SCL800SM-3X

Automated Self Contained Leaf Collector

Owner's Manual
Safety Manual
Pre-Operating Manual
Operating Manual
Maintenance Manual
Service Manual
Parts Catalog

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5118 Glen Alden Drive
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800-446-9823
www.leafcollector.com

⚠ CAUTION

DO NOT ATTEMPT TO OPERATE OR REPAIR THE LEAF COLLECTOR WITHOUT FIRST READING AND UNDERSTANDING THIS MANUAL

IF YOU HAVE ANY QUESTIONS CONCERNING THE INSTALLATION OR OPERATION OF THIS UNIT, PLEASE CALL ODB FOR ASSISTANCE BEFORE ATTEMPTING TO REPAIR OR OPERATE THE UNIT.

IMPROPER USE OF ANY MACHINE CAN RESULT IN INJURY!

STUDY AND FOLLOW ALL SAFETY PRECAUTIONS BEFORE OPERATING OR REPAIRING UNIT

THIS MANUAL IS AN INTEGRAL PART OF THE LEAF COLLECTOR AND SHOULD BE KEPT WITH THE UNIT WHEN IT IS SOLD.

THE ODB CO

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⚠WARNING **Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.**

⚠WARNING **This manual is for the leaf vacuum part of the unit only, please refer to the truck's owners manual for safety, maintenance or parts.**

SAFETY, OPERATING AND MAINTENANCE TABLE OF CONTENTS

TABLE OF CONTENTS

⚠WARNING **Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.**

SAFETY, OPERATING AND MAINTENANCE TABLE OF CONTENTS, continued;

WARNING

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

1.0 GENERAL SAFETY

SAFETY PRECAUTIONS

⚠WARNING **Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.**

1.1 SAFETY SYMBOL DEFINITIONS:

This manual provides the owners/operator with procedures for safe operation, maintenance and repair of ODB's leaf collectors. As with any machine, there are hazards associated with their operation. For this reason safety is emphasized throughout this manual. To highlight specific safety information the following safety definitions are provided to assist the reader.

The purpose of safety symbols are to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutues for proper accident prevention measures.

SYMBOL	MEANING
	**SAFETY ALERT SYMBOL:** Indicates danger, warning or caution. Attention is required in order to avoid serious personal injury. May be used in conjuction with other symbols or pictographs.
⚠DANGER	**Disregarding this safety warning WILL result in serious equipment damage, injury or possible death.**
⚠WARNING	**Disregarding this safety warning CAN result in serious equipment damage, injury or possible death.**
⚠CAUTION	**Disregarding this safety warning MAY result in minor or moderate injury or property damage.**

SAFETY PRECAUTIONS

⚠WARNING **Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.**

1.2 DO'S AND DO NOT'S:

This section contains some general safety precautions to do and not to do. This is not an all inclusive list and and it is the responsibilty of the operator to have proper training and use common sense in work situations.

⚠WARNING

DO NOT:

1. **DO NOT** operate, maintain or repair this unit without having fully read and understood ALL the aspects of this manual.
2. **DO NOT** ride, sit or stand on unit at anytime.
3. **DO NOT** modify the leaf vacuum for any reasons to allow for riders.
4. **DO NOT** operate the unit in a state of disrepair.
5. **DO NOT** operate the unit with ANY guards or safety devices broken, missing, or inoperable.
6. **DO NOT** operate the unit without wearing proper safety equipment.
7. **DO NOT** operate this unit while under the influence of any alcohol or medication.
8. **DO NOT** operate this unit if you have a record of mental instability or dizziness which could result in injury to yourself or others.
9. **DO NOT** operate this unit if you are under 18 years of age.
10. **DO NOT** operate this unit without fully inspecting the unit for any damage or leakage.
11. **DO NOT** operate if the unit has any excessive vibration.
12. **DO NOT** operate unit with the inspection door limit switch damaged or missing.
13. **DO NOT** operate unit unless it is properly connected to a leaf collection box.
14. **DO NOT** operate unit unless it is properly attached to the tow vehicle.
15. **DO NOT** tow unit without using all the safety chains.
16. **DO NOT** tow unit with a damaged tongue.
17. **DO NOT** fill fuel tank with engine running. Allow engine to cool for 5 minutes before refueling.
18. **DO NOT** operate unit if fuel is spilled or with fuel cap off.
19. **DO NOT** smoke or weld near the unit.
20. **DO NOT** run engine in an enclosed area.
21. **DO NOT** place hands or feet near moving or rotating parts.
22. **DO NOT** operate engine with an accumulation of grass, leaves or other debris on the engine.

SAFETY PRECAUTIONS

⚠WARNING **DO NOT, continued;**

23. **DO NOT** run engine with air cleaner removed.
24. **DO NOT** leave leaf machine unattended while in operation.
25. **DO NOT** park machine on steep grade or slope.
26. **DO NOT** vacuum a leaf pile without looking for foreign objects such as metal, glass, plastic or large pieces of wood.

⚠WARNING **DO's:**

1. **DO** completely read and understand the owner's manual before operating, maintaining or repairing the leaf collector.
2. **DO** follow engine and PTO manufacturer operating and maintenance instructions.
3. **DO** check fuel lines and fittings frequently for cracks or leaks. Replace if necessary.
4. **DO** completely inspect the unit before leaving the service garage.
5. **DO** check the tow tongue each day for cracks.
6. **DO** inspect and be attentive to what is being vacuumed.
7. **DO** check the impeller, liners and blower housing for cracks or holes daily.
8. **DO** remove the lead spark plug wires before doing any maintenance on the unit.
9. **DO** wear proper safety equipment as described in this manual.
10. **DO** watch for pedestrians, animals and other foreign material when vacuuming leaves.
11. **DO** replace any worn or missing safety stickers immediately.

1.3 TRAINING:

⚠WARNING

Improper use of the ODB leaf collector CAN result in severe personal injury or death. All personnel using this leaf vacuum must be trained and qualified with all the operations, maintenance, repair and safety procedures defined in this manual.

The warnings and procedures regarding safety in this manual are to be used as a guideline only. It is impossible to cover all the events that could happen in the vacuuming process. For this reason, it is vital that the owner accept the responsibility to implement a training program that will provide every operator or mechanic the basic skills and knowledge to make good judgement in all situations.

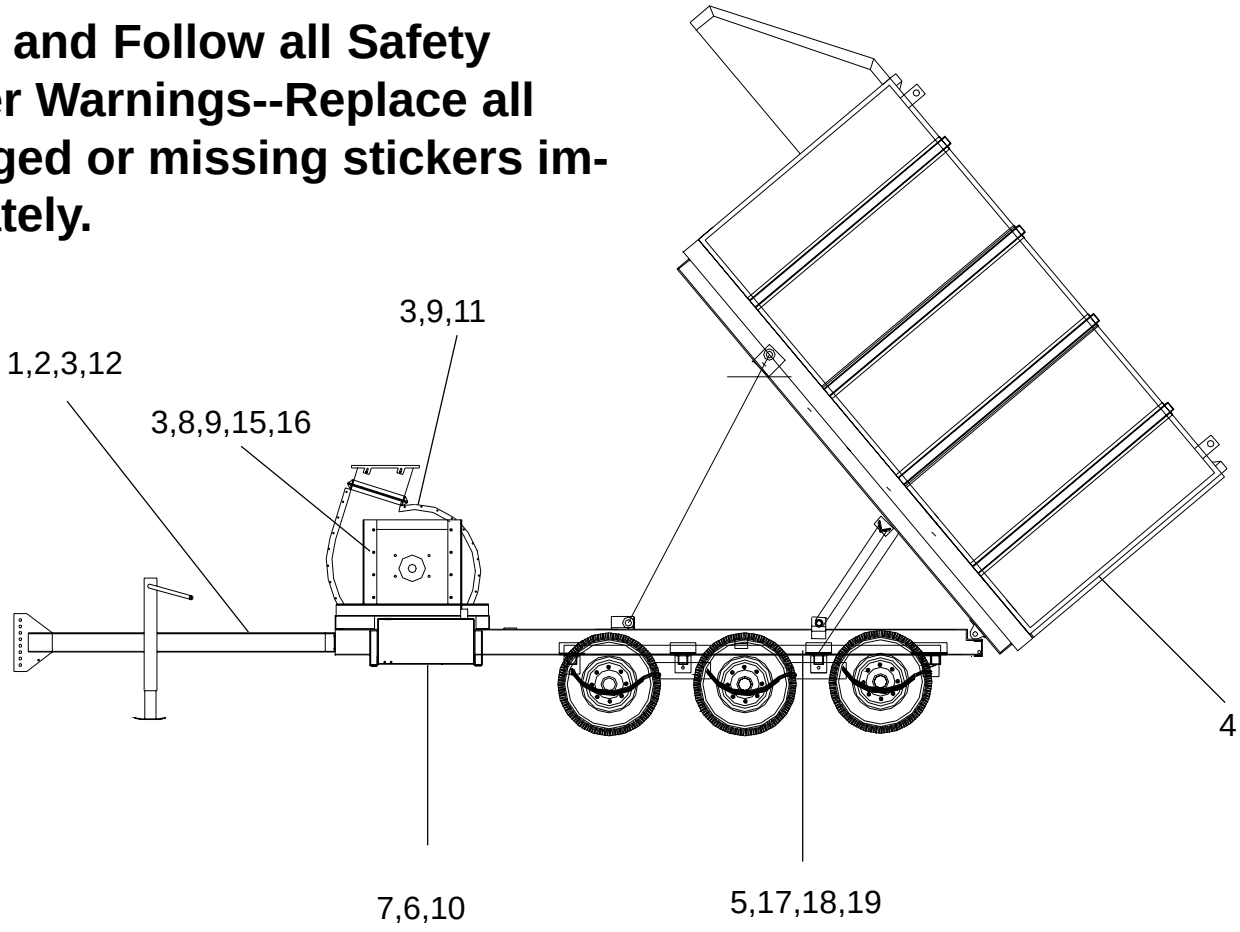
This training program must include the entire scope of hazards, precautions and government regulations encountered in the vacuuming process. The program should stress the need for regularly scheduled preventive maintenance and detailed equipment safety checks.

ODB strongly recommends all training programs be documented to ensure all operators and mechanics receive initial training on not just the operation but the safety features of the leaf collector.

SAFETY PRECAUTIONS

1.4 SAFETY DECALS - SCL800

***Read and Follow all Safety Sticker Warnings--Replace all damaged or missing stickers immediately.**



Decals shown on next page

ITEM NO.	PART NUMBER	DESCRIPTION
1.	200175	Danger--Do Not Raise Hoist Without Trailer Attached...
2.	200179	Danger--Do Not Ride, Sit or Stand on Unit
3.	200181	Danger--Head, Eye and Ear Protection Required
4.	200186	Danger- Do Not Open Doors While Unit is In Operation
5.	200188	Danger- Do Not Go Under Raised Body...
6.	200055	Use Diesel Only
7.	200177	Danger--Flammable
8.	200059	Do Not Engage PTO over 1,000 RPM
9.	200183	Danger--Rotating Parts
10.	200178	Danger--Explosion Hazard
11.	200189	Danger--Check Impeller and Liners Daily for Wear
12.	200180	Danger--Inspect Tow Bar for Damage
13.	200104	Warning--Check Lug nuts
14.	200061	ODB leaf collection systems sticker
15.	200120	Throttle decal
16.	200112	Safety Shut off-Ignition decal
17.	200190	Caution- Unload Body Before Using Body Prop
18.	200187	Caution- Body must be braced before servicing hoist...
19.	200185	Caution- Operation of Body Prop

SAFETY PRECAUTIONS

1.4 SAFETY DECALS - Decal Layout for SCL800

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WARNING

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

2.0 PRE-OPERATING SECTION

Pre-Operating Section

2.1 INSTRUMENTS AND CONTROLS:

Ignition Switch:
Used to power the accessories and start the unit. Unit will not start without Murphy switch depressed.
ACCESSORIES - first position
STARTER ENGAGE - second position (springs return to first position)

Murphy Switch:
This switch overrides the low oil pressure and high temperature cutoff control. This switch must be depressed before the starter engages. After the engine starts, wait for oil pressure to rise before releasing the button.

Tachometer:
This gauge indicates the engine r.p.m's. The sender is located on the engine block

⚠ CAUTION

Always make sure the PTO is disengaged before starting unit.

Volt Meter:
The gauge shows the status of the engine charging system. When the charging system is operating properly it should read approximately 14 volts. If the gauge reads below 13 volts, the alternator is not charging the battery and the system should be checked by a qualified technician.

Oil Pressure Gauge:
Confirms and indicates the presense and pressure of engine oil. If the gauge reads low, it should be checked by a qualified technician.

Engine Temperature:
Indicates the engine coolant temperature. If the gauge reads over 240 degrees the unit should be checked by a qualified technician.

Hour Meter:
Indicates the accumulated hours of the the engine. This should be used to schedule maintenance.

Pre-Operating Section

2.1 INSTRUMENTS AND CONTROLS, continued:

Joystick:
Controls the 3 axis hose boom assembly. The buttons on the joystick raise and lower the boom while the joystick move the boom in/out and left/right.

Clutch Engagement:
This switch engages and disengages the clutch. To engage the clutch press the button to the left until the red indicator light comes on. DO NOT stop pressing the button until the red light comes on. To disengage the clutch press the button to the right until the blue indicator light comes on. DO NOT let go of the button until the light comes on. It is critical to completely engage or disengage the clutch, do not run the engine without one of the lights being on or serious clutch damage may occur.

⚠ CAUTION

Always make sure the PTO is disengaged before starting unit.

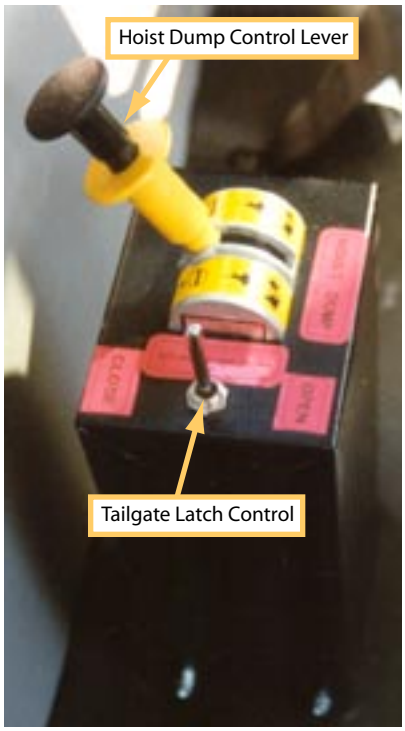
⚠ CAUTION

Always make sure one of the clutch indicator lights is on when the engine is running, because if the clutch is not either fully engaged or disengaged severe clutch damage may occur.

Throttle Control:
This switch increases or decrease the throttle of the engine. Pressing the right side of the button increases the throttle and pressing the left side of the button decreases the throttle. The longer the button is pressed the more the throttle moves in that direction.

Fuel Gauge:
This indicates the amount of fuel left in the fuel tank.

2.1 INSTRUMENTS AND CONTROLS, continued:



Hoist Dump Control Lever:
This controls the hoist dump body. There is a safety mechcanism on the unit that will not allow the dump body to raise unless the tailgate latch is in the open position.

Tailgate Latch Control:
This opens and closes the tailgate latches. The dump body can not be dumped unless the latches are in the open position.

⚠WARNING

Thoroughly read and understand the safety, pre-operating and operating sections of this manual before dumping the body.

⚠WARNING

Make sure the surface is level and solid before raising the body .

⚠WARNING

Watch for any overhead obstacles such as power lines and tree limbs before dumping.

2.2 SAFE OPERATIONS:

⚠WARNING

ALL personnel using, maintaining or servicing this unit must be trained in all safety procedures outlined in this manual. Improper or careless use of this equipment CAN result in personal injury or death.

Operations shall be restricted to:

1. Properly trained, qualified and experienced operators and/or qualified and experienced maintenance and test personnel.

2. Trainees under the direct supervision of qualified and experience personnel.

3. Qualified and experienced maintenance and service personnel.

Operators who qualify to operate this equipment under the above restrictions shall also comply with the following physical requirements:

1. Have good vision and the ability to read and understand this manual as well as all safety and operational decals on the equipment.

2. Be capable of hearing, with or without a hearing aid, at a level needed to safely operate this equipment.

3. A record of mental stability with no history of epileptic seizures, dizziness, or any other disability that may result in injury to himself or others.

   If any of these requirements are not satisfied at any time, the person failing to meet these requirements **MUST NOT OPERATE THIS EQUIPMENT.**

2.2 SAFE OPERATIONS (continued):

Additional Requirements:

1. Each operator must demonstrate competence to understand all safety decals, operator's manuals, safety codes, applicable government regulations, and all other information applicable to the safe and proper operation of the leaf vacuum.

2. Each operator must demonstrate the ability to recognize an emergency situation that may arise during vacuuming operations and the knowledge and procedures to implement corrective action.

3. Each operator must demonstrate or provide evidence of qualificatation and experience prior to operating the leaf vacuum.

4. Each operator must be able to recognize existing or potential problems regarding the mechanical integrity of the leaf vacuum and report any maintenance requirements to the supervisor in charge.

5. Each operator must wear the proper personal clothing and safety gear. (Refer to SAFETY PRECAUTIONS Section 5.4)

6. Operators must not be physically or mentally fatigued.

7. Operators must not be under the direct or indirect influence of alcohol and/or drugs. This includes prescription drugs that could cause drowsiness, dizziness, or any other condition that would impair their ability to operate or use this equipment in a safe manner.

2.3 PREPARATION FOR OPERATION

⚠ CAUTION

Before your leaf vacuum is put into operation it is very important to read and follow the procedures outlined in the engine owner's manual. (EOM).

For specific information regarding the following checks please refer to the "Maintenance" section of this manual and the engine owner's manual.

⚠ WARNING

Shut off the engine and remove the lead spark plug wires before performing the following checks.

⚠ WARNING

NEVER place any part of the body under or behind guards or any other area in which you cannot see.

IMPORTANT CHECKS:

NOTE: The following checks contained in the next three sections should be performed prior to leaving the storage area.

1. Check engine fuel, coolant and oil levels. (see EOM)
2. Check engine air filter
3. Check all bolts and nuts to ensure they are tight.
4. Check all controls for free and proper operation.
5. Check main drive belt (if equipped) for proper adjustment.
6. Inspect the fan blades to ensure that they are not bent , deformed, fatiqued or cracked.
7. Inspect the intake hose flange to make sure it is connected correctly to the blower housing.
8. Inspect the leaf vacuum frame and structure for any bent, broken, cracked, missing or loose parts.
9. Check all guards to ensure they are undamaged, in place and properly secured.
10. All decals must be in place and legible prior to operating the leaf vacuum. See the decal section for decal replacement.

2.4 PRE-TRANSPORT CHECKS

⚠WARNING

Failure to properly hitch the leaf vacuum to the tow vehicle, verify the road worthiness of the leaf vacuum and the tow vehicle and verify all equipment is properly stowed, may cause serious injury or death to yourself or others.

TOW VEHICLE MUST have proper towing capacity for the leaf vacuum being towed. Check the tow vehicles operating manual for rated capacity.

Do not tow the leaf vacuum unless all important checks listed below are completed.

IMPORTANT CHECKS:

1. Hitch is properly secured to tow vehicle and hose boom secured.
   a. Frame must be level or the tongue slightly lower than the rear of the leaf vacuum while towing to ensure proper weight distribution. The hitch may have to be adjusted when towing with vehicles of varying tow hitch height.

2. Safety chains installed correctly.
   a. Chains routed under trailer tongue in an “X” pattern between tow vehicle and trailer.
   b. Slack in chain should be adjusted to permit turning but should not be dragging on the ground.

3. Connect trailer wiring (if equipped) to the tow vehicle and ensure that all trailer lighting is operating properly.

4. Ensure that the safety breakaway switch (used only if unit has electric brakes) is functioning properly and attached securely to the tow vehicle. Allow enough slack to ensure that vehicle turns will not activate the safety breakaway switch. **NOTE:** Follow manufacturers procedure to ensure tow vehicles brake control box is properly adjusted.

5. Check the general condition of the tires, tire pressure and ensure that all lugnuts are securely fastened.

2.4 PRE-TRANSPORT CHECKS (continued):

IMPORTANT CHECKS (continued):

6. Visual examination of the leaf vacuum frame, suspension and structure to determine if all components are correctly positioned and secured for travel.

7. Check the intake hose boom to verify that it is securely fastened to the leaf vacuum and can not swing free.

8. Verify there are no loose tools or materials on the trailer, inside the intake and exhaust hoses, or inside the engine sheet metal.

9. Check all cones, wheel-chocks, signs or other support tools and materials to ensure proper stowage.

2.5 PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING

IMPORTANT CHECKS:

Anyone operating ODB's leaf vacuums **MUST** wear appropriate protective equipment and clothing to protect them from injury during operations.

⚠WARNING

Always wear proper safety equipment as outlined below, not wearing such equipment CAN result in serious personal injury or possible death.

PROTECTIVE EQUIPMENT:

1. **Head Protection:** Hard hats without under-chin strapping.
2. **Eye Protection:** Wraparound goggle type eye protection held in place with an elastic band around the head or a hard hat mounted face shield, which provides full protection of the face. Eye protection must meet ANSI Z87.1 standards.
3. **Hearing Protection:** plug type or "muff type" ear protection should be worn at all times while operating the unit.
4. **Breathing Protection:** Paper filter type dust masks should be worn to protect from dirt and dust particles during the vacuuming process.
5. **Reflective Vests:** Highly visible vests should be worn so motorists can see see the operator in all weather and lighting conditions.
6. **Work Gloves:** Gloves should be worn to protect the hands and wrists from debris.
7. **Steel Toed Boots:** should be worn to protect the feet.

⚠DANGER

Work clothes MUST be close fitting, but not restrictive of movement, without any loose parts that could be entangled in any parts of the leaf vacuum. This includes items such as jewelry, chains and backpacks.

2.6 WORK SITE PREPARATION

⚠WARNING

Never place any part of the body under or behind guards or any other visually obscured area.

Making sure the leaves are clear of possible dangerous material is critical to safe vacuuming. Vacuuming up metal, glass, rocks or other dangerous material CAN cause serious damage to the equipment or personal injury.

The following guidelines must be followed to insure safety.

1. An inspection of the leaves to be vacuumed must be done prior to the vacuuming process. We realize that it is impossible to completely inspect every inch of leaves being vacuumed, but it is imperative that all leaves be inspected for obvious dangerous material before vacuuming.

2. The operator should never be in the line of traffic, the operator should work on the shoulder whenever possible.

3. The operators should place cones or other barriers to provide adequate warnings to vehicles and pedestrians that vacuuming is in progress.

4. Confirm that all operators are wearing proper clothes and personal protective equipment.

5. Restrict all personnel, except the operator from the area near the leaf vacuum. **DO NOT** allow pedestrians, children or animals near the work area.

6. Make sure that the exhaust hose fits properly into the box container so that all debris is blown into the box container.

3.0 OPERATING SECTION

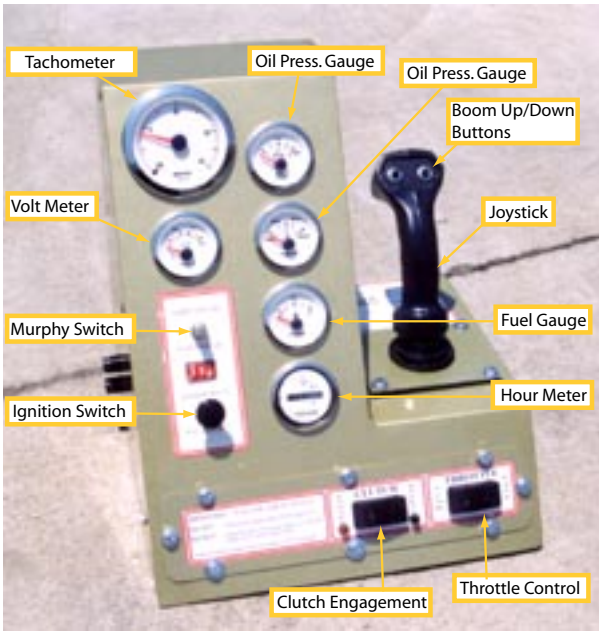
WARNING **Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.**

3.0 OPERATING SECTION

Operating Section

3.1 Starting Engine

figure 3a



⚠ CAUTION

Always make sure the PTO is disengaged before starting unit.

⚠ WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before staring the engine.

⚠ CAUTION

DO NOT start the engine in an enclosed building. Proper ventilation is required before starting the engine.

Review the Engine Operating Manual supplied with your leaf vacuum for specific start-up, maintenance and operating instructions. It is especially important to review break-in service procedures for brand new units.

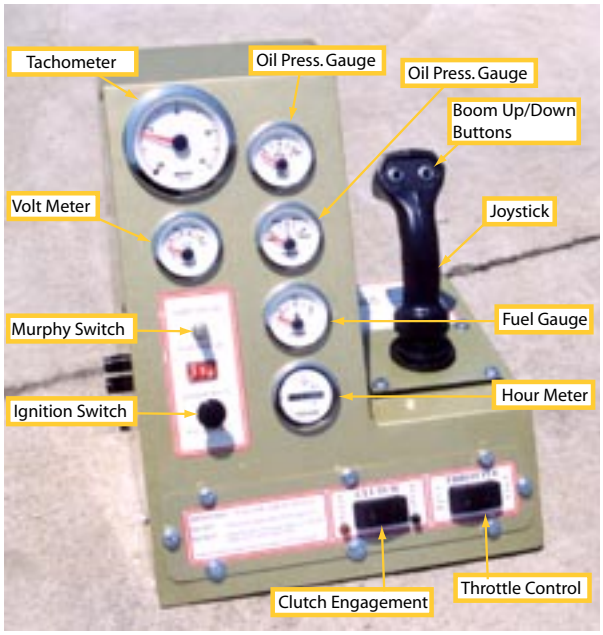
Starting Procedure (refer to figure 3a):

1. Perform all the pre-starting, pre-operating checks outlined in the EOM and in this manual.
2. Make sure the PTO is disengaged as shown in figure 3b.
3. Press the throttle control (fig. 3a) on the right side for 2 seconds.
4. Depress and hold the Murphy switch while starting.

3.1 Starting Engine, continued;

figure 3a

(Typical)



IMPORTANT: **Do not operate the starter for more than 30 seconds at a time. To do so may overheat the starter. If the engine does not start the first time, wait at least 2 minutes before trying again. If the engine fails to start after 4 attempts, see the trouble shooting section of the EOM and this manual.**

5. Pull the ignition switch all the way out, when the engine starts release the ignition switch. It should spring back to the first position.

IMPORTANT: **If the ignition switch is released before the engine starts, wait until the starter and the engine stop turning before trying again. This will prevent possible damage to the starter and/or flywheel.**

6. After the engine starts, continue to hold the Murphy Switch in until the oil pressure gauge reads at least 15 psi. The Murphy shut off switch will not allow the engine to operate below this level. If the gauge does not rise above 15 psi withing 5 seconds, stop the engine and determine the cause. Normal operating oil pressure is 50 psi with oil at normal operating temperature.

7. Check all gauges for normal engine opreration. If operation is not normal, stop the engine and determine the cause.

IMPORTANT: **To assure proper lubrication, operate the engine at or below 1200 rpm with no load for 1 -2 minutes. Extend this period 2 - 4 minutes when operating at temperatures below freezing.**

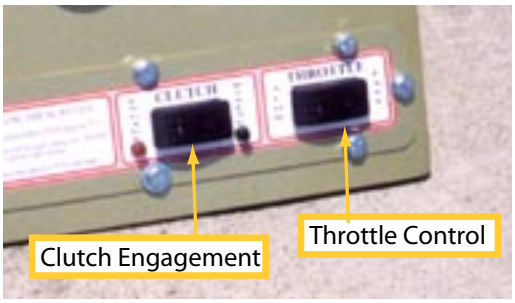
8. Watch the coolant temperature gauge. Do not place engine under load until it is properly warmed up. The normal engine coolant temperature range is 180 - 202 degrees F.

3.2 Engaging the PTO

⚠WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before staring the engine.

figure 3b



⚠WARNING

Make sure the intake hose is properly attached and make sure the front of the hose is clear of any objects which could be inadvertently vacuumed during the PTO engagement process.

Review the Engine Operating Manual supplied with your leaf vacuum for specific start-up, maintenance and operating instructions. It is especially important to review break-in service procedures for brand new units.

Engaging the PTO (refer to figure 3b):

1. Perform all the pre-starting, pre-operating checks outlined in the EOM and in this manual.

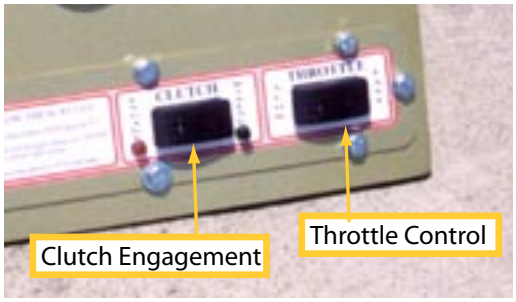
2. Start the engine as previously discussed in this manual and in the EOM.

3. Once the engine has been allowed to thoroughly warm up (engine temperature gauge should read at least 180 degrees) pull the throttle control until the engine reaches 1000 rpm.

4. Press the left side of the clutch engagement button (fig. 3b) and continue pressing the button until the red indicator light comes on.

3.2 Engaging the PTO, continued;

figure 3b



<u>IMPORTANT:</u> If the unit experiences any heavy vibrations or makes any unusual noises, shut the engine down and after following the necessary safety guidelines, have a qualified technician investigage the cause. DO NOT operate a unit that is in a state of disrepair.

5. If the unit is running smoothly and does not dispaly any excessive vibration, the unit is ready to vacuum leaves. **<u>NOTE:</u>** Please see the next section before vacuuimg leaves.

   The unit is fully engaged when red indiactor light is on. DO NOT release the button before the light comes on as serious clutch damage may occur.

<u>Disengaging the PTO (refer to figure 3b):</u>

1. Decrease the rpm to 1000 rpm.

2. Press the clutch engagement button on the right side until the blue light turns on.

3 When the PTO is fully disengaged, the engine can be shut down.

⚠ CAUTION

Do not operate the engine if neither of the clutch indicator lights are not on. The unit needs to be either completely in-gear of completely out of gear. If neither light is on then the clutch is not fully engaged nor fully disengaged and serious clutch damage may occur.

3.3 Dumping the Body

⚠ DANGER

Make sure all people and animals are completely clear of the unit during the dumping process.

⚠ WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before staring the engine.

⚠ DANGER

Always operate the dump body controls from the front of the unit, standing beside the tongue.

⚠ WARNING

Make sure the unit is properly attached to the tow vehicle and the surface is level and solid before raising the body .

figure 3.3a

figure 3.3bc

⚠ WARNING

Watch for any overhead obstacles such as power lines and tree limbs before dumping.

Review the Engine Operating Manual supplied with your leaf vacuum for specific start-up, maintenance and operating instructions. It is especially important to review break-in service procedures for brand new units.

Dumping the body (refer to figures 3.3a and 3.3b):

1. Perform all the pre-starting, pre-operating checks outlined in the EOM and in this manual.
2. Start the engine as previously discussed in this manual and in the EOM. Make sure the PTO is disengaged.
3. Do a thorough inspection of the entire area around and above the unit, looking for any object that could get in the way of the body dumping.
4. Make sure the surface is level and the ground is solid before dumping.
5. Open the rear doors and secure to the side of the box container.

figure 3.3a

figure 3.3b

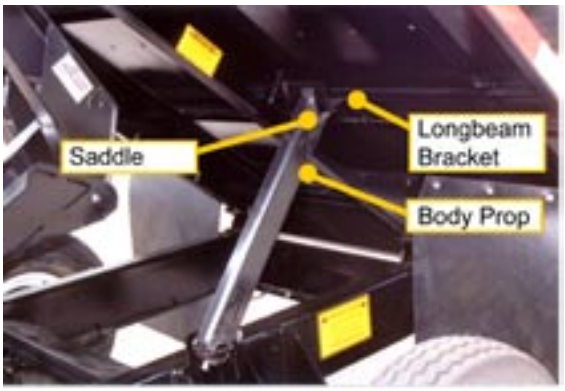
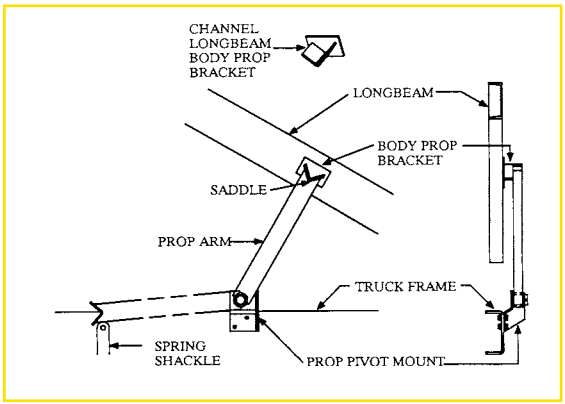


figure 3.3c



3.3 Dumping the body, continued;

6. Increase the throttle to 1,200 rpm. **Do not** race the engine while using the hoist.

7. Locate the tailgate latch control switch (fig. 3.3a) and move the switch forward to open the tailgate latch.

8. Grasp the Hoist Dump Control Lever, (fig. 3.3a) press the black knob in, then move the lever foward to start raising the body.

9. Raise the body only as high as it is needed to dump the load.

   Shut off all power, raise the body prop(s) (fig. 3.3b) to a free standing position. Lower the body slowly until the the long beam bracket contacts the prop arm saddle (fig. 3.3c). DO NOT POWER HOIST DOWN.

Lowering the body:

1. Before lowering the body, walk completely around the unit and thoroughly inspect the area between the body and the unit's frame. Look for any object, person or animal that could potentially get between the dump body and the frame. **DO NOT** go under the body while inspecting.

2. Once the load has been dumped, start the engine as described in section 3.1. **DO NOT** race the engine.

3. Slowly raise the body just enough to clear the body prop saddle, lower the body prop to the storage position (fig 3.3c) and slowly lower the body.

figure 3.3a

figure 3.3b

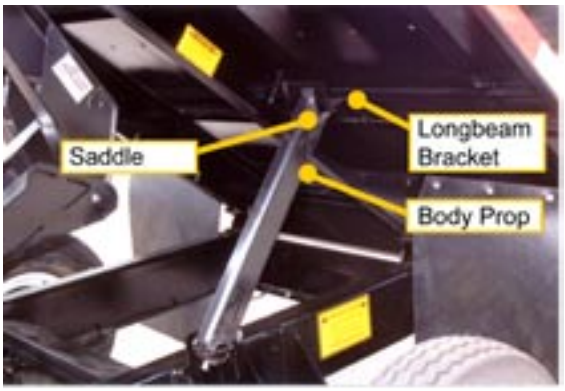
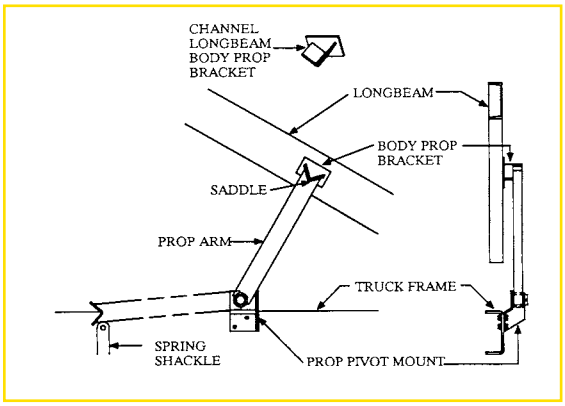


figure 3.3c



3.3 Dumping the body, continued;

Lowering the body, continued:

4. The dump body may stop approximately 12” from the bottom due to the safety check valve. If it does, slowly raise the body a few inches and SLOWLY lower the body down. The body needs to be lowered extremely slow the last 12 inches or the check valve will stop the body.

5. Once the body is completely down, close the rear doors and prepare the unit for travel as detailed in this manual.

Operating Section

3.4 Hose Boom Operation - 3 Axis

⚠WARNING

Thoroughly read and understand the safety, pre-operating and operating sections of this manual before vacuuming. Wear the proper safety equipment as outlined in this manual.

⚠WARNING

Visually inspect the area around the hose boom for any objects, trees, telephone poles, persons or animals which could possibly be in the path of the moving hose boom.

⚠WARNING

Visually inspect the leaves before vacuuming any for any material that could be harmful to the leaf vacuum of people. This includes bottles, wood, steel, glass, stone or other hard or breakable objects.

figure 3.4a

Boom Operation:

1. Start the engine using the procedures stated earlier in this manual.

2. Set the engine throttle to around 1,200.

   NOTE: Always vacuum leaves using the lowest rpm as possible. This saves fuel and decreases the amount of dust escaping the box container. It also decreases the chance of picking up undesirable material.

3. Check again for any objects in the path of the moving hose boom

4. Grasping the joystick, press the left button (fig. 3.4a) to raise the hose out of the cradle.

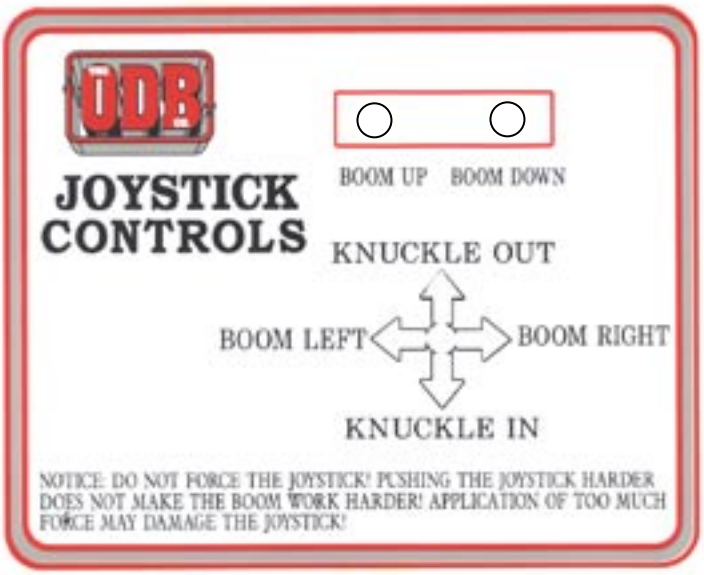
5. Slowly and carefully ease the joystick to the right, moving the boom away from the unit.

3.4 Hose Boom Operation - 3 Axis, continued:

⚠WARNING **Visually inspect the area around the hose boom for any objects, trees, telephone poles, persons or animals which could possibly be in the path of the moving hose boom.**

⚠WARNING **Visually inspect the leaves before vacuuming any for any material that could be harmful to the leaf vacuum of people. This includes bottles, wood, steel, glass, stone or other hard or breakable objects.**

figure 3.4b



NOTE: Do not force the joystick! Pushing the joystick harder does not make the boom work harder or faster. Application of too much force will damage the joystick. Do not make fast, jerking movements with the boom, try to move the boom slowly and smoothly. Leaves will vacuum better and the unit will last longer.

Boom Operation, continued:

5. Using the sticker located on the control panel as a reference, (fig. 3.4b) maneuver the hose to the leaf pile.

6. Engage the clutch fully using the steps outlined earlier in this manual.

7. Always keeping the hose nozzle at a 45 degree angle. This allows proper air flow and will reduce clogging. DO NOT bury the nozzle into the leaf pile, this will cut off the air flow and will make vacuuming much more difficult and will increase the chance of clogging.

