
12	A07760	Swivel Block
13	A07714	Spring – Transaxle Jockey Arm
14	A07659	Clutch Rod
15	A01080	Spring Pin
16	A01493	Key – Engine Pulley
17	A07954	Engine Pulley
18	A10223	Belt Keeper Assy. – 30” Deck
19	A10224	Belt Keeper Assy. – 38” Deck
20	A07286	Washer – Engine Pulley
21	A07610	Spring
22	A07912	Brake Rod
23	A05086	Woodruff Key
24	A02224	Circlip
25	A07804	Washer – Special
26	S2501116	Ratchet Plate
27	A07915	Gearbox Selector Arm
28	A10204	Gear Selector Rod Assy.
29	A07724	Transaxle
30	A07918	Tyre
30A	A10247	Rear Wheel Assy. (Includes Items 30,31,33)
31	A10246	Rear Wheel Rim Assy.
32	A07645	Key
33	A07723	Valve stem
34	A07150	Tie-Rod End
35	*	5/16” x 1 ¼” UNC Hex Bolt
36	*	3/8” x 2 ½” UNC Hex Setscrew
37	*	5/16” x ¾” UNC sq Hd. Setscrew
38	*	5/16” x 1 ½” UNF H.T. Hex Setscrew
39	*	7/16” x 1” UNF H.T. Hex Setscrew
40	*	¼” x ½” UNF H.T. Hex Setscrew
41	*	5/16” x 2 ½” UNF H.T. Hex Setscrew
42	*	3/8” x 1 ½” UNC Hex Bolt
43	*	5/16” UNC Nyloc Nut
44	*	3/8” UNC Thin Nyloc Nut
45	*	5/16” UNC Hex Nut
46	*	3/8” UNC Hex Pressed Nut
47	*	5/16” UNF Hex Nut
48	*	3/8” UNF Hex Pressed Nut
49	A02289	Circlip
50	A07763	Washer – Special
51	*	5/16” Internal Shakeproof Washer
52	*	3/8” Shakeproof Washer
53	*	3/8” x ¾” x 16G Flat Blade
54	*	5/16” x 5/8” x 18G Flat Washer
55	*	¼” Internal Shakeproof Washer
56	A04021	Wheel Nuts – 3/8” UNC. Washer face Hex.



RANCHER SPARE PARTS LIST

ITEM	PART No.	DESCRIPTION
		• COMMON HARDWARE ITEM
1	A07691	Steering Wheel
2	A10212	Steering Shaft Assy.
3	A07953	Steering Shaft Mount Block
4	A07948	Retainer Washer – Steering
5	A02289	Circlip
6	A10213	Layshaft Assy. – Steering
7	A07949	Layshaft Spacer
8	A07150	Tie-Rod End
9	A07695	Primary Tie – Rod
10	A02103	Ratchet Plate
11	A07092	Self – Lube Bush
12	A07198	Grease Nipple
13	A04006	Pin
14	A07755	Swivel Block
15	A00967	Steering Block Assy.
16	A10225	Front Beam Assy.
17	A00966	R.H.Stub Axle Assy.
18	A02051	Woodruff Key
19	A00965	L.H.Stub Axle Assy.
20	A00791	Front Wheel Assy. (Incl. Items 20A,20B,21,22,23,24,29,32,37)
20A	A07572	Tyre
20B	A01687	Tube
21	A07160	Male Hub
22	A07567	Female Hub
23	A01891	Wheel Bearing
24	A01807	Bearing Spacer
25	A07634	Tie – Rod
26	A12288	Tray – Grease
27	*	¼" x 2 ¼" Roll Pin
28	*	3/8" x 1 ½" UNC Hex Bolt
29	*	5/16" x ¾" UNC Hex Setscrew
30	*	3/32" x ½" Split Pin
31	*	3/8" UNF Hex Pressed Nut
32	*	5/16" UNC Hex Nut
33	*	3/8" UNC Thin Nyloc Nut
34	*	5/8" UNF Thin Nyloc Nut
35	*	5/8" x 1 ½" UNF H.T. Hex Bolt
36	*	¾" x 1 ½" x 14G Flat Washer
37	*	5/16" Internal Shakeproof Washer
38	*	3/8" x ¾" x 16G Flat Washer
39	*	5/15" x 5/8" x 18G Flat Washer
40	*	5/16" UNC Nyloc Nut
41	*	1/8" x 1 1/4" Split Pin