8. If leaves are not vacuuming, increase the engine rpm to 1,400 and try vacuuming again.

   NOTE: Wet leaves will need higher rpm's to vacuum whereas dry leaves will only need minimal rpm's.

9. Continue moving the nozzle slowly and carefully in a sweeping motion above the leaves while vacuuming.

WARNING

Read and understand this entire manual before operating, maintaining or repairing the leaf vacuum.

4.0 MAINTENANCE SECTION

Maintenance Section

4.1 MAINTENANCE OVERVIEW:

⚠ CAUTION

Only properly trained personnel should perform maintenance or repair on this equipment. Consult ODB before performing any maintenance procedures that is not specificially covered in this manual. Improper maintenance or repair may void any and all warranties on this equipment.

⚠ WARNING

Improper maintenance or repair CAN result in equipment damage and/or personal injuries.

⚠ DANGER

BEFORE CONTINUING, please read and understand the Safety, Pre-operating and Operating sections of this manual before doing any prodcedures in this section.

A properly maintained leaf vacuum will dramatically extend the life of the unit and will create a safer work place as well. For the general safety and welfare of all personnel it is important to create a scheduled maintenance program that covers all the elements in this manual as well as the engine, PTO and axle owner's manuals provided with this unit.

Use the chart on the following page as a guide for your scheduled maintenance program. If there are any questions concerning any ot these procedures please call ODB.

4.2 MAINTENANCE AND LUBRICATION CHART

This chart is only a reference, always consult the Owners Manual of the Engine, PTO, etc for actual recommendations
(Use Hour Meter as a Guide)

MAINTENANCE	INTERVAL					
	Daily	First 8 Hours	Every 25 Hours	Every 50 Hours	Every 100 Hours	Every 200 Hours
Check and add engine oil, coolant, fuel and hydraulic fluid (hoist and boom)*	●					
Check for loose nuts or bolts	●					
Check for fuel, oil, coolant and hydraulic leakage*	●					
Check or clean radiator screen	●					
Lubricate impeller shaft flange bearings(if equipped)	●					
Check lug nuts and tire pressure / condition	●					
Check trailer safety chains and hitch	●					
Check tow bar for damage or wear	●					
Check and clean instrument panel and circ. board	●					
Clean pre-cleaner	●					
Check air filter for dirt or debris*	●					
Check trailer lighting and trailer brake operation	●					
Change engine oil*		●			●	
Clean and check battery and connections*			●			
Check power band tension (if equipped)			●			
Check power band condition (if equipped)			●			
Check impeller for damage, cracks or wear			●			
Grease (non-conductive) circuit board connectors			●			
Clean hydraulic pump motor/connections			●			
Lubricate throttle and choke cables				●		
Check blower housing liners for cracks or wear				●		
Change hoist hydraulic fluid and filter		●			●	
Change boom hydraulic fluid					●	
Inspect intake and exhaust hoses for damage					●	
Check exhaust duct gasket for wear					●	
Replace oil filter*					●	
Replace air filter primary element*					●	
Inspect radiator and hoses*					●	
Check fan belt conditions and tension*					●	
Inspect all duct work for cracks, holes or wear					●	
Grease / Inspect wheel bearings for corrosion					●	
Change engine coolant*						●
Check fuel tank for leaks						●
Lubricate Hoist and Hinge Fittings						●

* = see the engine owner's manual for complete details

4.3 LUBRICATION:

⚠ CAUTION

Remove the negative battery terminal before attempting any lubrication procedures.

⚠ WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before performing any lubrication procedures.

Figure 4.3A

The following are general lubrication procedures for our standard units. Any special or custom built units may have other lubrication procedures not directly mentioned in this manual. Please consult ODB before any lubricating procedures not specifically mentioned in this manual.

Proper lubrication of your unit correlates directly to how long your unit will last. A properly maintained unit will last much longer than a unit that is not maintained properly. **NOTE:** Always lubricate bearings at the end of each work day. This will displace any moisture in the bearings. Also lubricate thorougly before extended shutdown or storage.

Lubrication Points:

1. **Drive Bearings (if equippped) (figure 4.3a):** These bearings are critical components of the belt-driven units. These bearings should be greased every 10 hours with approximately two strokes from the average hand pump grease gun. The type of grease used in these bearings are also critical to the performance of the bearings. A multi-purpose, heavy-load, high-temperature, moisture resistant #2 grease is required for the drive bearings. ODB recommends LubeMaster Premalube 4234 grease. Other premium quality grease that matches the above requirements may be used but after years of testing ODB recommends the Premalube grease.

NOTE; DO NOT mix different types of grease. The old grease MUST BE purged before a different type of grease is used. Mixing grease WILL cause premature failure to the bearings.

4.3 LUBRICATION, continued;

Lubrication Points, continued;

Figure 4.3b

2. **Trailer Wheel Bearings (figure 4.3b):** All of ODB's units are equipped with oil lubricated hubs. Periodically fill the hub with a high quality hypoid gear oil to the level indicated on the clear plastic oil cap. The oil can be filled from either the oil fill hole in the hub or through the rubber plug hole in the cap itself.

   Oil specifications:

   SAE 90 Hypoid Gear (Hypoid Rear Axle Gear Oil)

   Approved Sources:

   Union Oil Co.....Union MP, Gearlube - LS
   Exxon Co.....Gear OIl GX80W-90
   Mobil Oil Corp.....Mobilube SHC 75W-90
   Penzoil Prod. Co.....Multipurpose Gear Lubr. 4092
   .....or Mulitpurpose Gear Lubr. 4096

   For any questions concerning wheel lubrication please consult the axle owner's manual supplied with your leaf collector or contact ODB.

Figure 4.3c

3. **Hitch and Tongue (figure 4.3c):**
   The hitch and hitch ring should be checked and lubricated daily to minimize wear. Apply grease and/or SAE30 weight oil wherever applicable. While lubricating, make sure all components are in good working order and not worn in any way.

Figure 4.3d

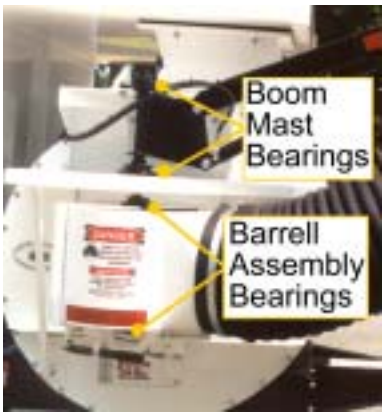


Figure 4.3e

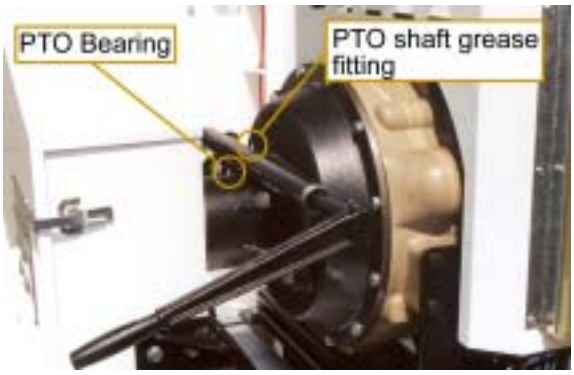


Figure 4.3f

4.3 LUBRICATION, continued;

Lubrication Points, continued;

4. **Boom Swivel and Barrell Assembly Bearings (figure 4.3d):** These bearings are on most of ODB's model leaf machines after 1996. Grease the boom bearings once every week with a multi-purpose moisture resistant #2 grease.

5. **PTO Bearing & PTO Shaft Fitting (figure 4.3e):** The PTO bearings should be greased after every 50 hours of operation with a high grade, high temperature lithium base #2 lubricant having an operating temperature of 200 degrees F. Three to five pumps with a hand operated grease gun is sufficient. **NOTE:** Units manufactured after 2000 may not have a PTO bearing grease fitting. These bearings are sealed and do not require greasing.

   The PTO crossover shaft and linkage should be lubricated with high temperature lithium base #2 lubricant after 200 hours of operation.

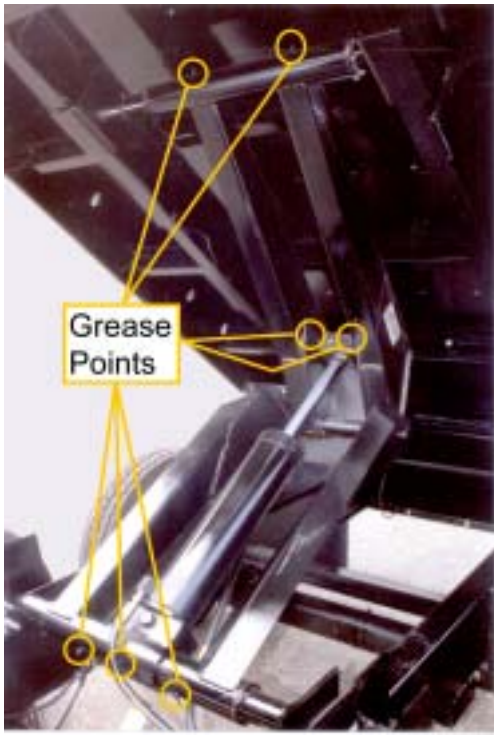
6. **Hinge and Friction Points:** Leaf vacuum operation and longevity can be improved by keeping hinges and friction points lubricated. ODB recommends that lubricaton be performed weekly. Use SAE30 weight oil on hinges and a premium grade, high temperature lithium based EP#2 grease on friction points.

7. **Parking Jack (figure 4.3f):** Remove the top cover and lubricate the gears inside with a standard gear grease. This should be done at the beginning of each season. Proper lubrication will make hitching the leaf collector much easier.

4.3 LUBRICATION, continued;

Lubrication Points, continued;

Figure 4.3g



⚠WARNING

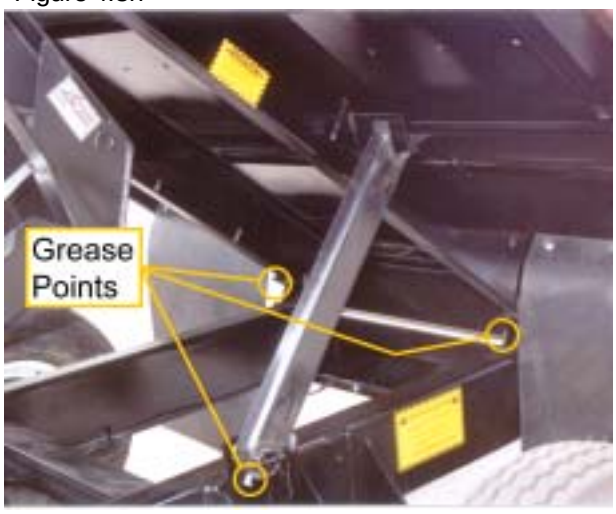
Never go under the dump body unless the body is empty and the body prop(s) is in the proper position.

⚠WARNING

The body prop is designed and intended to support an EMPTY truck body in the raised position. Unload the body before using the body prop(s).

8. **Hydrauilc Hoist Fittings (figure 4.3g):** Raise and support the dump body as detailed in section 3.2. Lubricate the fittings at least every 200 hours of operation with a #2 high grade grease. There are tremendous forces on the bearing sufaces within the hoist frame. It pays to be generous with the grease gun, to insure proper operation and long life.

Figure 4.3h



9. **Hoist Hinge and Body Prop(s) Fittings (figure 4.3h):**
Each hinge pivot has a grease fitting that needs lubrciating every 200 hours. The body prop(s) has a fitting at the pivot area as shown in figure 4.3h.

4.4 PREVENTATIVE MAINTENANCE

⚠ CAUTION **Remove the negative battery terminal before attempting any maintenance procedures.**

⚠ WARNING **Thoroughly read and understand the safety and pre-operating sections of this manual before performing any maintenance procedures.**

The following are general preventative maintenance procedures for our standard units. Any special or custom built units may have other preventative maintenance procedures not directly mentioned in this manual. Please consult ODB before doing any preventative maintenance procedures not specifically mentioned in this manual.

Proper preventative maintenance of your unit, just like lubrication, correlates directly to how long your unit will last. A properly maintained unit will last much longer than a unit that is not maintained properly.

Preventative Maintenance:

1. **Engine Oil:** Change the oil and oil filter according to schedules provided in your engine's owner's manual (EOM). The engine oil level should be checked every day. The level should be checked after the engine has been stopped for a period of time. This will allow the oil to drain back into the oil pan, allowing a better indication of the true oil level. If the level is low, see the engines owner's manual for the correct type of oil.

2. **Engine Coolant:** Check the coolant level before starting the unit each day. The coolant level should not be less than one inch below the top of the radiator.

⚠ CAUTION **NEVER check the engine coolant when the engine is hot. Allow the engine to cool at least one hour before checking the coolant. Check the engine owner's manual for instructions. ALWAYS wear eye and hand protection when working with the radiator.**

4.4 PREVENTATIVE MAINTENANCE, continued;

Preventative Maintenance, continued:

3. **Engine Radiator:** The engine radiator on a leaf vacuum becomes clogged with dust and debris frequently because of the nature of the job. If the radiator is not cleaned properly it WILL cause improper cooling and WILL eventually cause serious damage to your engine. The debris accumulating on the radiator can be lessened by lowering the RPM on the engine to a level just enough to vacuum the leaves. The higher the RPM the more dust that is put into the air. Also, it may be necessary to put mesh or tarps on the top of the leaf box container to reduce the debris and dust. If this is done, make sure there is enough air ventilation on the box so the box is not blown apart. Proper belt condition and coolant mix-ratio, as well as coolant conditioners, are all critical to proper engine cooling. See the engines owner's manual for specifics on coolant mixture ratios and conditioners. The radiator should be inspected and cleaned with compressed air everyday at the very least.

⚠ DANGER

NEVER attempt to clean or inspect the radiator with the engine running or while the engine is HOT. Allow the engine to cool at least one hour before mantaining the radiator. Check the engine owner's manual for instructions. ALWAYS wear eye and hand protection when working with the radiator.

4. **Engine Air Cleaner:** Due to the large amounts of dust generated in collection leaves, it is critical to your engine's life that the pre-cleaner and air filter be maintained properly. The pre-cleaner should be cleaned at least daily of any debris that has accumulated. If conditions warrant it should be cleaned more. The air filter should be checked daily and should be replaced at the first sign of it being dirty. DO NOT attempt to clean the air filter, replace the dirty air filter. It is a good idea to clean out the air filter housing once a week to clean any dust debris that may have accumulated.

5. **Fuel Tank:** Fill the fuel tank at the beginning of the work shift leaving a gap of at the top of the tank for expansion of fuel. A full fuel tank will reduce the possibility of condensation forming in the tank and moisture entering the fuel lines. Check the fuel lines daily for cracks, holes or tightness.

4.4 PREVENTATIVE MAINTENANCE, continued;

Preventative Maintenance, continued:

⚠ CAUTION **ALWAYS wear eye and hand protection when working with the battery.**

6. **Battery:** ODB's units are supplied with "maintenance free" batteries so there is no need to check fluid levels but the battery terminals should be checked daily for corrosion. Remove any corrosion with a wire brush and coat the terminals with light grease or petroleum jelly to reduce the possibility of corrosion. Also check the battery cable for wear all cable connections and battery tie downs to be certain that they are not loose.

7. **Drive Belt (if equipped):** The main drive belt should be checked daily for cracks and for proper tension. If the belt shows any sign of

⚠ CAUTION **Remove the negative battery cable before opening the belt guard.**

cracking it should be replaced immediately. The proper tension of the belt should be approximately 1/2" deflection when applying a 8 pound pull.

8. **Fasteners:** Fasteners should be checked weekly for the first 30 days and monthly thereafter. They must be in place at all times and properly torqued. For general torque values see the torque chart at the end of this section.

9. **Instrument Panel and Circuit Board:** The instrument panel and circuit board should be cleaned with compressed air daily. Also the circuit board connectors should be wiped clean and have nonconductive grease applied weekly to help maintain solid connections.

10. **Engine Driven Hydraulic Pump:** Check and tighten all hydraulic fittings making sure there are no leaks.

11. **Hydraulic Fluid and Filter:** The hydraulic fluid and filter should be changed every 150 hours of operation. The fluid should be completely drained and fresh high quality ISO grade 46 non-foaming hydraulic fluid should be added.

4.4 PREVENTATIVE MAINTENANCE, continued;

Preventative Maintenance, continued:

12. **Exhaust Duct Gasket:** The 1.5" thick gasket should be checked for wear every 200 hours. This gasket creates a tight seal between the box container and the blower housing.

⚠ CAUTION **ALWAYS raise and support the box container properly using the steps outlined in this manual.**

13. **Hydraulic Fittings and Hoses:** Check all hydraulic fittings and hoses for leaks and tightness daily. Any leak could become a hazard, fix immediately.

14. **Valve Body Assembly:** Check all electrical and hydraulic connections to the valve body daily for loose wires and leaks. Clean the valve body daily with compressed air to keep debris off the connections.

15. **Boom Cylinders:** Check all pivot point pins for wear and grease regularly.

4.4 PREVENTATIVE MAINTENANCE, continued;

Preventative Maintenance, continued;

13. **Hydraulic Fluid and Filter:** The hydraulic fluid and filter should be changed every 100 hours of operation. The fluid should be completely drained and fresh high quality hydraulic fluid should be added.

⚠ CAUTION **ALWAYS raise and support the box container properly using the steps outlined in this manual.**

14. **Exhaust Duct Gasket:** The 1.5" thick gasket should be checked for wear every 200 hours. This gasket creates a tight seal between the box container and the blower housing.

15. **Axle Hangers:** The hanger bolts should be checked periodically for tightness and wear.

16. **Hydraulic Fittings:** Check all hydraulic fittings for leaks and tightness. Any leak could become a hazard, fix immediately.

4.5 TORQUE VALUES

RECOMMENDED TORQUE IN FOOT POUNDS		
TYPE	HEX HEAD CAP SCREWS	
SAE GRADE	5	8
HEAD MARK		
SIZE		
1/4"	9	9
5/16"	18	18
3/8"	33	33
7/16"	52	52
1/2"	80	80
9/16"	115	115
5/8"	160	160
3/4"	280	280
7/8"	450	450
1"	675	675

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Make sure fastener threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

Maintenance Section

4.6 QUICK REFERENCE MAINTENANCE CHART:

⚠ CAUTION

Only properly trained personnel should perform maintenance or repair on this equipment. Consult ODB before performing any maintenance procedures that is not specificially covered in this manual. Improper maintenance or repair may void any and all warranties on this equipment.

NOTE: THIS CHART IS FOR REFERENCE ONLY, CONSULT THE ENGINE'S OWNERS MANUAL FOR SPECIFIC DETAILS. FOR JOHN DEERE 4045D ENGINES ONLY.

ITEM	
Fuel Requirement	Diesel fuel specified to EN 590 or ASTM D975
Fuel Capacity	30 gallons
Low / High Idle Speed	750 rpm / 2,600 rpm
Engine Oil: Grade Viscocity Capacity	 API service classicfication; CG-4, CF-4 SAE15W-40 / SAE10W-40, or SAE 5W-30 (see EOM manual for details) 9 US qt
Coolant: Type Mixture Freezing Point Amount	 Permanent type of antifreeze; green in color (see EOM manual) Water 50%; Antifreeze 50%; (1:1) -35 degrees C (-31 degrees F) 2.5 US gallons
Hoist/Boom Hydr. Tank Type Amount	 High Viscocity, Premium Hydraulic Fluid; ISO grade 46 viscosity non-foaming) 20 US gallons

⚠ WARNING

Improper maintenance or repair CAN result in equipment damage and/or personal injuries.

⚠ DANGER

BEFORE CONTINUING, please read and understand the Safety, Pre-operating and Operating sections of this manual before doing any prodcedures in this section.

SERVICE SECTION

Service and Troubleshooting
Wiring Diagrams
Hoist Hydraulic System

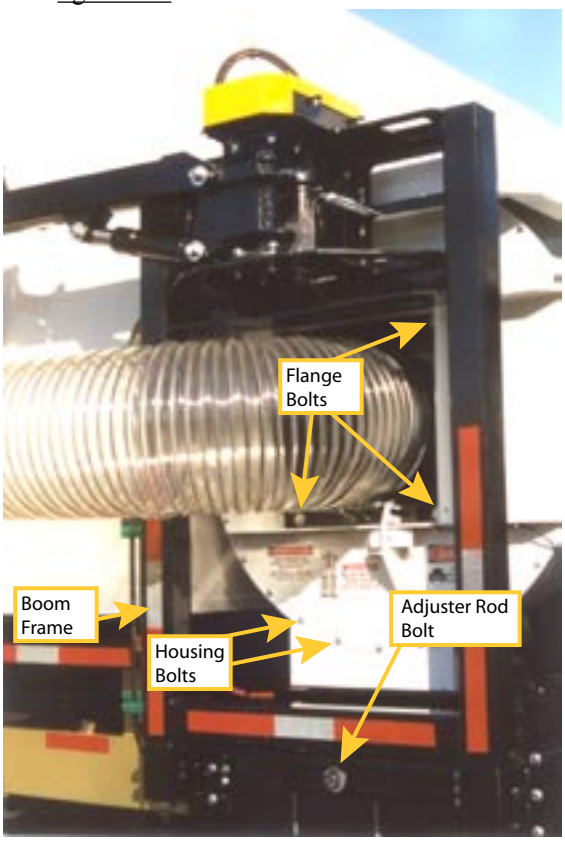
ODB COMPANY
5118 Glen Alden Drive
Richmond, VA 23231
800-446-9823

SERVICE AND TROUBLESHOOTING

ODB COMPANY
5118 Glen Alden Drive
Richmond, VA 23231
800-446-9823

5.1 Removing Blower Housing Face

figure 5.1a



⚠WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

⚠WARNING

Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures.

Removing Blower Housing Face (refer to 5.1a and 5.1b):

1. Raise the dump body and secure it as described previously in this manual, making sure the body prop is in place.

2. Unbolt the 4 bolts holding the intake hose flange assembly to the blower housing face (figure 5.1a). and remove the hose assembly.

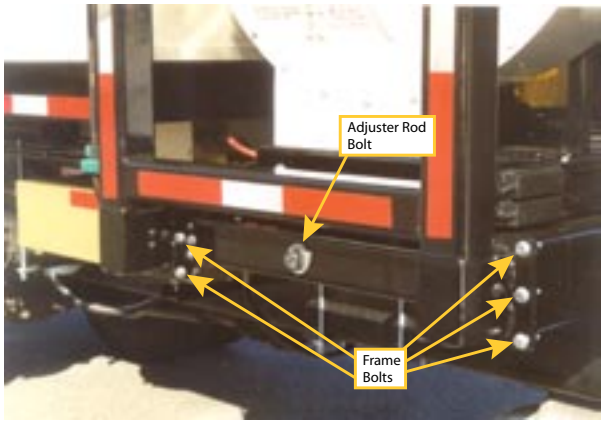
3. Remove the frame bolts (figure 5.1b)

4. Turn the adjusting rod bolt (figure 5.1b) counter-clockwise to begin moving the boom frame out. The frame has a built-in "stop" to prevent it from moving too far out.

5. Once the frame is as far out as possible, secure the blower housing face with an overhead crane or lift to prevent the face from falling after the bolts have been removed.

6. Remove the housing bolts (figure 5.1a) from the housing face to gain access to the impeller.

figure 5.1b



5.2 Replacing the Drive Belt (if equipped)

figure 5.2a

⚠WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

⚠WARNING

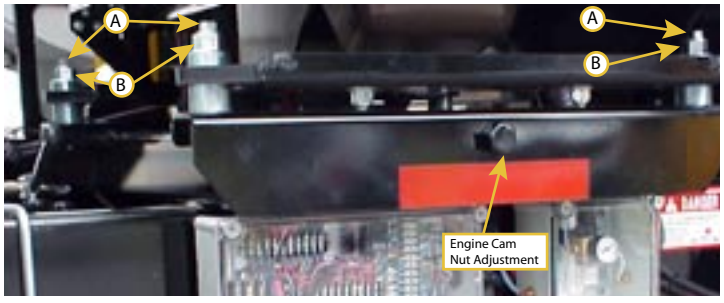
Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures.

Removing Drive Belt (refer to 5.1a thur 5.1d):

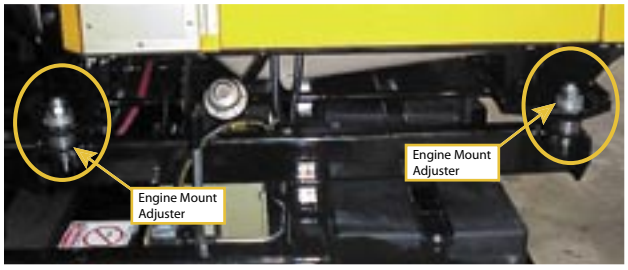
1. Open the belt guard (figure 5.2a) to gain access to the power band.
2. Remove the top cover plate (figure 5.2b).
3. Loosen the 1/2" nut on the engine mount adjuster bolts (item A on figure 5.2b & 5.2c). There are 4, one in each corner.

figure 5.2b



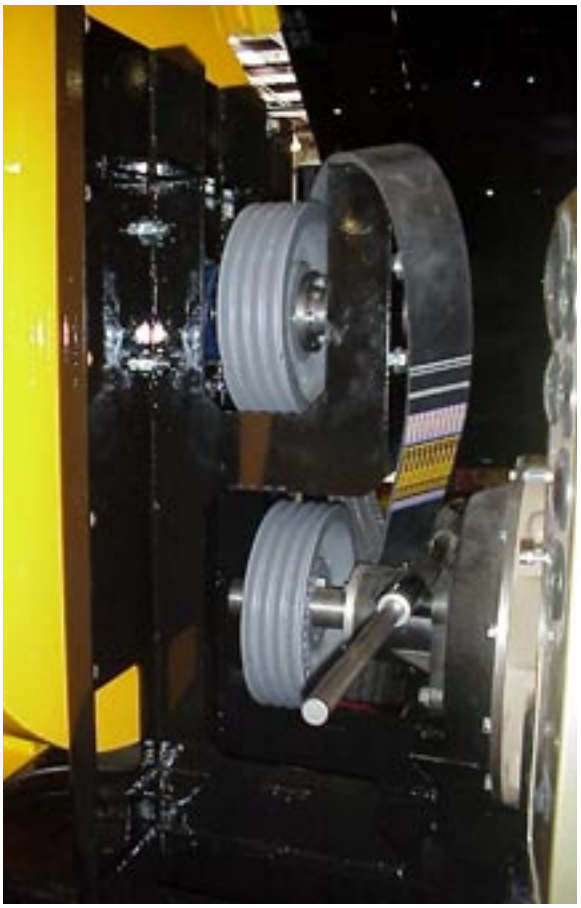
4. Then turn the engine cam adustment nut (figure 5.2b) to raise the engine.
5. This should allow the belt to have enough slack to slip out (figure 5.2d on next page).

figure 5.2c



5.2 Replacing the Drive Belt (if equipped), continued;

figure 5.2d



⚠WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

⚠WARNING

Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures.

Installing the Drive Belt (refer to 5.1a thru 5.1d):

1. Install the belt by reversing the previous procedure.

2. If the belt needs to be adjusted more, loosen the 1/2" nut on the engine adjuster bolt (item A figure 5.2a) and "fine tune" the adjustment using the large nut (item B Figure 5.2b). Be careful to keep the engine level.

3. After adjusting the engine height using the large nut, tighten down the 1/2" nut (Item A, figure 5.2b).

figure 5.2b

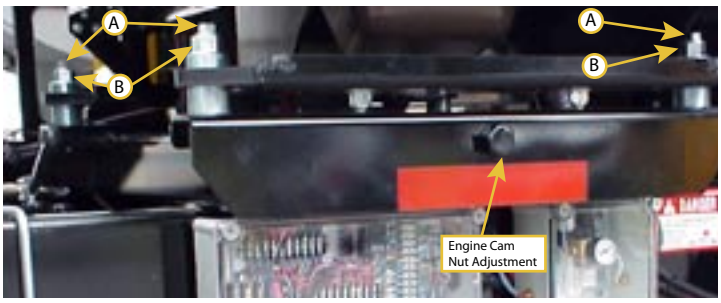
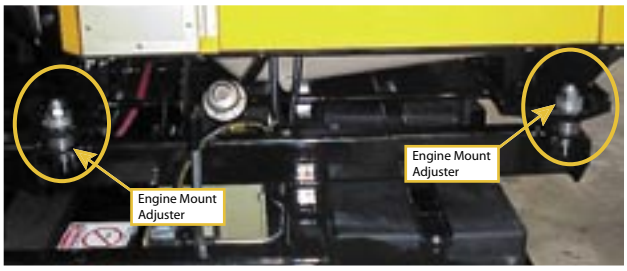
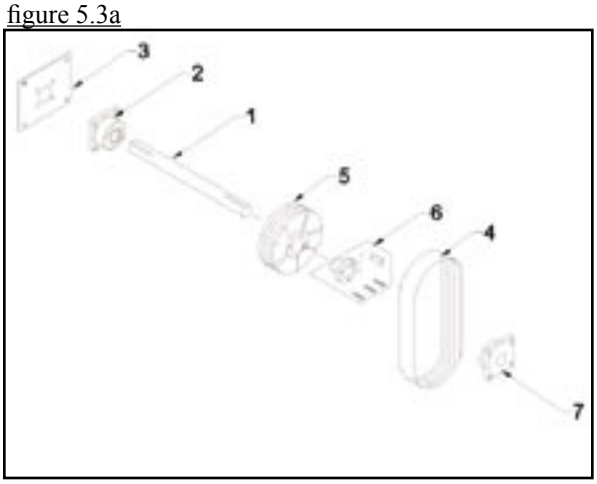


figure 5.2c



5.3 Replacing the Drive Bearings(if equipped)

figure 5.3a



⚠WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

⚠WARNING

Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures.

figure 5.3b

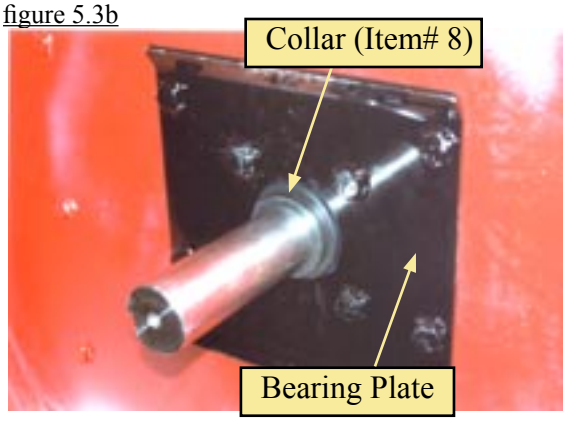


figure 5.3c

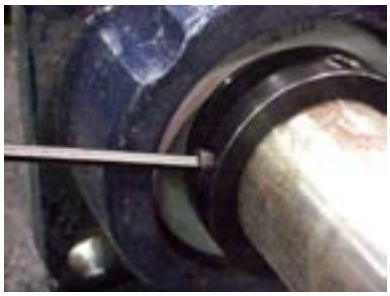


figure 5.3d

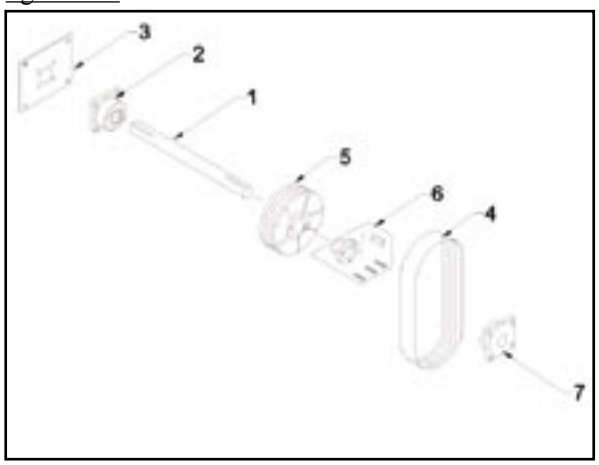
Removing Drive Bearings (refer to 5.3a thur 5.3d):

1. Remove the impeller and drive belt as described in this manual.
2. If the bearings have not "siezed" onto the shaft then removal is straightforward.
3. Loosen the pulley (item# 5, fig. 5.3a) by removing the bushing bolts (item# 6, fig. 5.3a).
4. Remove the bearing collar (Item# 8, fig. 5.3b), if equipped, at the rear of the front bearing (the bearing closest to the blower housing).
5. On the rear bearing (closest to the engine) loosen the set screw on the bearing lock collar (fig. 5.3c)
6. Using a punch, loosen the lock collar. (fig. 5.3d)
7. Pull the shaft out toward the blower housing. The bearing plate, front bearing and pulley should come out in one unit.

5.3 Replacing the Drive Belt (if equipped), continued;

Review the safety section of this manual before attempting these procedures.

figure 5.3a



Removing the Drive Bearings, continued:

8. If the shaft doesn't pull out easily, lubricate the shaft generously where the shaft goes through the bearings. If the shaft still doesn't come out, the final solution is to cut the shaft in half.

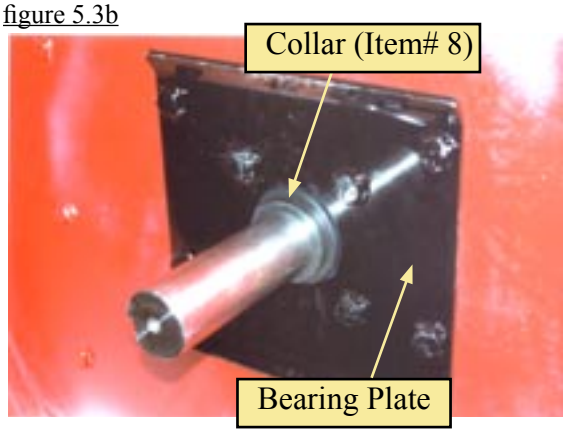
9. Once the shaft is out, remove the front bearing from the shaft by using steps 5 and 6.

Installing the Drive Bearings:

1. Make sure the shaft is clean and remove any burrs.

2. Bolt up the rear bearing (closest to the engine) to the frame.

figure 5.3b



3. Bolt the front bearing to the bearing plate

4. Bolt the bearing plate (fig. 5.3b) up to the blower housing and bearing frame.

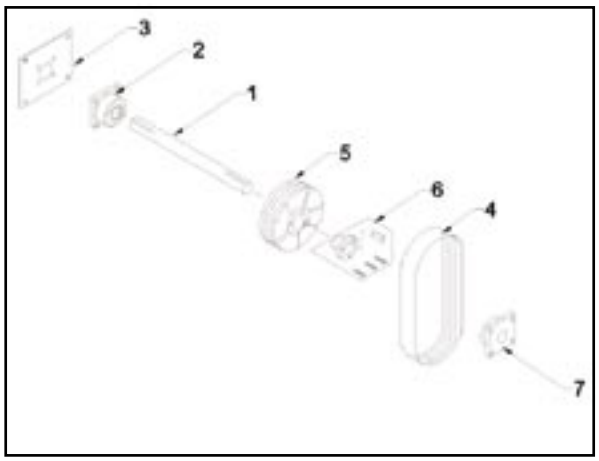
5. Slide the shaft through the front bearing, making sure the front locking collar is slid on to the shaft.

6. Once the shaft is through the front bearing, install the pulley onto the shaft, but don't tighten it until the bearings have been installed and your sure the the two pulleys are lined up correctly.

7. Slide the shaft through the rear bearing (closest to the engine). Make sure the front locking collar is put on before the bearing.

5.3 Replacing the Drive Bearings (if equipped), continued;

figure 5.3a



Review the safety section of this manual before attempting these procedures.

Installing the Drive Bearings, continued:

8. Once the shaft is in place, lock down the bearings:

9. Starting with the rear bearing (closest to the blower housing) install the rear collar on the blower housing side (figure 5.3b). The rubber seal should be facing the bearing.

10. Push the steel collar up to the bearing and make sure the groove in the collar goes inside the groove in the bearing.

11. Tighten the set screw (figure 5.3e).

12. Install the front locking collar sliding the locking collar up to the bearing and the turn the collar clockwise until is slips over the inner ring extenstion and engages the eccentric. Turn by hand until the parts are locked together.

13. Place a punch or drift in the blind hole in the collar and strike it sharply to the lock the collar and ring tightly together (figure 5.3f)

14. Tighten the set screws with an Allen wrench until the set screw stops. (figure 5.3g)

15. Do steps 11-14 for the other bearing also.

16. Line up the pulleys and tighten the busing.

17. Re-install the belt guards and impeller as described earlier.

figure 5.3b

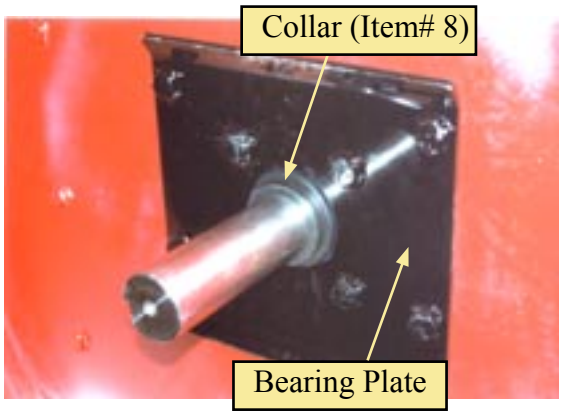


figure 5.3e

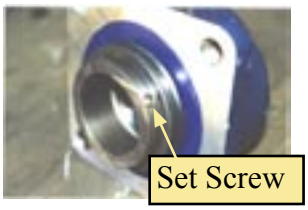


figure 5.3f

figure 5.3g

5.4 IMPELLER INSTALLATION AND REMOVAL

REMOVAL

CAUTION: Before removing the blower housing face remove the negative battery cable to ensure unit can not be started.

1. The blower housing face must be removed to gain access to the impeller. Use an overhead crane or forklift to support the face while removing.
2. Once the face has been removed, remove the shaft protector (Fig. 1 or 2).
3. Saturate the shaft and bushing using a penetrating lubricant to help loosen the bushing. Clean any grease or debris from the bushing and shaft.
4. Remove the 3 bolts attaching the bushing to the impeller.(Fig. 3) Being careful not to break the bolts. If a set screw is on the lip of the bushing, loosen it using an allen wrench.(Fig. 4)
5. Using two of the bolts that were just removed screw those bolts into the threaded holes on the bushing. Drive the two bolts into the bushing.(Fig. 5) This will separate the bushing from the impeller. Alternate from one bolt to the other driving only about a 1/4" at a time to keep the bushing coming out straight. It is imperative to keep the bushing straight to remove it.

IMPORTANT: Be sure to drive the bushing out evenly or it will get in a bind making removal much harder.

6. If the bushing does not come off using the two bolts, drill and tap several additional 3/8-16 holes around the bushing. Using Grade 8, 3/8-16 - 2 inch bolts, alternately drive the bolts 1/4" at a time to remove the bushing. KEEP THE BUSHING STRAIGHT while removing.

IMPORTANT: If additional holes were drilled in the bushing, it can not be reused. It must be be replaced.

7. Once the bushing has been removed use an overhead crane or other suitable device to help lift the impeller out of the blower housing.
8. At this point it would be a good idea to inspect the blower housing liners and blower housing for any damage or wear. Any damage or wear to the liners should be fixed by replacing the liners immediately.

Fig. 1

Direct Drive

Fig. 2

Belt Drive

Fig. 3

Fig. 4

Fig. 5

5.4 IMPELLER INSTALLATION AND REMOVAL; continued,

INSTALLATION

CAUTION: Before removing the blower housing face remove the negative battery cable to ensure unit can not be started.

1. Clean the shaft of any debris and remove any rust using a 120 grit emory cloth.
2. Put a generous coat of anti-sieze compound completely around the shaft. This will aid in removing the bushing and impeller the next time.

IMPORTANT: Use an anti-sieze compound on the shaft and bushing to keep the bushing from "welding" itself to the shaft. This makes removal much easier.

3. Using an overhead crane or other suitable lifting device lift the impeller on to the shaft. Turn the impeller to align the keyways of the shaft with the keyway in the impeller.
4. Insert key into the keyway. A light sanding of the keyway may be needed, as well as a few light blows with a rubber mallet.
5. Apply a generous coat of anti-sieze compound to the outside of the bushing being sure to cover any area that will come in contact with the impeller.
6. Tap the bushing onto the shaft aligning the keyways.
7. **BELT DRIVE UNITS:** Align the bushing and key to be flush with the end of the shaft (Fig 1).
DIRECT DRIVE UNITS: The bushing and key should protrude from the shaft about 1/2 inch (Fig. 2).
8. Put the 3 bolts into the non-threaded holes and drive them into the impeller holes evenly. Alternate between the three bolts as you drive the bolts in. Torque to 40 to 50 lbs/ft. There should be a gap of 3/8" to 1/2" between the bushing and the impeller.

IMPORTANT: Slowly spin the impeller by hand making sure that the back of the impeller is not hitting any of the bolt heads located at the back of the blower housing.

9. If the bushing has a set screw on it, tighten the screw snug with an allen wrench (Fig. 3). This will help keep the key in place.
10. Install the shaft protector on to the shaft (Fig. 4 or 5).

Fig. 1

Fig. 2

Fig. 3

Fig. 4

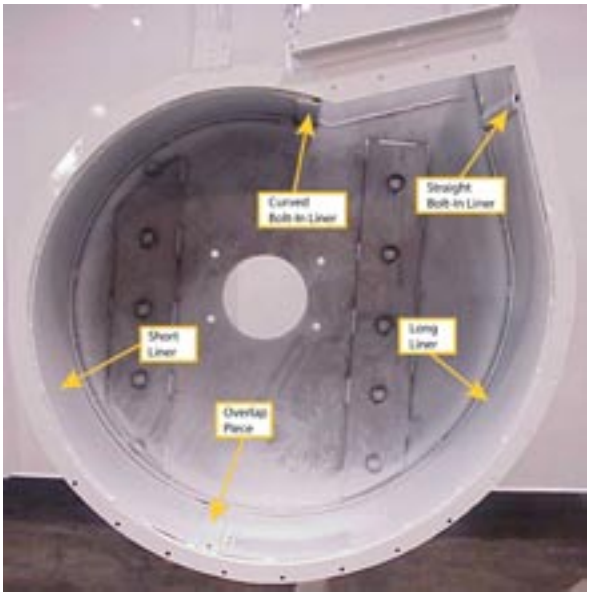
Direct Drive

Fig. 5

Belt Drive

5.5 Replacing the Blower Housing Liners

figure 5.5a



⚠WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

⚠WARNING

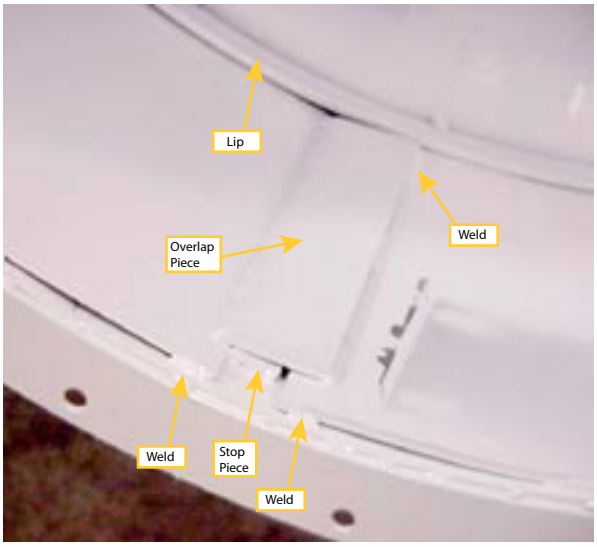
Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures. To gain access to the interior of the blower housing please see the previous sections.

⚠WARNING

Keep all fuel and fuel fumes away from the unit when grinding or welding. Work only in a well ventialted area.

figure 5.5b



Removing and installing the Liners (refer to 5.5a and 5.5b):

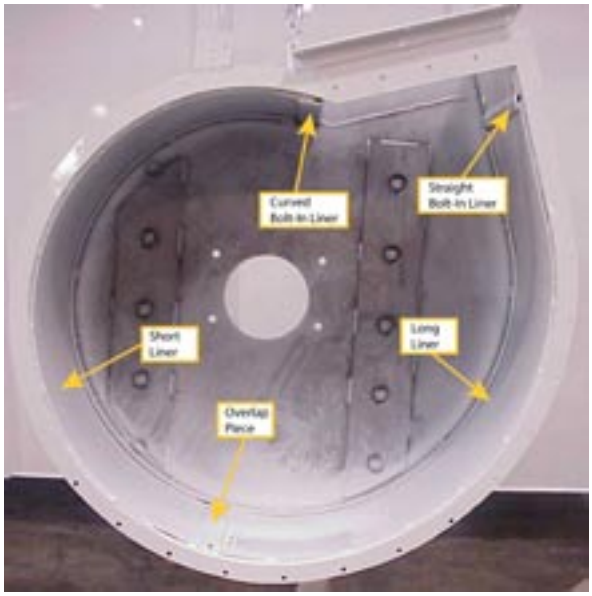
1. Unbolt the the blower housing face as described previously in this manual.
2. Remove the curved and straight bolt-in liners by removing the appropriate bolts.
3. With a grinder cut out the remaining welds to free the liners. DO NOT remove the "stop piece" at the bottom of the housing.

TO INSTALL:

1. Place the short liner into lip at the rear of the housing and line up the bottom of the liner with the "stop" at the bottom of the housing. The short liner has the overlap piece on it and should be installed as shown in the pictures at the left.
2. Tack weld the liner in place every 8 to 10 inches to help keep the liner in place.

5.5 Replacing the Blower Housing Liners; continued,

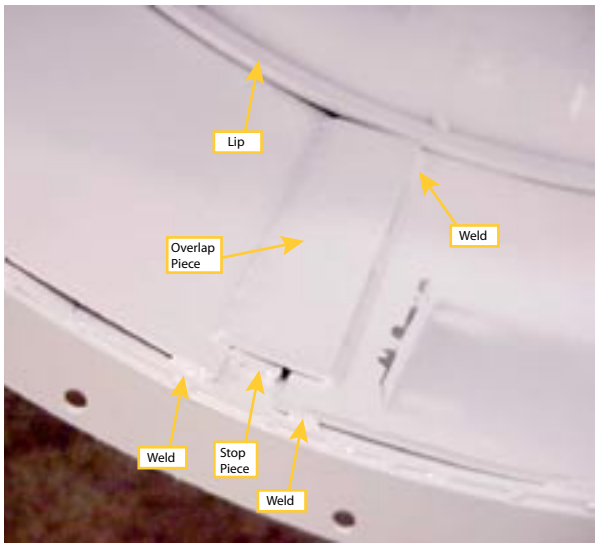
figure 5.5a



WARNING

Keep all fuel and fuel fumes away from the unit when grinding or welding. Work only in a well ventialted area.

figure 5.5b



WARNING

Thoroughly read and understand the safety and pre-operating sections of this manual before working on the unit.

WARNING

Make sure the negative battery cable is disconnected before opening the blower housing.

Review the safety section of this manual before attempting these procedures. To gain access to the interior of the blower housing please see the previous sections.

Installing the Liners (refer to 5.5a and 5.5b), continued;

3. Install the long liner the same way as the short liner except the long liner should slip under the overlap piece. Make sure the liner slips under the rear lip and the overlap piece.

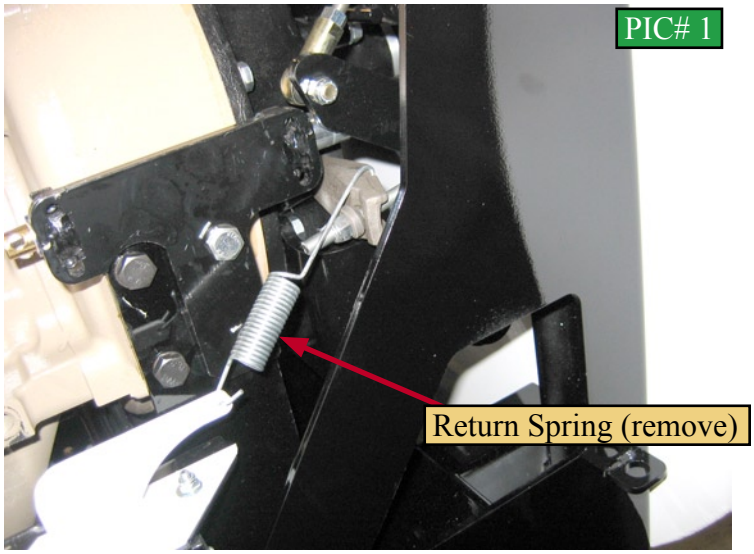
4. Tack weld the long liner to the overlap piece and tack weld around the liner as you did on the short liner.

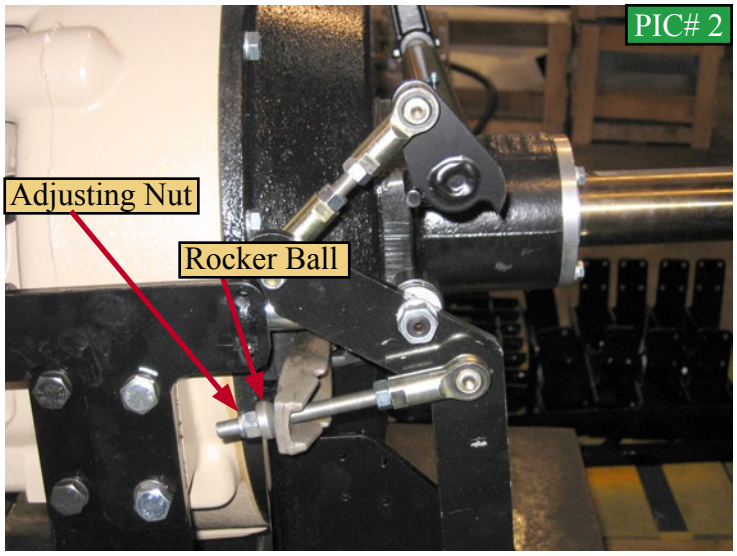
5. Install the two bolt-in liners just as they were removed.

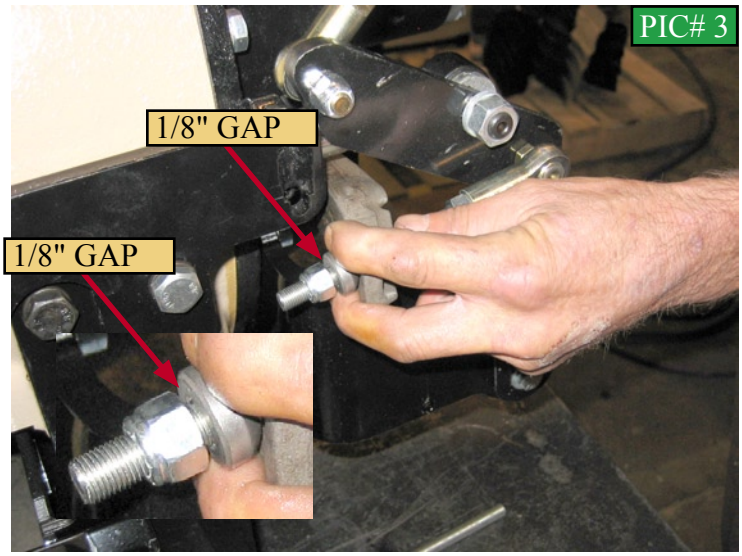
Auto Mfg. Clutch Adjustment

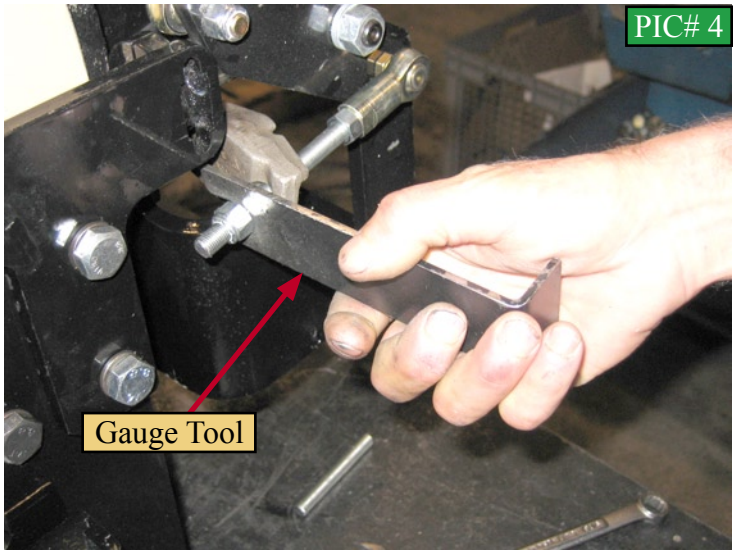
⚠ CAUTION **Rotating Shafts, pulleys, and moving belts can cause severe injury or can be fatal. The engine and driven unit MUST be completely stopped before any adjustments or work is attemped to the engine, driven unit, or the PTO clutch itself.**

The clutch linkage should be checked after the first 15 hours of operation and every 40 hours there after. An improperly adjusted clutch can result in premature wear to the clutch disc, flywheel and the throwout bearing and will void the warranty on the clutch and PTO.





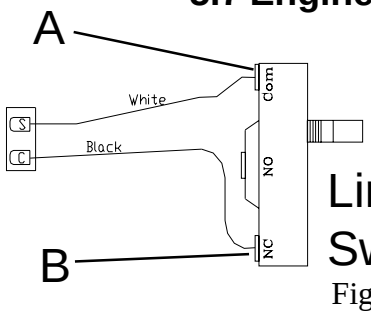




ADJUSTMENT OF THE CLUTCH LINKAGE

1. Make sure the engine is OFF and remove the negative battery cable to ensure the unit can not accidently be started.
2. Remove the spring from the throwout arm. (See PIC# 1) An accurate measure of the arm tension CAN NOT be made with the spring attached.
3. With the clutch in the engaged position (the PTO is engaged when the PTO handle is pointing straight up on the LCT600 and LCT6000 and pointing out to the side (3 o'clock) on the LCT60C, LCT650 and SCL800TM) adjust the nut (See PIC# 2) against the "rocker ball" until a 1/8" gap between the nut and rocker ball is visible (See PIC# 3).
4. If available, use the special 1/8" gauge tool to slip between the nut and rocker ball. With the proper adjustment the gauge should slide between the nut and rocker ball with a slight amount of pressure. (See PIC# 4)
5. Move the adjustment nut to create the 1/8" gap.
6. Re-install the return spring.

5.7 Engine Electrical Troubleshooting Guide

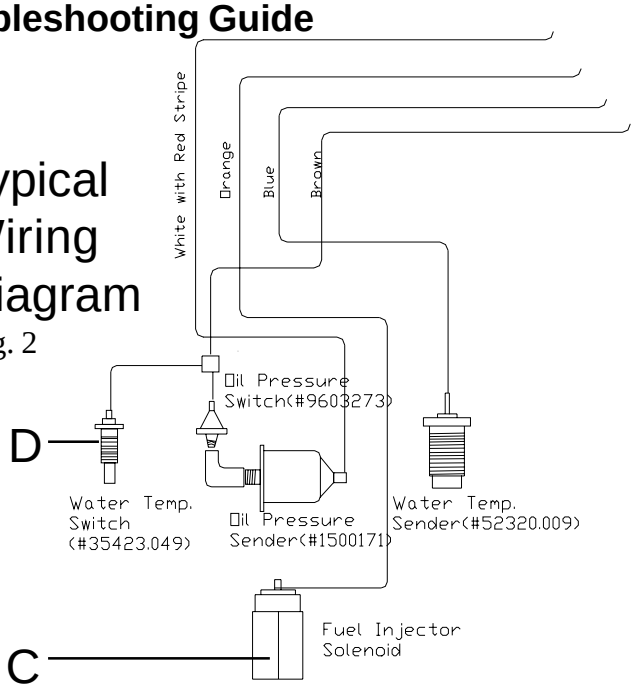


Limit Switch

Fig. 1

Typical Wiring Diagram

Fig. 2



ENGINE RUNS ONLY WHEN OVERRIDE BUTTON IS DEPRESSED

1. Make sure the PTO is disengaged.
2. Take a look at the limit switch located at the inspection door of the blower housing. Check to be sure that the inspection door closes completely and that the door presses in the limit switch. The limit switch is extremely sensitive and only needs to open 1/64" to shut the engine off.
3. If the inspection door closes properly and presses in the limit switch properly, then disconnect the two wires from the back of the limit switch.
4. Start the engine using the normal procedure then release the shut off button. If the engines continues to run then the problem lies in the limit switch or the limit switch wiring. If the engine still cuts off then the limit switch is not the cause, go to Testing the shut off switch.

Murphy Switch

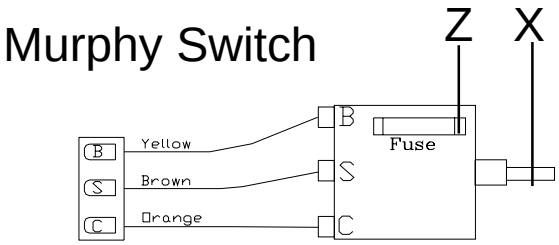


Fig. 3

TO TEST THE LIMIT SWITCH:

5. With an ohm meter check the resistance of the terminals A & B (Fig. 1) while the button is not depressed. There should be no resistance or continuity. With the button depressed there should be full continuity or infinite resistance, if not the switch is bad and should be replaced.

TESTING THE SHUT OFF (MURPHY) SWITCH:

6. Pull out the ignition switch to the first position.
7. Put a test light to terminal B (Fig. 3) to test for current. If there is no current at B, power is not getting to the shut off switch. Then the problem is not the shut off switch.
   If there is current at terminal B, put a test light on the fuse at location Z (Fig. 3) above. If there is no current there the fuse is blown. Replace fuse.
   If there is current at B and Z, push the override button (letter X above, Fig. 3) in on the shut off switch. While the button is depressed place the test light on terminal C (Fig. 3). If there is current at terminal C then the shut off switch is functioning properly and the problem lies elsewhere. If there is no current at terminal C then the shut off switch is defective and needs to be replaced.
8. Next locate the fuel solenoid valve located on the fuel injector pump (Letter C, Fig. 2). It has an orange wire running to it. Pull the ignition switch to the first position. Put a test light on the terminal of the fuel solenoid where the wire is attached. Test light should light up showing current, if not shut off switch is bad. Replace.
9. If engine still cuts off after shut off button is released then test the water temperature switch (located on the engine block, Letter D, fig. 2) by removing the brown wire attached to the temperature switch. Start the engine using the normal procedure then release the shut off button. If the engine continues to run then the water temperature switch is defective. Replace the switch. If the engine shuts off, do the same test on the oil pressure switch. If the engine continues to shut off after this test call ODB for additional service procedures.

WIRING DIAGRAMS

WIRING DIAGRAMS

*Basic Wiring Diagram
*Instrument Panel Diagram
*Joystick Wiring Diagram
*Terminal Box Diagram
*Valve Body Wiring Diagram
*Remote Clutch & Throttel Diagram
*Trailer Wiring Diagram

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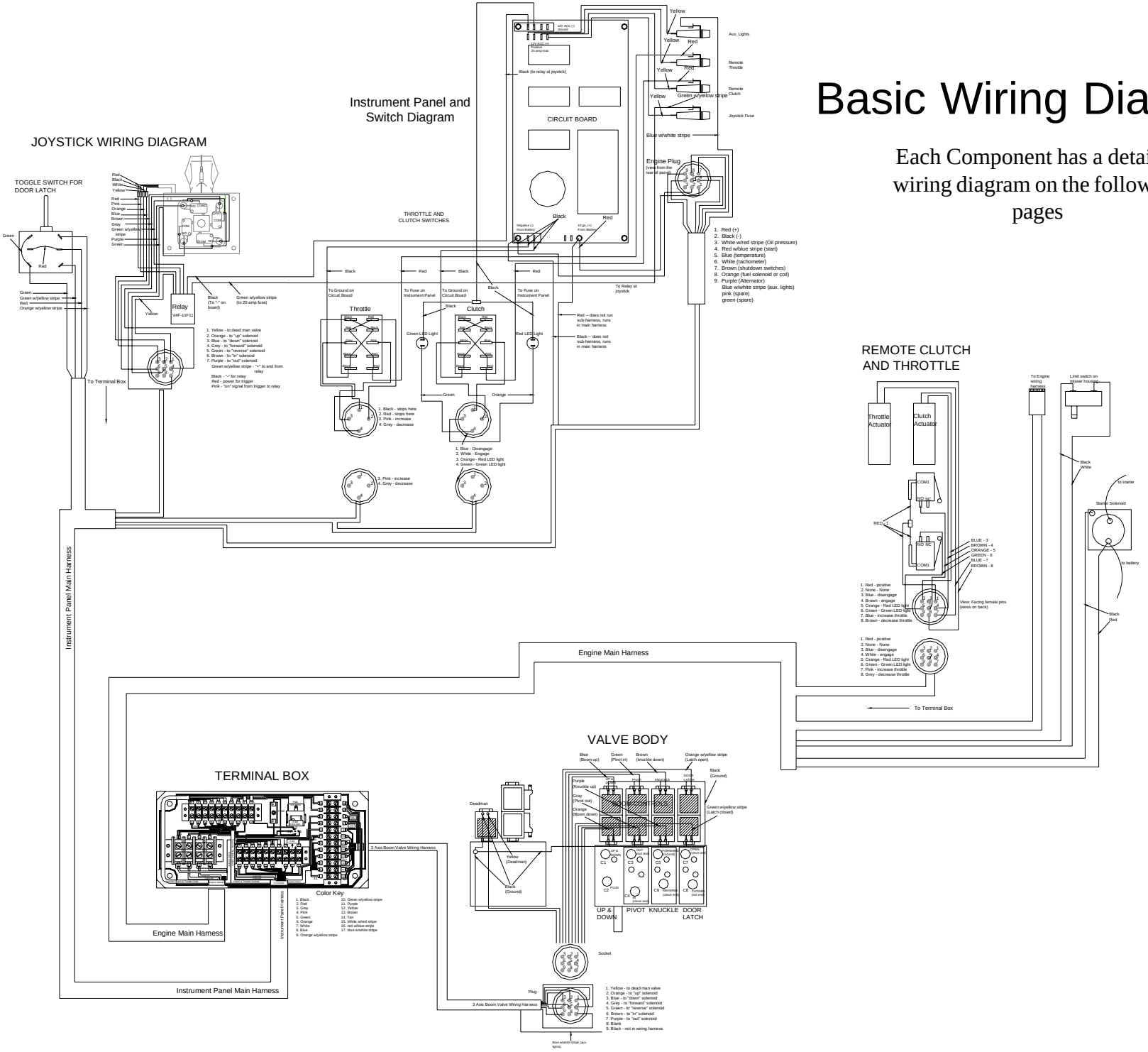
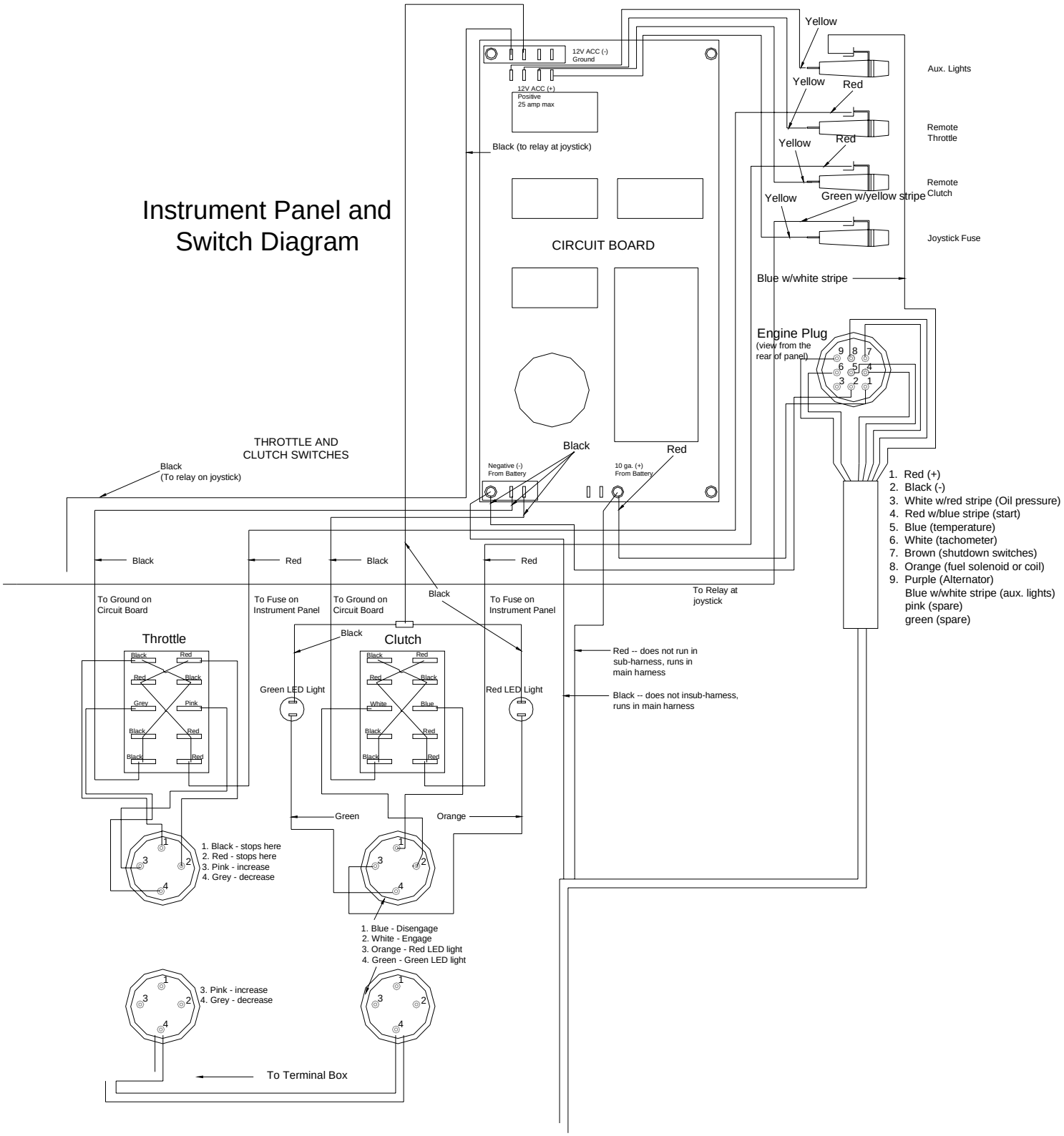
Basic Wiring Diagram

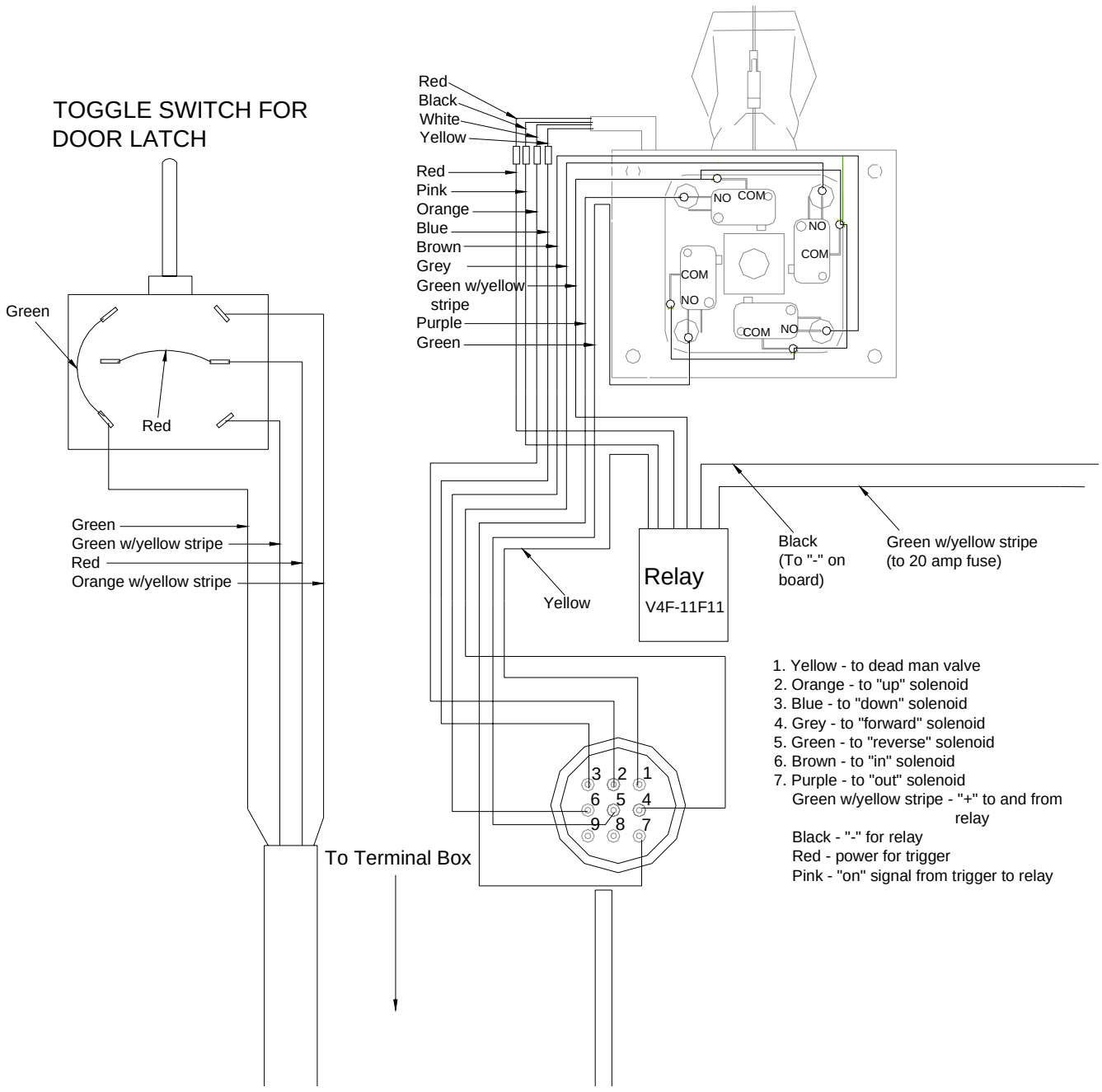
Each Component has a detailed wiring diagram on the following pages



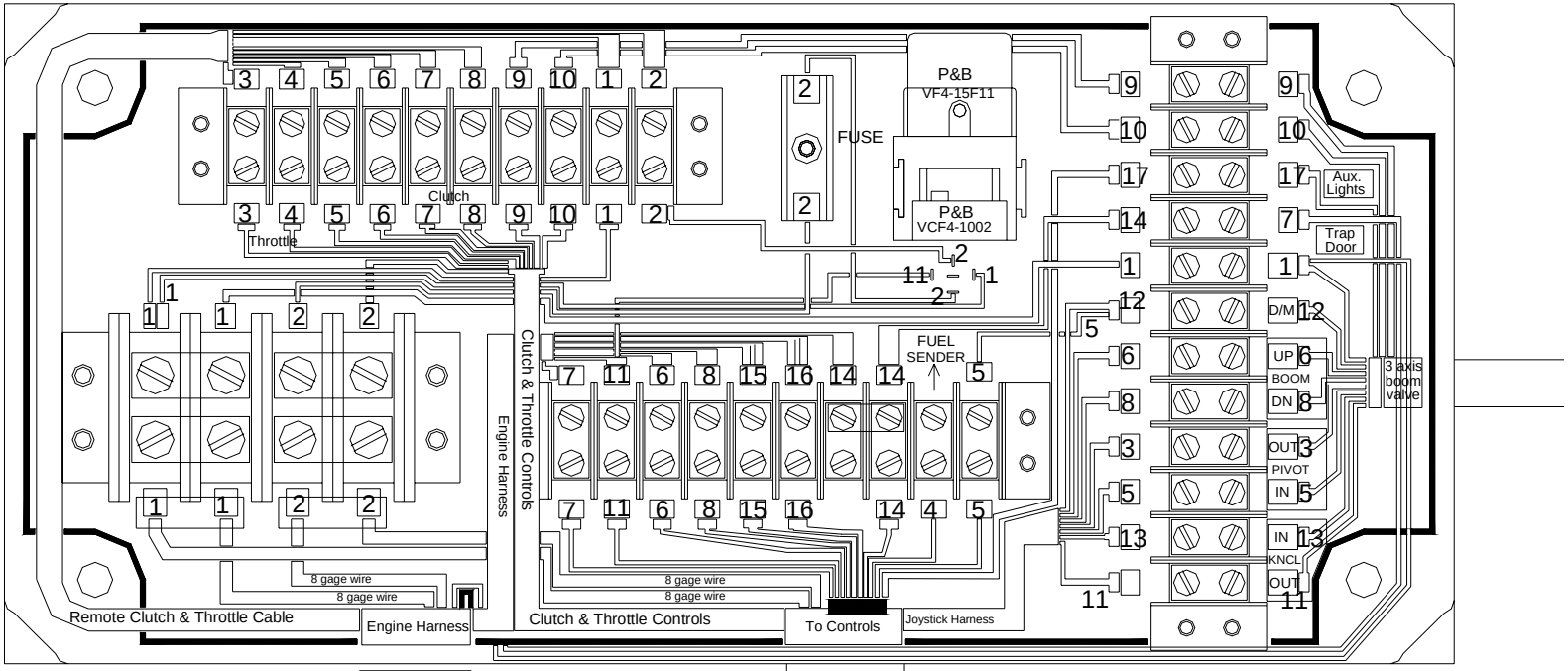
Instrument Panel and Switch Diagram



JOYSTICK WIRING DIAGRAM



TERMINAL BOX



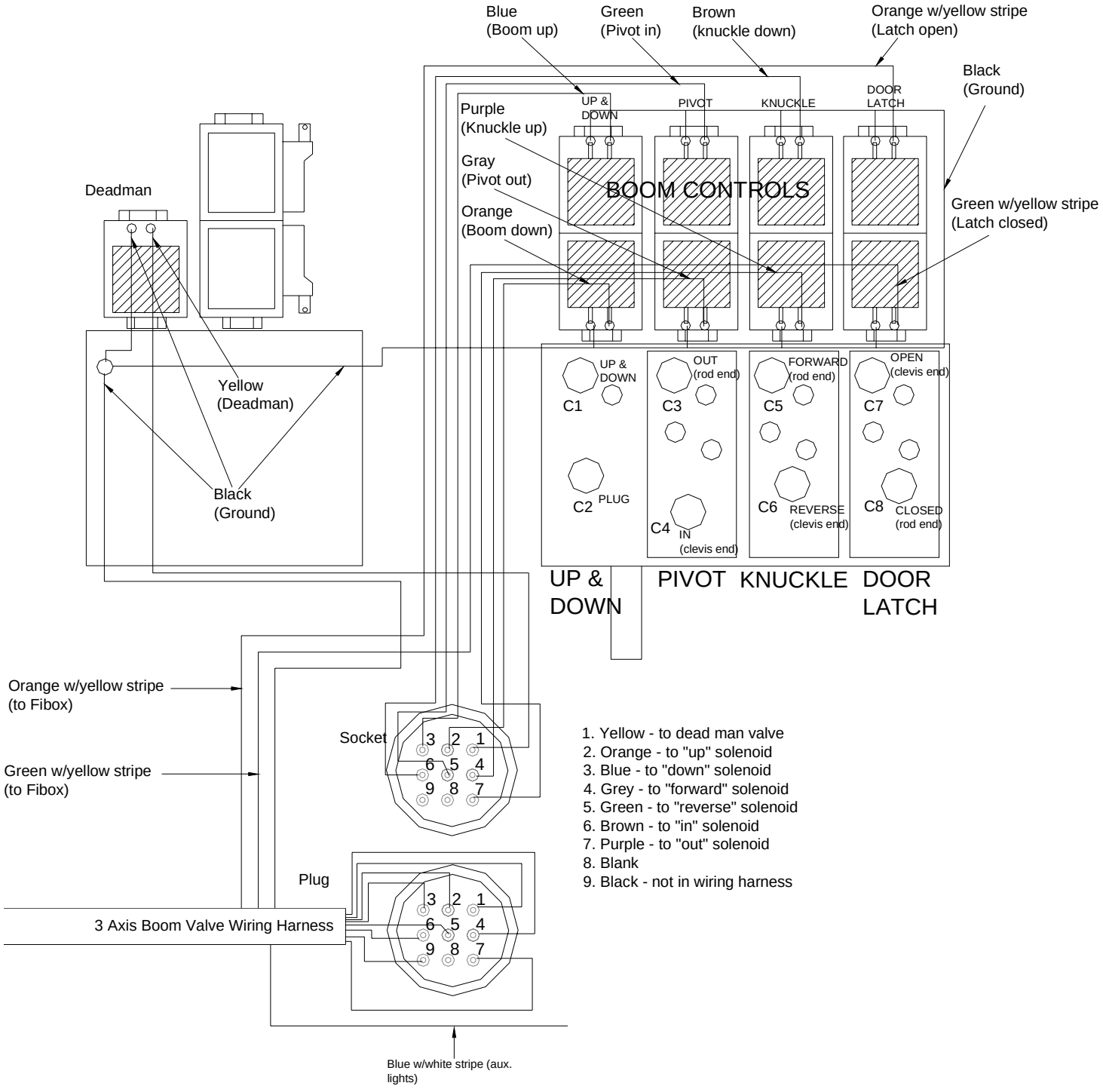
Engine Main Harness

Instrument Panel Harness

Color Key

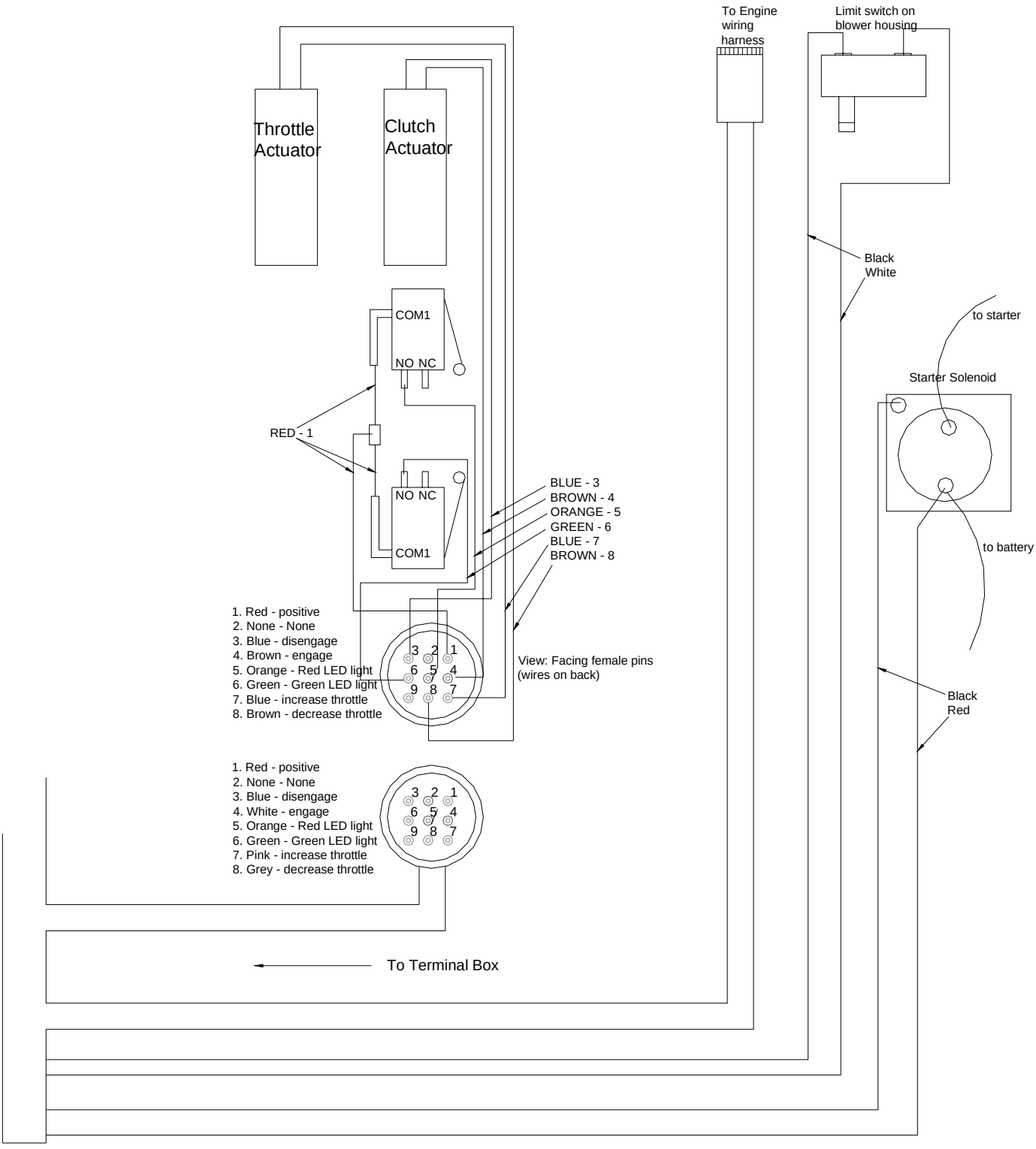
1. Black
2. Red
3. Grey
4. Pink
5. Green
6. Orange
7. White
8. Blue
9. Orange w/yellow stripe
10. Green w/yellow stripe
11. Purple
12. Yellow
13. Brown
14. Tan
15. White w/red stripe
16. red w/blue stripe
17. blue w/white stripe