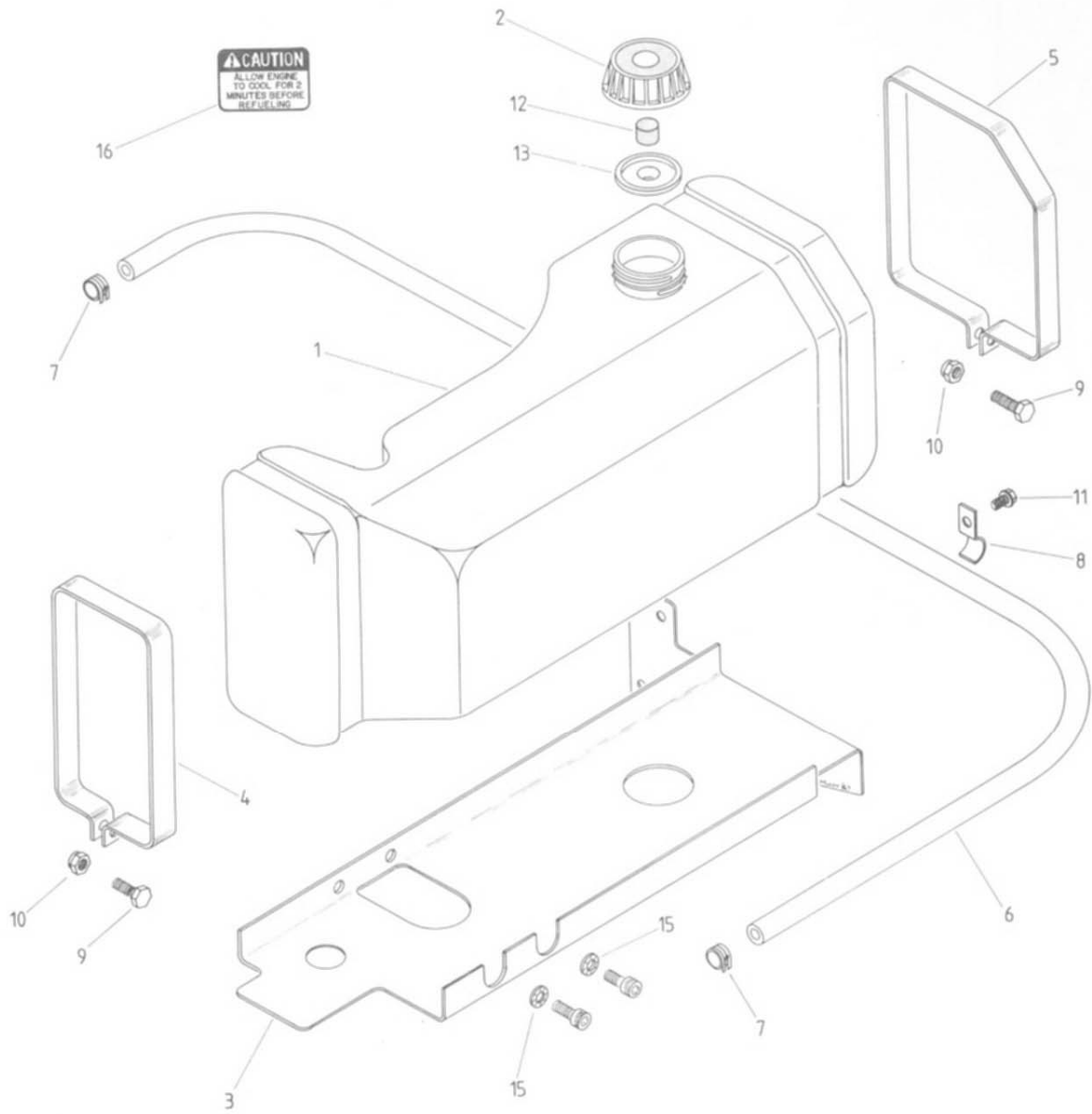


RANCHER SPARE PARTS LIST

ITEM	PART No.	DESCRIPTION
		COMMON HARDWARE ITEM
1	A10205	Bonnet Trim
2	A07716	Trim Strip
3	A07893	Dash panel
4	A10236	Headlight Assembly
5	A07672	Bonnet Strap
6	A07675	Nylon Bush
7	A10216	Firewall Assembly
8	A12004	Clamp Rod Tube
9	A07971	Front Bumper Plug
10	A10210	Front Bumper Bar Assembly
11	A12016	Nose Piece Decal
12	A07938	Bonnet Label – L.H.
12a	A0939	Bonnet Label – R.H.
13	A02024	Wing nut – 5/16 UNC
14	A07955	Battery Clamp Bar
15	A07956	Battery Clamp Rod
16	A07985	Throttle Cable
17*	*	Setscrew – 5/16 x 3/4 UNC. HEX
18*	*	Setscrew – 1/4 x 3/4 UNC. HEX
19*	*	Setscrew – 5/16 x 5/8 UNC. Washer Face
20*	*	Rivet – 73AS 5-5
21	*	
22	*	
23*	*	Nut – 5/16 UNC. HEX.
24*	*	Nyloc Nut – 5/15 UNC.
25*	*	Nut – 1/4 UNC. HEX.
26*	*	Washer – 5/16 x 5/8 x 18G Flat
27*	*	Washer – 5/16 Shakeproof
28*	*	Washer – 1/4 Shakeproof