VALVE BODY WIRING SCHEMATIC



1. Yellow - to dead man valve
2. Orange - to "up" solenoid
3. Blue - to "down" solenoid
4. Grey - to "forward" solenoid
5. Green - to "reverse" solenoid
6. Brown - to "in" solenoid
7. Purple - to "out" solenoid
8. Blank
9. Black - not in wiring harness

Remote Clutch and Throttle Wiring Diagram



HOIST HYDRAULIC SYSTEM

HYDRAULIC SYSTEMS

Hydraulic System Diagram
Hoist Operation

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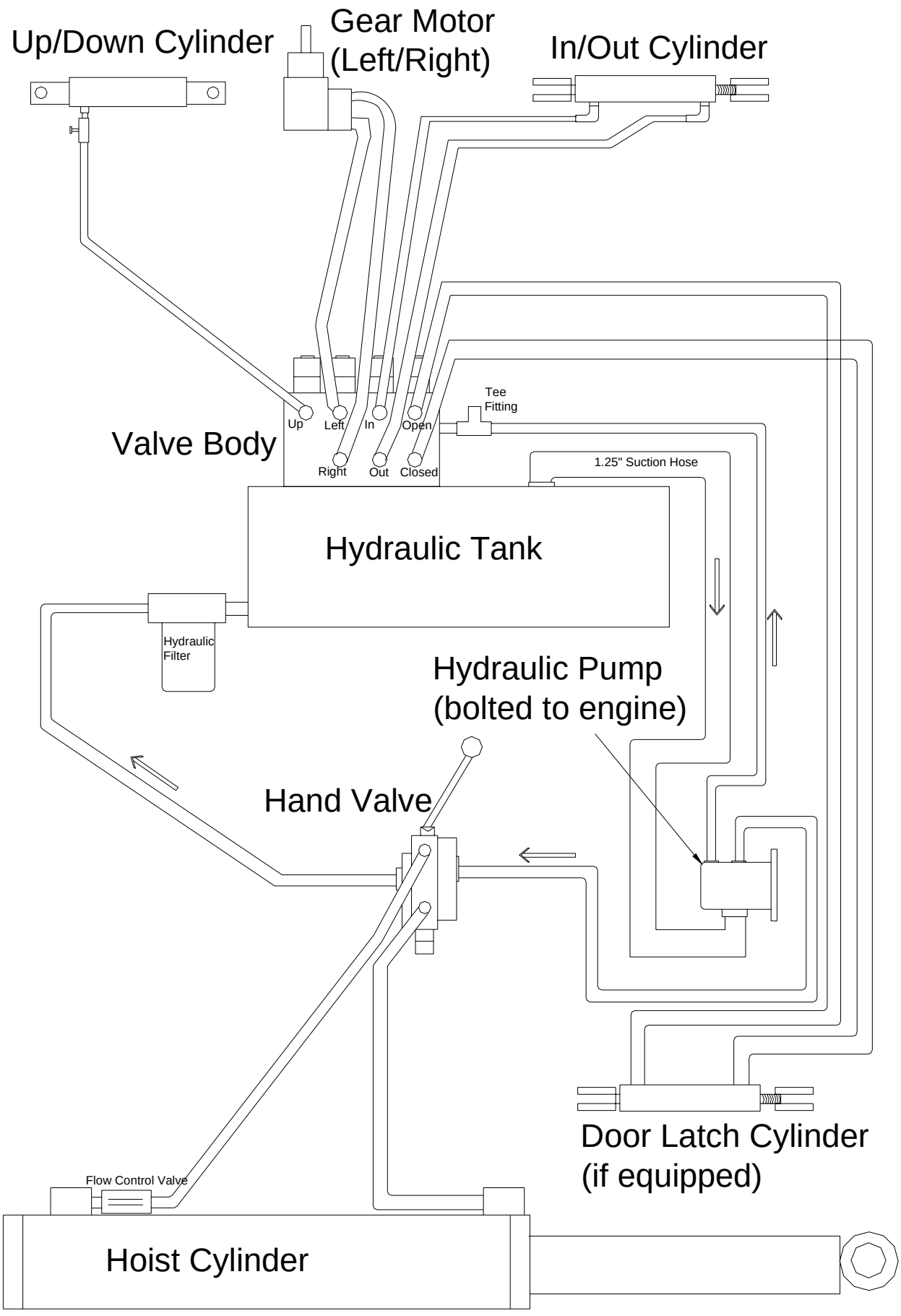
3 Axis Boom Hydraulic Diagram



SOME DO'S AND DONT'S FOR SAFETY AND LONG LIFE

1. Use the Proper hydraulic Fluid. **KEEP IT CLEAN.** Remember to change it regularly.
2. Lubricate all grease fittings at regular intervals.
3. **ALWAYS BLOCK UP THE HOIST BEFORE WORKING UNDER IT.**
4. Do not race the engine when unloading.
5. Do not overload the hoist beyond its capacity.
6. **DO NOT TAMPER WITH THE HYDRAULIC RELIEF VALVE.** This will void the warranty. It can cause severe damage to the hoist and cylinder.
7. **NEVER LEAVE THE PTO IN GEAR WHILE TRANSPORTING, IT WILL RUIN THE HYDRAULIC PUMP.**
8. Check all bolts and setscrews regularly.

HYDRAULIC FLUID

The capacity of the pump reservoir is 27 U.S. quarts. Five gallons of hydraulic fluid are required for operation. **KEEP IT CLEAN!! USE CLEAN CONTAINERS, FUNNELS AND OTHER EQUIPMENT.** Use a high quality hydraulic fluid of 150 SSU @ 100 degrees F. which contains corrosion and oxidation inhibitors and foam depressant. For general use, a high quality SAE 10W non-detergent motor oil with the proper additives, or type A automatic transmission fluid can be used.

CRYSTEEL TRUCK BODY PROP

Crysteel's Body Prop is designed and intended for use to support an EMPTY truck body in the raised position to permit service work to be performed safely beneath a raised body. DO NOT GO BENEATH THE CONTAINER BODY UNLESS THE BODY IS EMPTY AND THE BODY PROP IS IN THE PROPER POSITION!

CAUTION **UNLOAD BODY BEFORE USING BODY PROP!**

OPERATION OF BODY PROP

1. Raise body to full height and shut off all power.
2. Raise prop to upright position.
3. Lower body SLOWLY until body bracket contacts prop.
4. DO NOT POWER HOIST DOWN.

OPERATION OF DUMP HOIST

RAISING THE DUMP BODY

1. Make sure the leaf vacuum is connected properly to the towing vehicle. DO NOT RAISE THE HOIST IF THE UNIT IS NOT PROPERLY CONNECTED TO THE TOW VEHICLE!
2. Survey the dumping area for overhead lines or any object that could hinder the path of the box container when dumping. Be sure to look at the sides, rear of unit and above the box container for any obstructions, persons or animals.
3. Secure the rear doors to the side of the box container.
4. Double-check the complete area to be sure all people, power lines or other objects are clear of the dumping area.
5. Start the engine using the procedure located in the front of this manual. Set the engine speed to approximately 1,200 RPM's (increase if necessary).
6. Make sure the clutch is disengaged.
7. Slowly raise the body to the height needed to remove the material from the box container.
8. Use the body prop if the unloaded box container is left in the raised position.

CAUTION See Crysteel Truck Body Prop section for complete instructions.

LOWERING THE DUMP BODY

1. Make sure the leaf vacuum is connected properly to the towing vehicle. DO NOT RAISE THE HOIST IF THE UNIT IS NOT PROPERLY CONNECTED TO THE TOW VEHICLE!
2. Make sure all persons, tools or other objects are clear of the hoist .
3. Make sure body prop is down.
4 Set engine speed to appoximately 1,200 RPM's and slowly lower hoist.
5. When the dump body lowers to approximately 12" from the bottom position the body may stop. This is because a safety check valve is installed in the hoist hydraulic lines. The check valve prevents the dump body from being lowered too quickly. DO NOT REMOVE OR ALTER THIS VALVE IN ANY WAY!
6. If the body stops near the bottom, raise the body approximately 12" and slowly lower the dump body to the bottom. The body must be lowered slowly the last 12" or it will not go to the bottom position.

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PARTS BREAKDOWNS SECTION

Engine Group
Clutch Group
Blower Housing Group
Chassis and Hopper Group
Hose Boom Group

PARTS BREAKDOWN SECTION

ODB COMPANY
5118 Glen Alden Drive
Richmond, VA 23231
800-446-9823

ENGINE GROUP

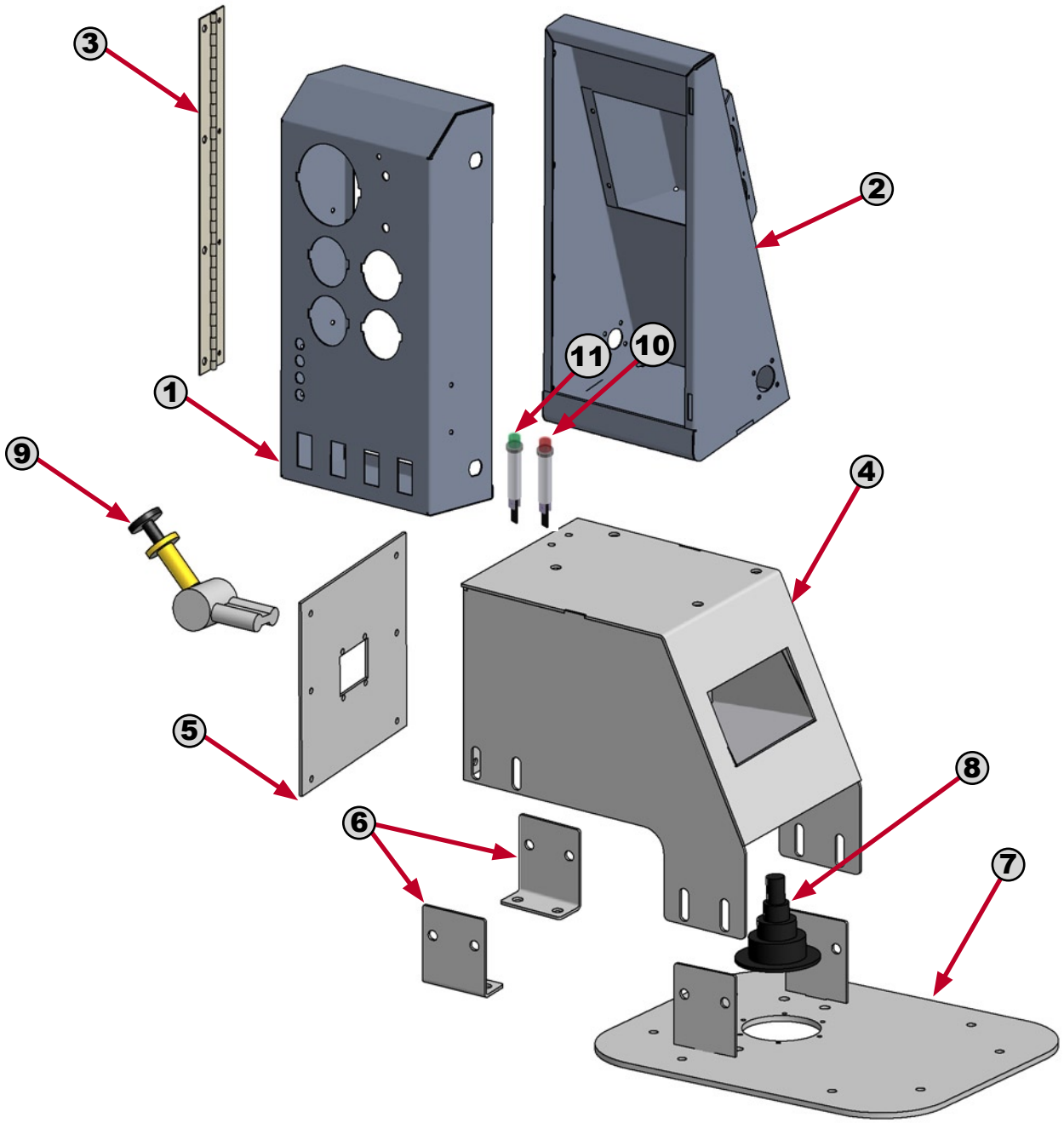
*Instrument Panel
*Air Cleaner
*Engine Sheet Metal
*Engine Mount
*Engine Exhaust
*Radiator Assembly
*Remote Throtte Assembly

ENGINE GROUP

ODB COMPANY
5118 Glen Alden Drive
Richmond, VA 23231
800-446-9823

SCL-3X In-Cab Instrument Panel Mounting Group

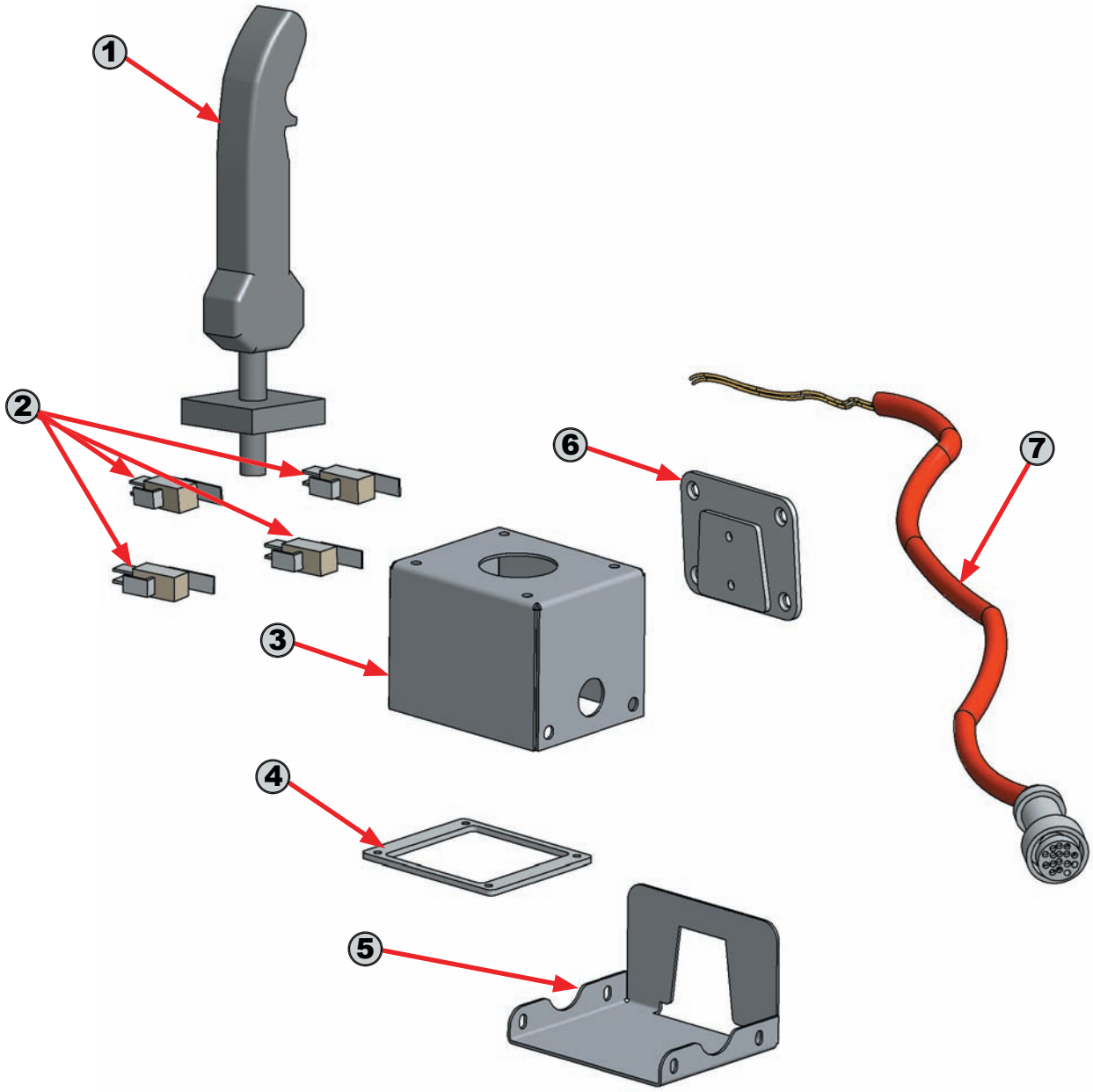
Standard units (non-computer models) January 2006 and after



ITEM NO.	PART NUMBER	DESCRIPTION
	STD.PM	Panel Mounting Complete Assembly
1.	STD.6301	Instrument Panel Housing
2.	STD.3115	Panel Housing Back
3.	STD.6305	Hinge
4.	STD.3114	Panel Mount
5.	STD.3116	Side Plate
6.	STD.3117	Support Bracket
7.	STD.3118	Floor Mounting Bracket
8.	STD.3119	Harness Rubber Boot
9.	800.415	Air Operated Dump Valve, thru Dec. 2006
10.	PUM725.094	Red LED Light
11.	PUM725.094B	Green LED Light

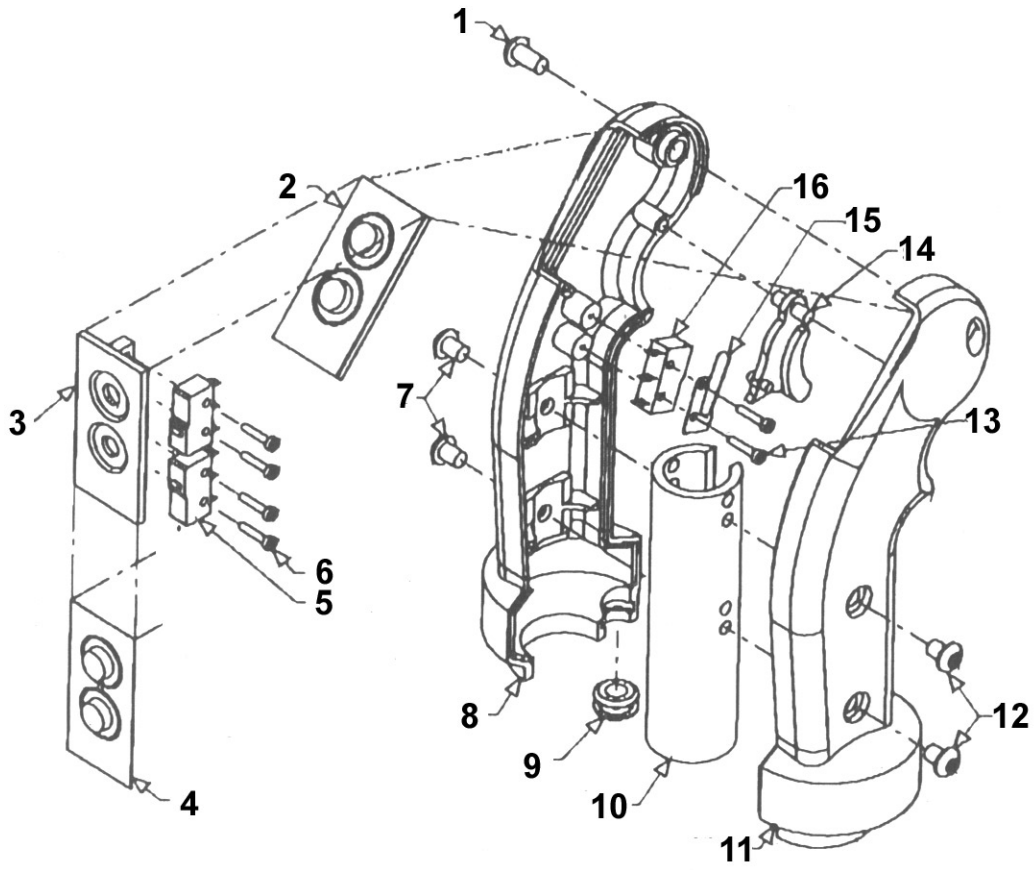
SCL-3X In-Cab Joystick Group

Standard units (non-computer models) January 2006 and after



ITEM NO.	PART NUMBER	DESCRIPTION
*	STD.3100	Complete Joystick Assembly - (Items 1 - 7)
1.	STD.3100	Joystick only, with switches - Blue Handle
2.	STD.3100S	Joystick Switch
3.	STD.3110	Joystick Box
4.	STD.3111	Retainer
5.	STD.3112	Bottom Plate
6.	STD.3113	Mounting Bracket
7.	STD.3100W	Wire Harness - Joystick to Instrument Panel

Joystick Breakdown 3X Truck Parts Group
January 2006 and after SCL800SM-3X

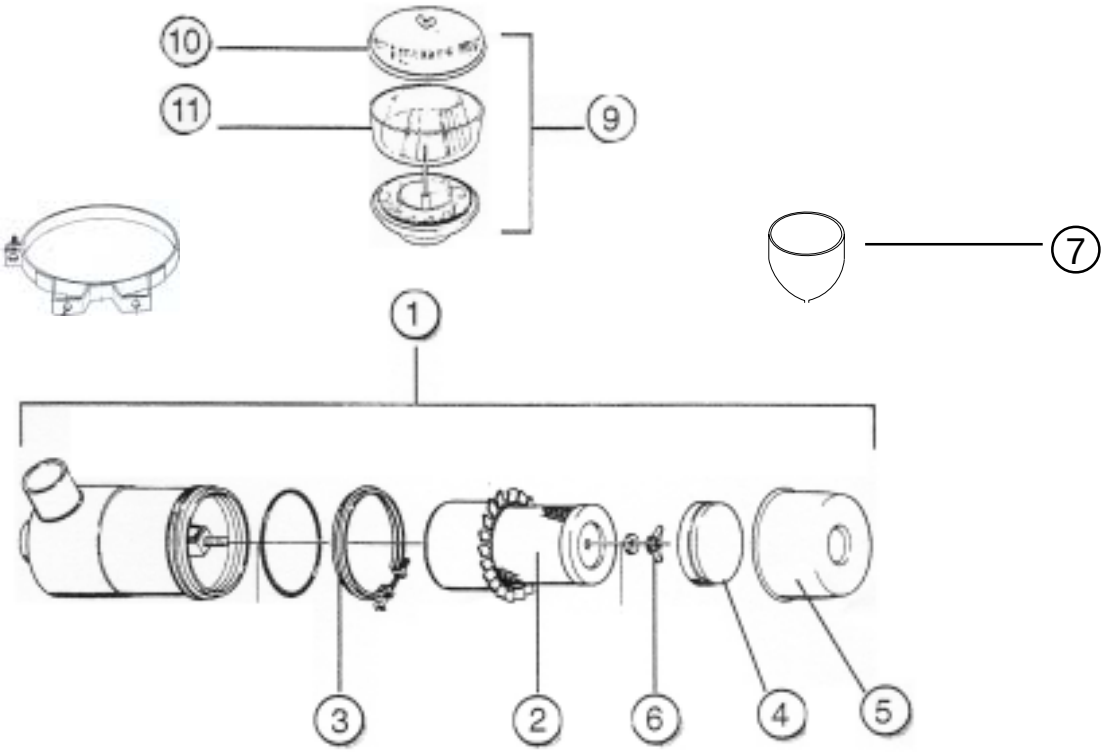


ITEM NO.	PART NUMBER	DESCRIPTION
1.	SC-02	Button Capscew #10-32 x 3/8
2.	S-FP-A2	2 Button Faceplate Assembly
3.	S-FP-01	Empty Faceplate
4.	S-ME-A2	2 Button Overlay
5.	SW-00	Switch - S Series
6.	SC-03	Tapping Screw #2 x 7/16
7.	SC-04	Button Capscrew 10-32 x 1/4
8.	S-HL-01	Handle Case Left
9.	GR-01	Wire Grommet
10.	PN-03	Mounting Pin
11.	S-H1-02	Handle Case Right
12.	SC-04	Button Capscew #10-32 x 1/4
13.	SC-03	Tapping Scew #2 x 7/16
14.	S-TR-01	Single Trigger
15.	LS-00	Leaf Spring
16.	SW-00	Switch S Series

Please specificy red or blue joystick. This is NOT the breakdown for the black joystick

AIR CLEANER GROUP

Approx. 08/96 and after



Mounting bands do not come with the air cleaner or pre-cleaner, they are sold separately

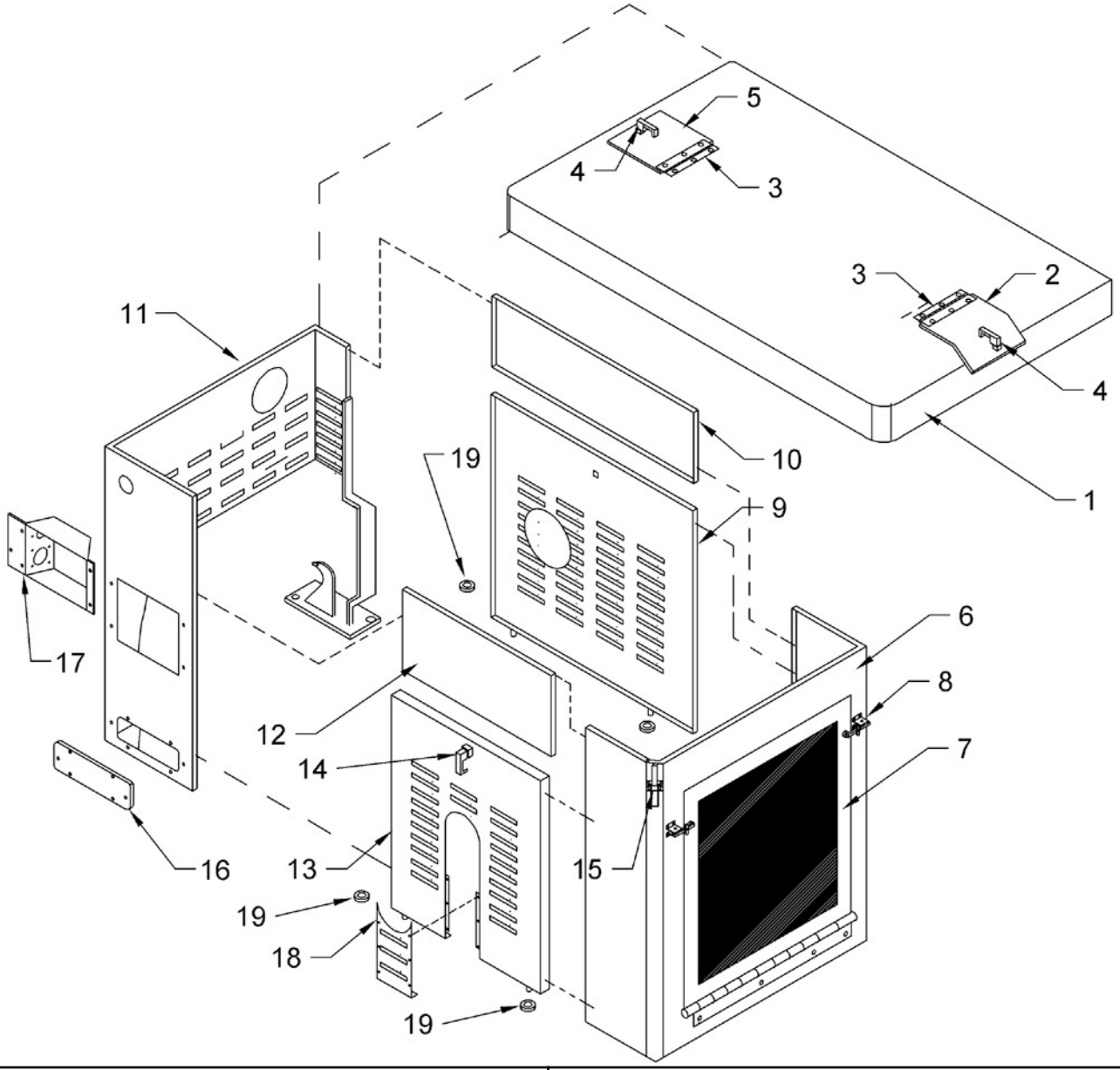
	John Deere * (4 cyl. regular) only used bef. 04/04 6.5" Diam.	**JD 4 cyl. Turbo**, JD 6 cyl. Caterpillar, Ford,** 8" Diam.	
1.	OD-G065012	UU-G080023	Air Cleaner Assembly w/filter
2.	P18.1052	P18105.4	Filter Element
3.	P002940	P003951	Clamp
4.	P102510	P102980	Rubber Baffle
5.	P102805	P103113	Dust Cap
6.	P101870	P101870	Wing Nut
7.	P103198	N/A	Vacuator Valve (rubber)
8.	P007191	P004307	Mounting Bands (to sheet metal)
9.	H001251	H001249	Pre-Cleaner Assembly
10.	P020648	P020648	Bowl Cover
11.	P020227	P020227	Bowl

* Before July 1999, LCT650 with John Deere engines used G080023 (8" diam,)air cleaners and H001249 pre-cleaners.

* * May 2004 and after all ODB LCT's and SCL's use UU-G080023 8" diameter fiters as standard.

SCL 3X Sheet Metal Group

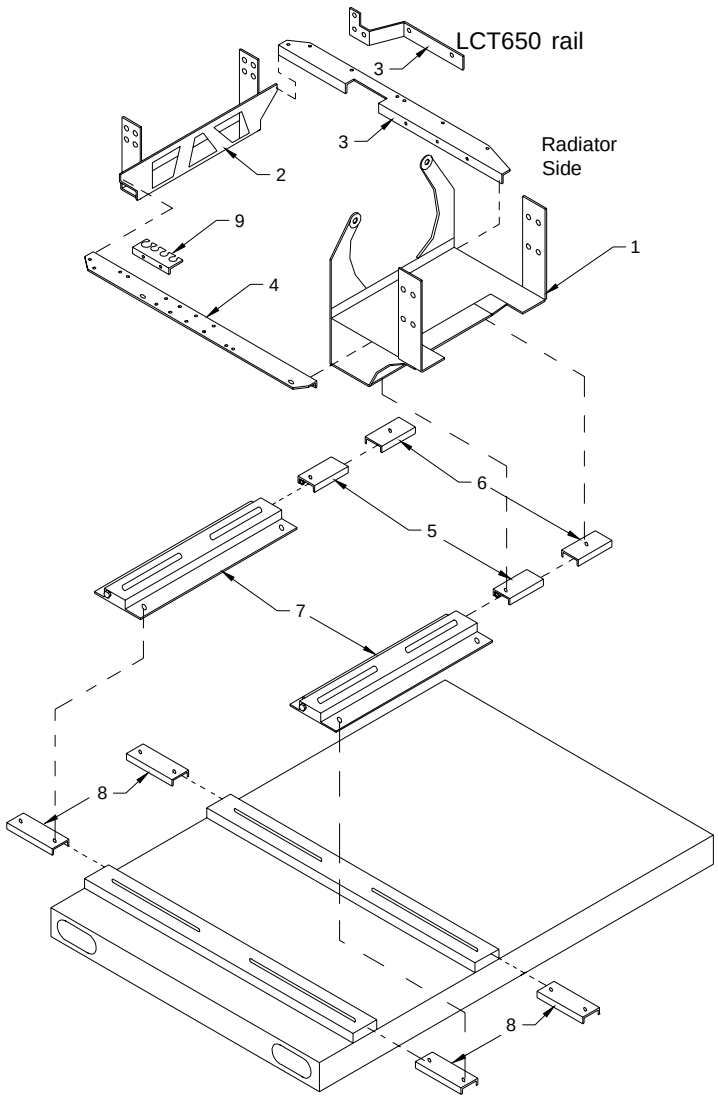
John Deere 4045T and 6068D 2006 and after



ITEM NO.	PART NUMBER	DESCRIPTION
1.	4045T.2102S	Hood, SCL800, JD Turbo
	6068.2102S	Hood, SCL800, JD 6 cyl. diesel
2.	4045.2102A	Radiator Access Door
3.	4045.2102C	Rad. Access Door Hinge
4.	LCT60.624A	Lift And Turn Latch
5.	4045.2102B	Oil Fill Access Door
6.	4045.2101	Front Panel
7.	4045.0018	Radiator Screen
8.	LCT650.114	Radiator Screen Clamp
9.	4045.2109	Panel Door, LH
	6068.2109	Panel Door, LH 6 cyl. diesel
10.	4045.2106A	Upper Side Panel, LH-turbo
	6068.2106	Upper Side Panel, LH - 6 cyl.
11.	4045.2112E	Rear Panel, SCL's with JD turbo
12.	4045.2105A	Upper Side Panel, RH 03/01-
	6068.2105	Upper Side Panel, RH 6 cyl diesel
13.	4045.2108B	Panel Door, RH 3X only
	6068.2108	Panel Door, RH 6 cyl. diesel
14.	LCT60.624A	Lift and Turn Latch
15.	LCT609.602	Overcenter Latch
16.	4045.2112F	Cover, Solenoid
17.	STD.6304	Wiring Plug Bracket
18.	4045.2108C	Cut out Panel
19.	2856.26012	Door Grommet

Engine Mount Group

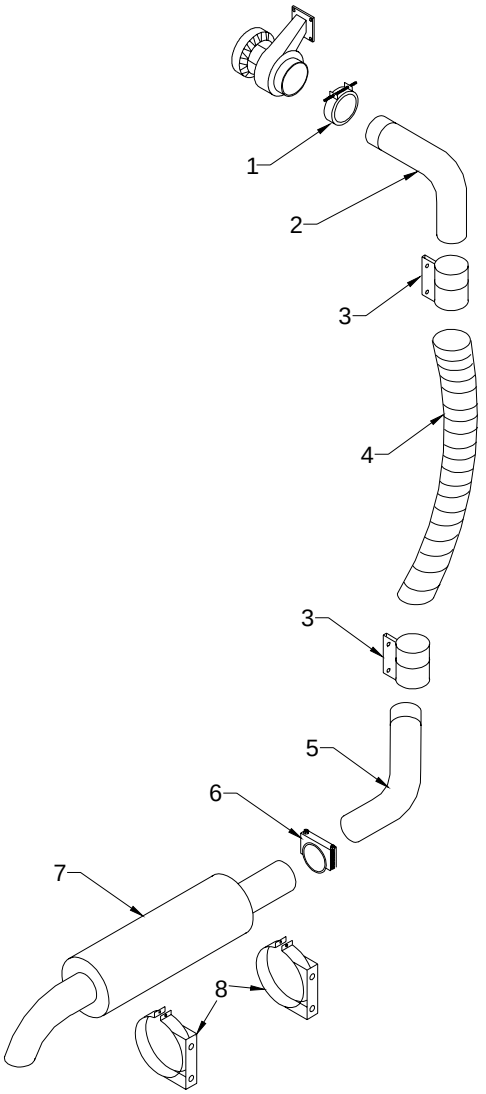
John Deere 4045D, 4045T and 6068D after 08/96, Caterpillar 2005 and after



ITEM NO.	PART NUMBER	DESCRIPTION
1.	4045.2151	Engine Mount, Front
	3054.2151	**Engine Mount, Front, Caterpillar**
2.	4045.2152	Engine Mount, Rear
	3054.2152	**Engine Mount, Rear, Caterpillar**
3.	4045.2154	Side Rail, LH, except LCT650
	4045.2156	Side Rail, LH - LCT650 only
	6068.2154	Side Rail, LH, J/D 6 cyl. diesel
4.	4045.2153	Side Rail, RH
	4045.2153B	Side Rail, RH, LCT650 only
	6068.2153	Side Rail, RH, J/D 6 cyl. diesel
5.	LCT604.603.1	Engine Adjuster Nut, belt drive units only
6.	LCT604.603.1A	Engine Adjuster Bracket, belt drive units only
7.	LCT604.603.2	Adjustable Motor Mount, belt drive units only
8.	LCT604.603.B	Engine Base Adjuster (LCT600/6000 only)
9.	4045.2155	Wire Harnesses Bracket, June 2005 and after

Exhaust (Muffler) Group - SCL800TM

May 2004 and after



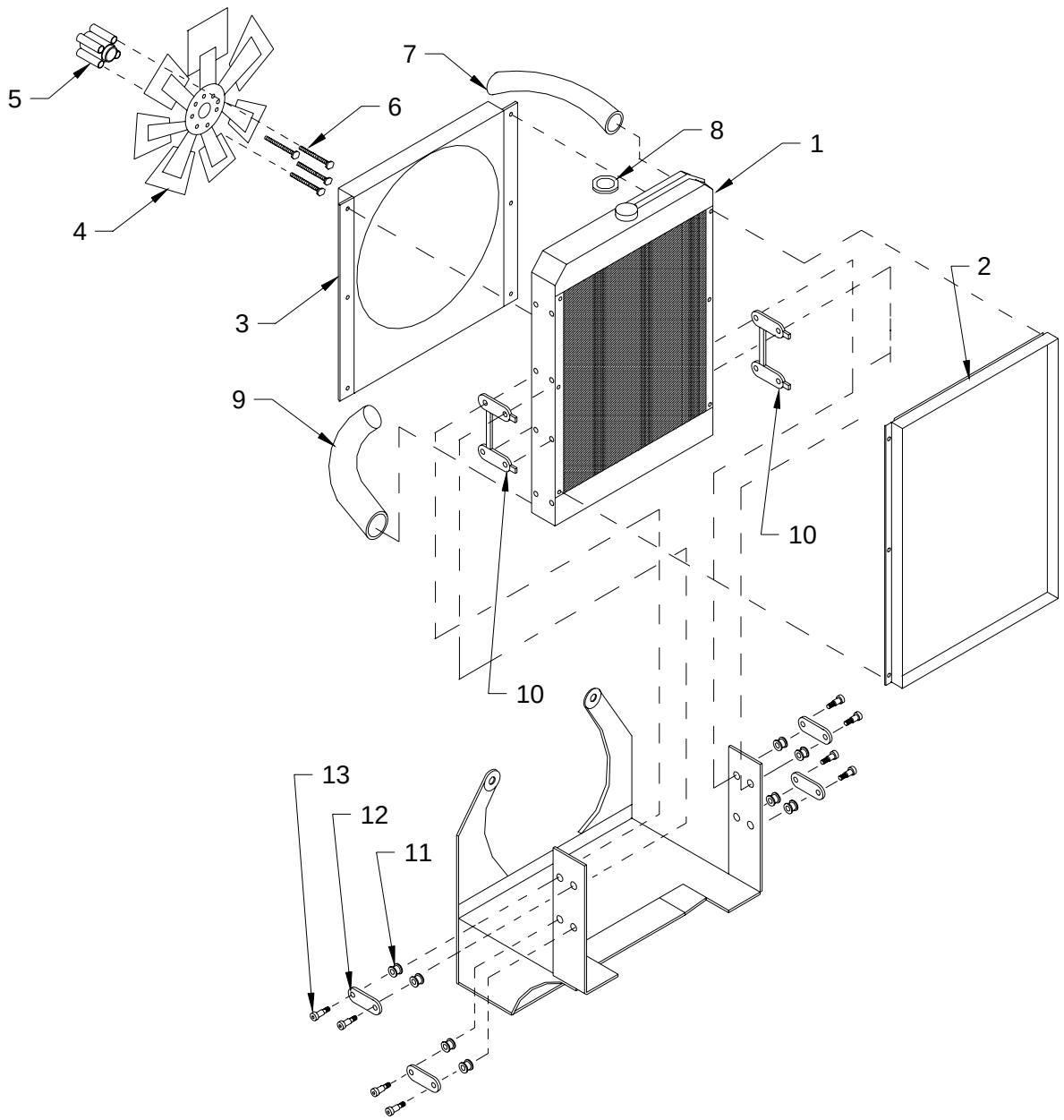
ITEM NO.	PART NUMBER	DESCRIPTION
1.	JD-R132471	Clamp
2.	800.3401	90 Degree Elbow to turbocharger
3.	800.3404	Clamp
4.	800.3402	Flex Pipe, 4" D
5.	800.3403	90 Degree elbow to muffler
6.	800.3407	Clamp, Muffler
7.	800.3405	Muffler
8.	UU-P007191	Muffler Support Bands

Notes:

The above exhaust system only works with John Deere 4 cylinder turbo engines. ODB started using these engines May 2004.