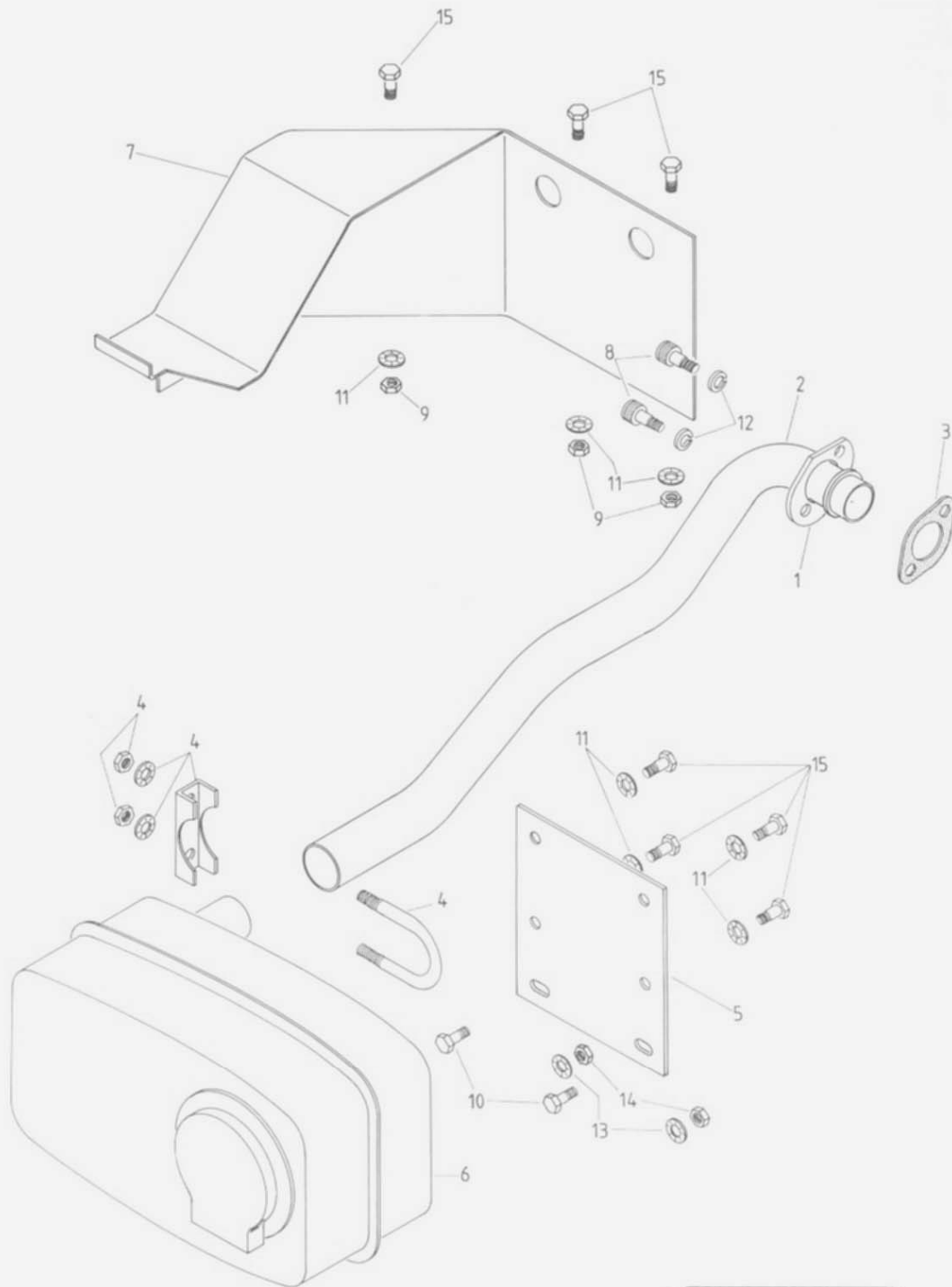
RANCHER SPARE PARTS LIST

ITEM	PART No.	DESCRIPTION
		COMMON HARDWARE ITEM
1	A07539	Seat
2	A07705	Rubber Bumper
3	A05424	Seat Switch Spring
4	A12027	Vibration Damper
5	A07704	Seat Lid
6		
7	A10191	Rear Cowl Assembly
8	A07701	Rubber Footrest
9	A07699	Footrest
10	A12099	Seat Switch Button
11	A07769	Bolt – Special
12	A12098	Seat Switch Base Plate
13	A01427	Safety Switch Shim
14	*	Setscrew – 5/16 x 3/4” UNC. Hex.
15	*	Nut -3/8” UNC. Pressed
16	*	Nyloc Nut – 3/8” UNC
17	A12104	Spade Clip
18	*	Nyloc Nut – 5/16” UNC.
19	*	Nut 5/16” UNC Hex
20	S2501054	Avdel fastener
21	A07984	Decal – Cutter Drive
22	*	Washer – 5/16” Shakeproof
23	*	Washer – 5/16” x 5/8” x 18g Flat
24	*	Setscrew – 5/16 “x 1”UNC. Hex
25	A07785	Decal – Maintenance
26	A07710	Decal - Height Adjustment
27	A12006	Decal – Mudguard LH
27A	A12007	Decal – Mudguard RH
28	A12008	Decal – Rear Panel
29	A07709	Decals – Gears
30	A06406	Safety Switch
31	*	Setscrew – 5/16” x 5/8”UNC Washer Face
32	A05419	Switch Mount Plate
33	*	Pop Rivet – 73SS 5-5
34	*	Washer – 3/8” Shakeproof