Radiator Assembly Group

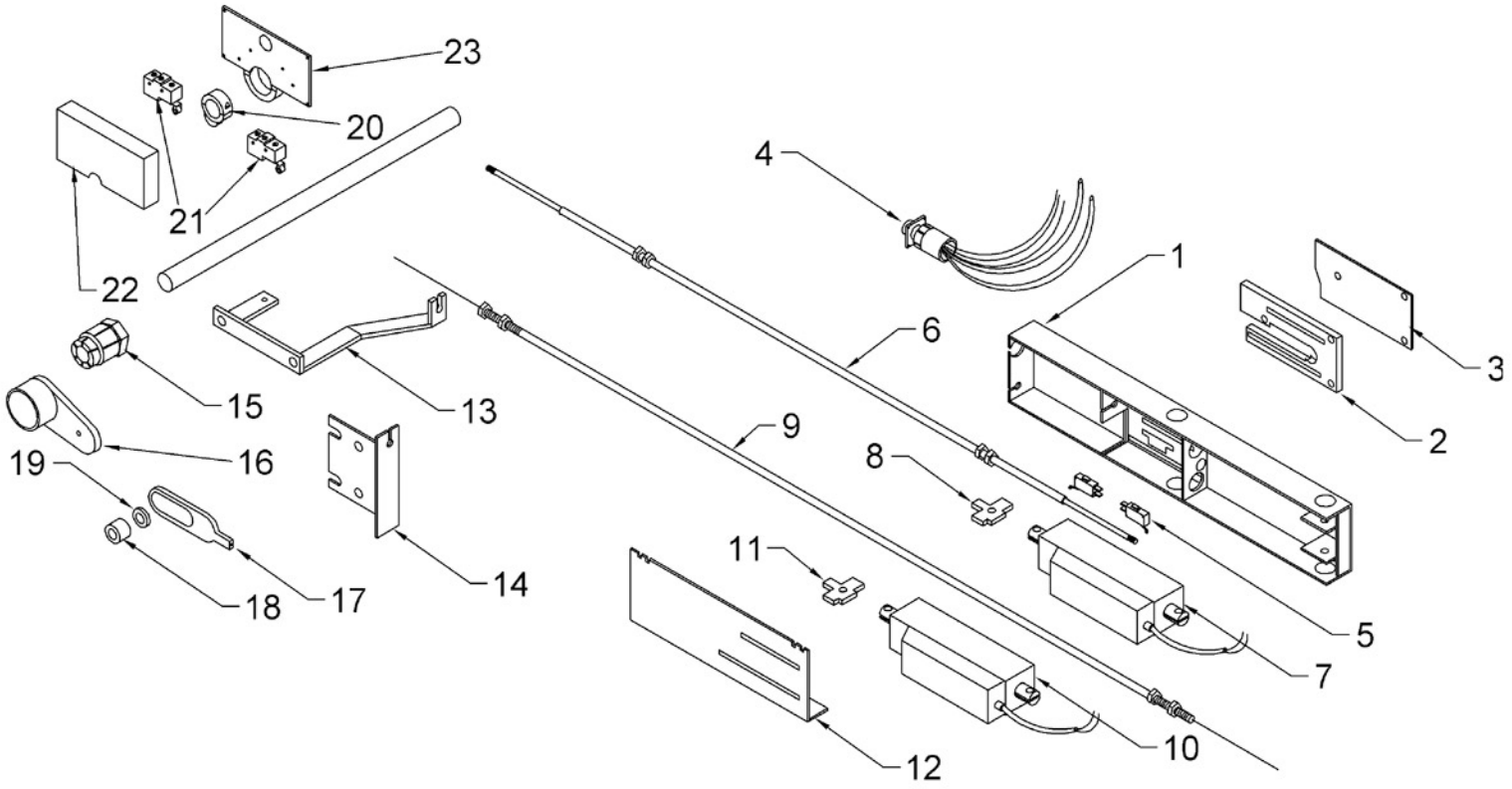
John Deere after August 1996, Cateripillar 2005 and after



ITEM NO.	PART NUMBER	DESCRIPTION
1.	4045.9503	Radiator, JD & Cat
2.	4045.2190B	Front Fan Shroud, JD
	3054.2190B	**Front Fan Shroud, Cat**
3.	4045.2190A	Rear Fan Shroud
4.	AT35158	Radiator Fan
5.	R128443	Fan Spacer, JD
	3054.9508	**Fan Spacer, Cat**
6.	G8M8X090	Spacer Bolts, 4 req.
7.	81331	Upper Radiator Hose, JD
	3054.9504	**Upper Rad. Hose, Cat**

ITEM NO.	PART NUMBER	DESCRIPTION
8.	C.89C.022.5010	Radiator Cap
9.	4045.9681	Lower Radiator Hose, JD
	3054.9505	**Lower Rad. Hose, Cat -to radiator**
	3054.9505B	**Lower Rad. Hose, Cat -to engine**
10.	4045.2151E	Radiator Shim
11.	2651.26012	Radiator Grommet
12.	4045.2151F	Radiator Bolt Bracket
13.	ZSB.500.750	Shoulder Bolt

Remote Clutch and Remote Throttle Assembly after March 2002- ver. 2

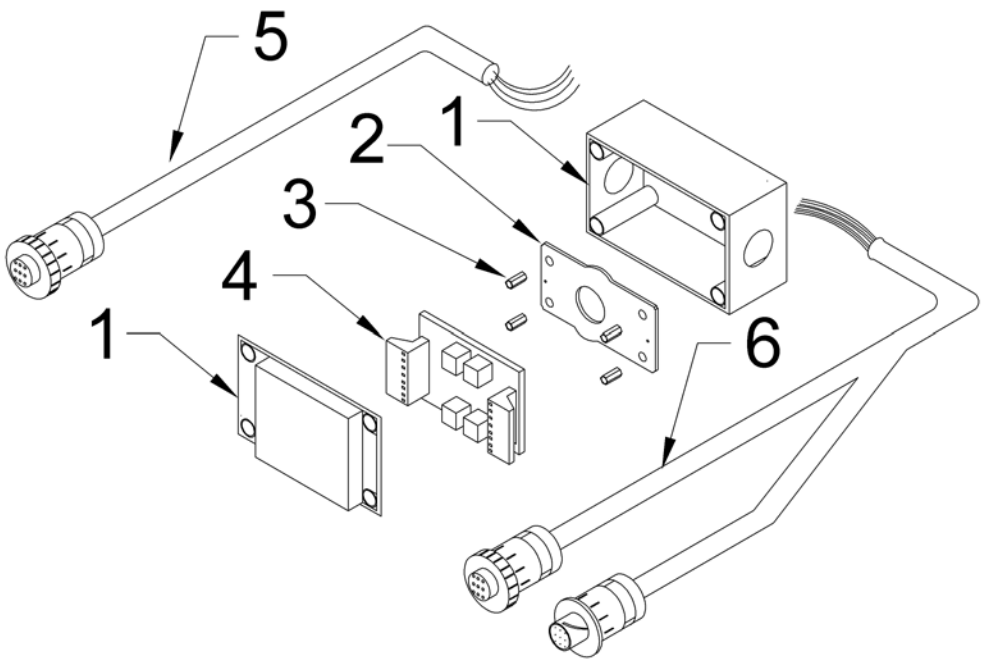


ITEM NO.	PART NUMBER	DESCRIPTION
*	STD.6550	Entire Assembly (see note)
*	STD.6550B	Entire Assemby (see note)
1.	STD.6551A	Mounting Base
2.	STD.6551A.01	Mounting Base Thick Spacer
3.	STD.6551A.02	Mounting Base Thin Spacer
4.	STD.6566	Wiring Harness
5.	STD.6555	Limit Switch (thru 2005)
6.	STD.6554	Clutch Cable- direct drive
	STD.6554B	Clutch Cable- belt drive 800
7.	STD.6556	Clutch Actuator (top)
8.	STD.6559	Cable Adaptor- clutch
9.	STD.6553	Throttle Cable-direct drive
	STD.6553B	Throttle Cable-belt drive 800
10.	STD.6557	Throttle Actuator (bottom)
11.	STD.6558	Cable Adaptor- throttle
12.	STD.6552A	Cover
13.	4045.6565	Throttle Cable Bracket
14.	4045.6564	Clutch Cable Bracket
15.	STD.6563	Torque Coupling
16.	STD.6562	Torque Coupling Sleeve
17.	STD.6560	PTO Cable Adaptor
18.	STD.6561	Roller Bearing
19.	STD.6568	Spacing Washer
	Parts Below used on SCL8003X Computer Models only	
20.	STD.6569	Collar Cam
21.	800.434	Limit Switch
22.	STD.6571	Cover
23.	STD.6570	Limit Switch Bracket

Note: STD.6550 Assembly has item #5 switches installed. These were used up to 2005.
STD.6550B Assembly does not have item #5 switches installed and used from 2006 and after. The STD.6550B uses the item #21 switches to activate the indicator lights.

Remote Clutch / Throttle Circuit Board Assembly

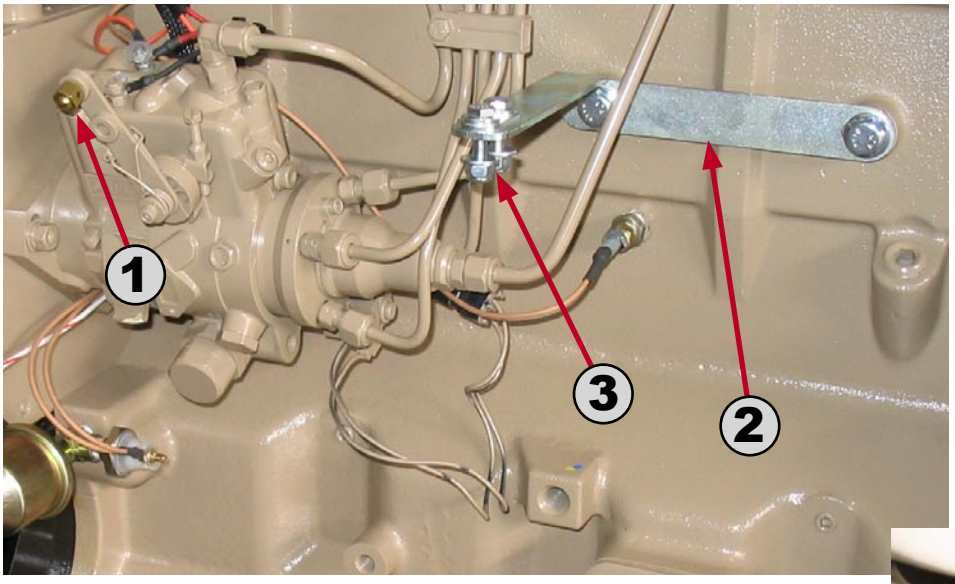
October 2005 and after with remote throttle / clutch option



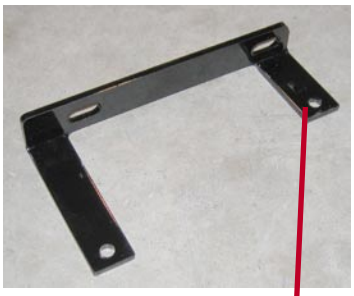
ITEM NO.	PART NUMBER	DESCRIPTION
*	STD.3000	Entire Assembly
1.	STD.3000D	Box and Cover
2.	STD.3000A	Backing Plate
3.	STD.3000B	Spacer, requires 4
4.	STD.3000C	Circuit Board
5.	STD.3000E	Actuator Wiring Harness
6.	STD.3000F	Instrument Panel and Nozzle Wiring Harness

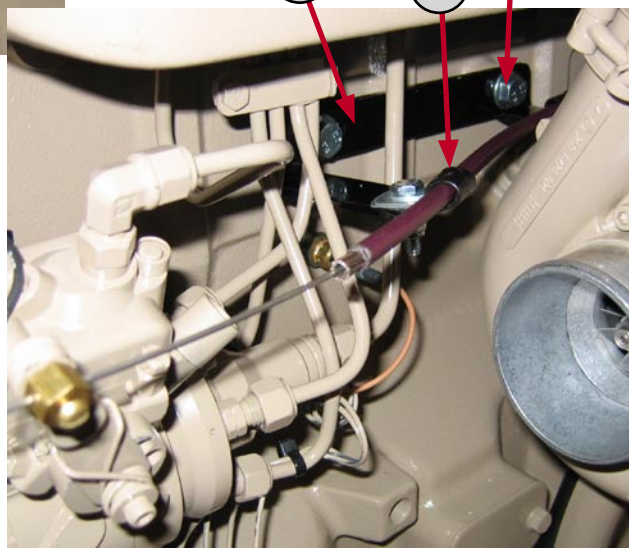
Note: This assembly is only used if the unit is equipped with the OPTIONAL remote clutch or remote throttle configuration.

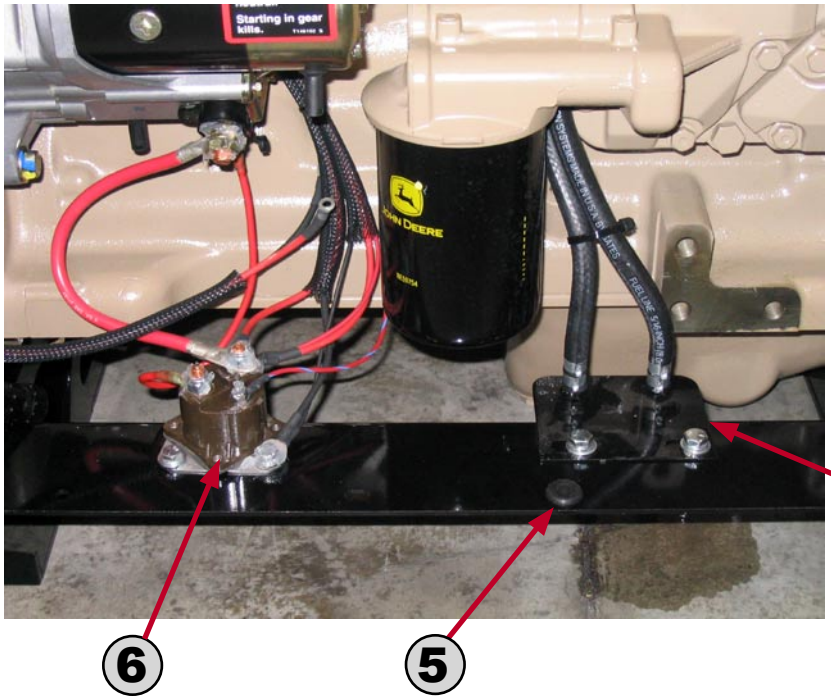
Engine Miscelleous Parts Group
John Deere Engines



Enlarged View of 4045T.9101

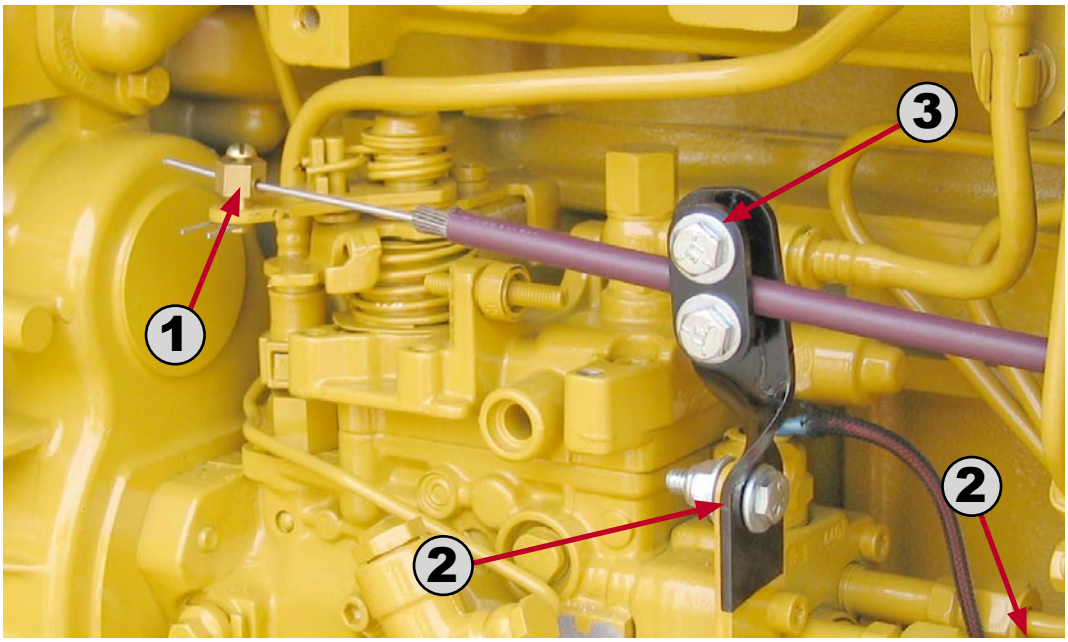


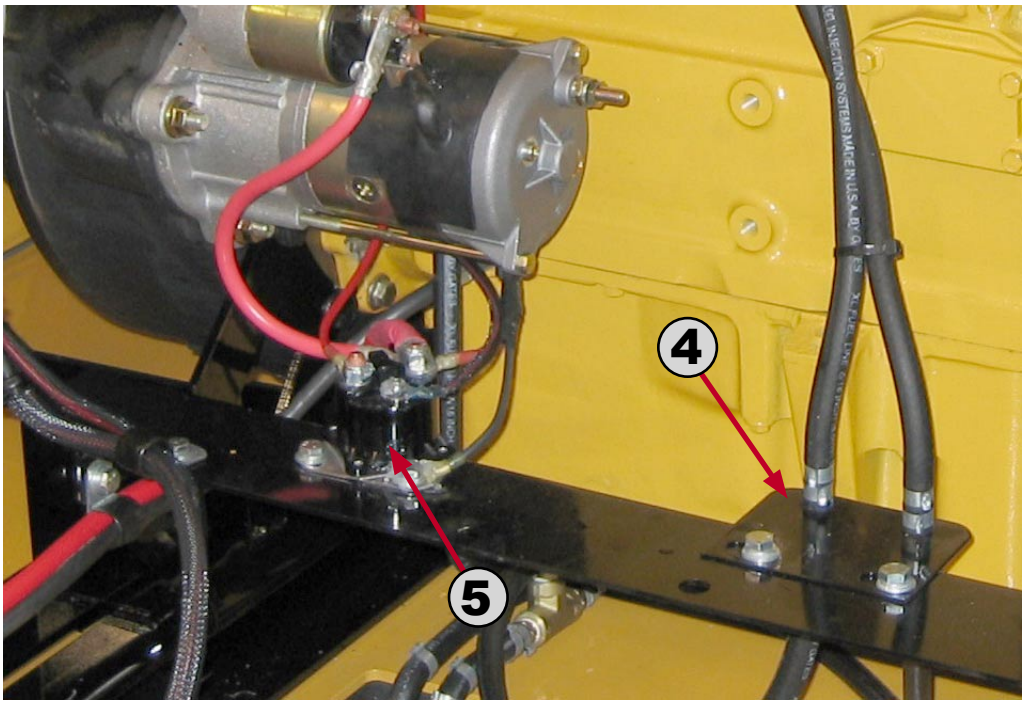




ITEM NO.	PART NUMBER	DESCRIPTION
1.	39011.2	Throttle Connector
2.	4045.9101	Throttle Cable Bracket, All units with John Deere natural engines (non turbo), *All LCT turbo units still use this bracket.
	4045T.9101	Throttle Cable Bracket, 2004 and after SCL's with turbo engines
3.	4045.9101A	Throttle Cable Clamp, LCT's with JD engines
	4045T.9101A	Throttle Cable Clamp for 4045T.9101 only
4.	400016	Fuel Line Bracket
5.	2856.26012	Grommet - Door
6.	ST40	Starter Solenoid

Engine Miscelleous Parts Group
Caterpillar Engines

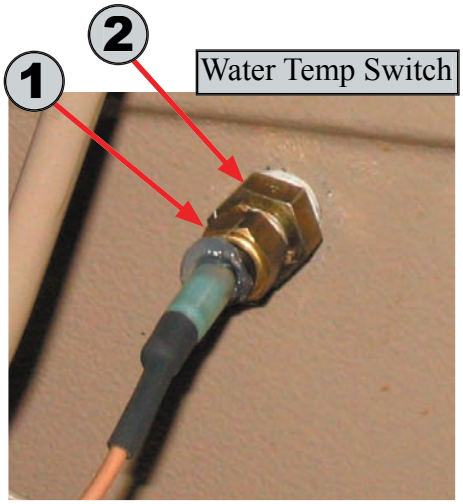


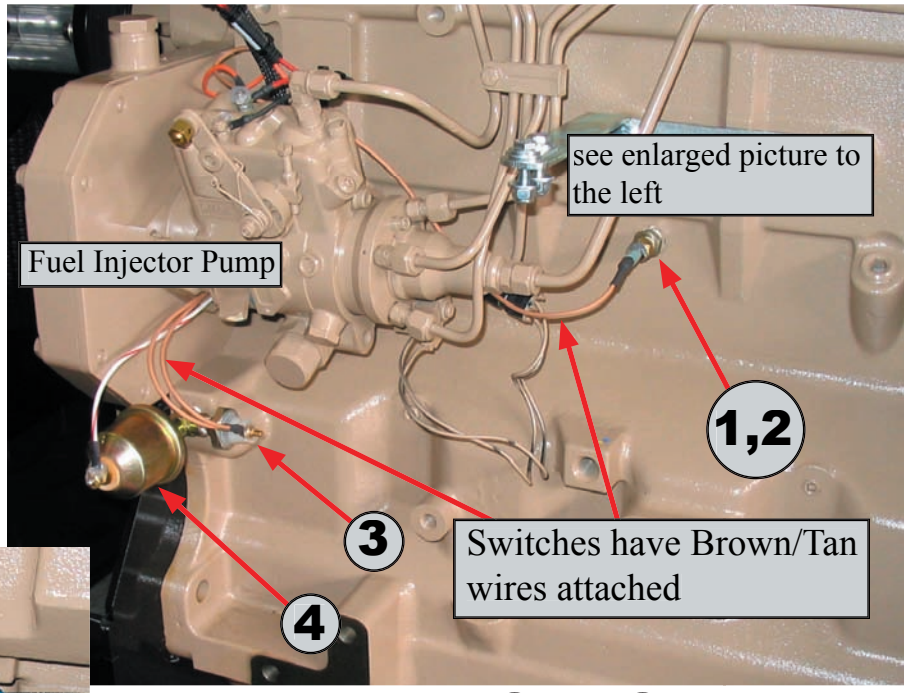


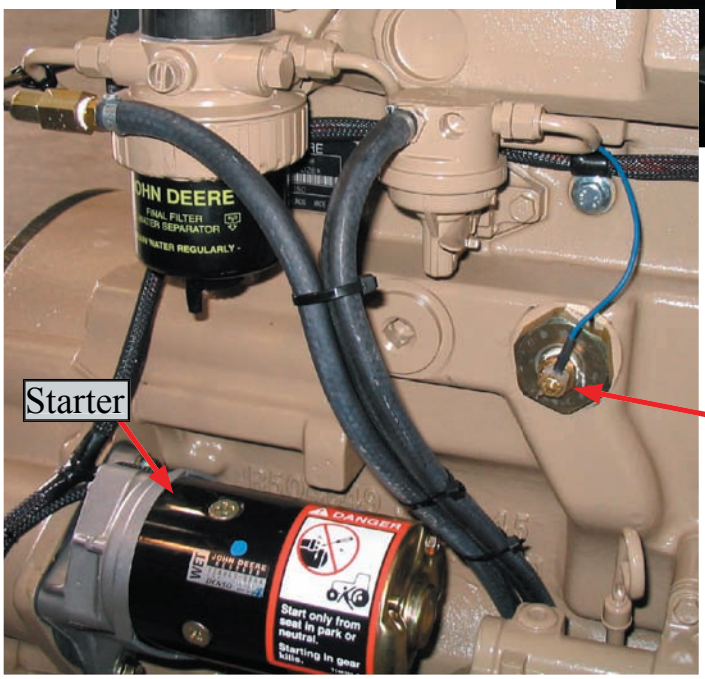
ITEM NO.	PART NUMBER	DESCRIPTION
1.	OD-39011.2	Throttle Connector
2.	3054.9101	Throttle Cable Bracket, Caterpillar
3.	3054.9101B	Throttle Cable Clamp, Caterpillar
4.	OD-400016	Fuel Line Bracket
5.	OD-ST40	Starter Solenoid

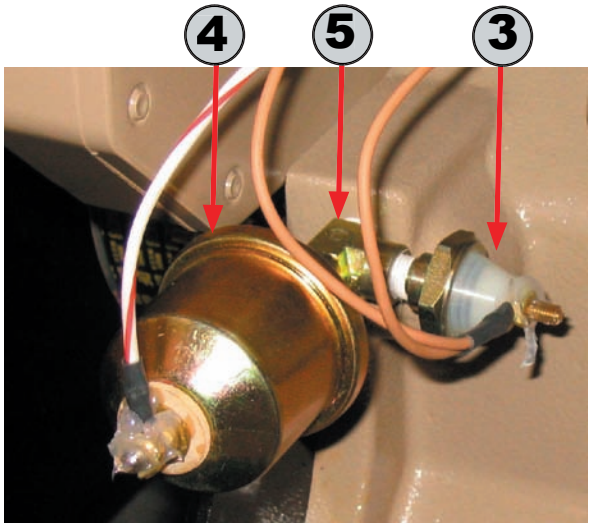
Engine Senders / Switch Group

John Deere Engines



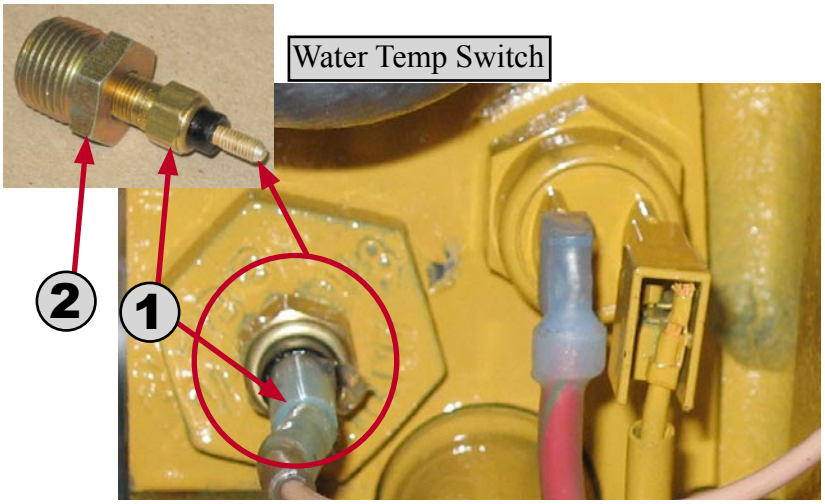




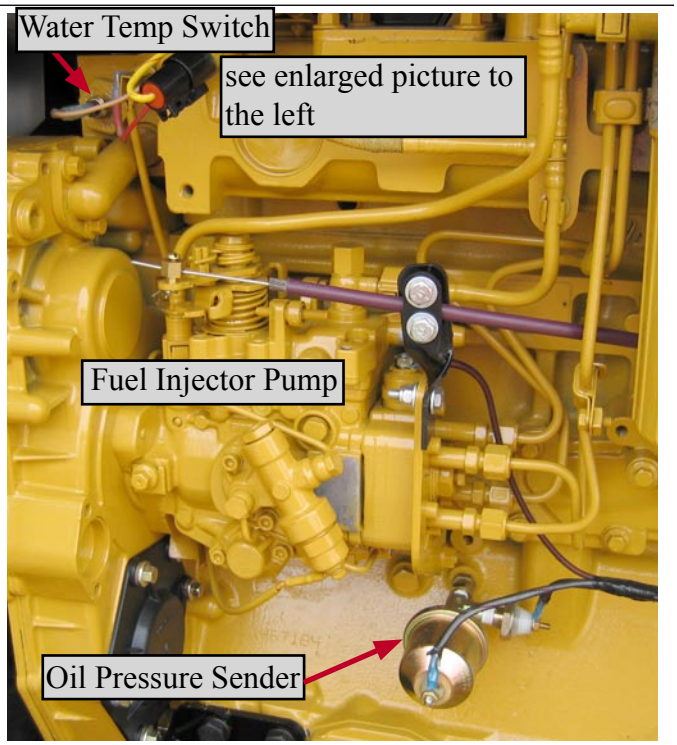


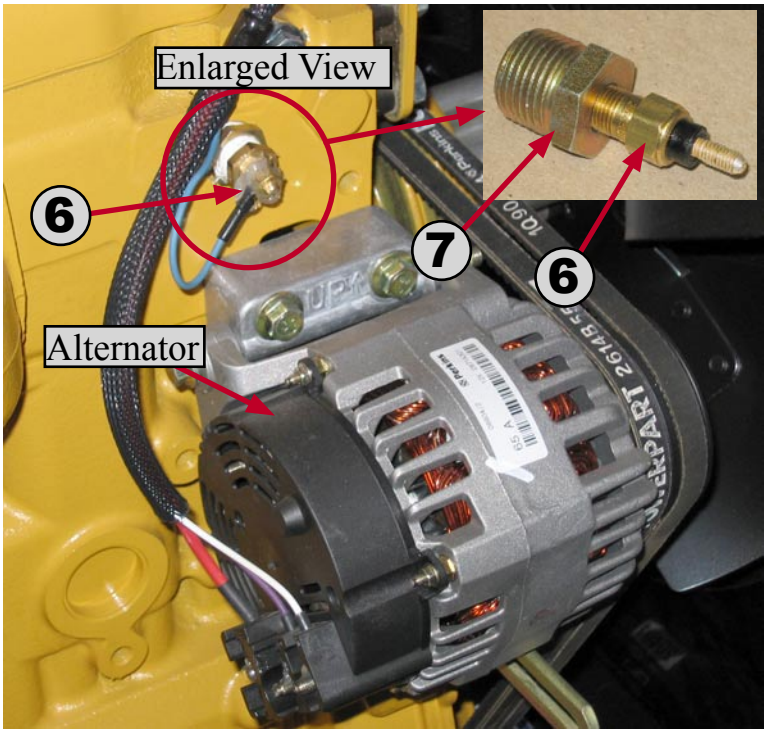
ITEM NO.	PART NUMBER	DESCRIPTION
1.	35423.049	Water Temperature Switch
2.	C5104.4.2	Fitting for Water Temperature Switch
3.	9603273	Oil Pressure Switch
4.	1500171	Oil Temperature Sender
5.	3750.2	Bushing for Oil Pressure Switch and Sender
6.	52320.009	Water Temperature Sender

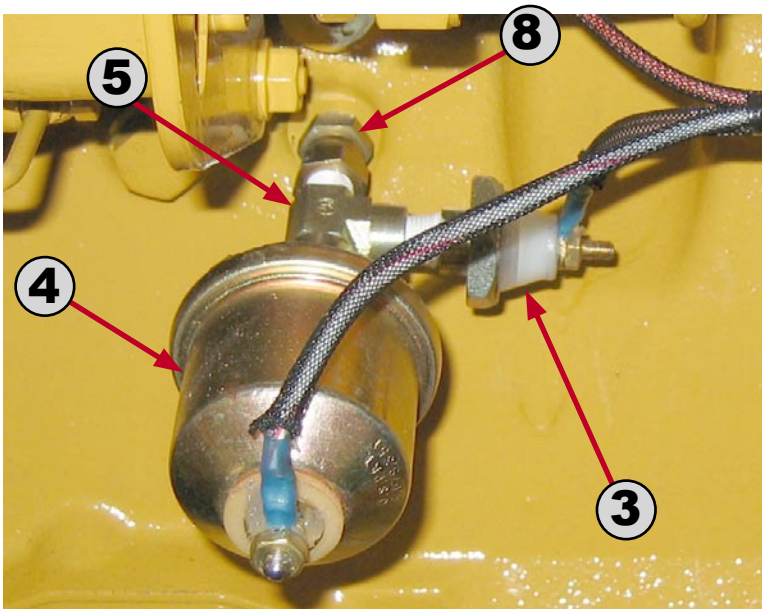
Engine Senders / Switch Group
Caterpillar Engines



Switches have Brown wires attached







ITEM NO.	PART NUMBER	DESCRIPTION
1.	35423.049	Water Temperature Switch
2.	3054.2204	Fitting for Water Temperature Switch
3.	9603273	Oil Pressure Switch
4.	1500171	Oil Temperature Sender
5.	3750.2	Bushing for Oil Pressure Switch and Sender
6.	52320.009	Water Temperature Sender
7.	3054.2202	Bushing Adaptor, temp sender
8.	3054.2203	Bushing Adaptor, oil pressure switch

CLUTCH GROUP

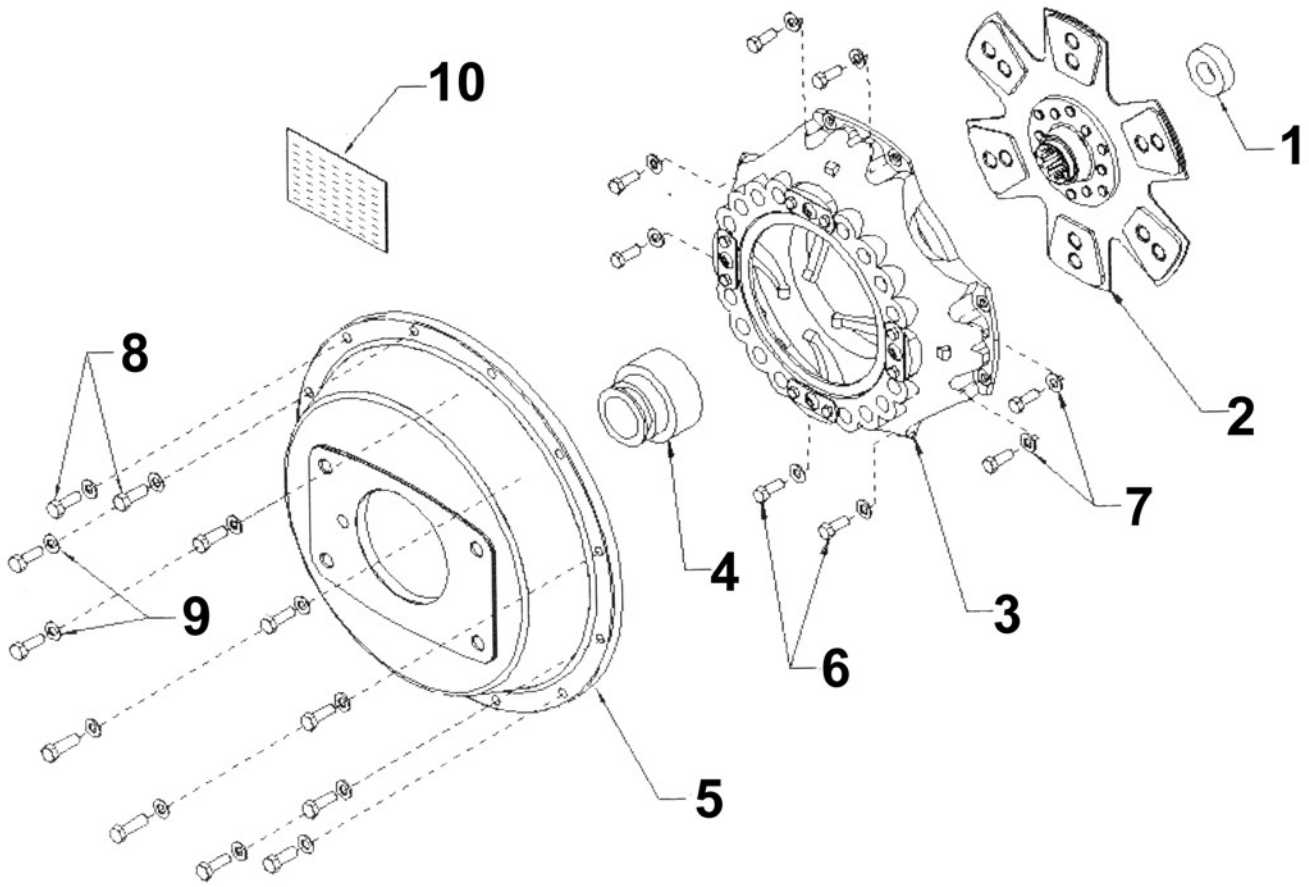
*Clutch Breakdown
*Auto PTO Breakdown
*Auto PTO Linkage
*Clutch Assist Breakdown

CLUTCH GROUP

ODB COMPANY
5118 Glen Alden Drive
Richmond, VA 23231
800-446-9823

AutoHD PTO Clutch Group

February 2006 - Present

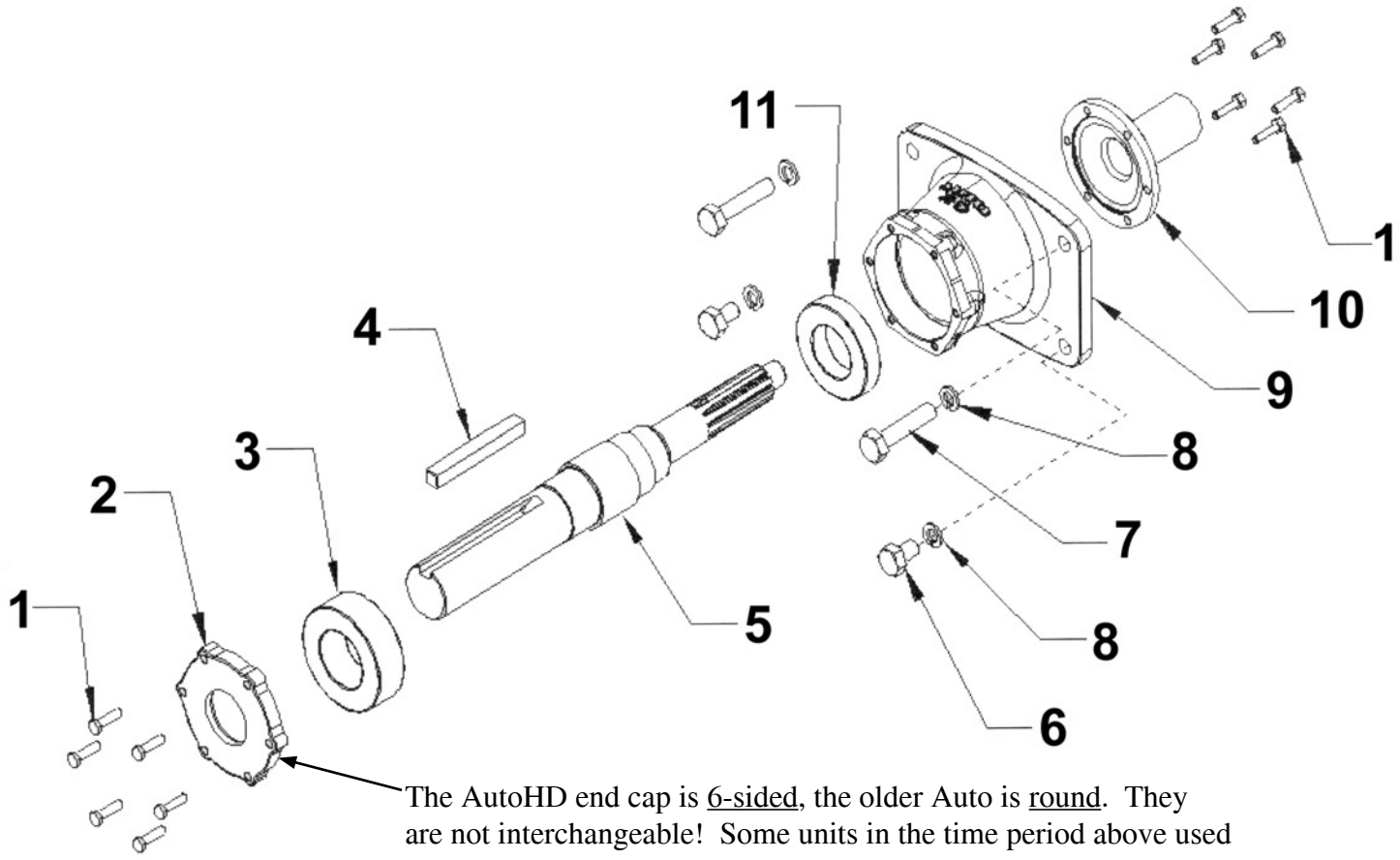


ITEM NO.	PART NUMBER	DESCRIPTION
*	OD-48080050	*Complete PTO and Clutch Assembly 02/06-02/08
*	OD-48080050.7	*Complete PTO and Clutch Assembly 03/08 -
1.	OD-6305.2RS	Pilot Bearing, JD
	OD-3054.9507	Pilot Bearing, Caterpillar
2.	OD-41500218	Clutch Disk
3.	OD-41500209	Pressure Plate, 02/06-02/08
3.	OD-41500060	Pressure Plate, 03/08 -
4.	OD-41500003	Throw out Bearing,02/06-02/08
	OD-41500248	Throw out Bearing,03/08 -
5.	OD-41500172	Clutch Cover
6.	OD-45000054	Bolt, 3/18-16 x 1"
7.	OD-45000063	Lock Washer, 3/8"
8.	OD-45000003	Bolt, M10-1.50 x 45MM
9.	OD-45000046	Lock Washer, M10
10.	OD-41500009	Decal, Diesel Clutch

Note: *48080050 and 48080050.7 includes the everything on this page, the AutoHD PTO page and the AutoHD linkage page. This is the complete PTO/Clutch assembly. It does not include the clutch assist assembly.

AutoHD PTO Assembly Group

February 2006 - Present

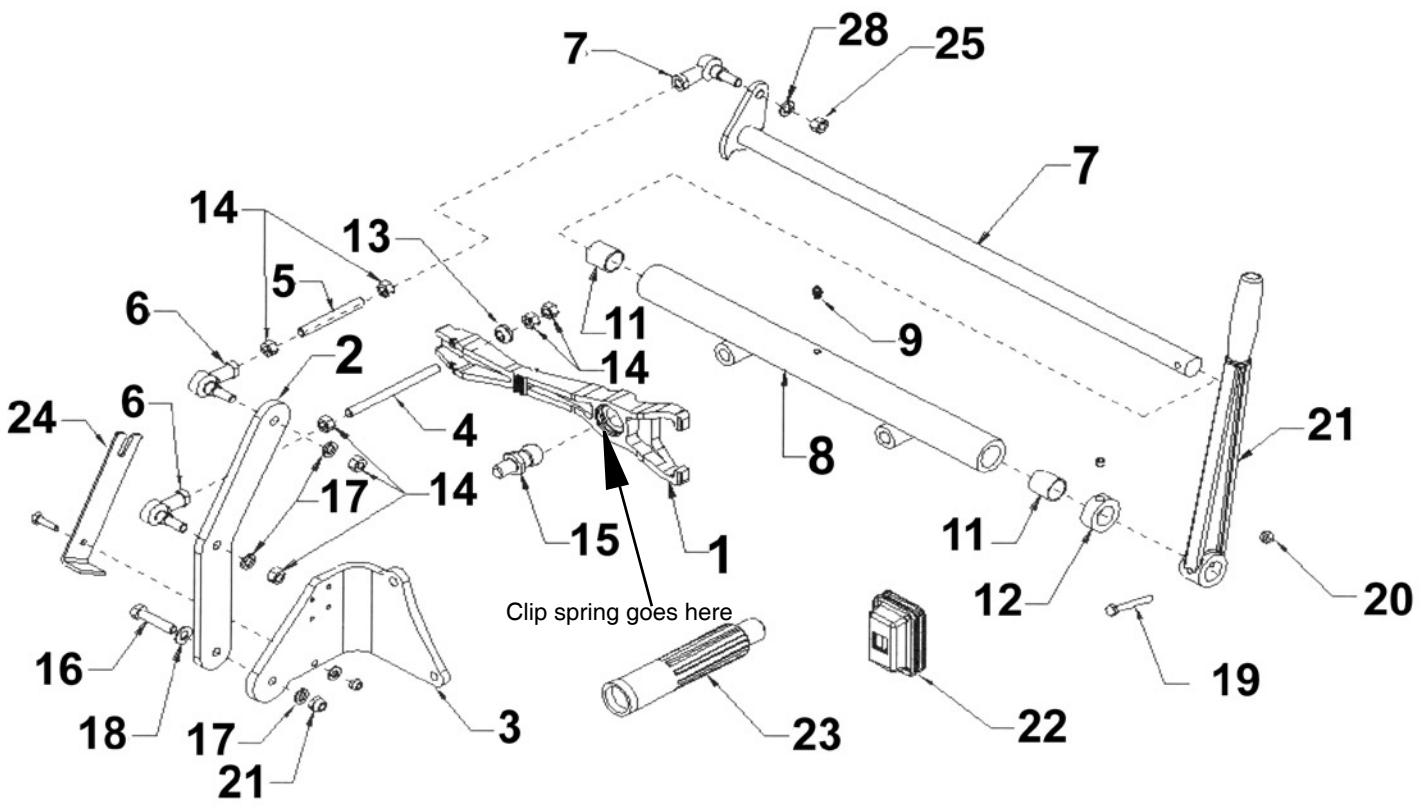


The AutoHD end cap is 6-sided, the older Auto is round. They are not interchangeable! Some units in the time period above used the standard Auto PTO. Please verify.

ITEM NO.	PART NUMBER	DESCRIPTION
*	OD-41500200	Complete PTO Assembly (items 1 -11,13)
**	OD-48080050	**Complete PTO & Clutch Assembly
1.	OD-45000212	Bolt, 5/16-18 x 1-1/4" HD model
2.	OD-41500205	Bearing Retainer Cover
3.	OD-41500206	PTO Bearing, Rear
4.	OD-LCT650.601K	Key, Stepdown--direct drive units only
	OD-LCT650.601F	Key, belt drive units only
5.	OD-41500203	PTO shaft
6.	OD-45000104	Bolt, 9/16-12 x 1 1/2"
7.	OD-45000105	Bolt, 9/16-12 x 3"
8.	OD-45000103	Lock Washer, 9/16"
9.	OD-41500204	PTO Housing
10.	OD-41500202	PTO Collar
11.	OD-41500207	PTO Bearing, Front

AutoHD PTO Linkage Group

February 2006 - Present



ITEM NO.	PART NUMBER	DESCRIPTION
1.	41500063	Fork, 02/06-02/08
1.	41500251	Fork, 03/08-
NS	41500174	Clip Spring in Fork
NS	41500999	Return Spring
2.	41500095	Linkage Bracket
3.	41500166	Linkage Bracket
4.	41500065	Linkage Rod
5.	41500066	Linkage Rod
6.	41500019	Linkage Rod End
7.	see below	Shaft, Lever
8.	41500042.HD	Shaft Housing, AutoHD
9.	41500043	Grease Zerk
10.	41500044	Clutch Handle
11.	41500045	Shaft Bushing

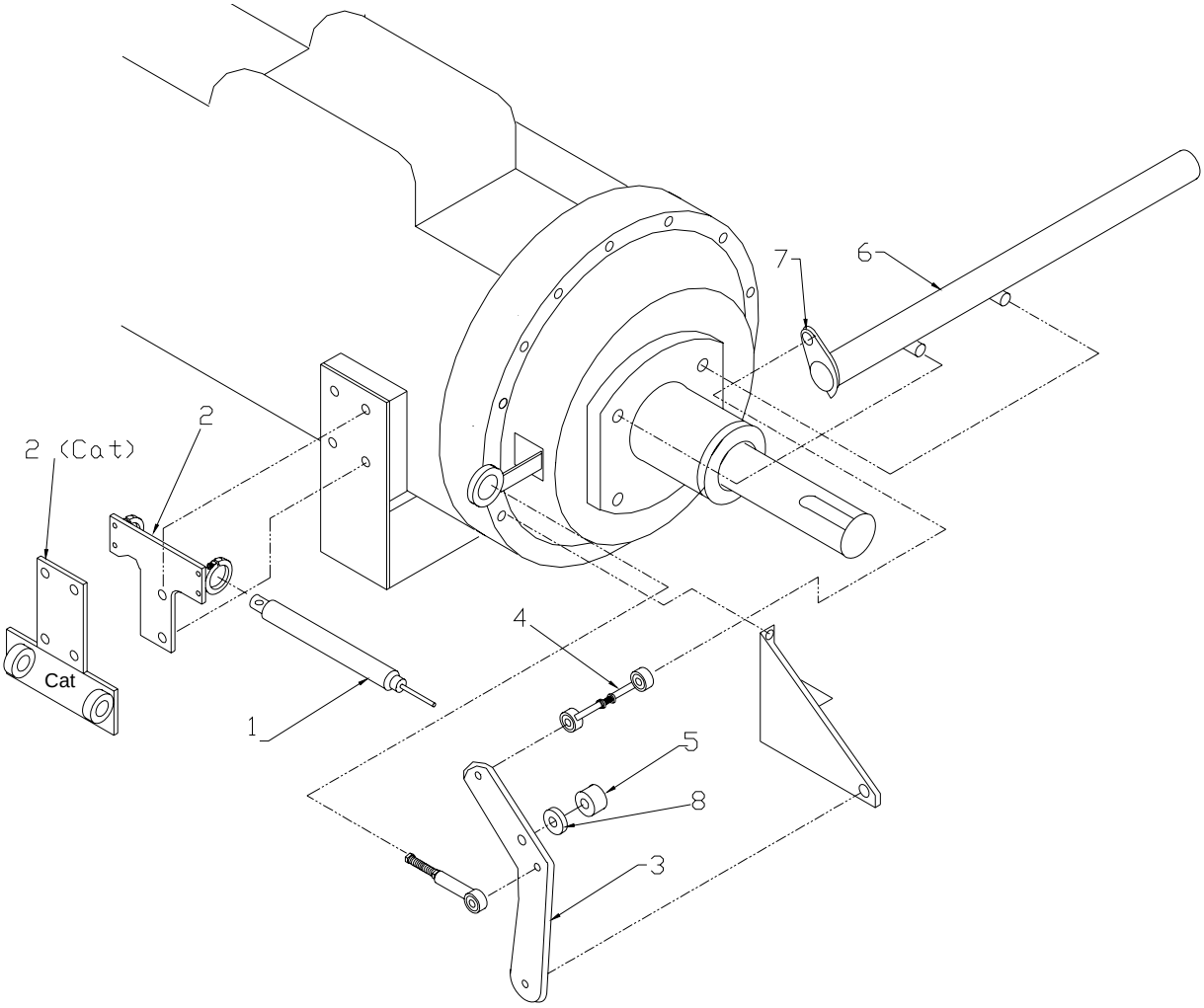
ITEM NO.	PART NUMBER	DESCRIPTION
12.	41500046	Shaft Collar
13.	41500030	Rocker Ball
14.	45000050	Nut, 3/8 - 16
15.	41500001	Pivot Ball,02/06-02/08
	41500072	Pivot Ball 03/08-
16.	15000177	Bolt, 3/8 - 16 x 1 3/4"
17.	45000063	Lock Washer, 3/8"
18.	45000064	Flat Washer, 3/8"
19.	45000012	Bolt, 1/4 - 28 x 2"
20.	45000015	Locknut, 1/4 - 28
21.	45000044	Handle
22.	45000175	Boot
23.	41500164	Alignment Tool
24.	41500103	Alignment Tool

Item #7

Unit	Auto HD
LCT600/6000	41500041.HD
SCL800/60C	41500041A.HD
LCT650	41500041B.HD

Clutch Assist Group

Auto PTO- John Deere 4045D/T (11/00 -); Caterpillar 2005 and after



ITEM NO.	PART NUMBER	DESCRIPTION
1.	400050.A	Clutch Cylinder
2.	400054.C	Cylinder Support Bracket, JD
	3054.2160	**Cylinder Support Bracket, Caterpillar**
3.	400054.A	Clutch Bracket Arm
	41500095	**Clutch Bracket Arm, Auto HD**
4.	41500019	Linkage, Rod end
	41500019A	Linkage, Threaded insert
5.	400050.C1	Bearing
6.	41500042	Pivot Shaft Tube
	41500042.HD	**Pivot Shaft Turb, Auto HD**
7.	41500041	Pivot Shaft, LCT600
	41500041.HD	**Pivot Shaft, LCT600, Auto HD**
	41500041A	Pivot Shaft, SCL800 & LCT60C
	41500041A.HD	**Pivot Shaft, SCL800 & LCT60C, Auto HD**
	41500041B	Pivot Shaft, LCT650
	41500041B.HD	**PIvot Shaft, LCT650, Auto HD**
8.	400050.C2	Spacer

Note: Auto HD is used on engines with 99HP or greater and other engines as an option. Started 08/22/05

BLOWER HOUSING GROUP

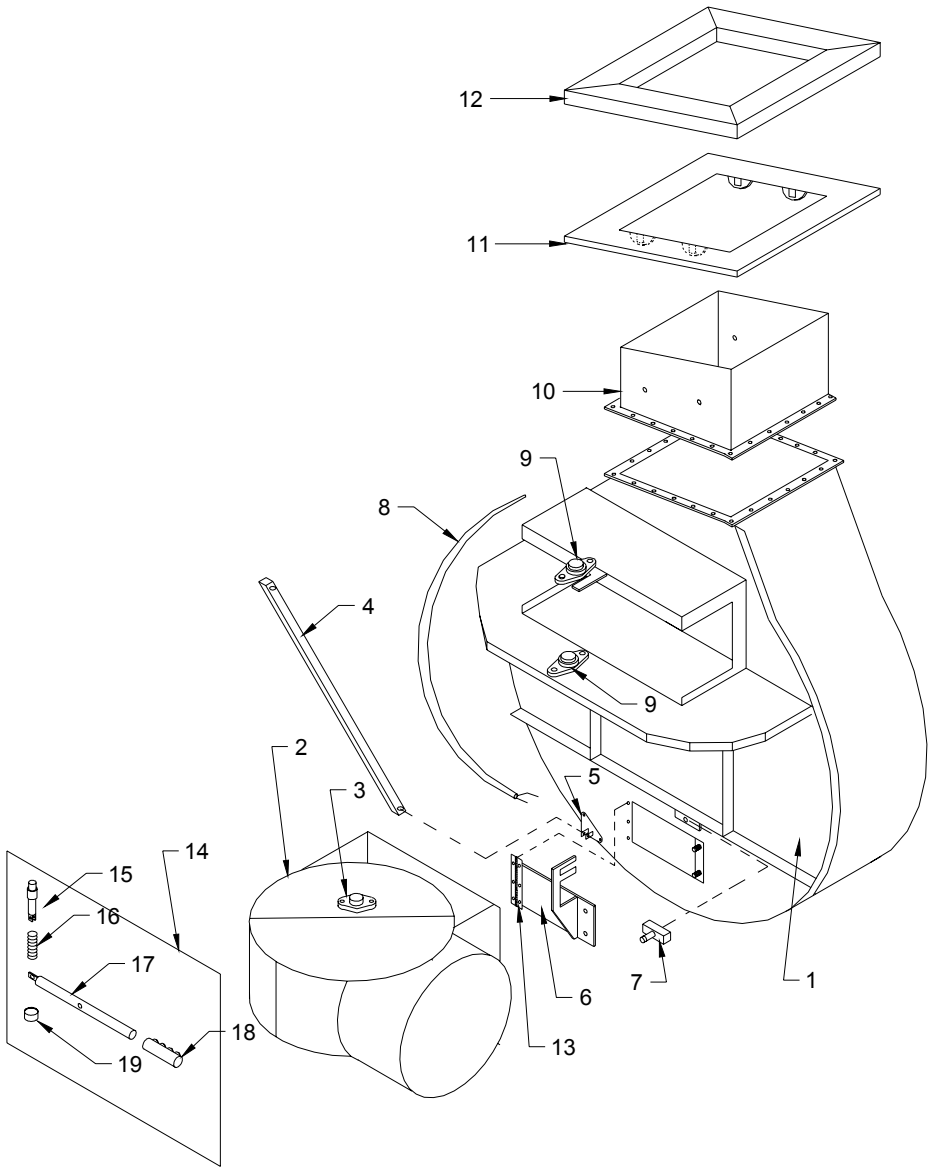
*Blower Housing Face
*Belt Drive Group **(optional)**
*Impeller and Housing Breakdown

BLOWER HOUSING GROUP

ODB COMPANY
5118 Glen Alden Drive
Richmond, VA 23231
800-446-9823

Blower Housing Face Group - SCL800TM

Single Axis units April 2003 and after

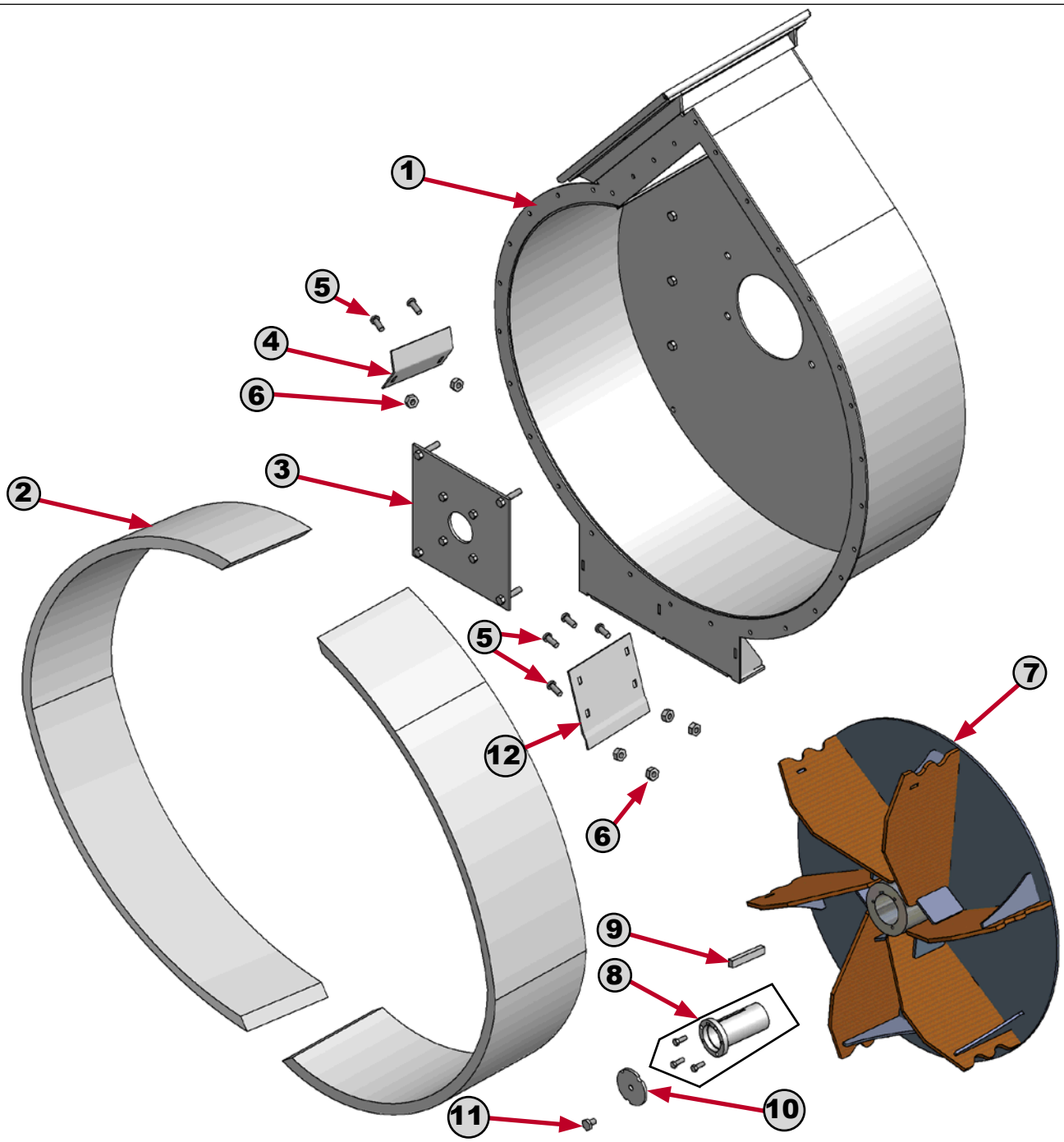


ITEM NO.	PART NUMBER	DESCRIPTION
1.	SCL621.601C	Blower Housing Face, direct
	SCL621.601BD	Blower Housing Face, belt drive
2.	SCL875.001A	Intake Swivel Elbow
3.	SCL875.001	Bearing for Swivel Elbow
4.	SCL621.603	Support Bar
5.	SCL621.604	Support Bar Bracket
6.	SCL621.602	Inspection Door
7.	LCT690.601.A	Limit Switch
8.	LCT609.602	Limit Swith Wire
9.	LCT616.801	Boom Bearing
10.	SCL820.875	Exh. Duct direct drive only, -03/03
10.	800.2801	Exh. Duct, direct drive only 04/03-
11.	SCL821.818	Exh. Adj. Flange, direct only -03/03
11.	800.2802	Exh. Adj. Flange, 04/03 and after
12.	SCL821.817	Exh. Duct Gasket,direct drive -03/03
	800.2803	Exh. Duct Gasket,direct drive 04/03-
	SCL821.817BD	Exhaust Duct Gasket, belt drive
13.	LCT621.603	Inspection Door Hinge
14.	SCL670.2	Stop Pin Handle Assembly
15.	SCL670.1	Pin
16.	SCL670.3	Spring
17.	SCL670.4	Handle Rod
18.	SCL670.5	Grip
19.	SCL670.6	End Cap

**PLEASE NOTE: All units manufactured April 2003 and after have the new exhaust duct design and needs to order using the new part numbers as they are not interchangeable with the old parts.

SCL800 Belt Drive Blower Housing Group

Belt Drive Units only, 2002 and after



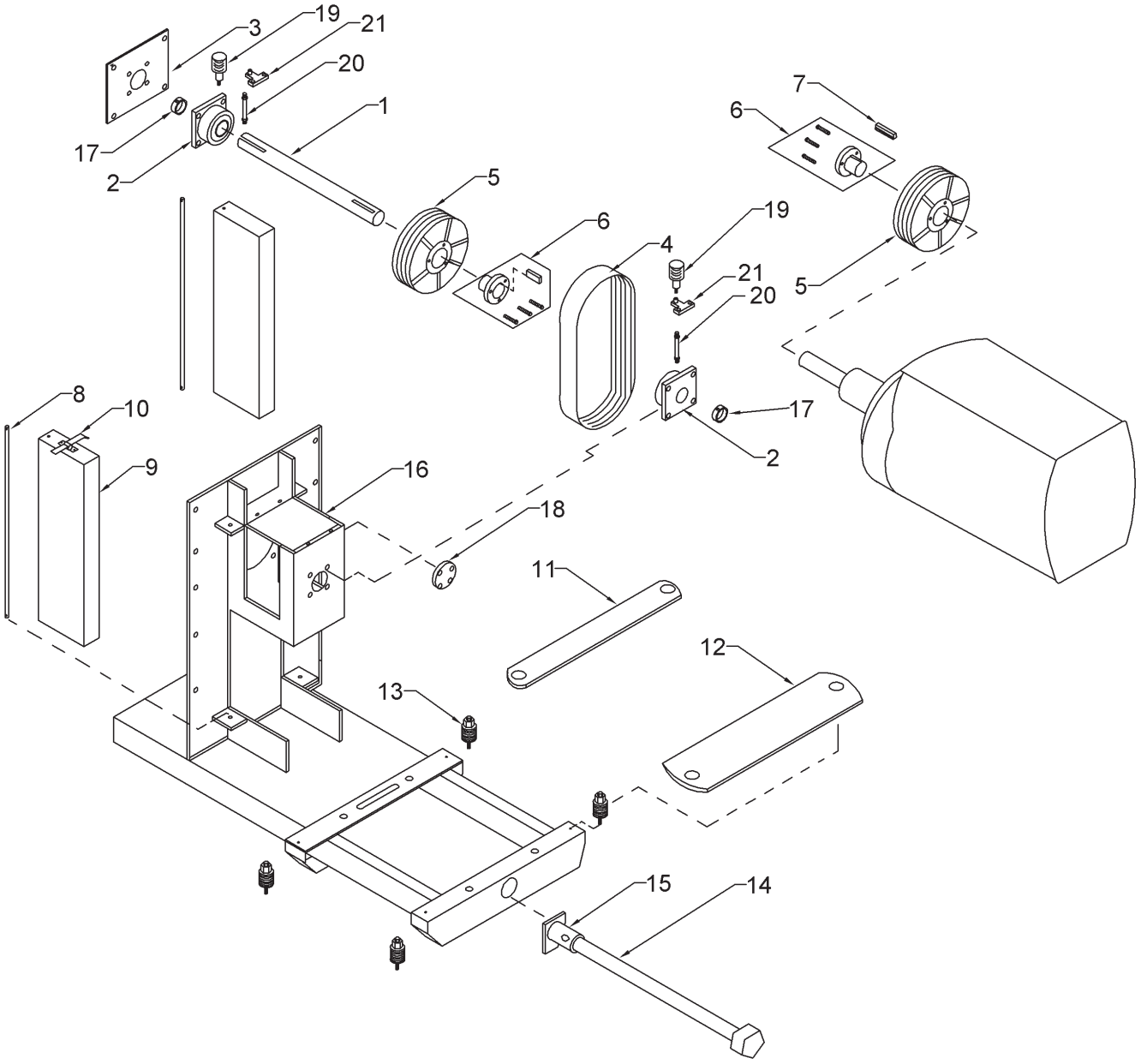
ITEM NO.	PART NUMBER	DESCRIPTION
1.	SCL620.601.BD	Blower Housing Back, Belt drive only
2.	LCT620.602	Liner Set
3.	LCT600.602	Bearing Plate
4.	LCT620.602A	Curved Liner
5.	LCT620.603	Liner Bolt, 1/2-13 x 1-1/4 flat head
6.	LCT620.603N	Liner Nut, 1/2-13 ESN

ITEM NO.	PART NUMBER	DESCRIPTION
7.	LCT60.33	Impeller
8.	LCT650.601	Bushing with bolts
9.	LCT650.601F	Key, straight 11/16" x 1/2 x 4"L
10.	LCT600.615	Shaft Protector
11.	5CZ.500.750	Bolt
12.	LCT620.604	Straight Liner

Note:

Belt Drive Group - SCL800TM/SM

Belt Drive Units ONLY after June 2001



ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
1.	800.2705A	Shaft	12.	800.2702	Engine Adaptor, Front
2.	LCT650.602.A	Bearing	13.	800.2710	Jack Bolt
3.	LCT600.610	Bearing Plate, -03/02	14.	800.2704	Lifting Cam Shaft, 4045D
	LCT600.611	Bearing Plate, 04/02-		800.2704A	Lifting Cam Shaft, 6068D
4.	SCL850.606	Power Band	15.	800.2703A	Lifting Cam
5.	LCT650.603.11	Pulley	16.	800.2751	Cover Plate
6.	LCT650.604	Bushing	17.	LCT650.602.C	Bearing Collar
7.	LCT650.601K	Step Down Key	18.	800.2730	Shaft Cover
8.	800.2750A	Belt Guard Shaft	19.	UU-199T52500	Bearing Auto Luber
9.	800.2750	Belt Guard, LH & RH	20.	UU-199T52500H	Lube Hose
10.	LCT609.602	Latch, top and bottom	21.	UU-199T52500B	Bracket for Auto Luber
11.	800.2701	Engine Adaptor, Rear			

CHASSIS AND HOPPER GROUP

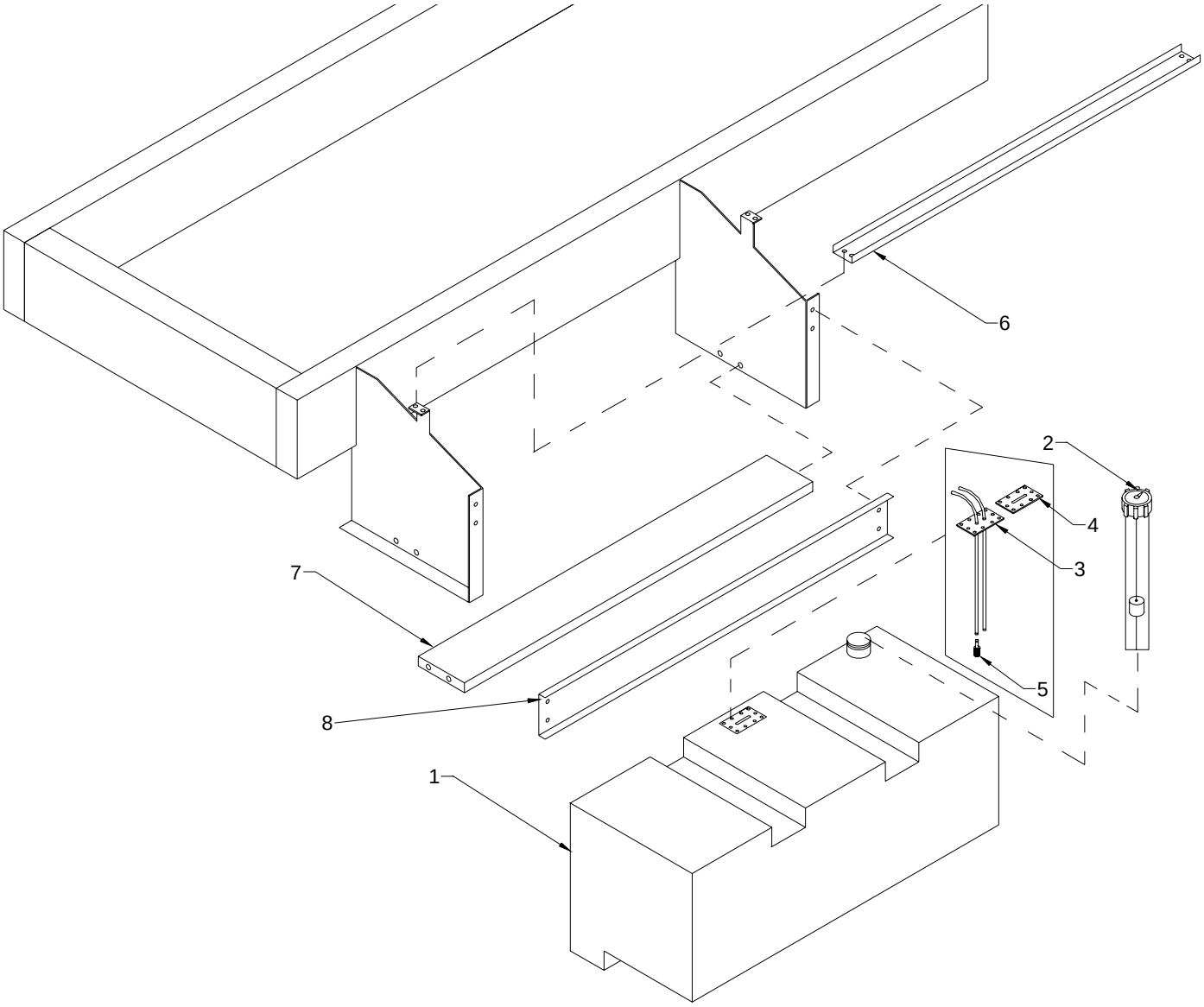
*Fuel Tank
*Hydraulic Tank & Valve Assembly
*Top Hinge Door Group
*Top Screens Assembly
*Chassis / Body Prop Group
*Light and Reflector Assembly
*Automated Door Latch Assembly
*Air Group
*Box Container Interior Group
*Bottom Exhaust Group (optional)

CHASSIS AND HOPPER GROUP

ODB COMPANY
5118 Glen Alden Drive
Richmond, VA 23231
800-446-9823

SCL800TM FUEL TANK GROUP

All Years - non-electric fuel gauge

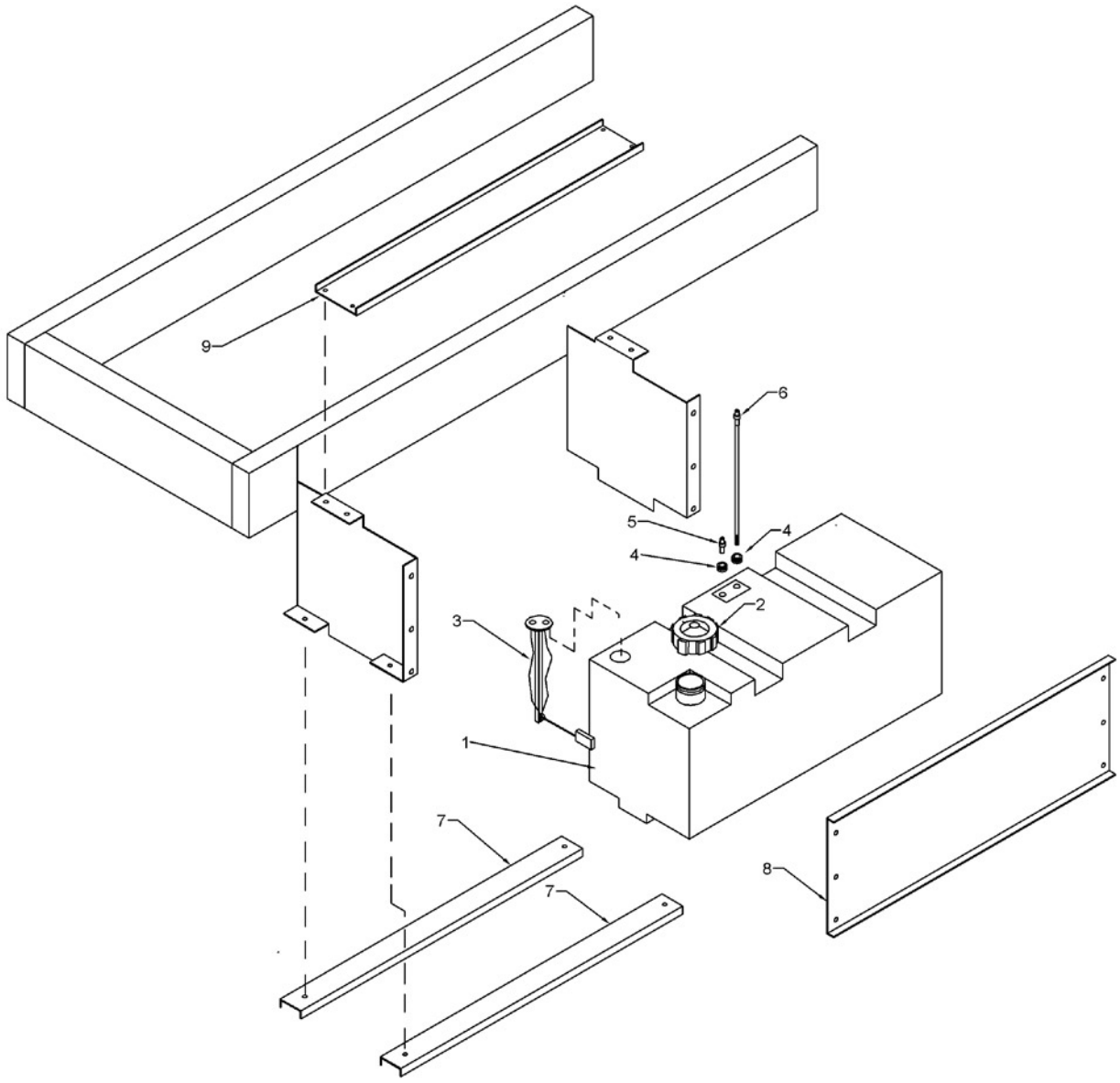


ITEM NO.	PART NUMBER	DESCRIPTION
1.	SCL833.601P2	Fuel Tank, all years*
		--Units before 7/1999 need this tank and kit--
	SCL833.601KIT	Retro Kit to convert steel tank to plastic tank
2.	SCL833.604A	Fuel Cap and Gauge 07/1999 and after -Plastic tanks
	SCL833.604	Fuel Cap and Gauge BEFORE 07/1999- Steel tanks
3.	SCL833.606	Fuel Pick Up Tubes- plastics tanks
4.	SCL833.607	Gasket- plastic tanks
5.	LCT633.617	Fuel Strainer - plastic tanks
6.	SCL833.631P	Fuel Tank Hold Down - Top - plastic tanks
7.	SCL833.611P	Fuel Tank Hold Down - Bottom- plastic tanks
8.	SCL833.621P	Fuel Tank Hold Down - Side - plastic tanks

*Units made before 7/1999 had steel tanks. These tanks are no longer available. A conversion kit must be purchased.