RANCHER SPARE PARTS LIST

ITEM	PART No.	DESCRIPTION
		COMMON HARDWARE ITEM
1	A07937	Fuel Tank
2	A12005	Fuel Tank Cap
3	A07999	Fuel Tank Bracket
4	A12001	Fuel Tank Strap - Front
5	A12002	Fuel Tank Strap – Rear
6	A12009	Fuel Line – ¼ ID
7	A12010	Hose Clamp
8	A12011	Fuel Line Retainer ½” Copper Half Clip
9	*	¼” x 5/8” UNC Hex Bolt
10	*	¼”UNC Std. Nyloc Nut
11	*	73 AS 5-5 Blind Rivet
12	A03422	Filter – Vent Cap
13	A03421	Vent Cap
14		
15	*	5/16” Shakeproof Washer
16	A12019	Fuel Tank Caution Label



▲ WARNING
 KEEP ENGINE BAY CLEAR OF
 GRASS AND FOREIGN MATTER
 WHICH COULD BE A FIRE HAZARD

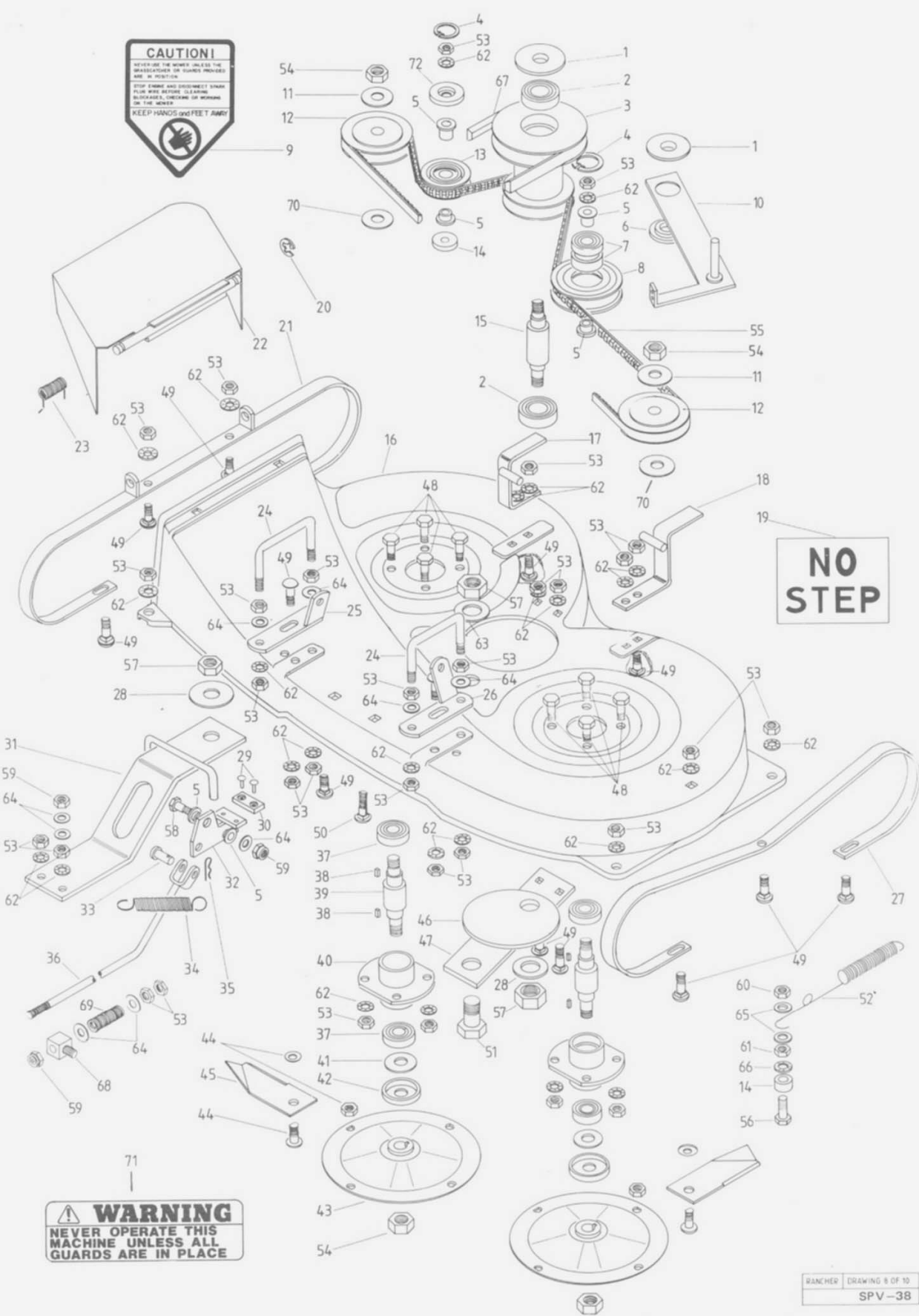
16

RANCHER DRAWING - J. 10
 SPV-38

RANCHER SPARE PARTS LIST

ITEM	PART No.	DESCRIPTION
		COMMON HARDWARE ITEM
1	A07528	Muffler Mounting Flange
2	A07968	Exhaust Pipe
3	H270917	Gasket
4	A07532	Exhaust Clamp
5	A07952	Muffler Mount Plate
6	A07871	Muffler
7	A10215	Heatshield Assembly
8	*	5/16" x 1" UNC Socket Cap Head Screw
9	*	1/4" UNC Hex Nut
10	*	5/16" x 3/4" UNC Hex Setscrew
11	*	1/4" Internal Shakeproof Washer
12	*	5/16" Spring Washer
13	*	5/16" Internal Shakeproof Washer
14	*	5/16" UNC Hex Nut
15	*	1/4" x 1/2" UNC Hex Setscrew
16	A12251	Decal - Warning

CAUTION!
 NEVER USE THE MOWER UNLESS THE
 GUARDS ARE IN PLACE AND THE
 MOWER IS IN POSITION.
 STOP ENGINE AND DISCONNECT BATTERY
 PLUS WIRE BEFORE CLEANING,
 REPAIRS, OILING OR WORKING
 ON THE MOWER.
 KEEP HANDS AND FEET AWAY