SCL800TM/SM FUEL TANK GROUP

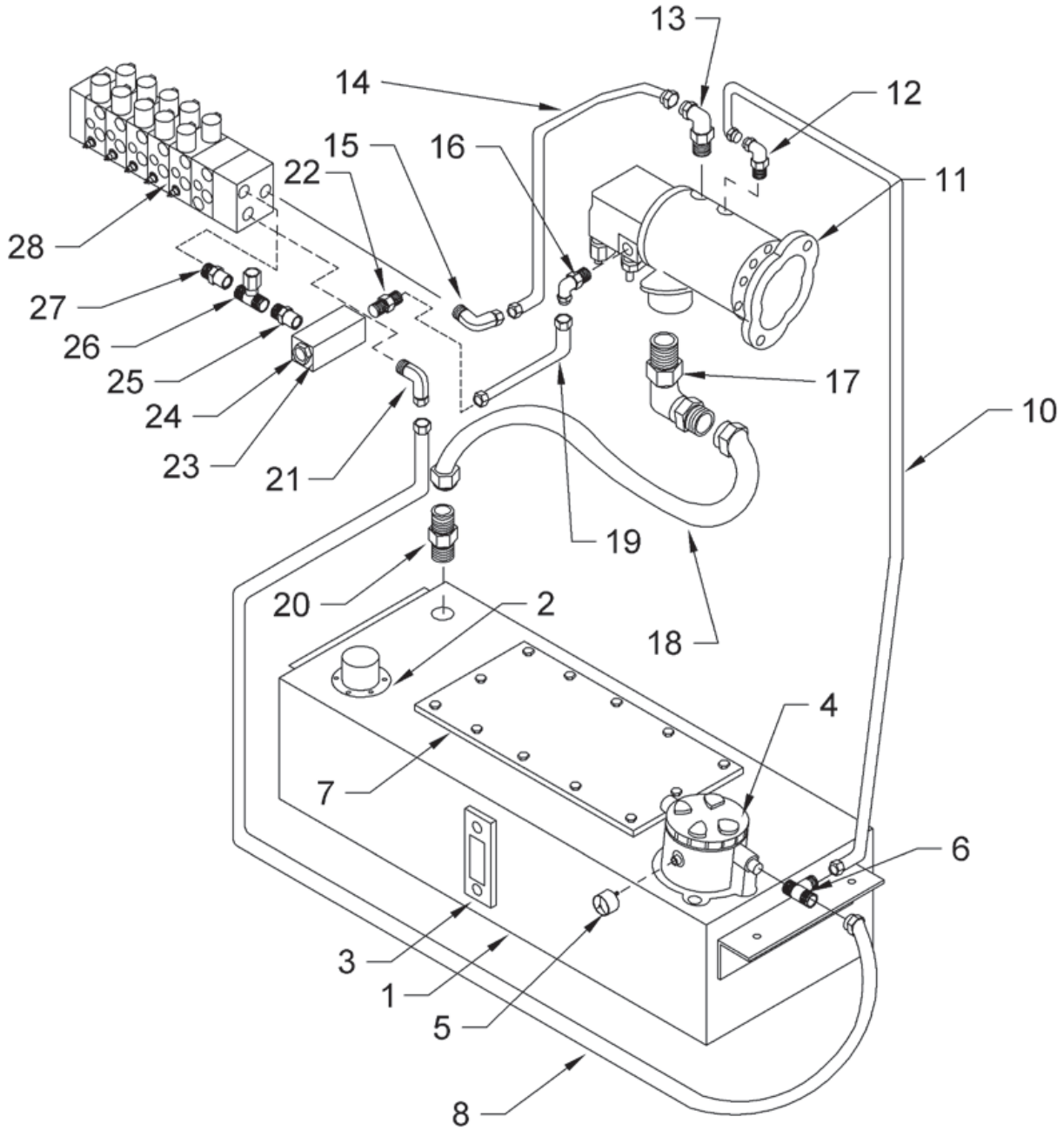
April 2007 and after



ITEM NO.	PART NUMBER	DESCRIPTION
1.	800.3501	Fuel Tank, (includes #2 - 6)
2.	800.3502	Fuel Cap
3.	800.3503	Fuel Sender
4.	MET633.901M	Grommet
5.	MET633.901	Fuel Fitting, not pick up
6.	800.2527	Fuel Fitting Pickup tube and screen
7.	800.3506	Tank Support Bracket, Bottom
8.	800.3504	Tank Support Bracket, Front
9.	800.3505	Tank Support Bracket, Top

SCL800SM-3X Hydraulic Tank Group

All 3X Trucks April 2007 and after

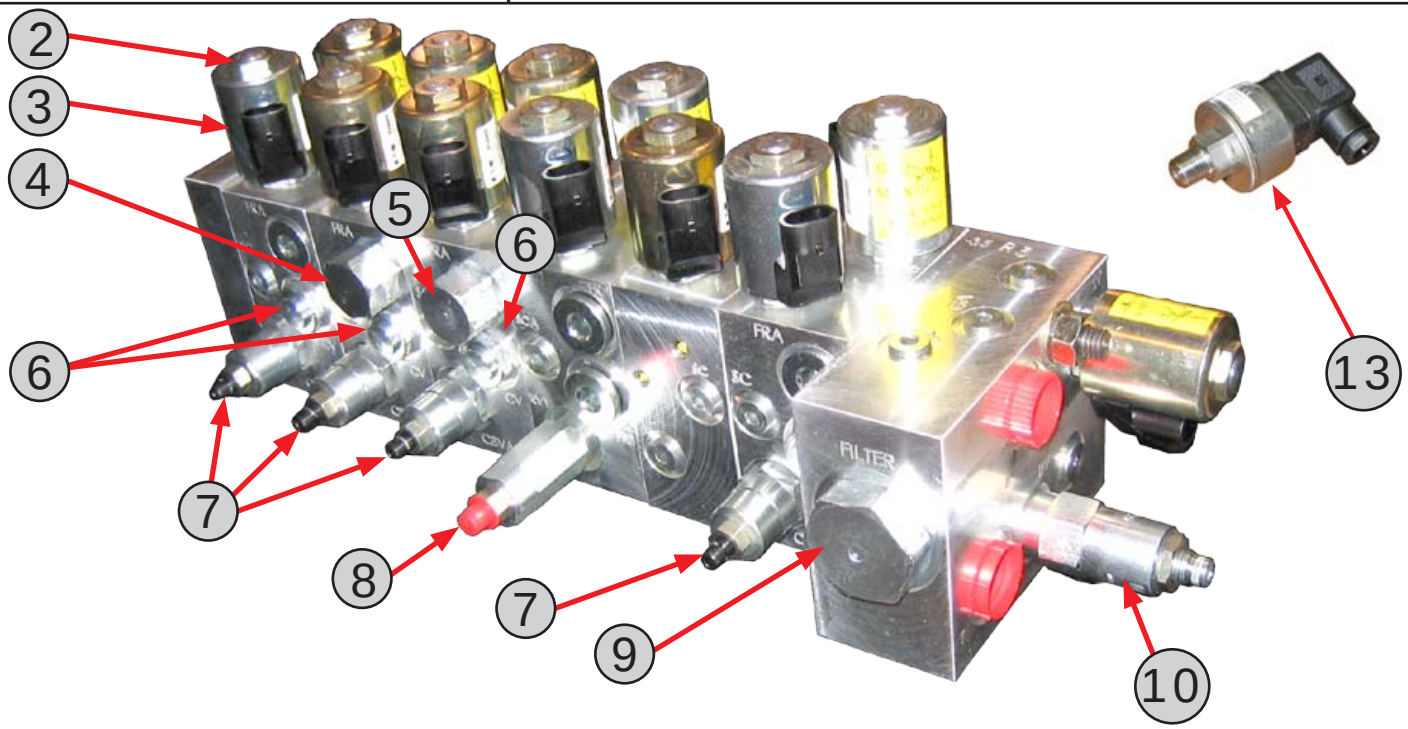


ITEM#	PART NUMBER	DESCRIPTION
1.	TCC.1102A	Hydraulic Tank
2.	FCS.437W	Fill Cap
3.	SCL.5CT1214	Fluid Level Gauge
4.	TCC.1104	Hydraulic Filter
	TCC.1104B	Filter Element (not shown)
5.	TCC.1107	Gauge
6.	HYF	Fitting, Tee
7.	TCC.1102B	Access Panel
*	TCC.102G	Gasket for Access Panel
8.	HOSE	Hydraulic Hose, 3/8"
10.	HOSE.	Hydraulic Hose, 3/8"
11.	TCC.1101	Hydraulic Pump
12.	HYF.1016	Fitting, 3/8" o-ring
13.	HYF.1036	Fitting, 1/2-5/8P - 90 deg
14.	HOSE.1013	Hydraulic Hose, 1/4" x 107"

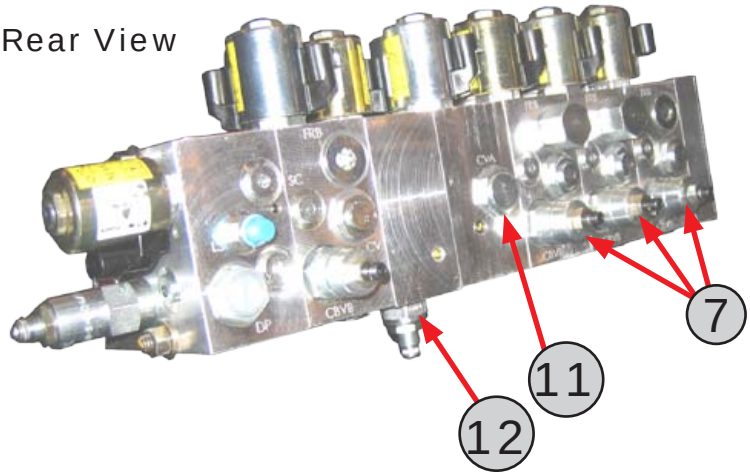
ITEM#	PART NUMBER	DESCRIPTION
15.	HYF.1023	Fitting, 1/2-5/8" P - 90deg
16.	HYF.1007	Fitting, 3/8P-1/4", 90 deg
17.	HYF.1042	Fitting, 1"P
18.	HOSE.1009	Hydraulic Hose, 1" x 30"
19.	HOSE.1011	Hydraulic Hose, 3/8" x 96"
20.	HYF.1043	Fitting, 1"P to 1"
21.	HYF.1016	Fitting, 3/8" o-ring, 90 deg
22.	HYF.	Fitting,
23.	800.529	Fitting, Filter Assembly
24.	800.529B	Filter Element
25.	HYF.	Fitting,
26.	HYF.	Tee Fitting,
27.	HYF.	Fitting,
28.	TCC.1100	Dual Function Valve Body

SCL800SM Valve Body Group

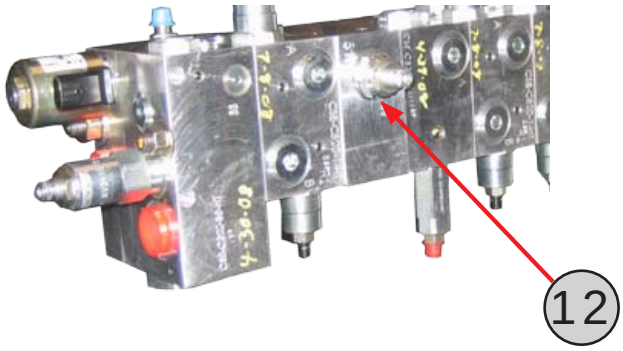
Computer Controlled Units 2005 - Present
Non-Computer Units Jan. 2007 - Present



Rear View



Bottom View

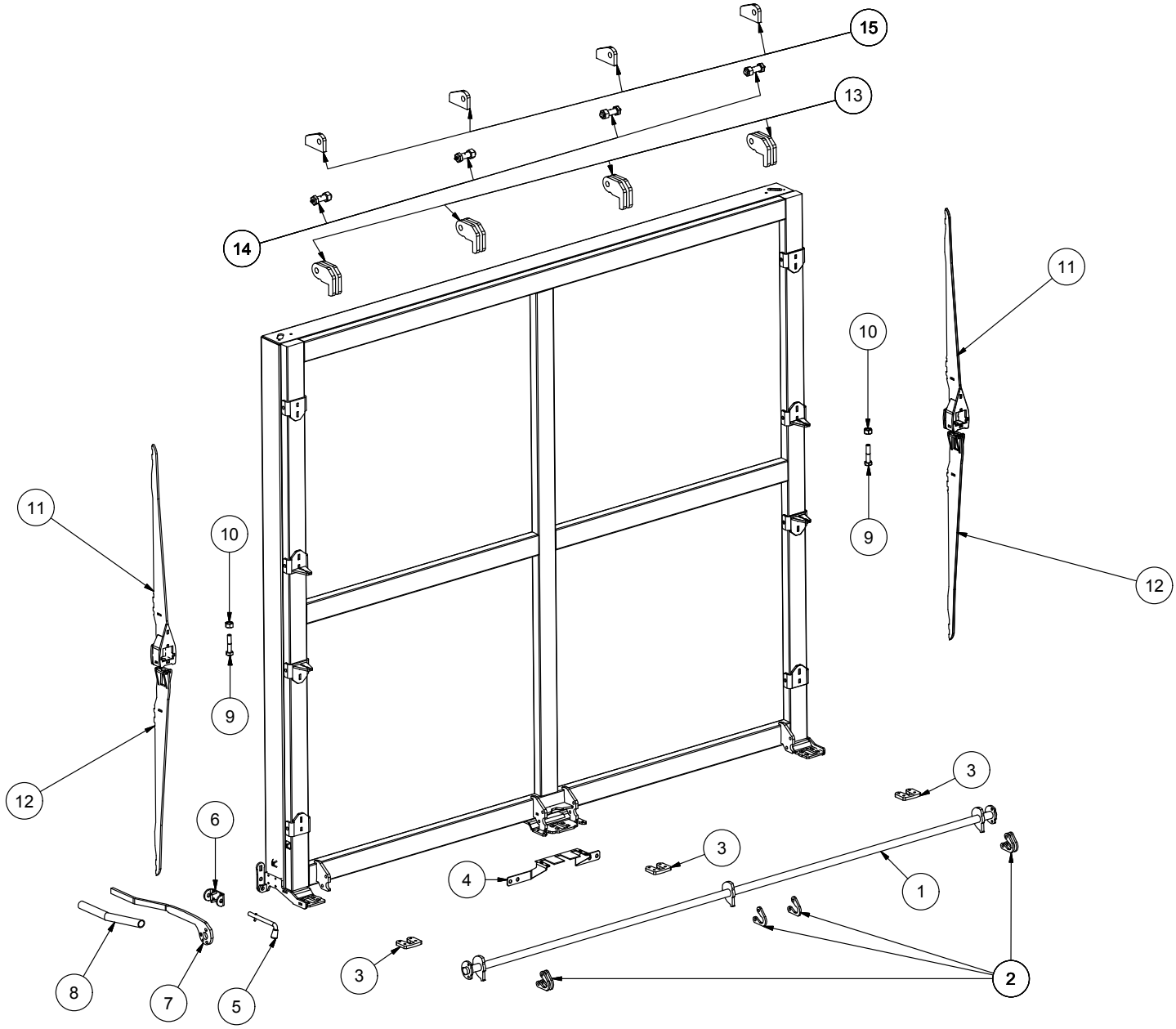


ITEM NO.	PART NUMBER	DESCRIPTION
1.	TCC.1100	*Complete Valve Body (includes all below)
2.	565534	Solenoid Cartridge Valve
3.	300AA00111A	Solenoid Coil
4.	02.200043	Flow Control 1.5
5.	02.201570	Flow Contro 1.75
6.	02.171257	Check Valve
7.	02.171976	Counter Balance Valve
8.	02.164337	Relief Valve 36/35
9.	800.529B	Filter Element
10.	02.164337	Relief Valve 36/35
11.	565845	Check Valve
12.	02.177834	Relief Valve 25/12
13.	600.5000.1.5.2.8	Pressure Transducer

Notes: There have been various versions of this valve but the basic valve body should look look the valves above.

SCL800 Manual Top Hinge Door Group

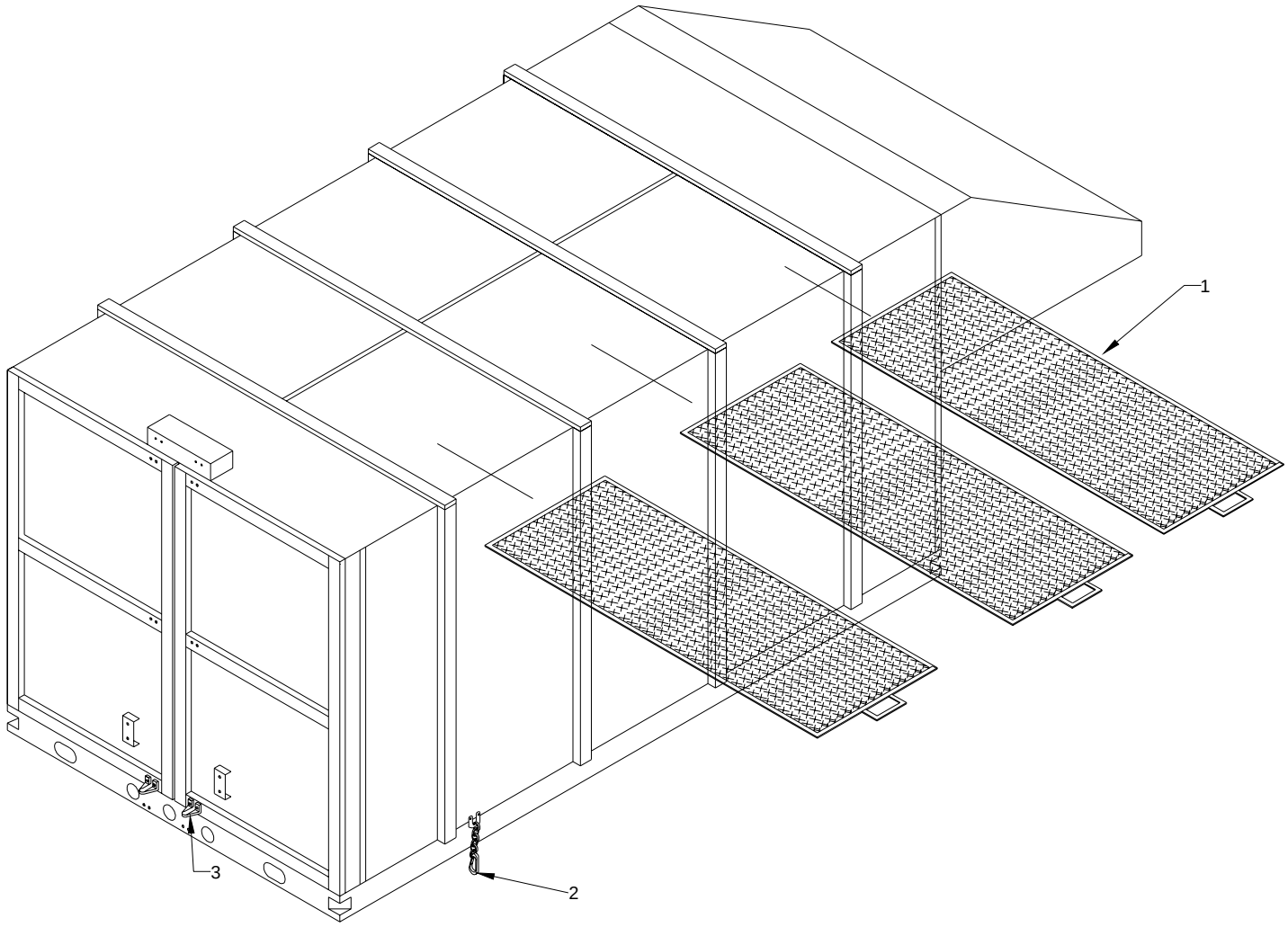
2006 and after



ITEM#	PART NO.	DESCRIPTION
*		Top Hinge Door - (Items 1 - 7)
1	800.2825	Door Rod
2	800.2826	Rod Holder
3	800.2827	Slide Pad
4	800.2828	Center Gusset
5	800.2829	Door Latch Pin
6	800.2930	Door Latch Base
7	800.2931	Handle
8	800.2932	Handle Grip

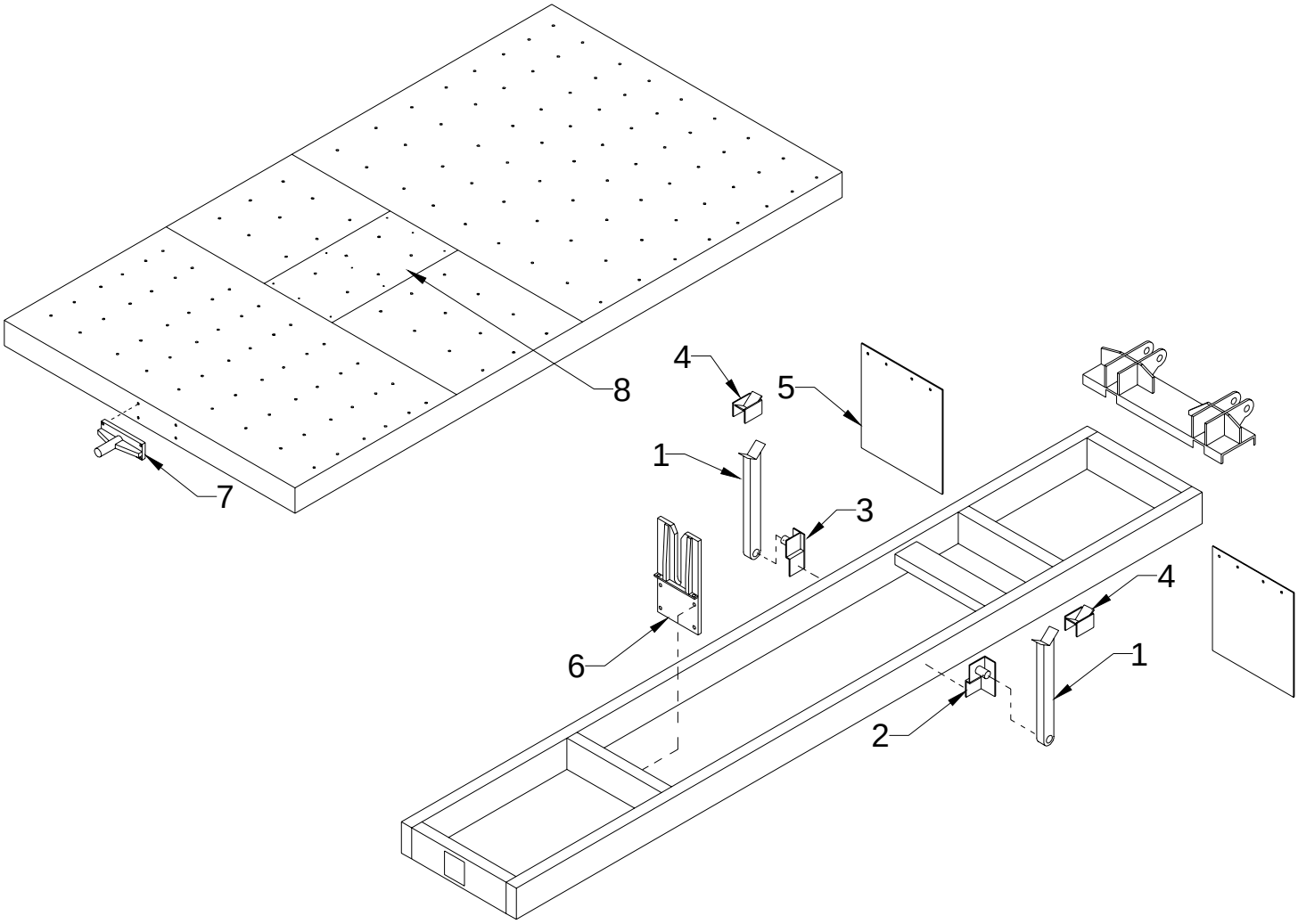
ITEM#	PART NO.	DESCRIPTION
9	800.2933	Truss Bolt
10	800.2934	Truss Nut
11	800.2935	Top Truss
12	800.2936	Bottom Truss
13	800.2940	Hinge Set (incl. #13,15)
14	800.2937	Hinge Bolt
15	800.2940	Hinge Set (incl. #13,15)

SCL800 BOX CONTAINER SCREENS



Item	Part Number	Description
1.	SCL805.810	Screen, 2 required for 14/20 CY 3 required for 25/30 CY
	SCL805.810M	Replacement mesh screen, 36”W x 100’ roll
2.	OD-200008	Spring Clip
3.	OD-7502.99	Lock down bracket

Chassis Group - SCL800TM

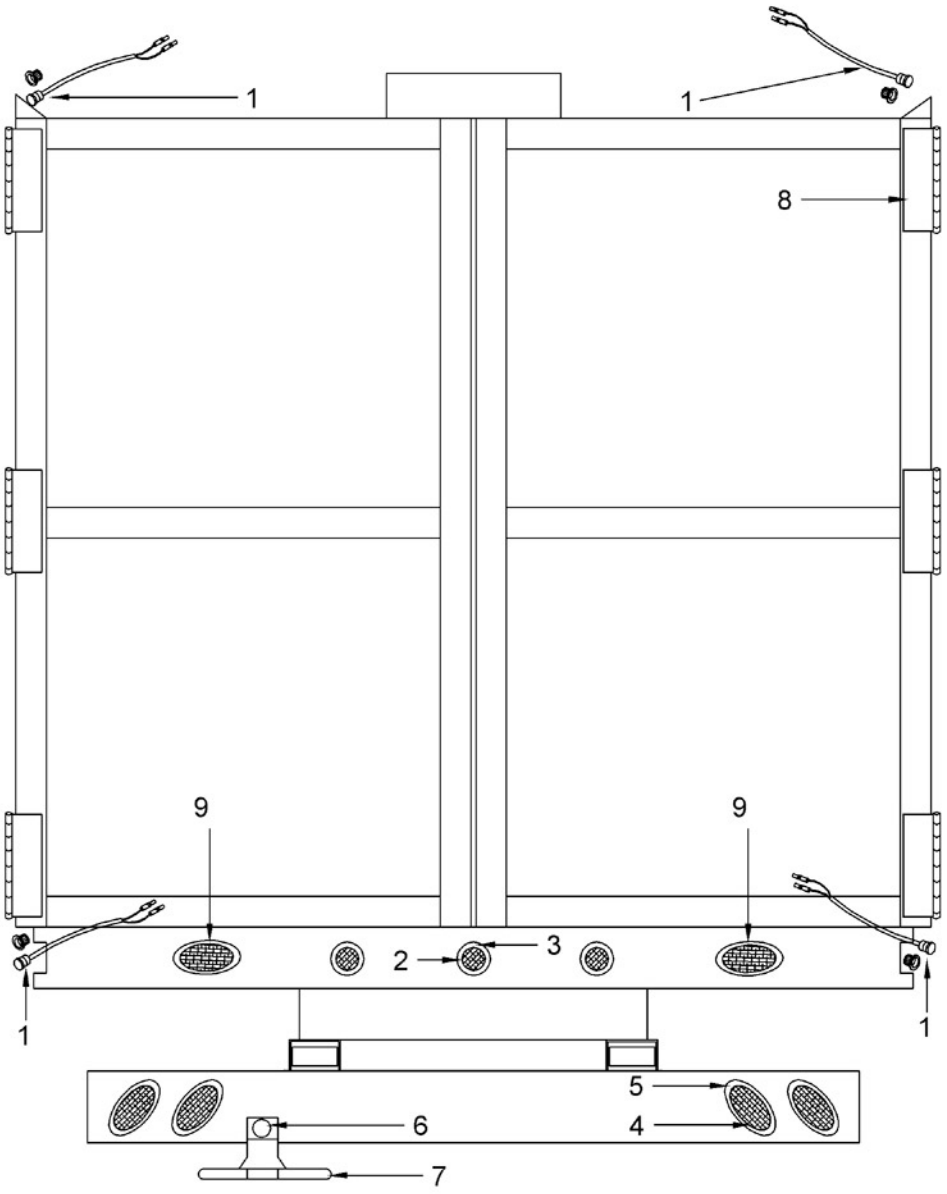


ITEM NO.	PART NUMBER	DESCRIPTION
1.	SCL800.015	Body Prop
2.	SCL800.015B	Body Prop Receiver, drivers side
3.	SCL800.015C*	Body Prop Receiver, passenger side (if equipped)
4.	SCL800.015A	Body Prop Bracket, welded on bed
5.	SCL800.811	Mud Flap
6.	800.3309**	Dump Body Alignment Receiver
7.	800.3308**	Dump Body Alignment Guide
8.	800.3310**	Trap Door, 25 & 30 CY units after 04/01

*PLEASE NOTE: Only 2002 and later 25/30CY units have dual body props. All self contained units use #1,2&4.
**Only on units 2002 and after.

SCL65/800TM Light and Reflector Group

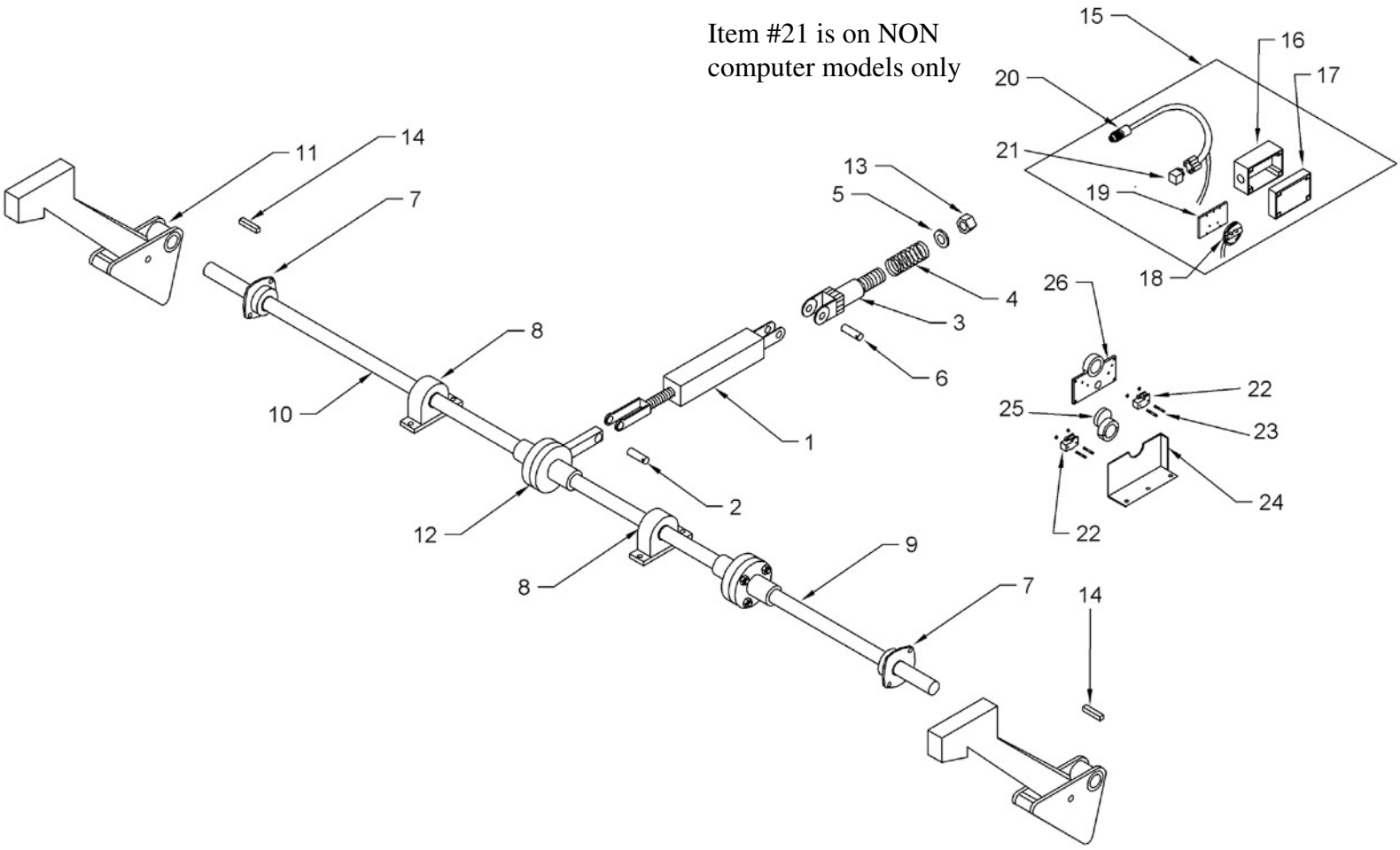
April 2008 - Present



ITEM#	PART NUMBER	DESCRIPTION
1.	STD.2201	Marker Light, Red-- rear of unit
	STD.2202	Marker Light, Yellow-- front of unit
2.	SCL.10205	Sealed Light, Round, Red, 3 req'd
3.	SCL.10404	Oval Grommet
4.	STD.2414	LED Tail Light Assembly (after 01/05)
	94706	Plug Harness (after 01/05)
5.	660700	Oval Grommet for tail light
6.	LCT60.615B	License Plate Light
7.	LCT600.010	License Plate Bracket
8.	SCL800.028	Door Hinge
9.	STD.2213	LED Strobe Light with asher

SCL800SM Automated Door Latch Group

Jan 2007 thru present

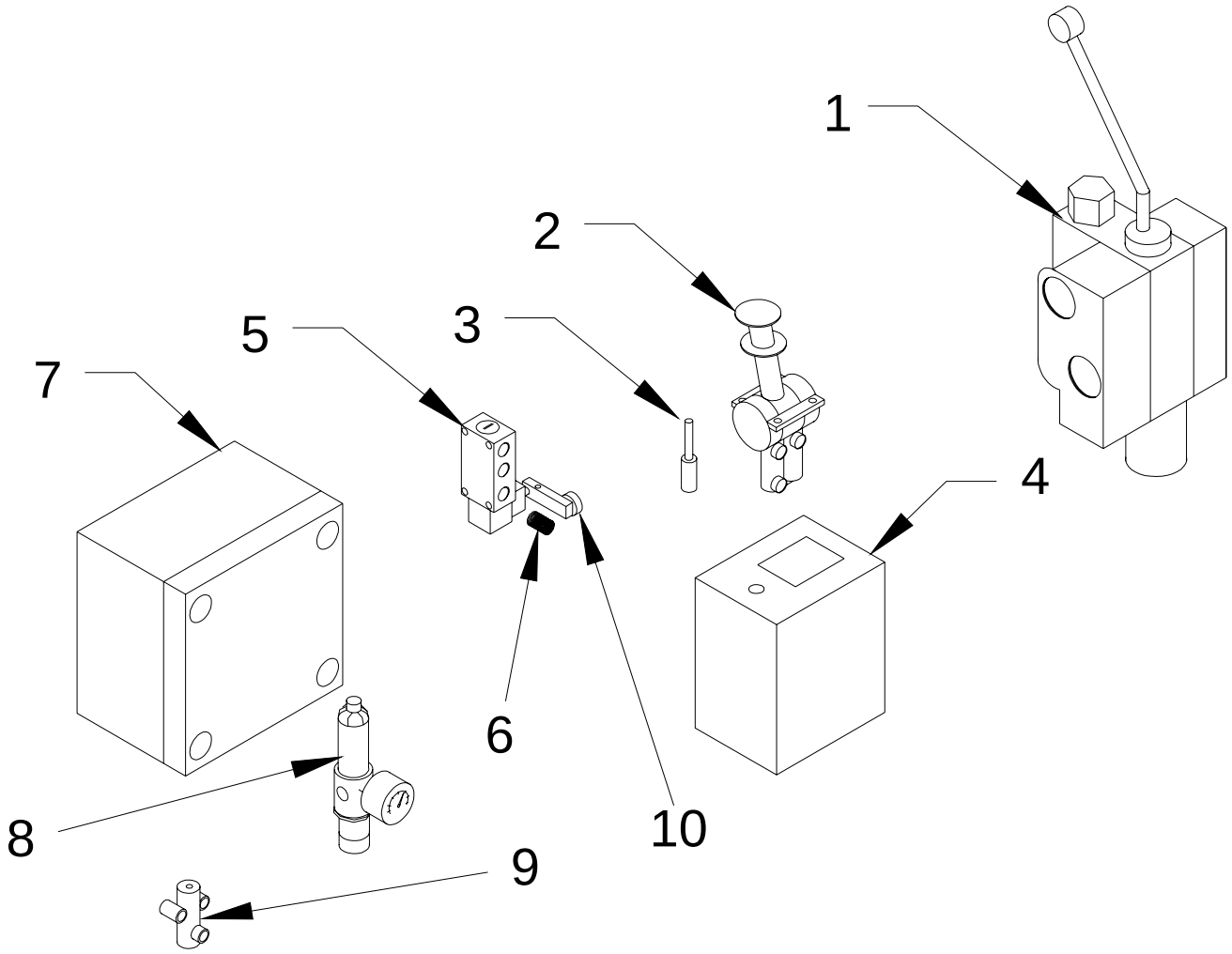


ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
1.	800.401	Hydraulic Cylinder	15.*	800.425	Mercury Switch Assy
2.	800.408	Pin	#15 includes 16 - 21 below		
3.	800.419	Cylinder Guide	16.	800.426	Switch Box
4.	800.410	Spring	17.	800.427	Switch Cover
5.	800.411	Washer	18.	800.428	Mercury Switch
6.	800.412	Pin	19.	800.429	Back Plate
7.	800.406	Flange Bearing, 2 bolt	20.	800.430	Wiring Harness
8.	800.407	Pillow Block Bearing	21.*	800.431	Relay
9.	800.402	Actuator Shaft, short	22.	800.433	Limit Switch
10.	800.403	Actuator Shaft, long	23.	800.434	Bolt
11.	800.404	Hook Assembly	24.	800.435	Switch Cover
12.	800.405	Center Pivot Arm	25.	800.436	Switch Actuator Cam
13.	800.413	Nut	26.	800.432	Limit Switch Plate
14.	800.414	Key, Hook Assembly			