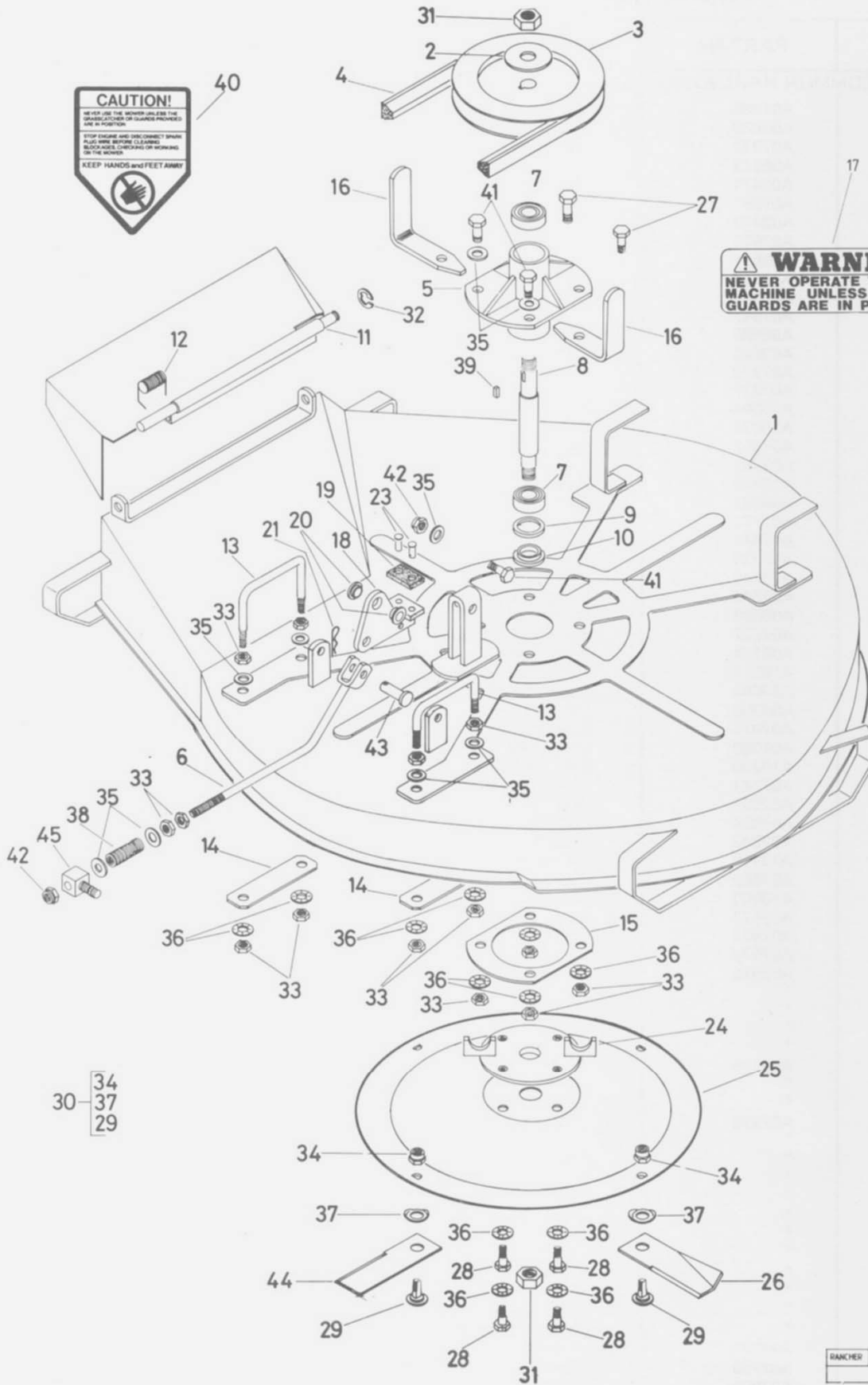
**NO
STEP**

WARNING
 NEVER OPERATE THIS
 MACHINE UNLESS ALL
 GUARDS ARE IN PLACE

RANCHER DRAWING 8 OF 10
 SPV-38

RANCHER SPARE PARTS LIST

ITEM	PART No.	DESCRIPTION
		COMMON HARDWARE ITEM
1	A07988	Pulley Spacer
2	A07830	Bearing – Duel Pulley
3	A07972	Duel Pulley
4	A08618	Circlip
5	A02474	Bearing Bush
6	A07987	Pulley Spacer – Bottom
7	A02476	Bearing – Jockey Pulley
8	A07625	Jockey Pulley
9	A02571	Warning Label
10	A10218	Jockey arm Assy.
11	A07195	Spindle Washer
12	A07847	Single Pulley
13	A08585	Idler Pulley
14	A02520	Spacer
15	A07973	Spindle – Duel Pulley
16	A07837	Cast Cutter Deck
17	A10094	R.H. Rear Hanger Assy.
18	A10074	L.H. Rear Hanger Assy.
19	A07857	'No Step' Label
20	A02282	Circlip
21	A10072	R.H. Skid Rail Assy.
22	A00987	Chute Assy.
23	A07752	Spring
24	A07844	'U' Bolt
25	A10220	R.H. 'U' Bolt Plate Assy.
26	A10219	L.H. 'U' Bolt Plate Assy.
27	A07840	L.H. Skid Rail
28	A05099	Spindle Washer
29	A02227	Brake Pad Rivets
30	A06124	Brake Pad
31	A10217	Pulley Brace Assy.
32	A10055	Brake Plate Assy.
33	A04006	Pin
34	A07974	Jockey Pulley Spring
35	A01080	Spring Pin
36	A10226	Brake Rod Assy.
37	A07744	Bearing – Spindle Housing
38	A07597	Key
39	A07854	Blade Spindle
40	A07848	Spindle Housing
41	A12110	Bearing Washer
42	A07860	Bearing Cup
43	A10000	Disc Assy.
44	A00673	B.N.W. Kit
45	A07873	Blade
46	A07976	Cover Plate
47	A07975	Pulley Mount Plate
48	*	3/8" x 1" UNC Hex Setscrew
49	*	3/8" x 1" UNC Cuphead Bolt
50	*	3/8 x 1 1/2" UNC Cuphead Bolt – Full Thread
51	*	5/8" x 1 1/2" UNF H.T. Bolt
52	A07745	Tension Spring
53	*	3/8" UNC Hex Nut
54	*	3/4" UNF Hex Locknut
55	A07878	'V' Belt – Cutter Drive
56	*	5/16" x 2" UNC Hex Setscrew
57	*	5/8" UNF Hex Locknut
58	*	3/8" x 1 1/4" UNC Hex Bolt
59	*	3/8" UNC Thin Nyloc Nut
60	*	5/16" UNC Nyloc Nut
61	*	5/16" UNC Hex Nut
62	*	3/8" Internal Shakeproof Washer
63	*	5/8" x 1 1/4" x 14G Flat Washer
64	*	3/8" x 3/4" x 16 g Flat Washer.
65	*	5/16" x 5/8" x 18G Flat Washer
66	*	5/16" Internal Shakeproof Washer
67	A07747	'V' Belt
68	A07755	Swivel Block
69	A07989	Spring – Cutter head Brake Rod
70	A04013	3/4" x 1 1/2" x 14G Washer
71	A12106	Warning Decal
72	A12285	Cap