*Note: Item #21 is on NON Computer models only

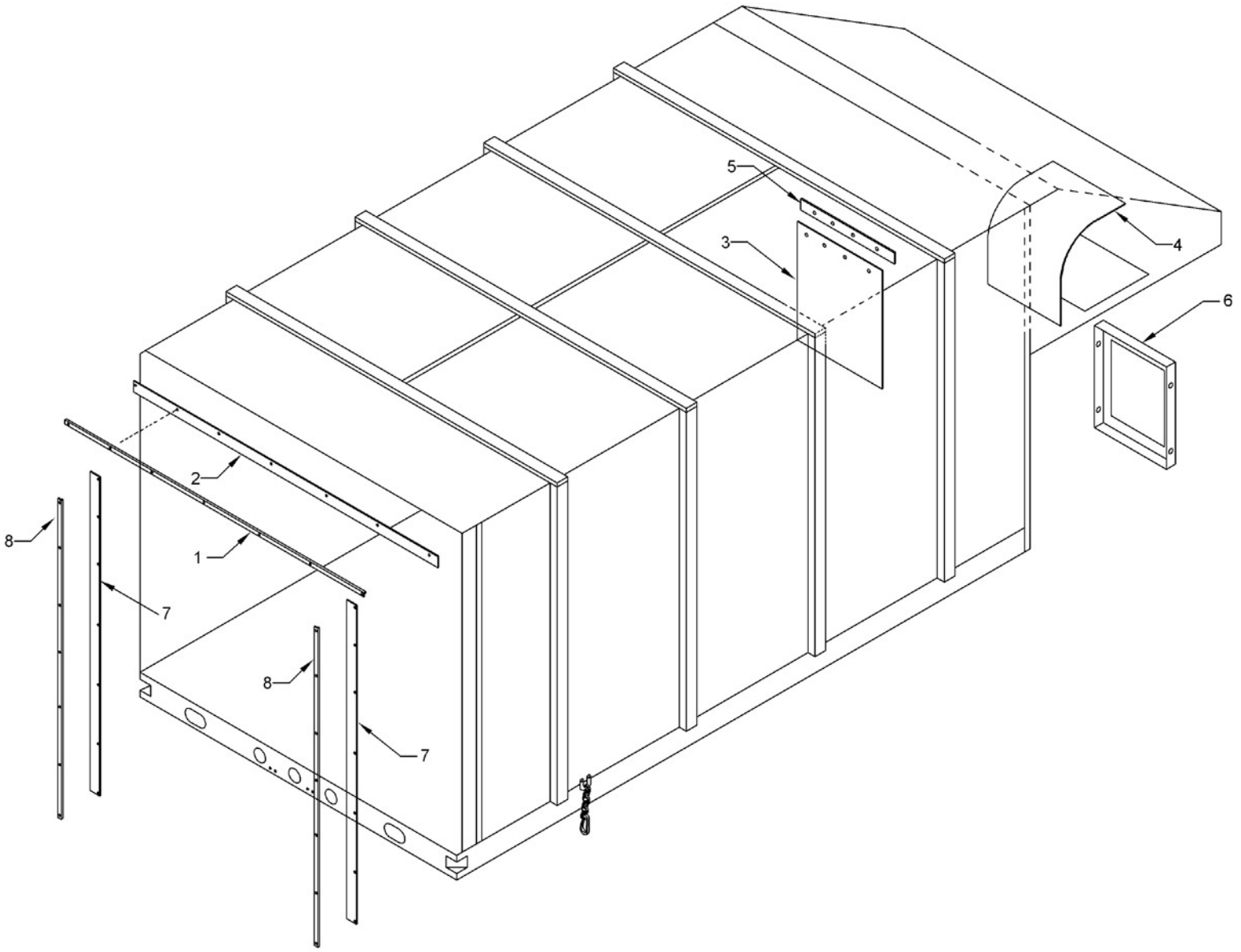
SCL800SM Air Group

July 2001 thru December 2005



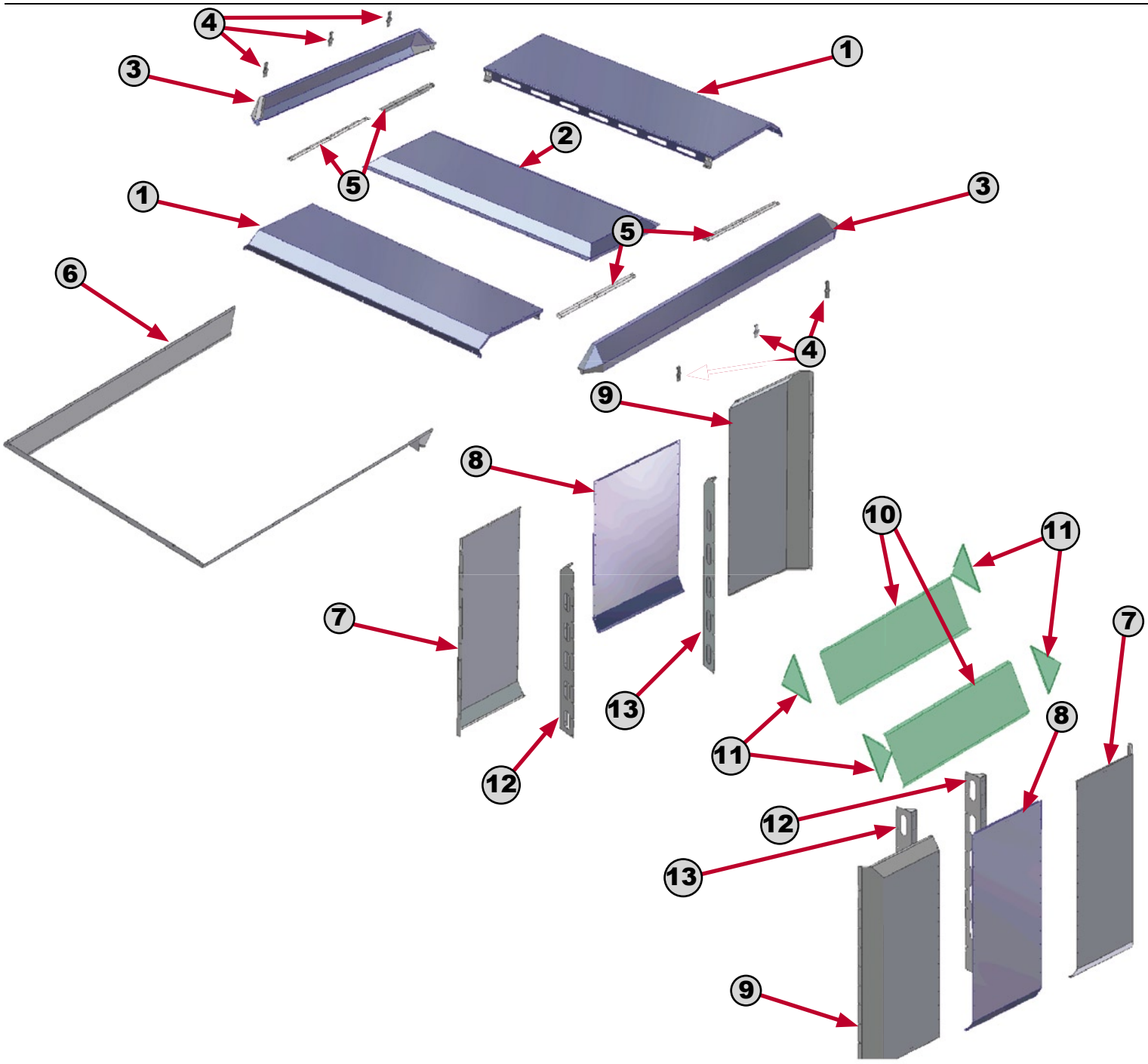
ITEM NO.	PART NUMBER	DESCRIPTION
1.	800.507	Hand Valve, 3 axis units with Auto Door Latch
	SCL843.605	Hand Valve, 3 axis units without Auto Door Latch
2.	800.415	Air operated Dump Valve
3.	800.417	Toggle Switch for Auto Door Latch
4.	800.416	Cover for items 2 and 3
5.	800.418	3-way Limit Valve, 3 axis units with Auto Door Latch, includes item # 10
6.	800.409	Muffler for 3-way Limit Valve
7.	800.421	Poly enclosure
8.	800.420	Filter Regulator
9.	800.422	Pressure Safety Check Valve
10.	800.418L	Lever Arm, included on item# 5

SCL65/800 BOX INTERIOR ASSEMBLY 2007-



Item	Part Number	Description
1.	SCL800.034	Door Seal Bracket, L-shaped; bolts to welded piece on box
2.	SCL800.030	Door Seal Rubber
3.	SCL800.811	Deflector Rubber
4.	SCL800.880	Nose Cone Liner
5.	SCL800.881	Deflector Rubber Retainer
6.	800.2805	Nose Cone Adjustable Insert - BELT DRIVE UNITS ONLY, used July 2005 and after
7.	SCL800.035	Door Seal Bracket - vertical
8.	SCL800.030	Door Seal Rubber - vertical, same as #2

SCL800 Bottom Exhaust Group (Optional)
2005 and after



ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
*	800.2900	Bottom Exhaust Complete	7.	800.2901	Side Panel, RH
1.	800.2905	Top Panel	8.	800.2902	Center Side Panel, 25CY only
2.	800.2906	Top Panel, Center 25CY only	9.	800.2903	Side Panel, LH
3.	800.2904	Screen Door	10.	800.2911	Hopper Pan Long (inside box)
4.	LCT690.602	Latch	11.	800.2912	Hopper Pan Brace Plate (inside box)
5.	800.2907	Hinge	12.	800.2909	Side Panel Flange, RH
6.	800.2914	Air Deflector Skirt (welded on)	13.	800.2908	Side Panel Flange, LH

Note: We define RH or LH as if you are facing a side panel.

HOSE BOOM GROUP

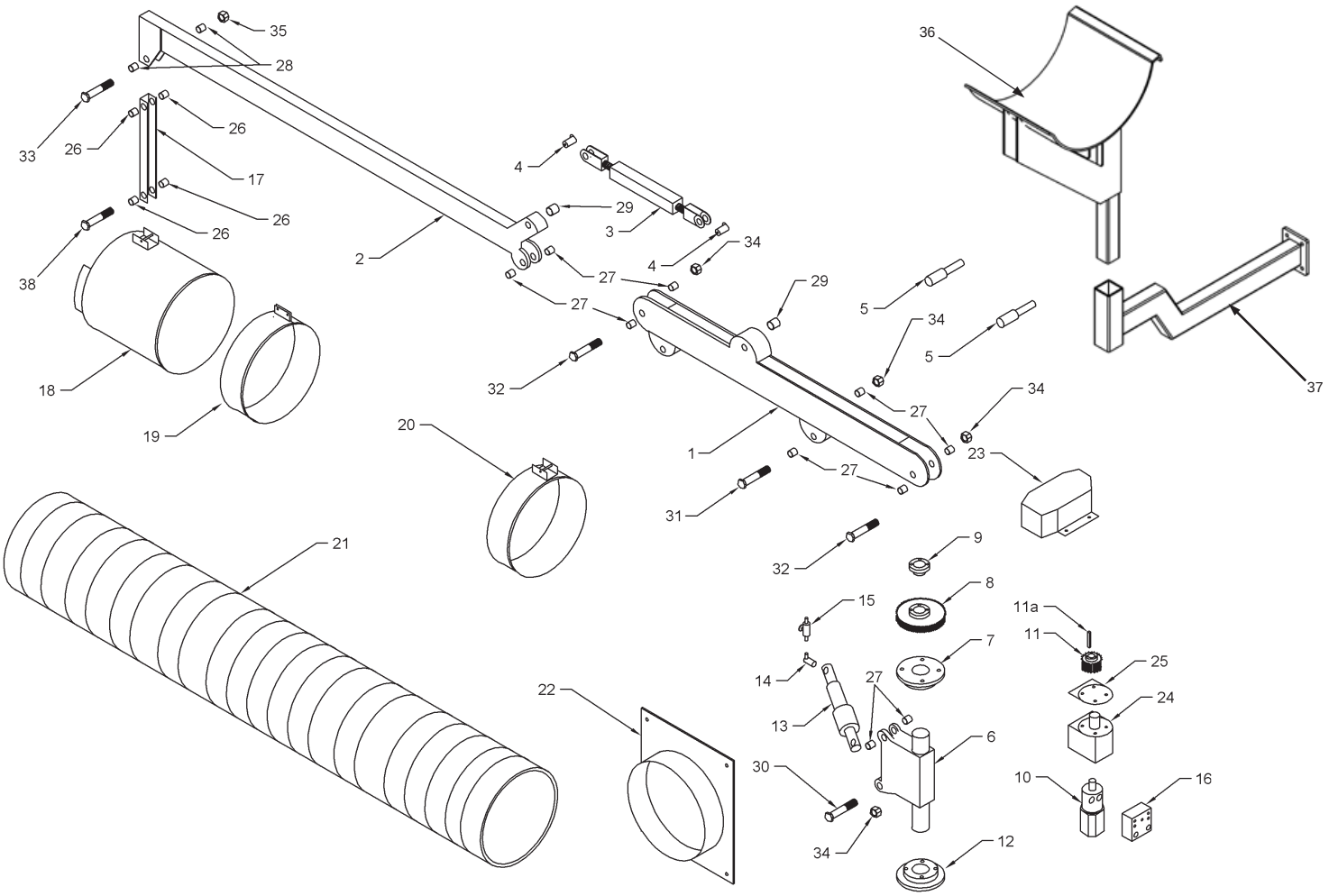
*Hose Boom Assembly
*Boom Adjuster Frame Group

HOSE BOOM GROUP

ODB COMPANY
5118 Glen Alden Drive
Richmond, VA 23231
800-446-9823

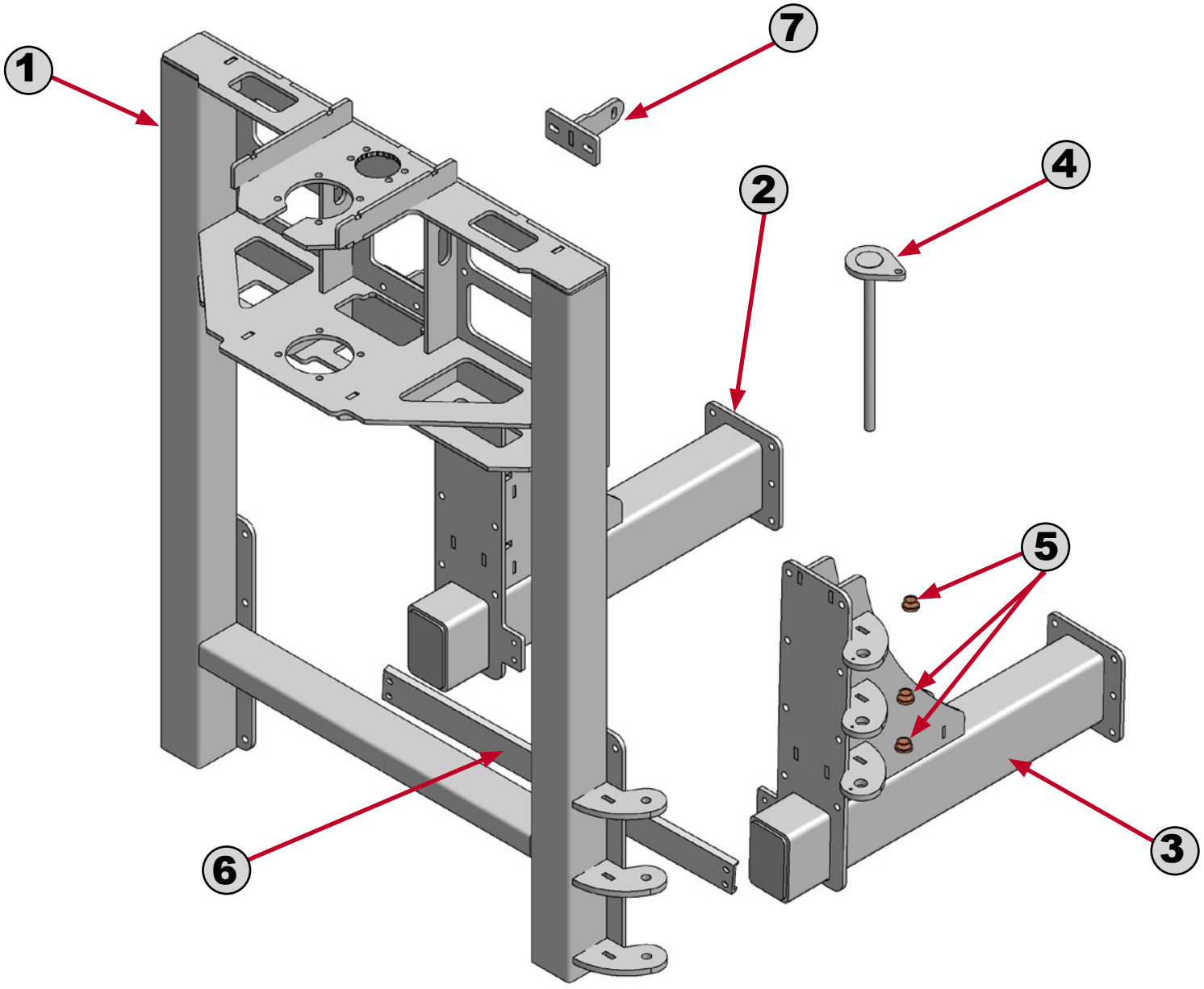
SCL800SM 3 Axis Boom Assembly

(March 2002 thru present)



ITEM NO.	PART NUMBER	DESCRIPTION
1.	LCT616.606MA.2	Boom Arm, Up/Down
2.	LCT616.606MA.1	Boom Arm, In/Out
3.	SCL816.810	Hydraulic Cylinder, In/Out
4.	SCL816.814	Pin
5.	SCL816.503	Stop Bracket
6.	800.707	Boom Mast
7.	SCL816.501	Flange Bearing, top
8.	800.703	Sprocket, 72 tooth
9.	SCL816.506	Bushing
10.	800.701	Hydraulic Motor - Apr 2007
	800.701C	Hydr. Motor, May 2007 -
11.	800.702	Sprocket, 24 tooth
12.	SCL816.502	Flange Bearing, bottom
13.	SCL816.812	Hydr. Cylinder, up/down
14.	HYF.1028	90 Degree Fitting
15.	LCT617.604	Flow Control Valve
16.	800.705	Crossover Relief Valve
17.	SCL816.813	Hose Support Tube, 18"
	SCL816.813.24	Hose Support Tube, 24"
18.	LCT616.601.MA	Hose Nozzle
19.	SCL816.604	Hose Clamp
20.	LCT616.603U.B	Hose Support Band
21.	SDH.16.120.UC	Intake Hose, 10' Long
	SDH.16.144.UC	Intake Hose, 12' Long
22.	SCL875.002	Hose Flange
23.	800.706	Gear Cover
24.	800.704	Bearing Block
25.	800.704G	Gasket
26.	8X.002D	Bushing, .625"IDx.75"Dx.5
27.	8X.002E	Bushing, .75"IDx1"ODx1
28.	8X.002F	Bushing, .625"IDx.875"ODx1
29.	8X.002G	Bushing, 1"IDx.375"ODx1
30.	800.708	Bolt, 3/4-16 x 4.5"Long
31.	800.709	Bolt, 3/4-16 x 5" Long
32.	800.710	Bolt, 3/4-16 x 7.5" Long
33.	800.711	Bolt, 5/8-11 x 4.5" Long
34.	800.712	Nut, 3/4
35.	800.713	Nut, 5/8
36.	800.1010	Hose Cradle, rear mount only
37.	800.1011	Cradle Arm, standard
	800.1012	Cradle Arm, Down Exhaust Box
	800.1011C	Cradle Arm, City of Clemmons
38.	800.714	Bolt, 5/8-11 x 4" Long

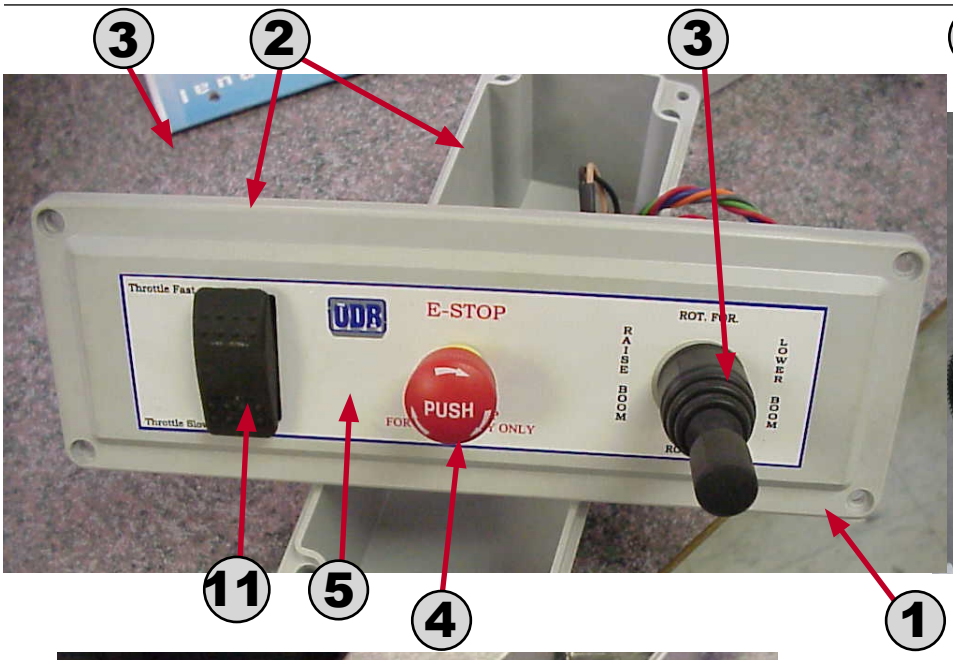
3X Hinged Boom Frame Assembly
3 Axis units July 2005 and after

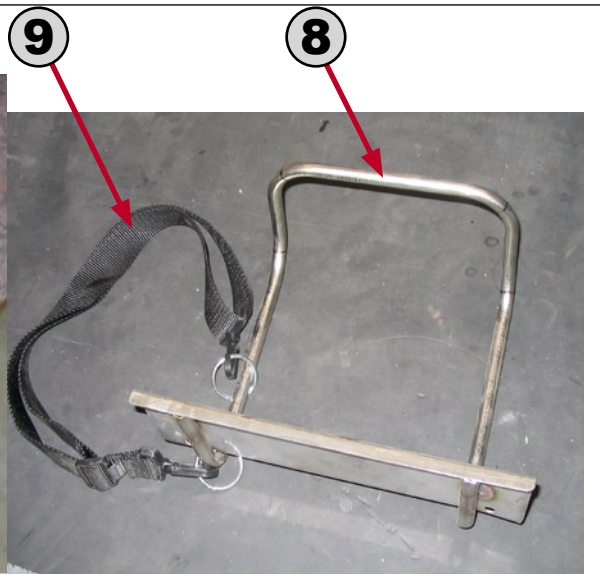


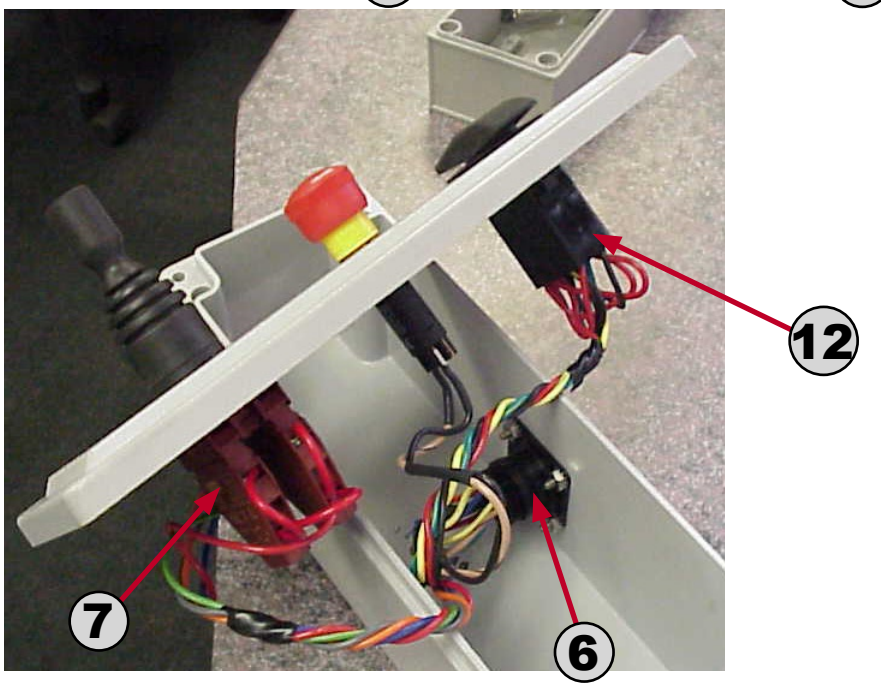
ITEM NO.	PART NUMBER	DESCRIPTION
1.	800.602A	Upright Frame
2.	800.601A.R	Frame Arm, rear
3.	800.601A.L	Frame Arm, front
4.	800.607	Hinge Pin
5.	800.608	Bushing, uses 3
6.	800.603A	Center Bracket
7.	800.609	Frame Support Tab, Belt Drive
	800.609A	Frame Support Tab, Direct Drive

This is the new "hinged - style" boom assembly. The units before July 2005 had a telescoping boom assembly. They are not interchangeable.

Single Joystick Control Box Group- 2 Axis
March 2004







ITEM NO.	PART NUMBER	DESCRIPTION
1.	800.900B	Single Joystick Control Box (Complete Items 1 - 8)
2.	800.901	Joystick Box (Box and Top only)
3.	800.903	Joystick Assembly
4.	800.905	Emergency Stop Button Assembly
5.	800.907B	Decal Kit
6.	800.906A	Wiring Harness (Inside Box)
7.	800.904	Joytick Contact Block (2 required)
8.	800.902	Box Holder Frame
9.	800.908	Neck Strap
10.	800.909	Wiring Harness
11.	4045.0021A	Rocker Switch, throttle
12.	N/A	Wiring Shell for switch, included in #6
NS	800.910	Junction Box (not shown)

Kraft PTO Section- optional

--Only if equipped--
*Parts Breakdown
*Maintenance

Kraft PTO Section

ODB COMPANY
5118 Glen Alden Drive
Richmond, VA 23231
800-446-9823

TRANSFLUID
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Fax: 770-963-9678
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Massachusetts - New Jersey - New York - North Carolina - Ohio - Pennsylvania

INSTALLATION AND MAINTENANCE MANUAL

THIS MANUAL CONTAINS INSTRUCTIONS FOR INSTALLATION, START UP, FUNCTIONING, AND MAINTENANCE KFBD POWER TAKE OFFS.
WE SUGGEST THAT ANY PERSON WHO IS RESPONSIBLE FOR USE AND/OR MAINTENANCE SHOULD BE PROVIDED WITH THIS MANUAL. THE RESPECT OF RULES, CONTAINED IN THIS MANUAL IS MANDATORY FOR WARRENTY VALIDITY.
WE REQUIRE THAT, FOR SPARE PARTS ORDERS, IT IS IMPORTANT TO PROVIDE, BESIDES PART NUMBER AND QUANTITY: MODEL, SPECIFICATION No AND SERIAL No WHICH ARE STAMPED ON NAME PLATE.

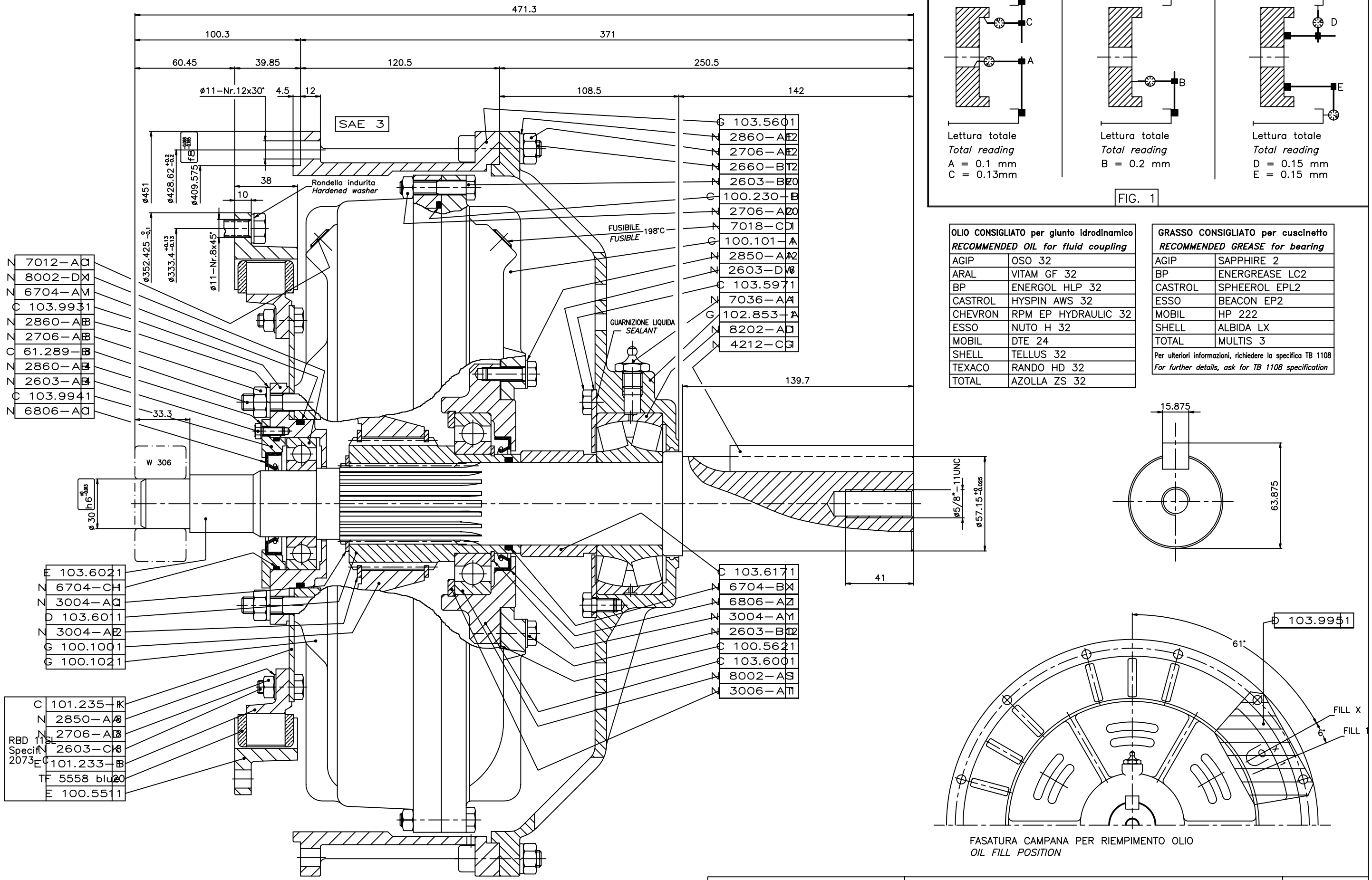
Type : **13KFBD**

Spec. nr. : **2248__ __**

Serial nr. :

13KFBD

drive with us



N	7012–ACD
N	8002–DX
N	6704–AM
C	103.9931
N	2860–AB
N	2706–AB
C	61.289–B
N	2860–AB
N	2603–AB
C	103.9941
N	6806–AC

E	103.6021
N	6704–CH
N	3004–AQ
D	103.6011
N	3004–AE
G	100.1001
G	100.1021

C	101.235–K
N	2850–AA
N	2706–AD
N	2603–CK
E	C 101.233–B
	TF 5558 blue
E	100.5511

G	103.5601
N	2860–AE
N	2706–AE
N	2660–BT
N	2603–BZ
C	100.230–B
N	2706–AZ
N	7018–CD
G	100.101–A
N	2850–AA
N	2603–DW
C	103.5971
N	7036–AA
G	102.853–A
N	8202–AD
N	4212–CG

C	103.6171
N	6704–BX
N	6806–AZ
N	3004–AM
N	2603–BQ
C	100.5621
C	103.6001
N	8002–AS
N	3006–AT

Lettura totale
Total reading
A = 0.1 mm
C = 0.13mm

Lettura totale
Total reading
B = 0.2 mm

Lettura totale
Total reading
D = 0.15 mm
E = 0.15 mm

FIG. 1

OLIO CONSIGLIATO per giunto idrodinamico *RECOMMENDED OIL for fluid coupling*	
AGIP	OSO 32
ARAL	VITAM GF 32
BP	ENERGOL HLP 32
CASTROL	HYSPIN AWS 32
CHEVRON	RPM EP HYDRAULIC 32
ESSO	NUTO H 32
MOBIL	DTE 24
SHELL	TELLUS 32
TEXACO	RANDO HD 32
TOTAL	AZOLLA ZS 32

GRASSO CONSIGLIATO per cuscinetto *RECOMMENDED GREASE for bearing*	
AGIP	SAPPHIRE 2
BP	ENERGREASE LC2
CASTROL	SPHEEROL EPL2
ESSO	BEACON EP2
MOBIL	HP 222
SHELL	ALBIDA LX
TOTAL	MULTIS 3

Per ulteriori informazioni, richiedere la specifica TB 1108
For further details, ask for TB 1108 specification

FASATURA CAMPANA PER RIEMPIMENTO OLIO
OIL FILL POSITION

TRANSFLUID
trasmissioni industriali

13 KFBD
MANUALE INSTALLAZIONE
USO E MANUTENZIONE
INSTALLATION, USE AND MAINTENANCE MANUAL

TF 6217
Rev. 0
2/3

A1

MANUTENZIONE- *MAINTENANCE*

Controllare, ogni 3 mesi, il livello dell'olio nel giunto. Cambiare l'olio ogni 4000 ore di funzionamento oppure una volta all'anno.	Check, every 3 months, the fluid coupling oil level. Change oil every 4000 working hours or once a year, whichever occurs first.
Ingrassare il cuscinetto dell'albero di uscita ogni settimana.	Grease output shaft bearing every week.
Controllare, periodicamente, lo stato dei blocchetti in gomma del giunto elastico.	Check, periodically, elastic coupling rubber blocks condition.
E' consigliabile, ogni 4000 ore di funzionamento, cambiare tutti gli anelli di tenuta rotante e controllare lo stato dei cuscinetti.	It is advisable, every 4000 working hours, to change all rotating seals and to check bearings condition.
Controllare, periodicamente, che la taratura del termostato,se installato, sia uguale al valore originariamente impostato (vedere certificato di collaudo e TF5941-O).	Check, periodically, that temperature switch whether installed, set value be the same as originally adjusted (see test certificate and TF5941-O).
Pulire periodicamente la sonda del termostato, se installato.	Clean periodically the temperature switch bulb, whether installed.

TABELLA INCONVENIENTI

SINTOMO	CAUSA	RIMEDIO
Scarse prestazioni	Livello olio	Controllare il livello (olio freddo) ed aggiungere se necessario Controllare la macchina condotta Controllare i giri del motore.
	Tipo olio	Utilizzare olio indicato in tabella
Surriscaldamento	Scorrimento eccessivo	Controllare il livello olio Verificare l'installazione Controllare i giri del motore
	Scarsa ventilazione	Pulire le aperture per la ventilazione.
	Cuscinetto non lubrificato	Verificare il livello olio ed eventualmente aggiungere
	Cuscinetto in uscita danneggiato	Sostituire
	Carico radiale eccessivo	Ridurre la tensione delle cinghie.
Perdita olio lato motore	Tappo conico	Rimontare con sigillante per filetti
	Anello OR	Sostituire
	Tenuta rotante	Sostituire. Controllare l'usura sull'albero.
Perdita olio lato uscita	Tappo conico	Rimontare con sigillante per filetti
	Tappo fusibile se installato	Sostituire
	Anelli OR	Sostituire
	Tenuta Rotante.	Sostituire. Controllare l'usura sull'albero.
Rumore.	Rottura cuscinetto	Sostituire
	Olio con troppa schiuma	Controllare il livello ed il tipo di olio
	Usura eccessiva giunto elastico (vibrazioni torsionali?, temperatura eccessiva ?, disallineamento?,olio.)	Smontare e sostituire i blocchetti od il giunto elastico completo.
	Usura della dentatura tra albero uscita mozzo, girante interna.	Smontare e sostituire le parti usurate.
Intervento termostato	Alta temperatura olio	Vedere "surriscaldamento"
	Errata taratura termostato	Vedere certificato di collaudo e TF 5941-O

TROUBLE SHOOTING

SYMPTOM	*CAUSE*	*REMEDY*
Poor performances	Oil level.	Check level (cold oil) and add as necessary. Check driven machine. Check engine rpm.
	Oil type	Use recommended oil (see table).
Overheating.	High slip	Check oil level. Check installation. Check engine rpm.
	Low ventilation.	Clean ventilation openings.
	No lubricated bearing.	Check oil level . Add oil if required .
	Damaged output bearing.	Replace.
	Too high radial load.	Decrease belt tension.
Oil leakage at engine side.	Taper plug	Remount using thread sealent.
	O-ring.	Replace.
	Rotating seal.	Replace. Check shaft wear.
Oil leakage at output side.	Filling plug.	Remount using thread sealent.
	Fusible plug,whether installed.	Replace.
	O-ring.	Replace.
	Rotating seal.	Replace. Check shaft wear.
Noise	Bearing failure	Replace.
	Too much oil foam.	Check oil level and type.
	Elastic coupling wear. (Torsional vibration ? high temperature ? misalignement ? oil ?).	Dismantle and replace rubber blocks or complete elastic coupling.
	Spline wear between output shafthub, inner impeller	Dismantle and replace worn components.
Temperature switch intervention.	High oil temperature.	See "overheating".
	Wrong switch setting.	See test certificate and TF 5941-O.

TRANSFLUID S.r.l. via V.Monti 19-20016 Pero (MI) Italy
tel.0039-02-339315.1 - fax.0039-02-33910699 – www transfluid.it - e-mail:info@transluid.it

⚠ CAUTION

DO NOT ATTEMPT TO OPERATE OR REPAIR THE LEAF COLLECTOR WITHOUT FIRST READING AND UNDERSTANDING THIS MANUAL

IF YOU HAVE ANY QUESTIONS CONCERNING THE INSTALLATION OR OPERATION OF THIS UNIT, PLEASE CALL ODB FOR ASSISTANCE BEFORE ATTEMPTING TO REPAIR OR OPERATE THE UNIT.

IMPROPER USE OF ANY MACHINE CAN RESULT IN INJURY!

STUDY AND FOLLOW ALL SAFETY PRECAUTIONS BEFORE OPERATING OR REPAIRING UNIT

THIS MANUAL IS AN INTEGRAL PART OF THE LEAF COLLECTOR AND SHOULD BE KEPT WITH THE UNIT WHEN IT IS SOLD.

THE ODB CO