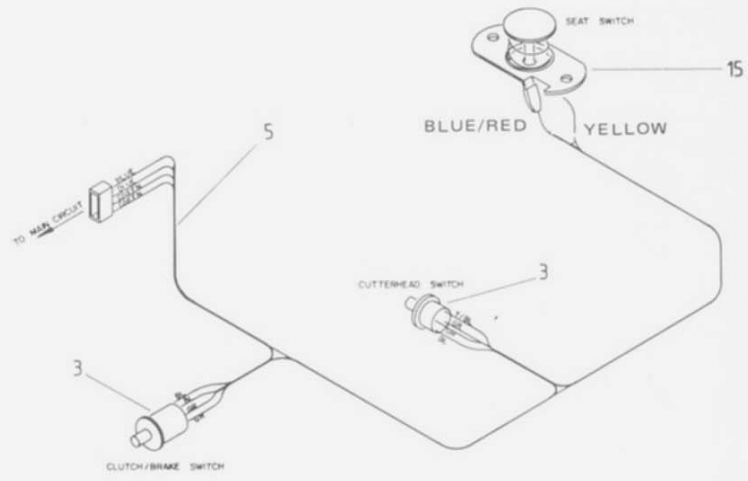


RANCHER DRAWING 9 OF 10
SPV-38

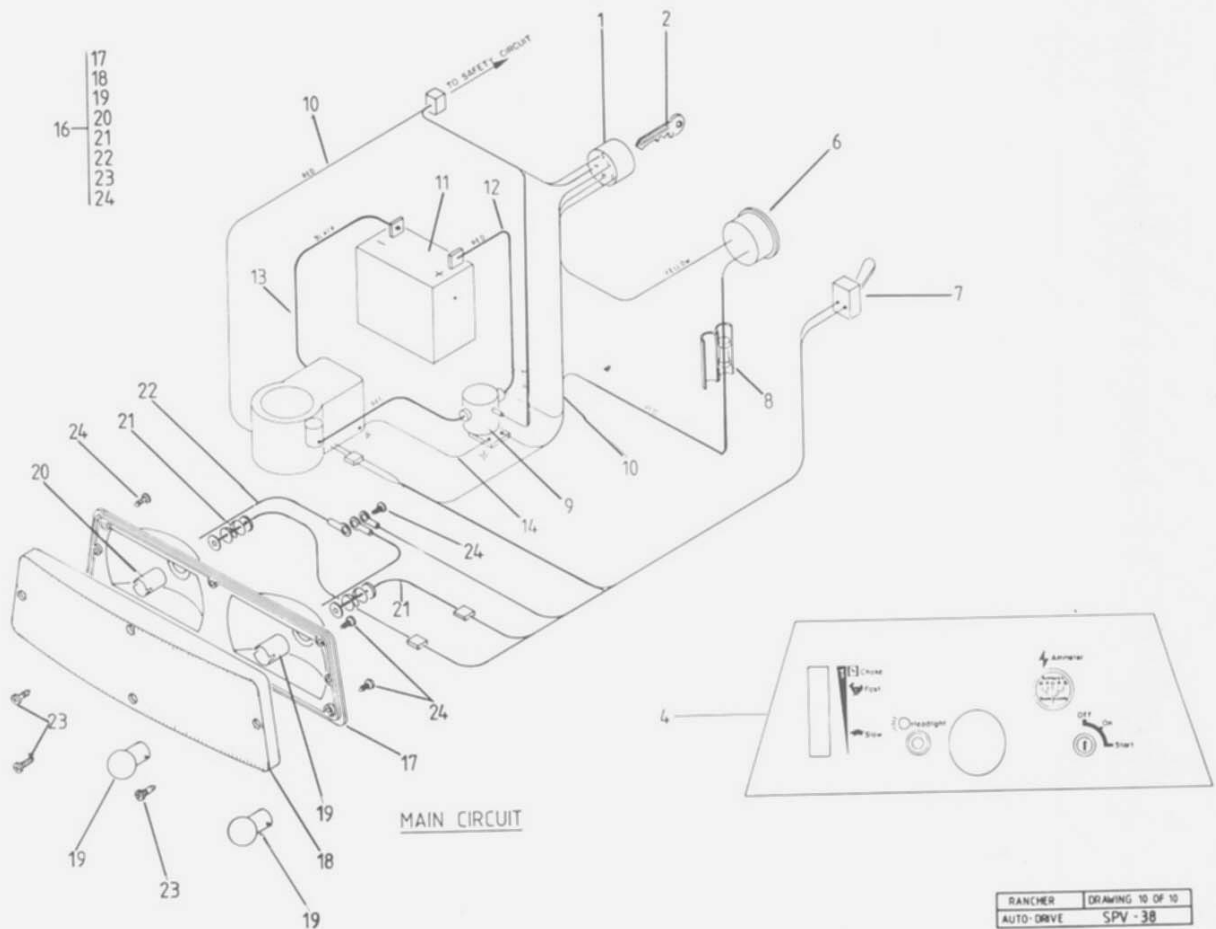
RANCHER SPARE PARTS LIST

ITEM	PART No.	DESCRIPTION
		COMMON HARDWARE ITEM
1	A10222	Cutterhead Assembly
2	*	Flat washer ¾" x 1 ½" x 14G
3	A07993	Cutterhead Pulley
4	A07747	V Belt
5	A07730	Spindle Housing
6	A10221	Brake Rod Assy.
7	A07744	Bearing
8	A06359	Cutterhead Spindle
9	A01374	Felt Washer
10	A02304	Spacer Boss
11	A00987	Cutterhead Chute Assembly
12	A07752	Spring – Cutterhead Chute
13	A07732	'U' Bolt – Cutterhead
14	A07733	Washer Plate
15	A07746	Back Plate
16	A07991	Cutterhead Pulley Belt Guides
17	A12106	Warning Decal
18	A10055	Brake Plate Assembly
19	A06124	Brake Pad
20	A02474	Bushes
21	A01080	Spring Pin
22		
23	A02227	Brake Pad Rivets
24	A00999	Disc Boss Assembly
25	A10294	Disc Assembly
26	A07873	Blade
27	*	3/8" x 1" UNC Hex Setscrew
28	*	3/8" x 1" UNF HT Hex Setscrew
29		Available in kit form A00673, Item 30
30	A00673	B.N.W. Set
31	*	¾" UNF Hex Locknut
32	A02282	'E' Retainer
33	*	3/8" UNC Hex Nut
34		Available in kit form A00673, Item 30
35	*	3/8" x ¾" x 16G Flat Washer
36	*	3/8" Internal Shakeproof Washer
37		Available in kit form A00673, Item 30
38	A07989	Spring – Cutterhead Brake Rod
39	A07597	Key
40	A02571	Warning Label
41	*	3/8" x 1 ¼" UNC Hex Bolt
42	*	3/8" UNC Hex Thin Nyloc Nut
43	A04006	Pin
44	A01656	Blade
45	A07755	Swivel Block

WIRING LOOMS



SAFETY CIRCUIT



RANCHER DRAWING 10 OF 10
 AUTO-DRIVE SPV-38

RANCHER SPARE PARTS LIST

ITEM	PART No.	DESCRIPTION
		COMMON HARDWARE ITEM
1	A07678	Key Switch
2	A07679	Key
3	A06406	Safety Switch
4	A07893	Dash Panel
5	A10238	Wiring Loom – Safety Circuit
6	A07105	Amp Meter
7	A07108	Light Switch
8	A07513	Fuse
9	A7107	Solenoid
10	A10255	Wiring Loom – Main Circuit
11	A12017	Battery
12	A07996	Battery Power Lead - Red
13	A07995	Battery Earth Lead – Black
14	A12020	Engine Earth Lead – Black
15	A10257	Seat Switch Assembly
16	A10235	Headlight Assembly
17	A11530	Reflector
18	A11531	Lens
19	A11532	Bulb
20	A11533	Bulb Holder
21	A10235	Power lead Assembly
22	A11537	Earth Lead
23	*	Screw – No. 6 Pan Head
24	*	Screw – No. 8 Pan Washer face

NOTES

NOTES

Warranty Condition: Australia Only

Rover-Scott Bonnar Limited warrant that this machine is free from defects in material and workmanship. This warranty is limited to making good or replacing any part which appears upon inspection by the manufacturer or his agent to be defective in material or workmanship.

The engine used to power this machine is warranted by the manufacturer whose warranty statement has been included with the machine. As the warranty for the engine may differ from the warranty for the other components, you are advised to read the engine manufacturer's warranty carefully.

For other items this warranty shall apply for a period of 12 months from date of purchase except for products used commercially where the warranty is limited to 90 days.

This warranty does not obligate the manufacturer, his agents or dealers to bear the transport costs incurred in the repair or replacement of any defective part.

This warranty excludes fair wear and tear, or any damage caused by misuse or abuse. Parts such as blades, blade bolts, v-belts and spark plugs, which can be subjected to use beyond their normal intended working capacity, are also excluded.

This warranty is void if parts other than genuine have been used or if repairs or alterations have been made without the manufacturer's written authority.

The above warranty does not exclude any conditions or warranty implied by the Trade Practices Act 1974 or any other relevant legislation which implies any condition which can not be excluded.

Remember:

PROOF OF PURCHASE IS THE RESPONSIBILITY OF THE OWNER AND IS NECESSARY PRIOR TTO WARRANTY WORK BEING UNDERTAKEN. REPAIRS MUST BE CARRIED OUT BY AN AUTHORISED DEALER AND GENUINE SPARE PARTS MUST BE USED OR YOUR WARRANTY WILL BE VOID.

For you record:

Dealer.....

Date of Purchase.....

Model.....

Serial No.....

Rover-Scott Bonnar Limited reserves the right to make changes of and add improvements upon its products at any time without notice or obligation. The Company also reserves the right to discontinue manufacture of any product at its discretion at any time.

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