

## PORTABLE AIR COMPRESSOR 125,130,185,185H, 260 JOHN DEERE 125,130,185,185H, 260 CATERPILLAR

OPERATOR'S MANUAL AND PARTS LIST

KEEP FOR FUTURE REFERENCE

Part Number 02250128-033 ©Sullair Corporation

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#### 1.1 GENERAL

Sullair Corporation designs and manufactures all of its products so they can be operated safely. However, the responsibility for safe operation rests with those who use and maintain these products. The following safety precautions are offered as a guide which, if conscientiously followed, will minimize the possibility of accidents throughout the useful life of this equipment. Read the CIMA Safety Manual prior to compressor operation and towing, if applicable in your area.

The air compressor should be operated only by those who have been trained and delegated to do so, and who have read and understood this Operator's Manual. Failure to follow the instructions, procedures and safety precautions in this manual can result in accidents and injuries.

**NEVER** start the air compressor unless it is safe to do so. **DO NOT** attempt to operate the air compressor with a known unsafe condition. Tag the air compressor and render it inoperative by disconnecting the battery so others who may not know of the unsafe condition will not attempt to operate it until the condition is corrected.

Use and operate the air compressor only in full compliance with all pertinent OSHA requirements and/or all pertinent Federal, State and Local codes or requirements.

**DO NOT** modify the compressor except with written factory approval.

Each day walk around the air compressor and inspect for leaks, loose or missing parts, damaged parts or parts out of adjustment. Perform all recommended daily maintenance.

Inspect for torn, frayed, blistered or otherwise deteriorated and degraded hoses. Replace as required.

### NOTE

Estimated hose life based on a 5-day 8-hour work week is 3 years. These conditions exist on an 8-hour shift only. Any other operation of the equipment other than 8-hour shifts would shorten the hose life based on hours of operation.

## 1.2 TOWING (I) A. PREPARING TO TOW

### **A** WARNING

DO NOT tow the compressor should its weight exceed the rated limit of the tow vehicle, as the vehicle may <u>not</u> brake safely with excess weight. See rated limit in tow vehicle Operator's Manual, and review its instructions and other requirements for safe towing.

1. Prior to hitching the air compressor to the tow vehicle, inspect all attachment parts and equipment, checking for (i) signs of excessive wear or corrosion, (ii) parts that are cracked, bent,

dented or otherwise deformed or degraded, and (iii) loose nuts, bolts or other fasteners. Should any such condition be present, **DO NOT TOW** until the problem is corrected.

- Back the tow vehicle to the compressor and position it in preparation for coupling the compressor.
- 3. If the compressor is provided with a drawbar latched in the vertical upright position, carefully unlatch drawbar and lower it to engage the coupling device. If not, raise drawbar to engage coupling device or otherwise couple the compressor to the towing vehicle.

#### **A** WARNING

This equipment may be tongue heavy. DO NOT attempt to raise or lower the drawbar by hand if the weight is more than you can safely handle.

Use the screw jack provided or a chain fall if you cannot lift or lower it without avoiding injury to yourself or others. Keep hands and fingers clear of the coupling device and all other pinch points. Keep feet clear of drawbar to avoid injury in case it should slip from your hands.

- 4. Make sure the coupling device is fully engaged, closed and locked.
- 5. If chains are provided, pass each chain through its point of attachment on the towing vehicle; then hook each chain to itself by passing the grab hook over (not through) a link. Cross chains under front of drawbar before passing them through points of attachment on towing vehicle to support front of drawbar in case it should accidentally become uncoupled.
- 6. Make sure that the coupling device and adjacent structures on the towing vehicle (and also, if utilized, chain adjustment, brake and/or electrical interconnections) **DO NOT** interfere with or restrict motion of any part of the compressor, including its coupling device, with respect to the towing vehicle when maneuvering over any anticipated terrain.
- 7. If provided, make sure chain length, brake and electrical interconnections provide sufficient slack to prevent strain when cornering and maneuvering, yet are supported so they cannot drag or rub on road, terrain or towing vehicle surfaces which might cause wear that could render them inoperative.

#### **▲** WARNING

Retract the front screw jack only after attaching the compressor to the tow vehicle. Raise the screw jack to its full up position and pull the pin connecting the jack to the drawbar. Rotate the screw jack to its stowed position, parallel to the drawbar, and reinsert the pin. Make sure the jack is secured in place prior to towing.

If a caster wheel is provided on the screw jack it is part of the screw jack and can not be removed. Follow the same procedure for stowing away the

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wheeled jack as you would for the standard screw jack. Pull the pin connecting the jack to the drawbar and raise the screw jack to its full up position. Rotate the screw jack to its stowed position, parallel to the drawbar, and reinsert the pin. Make sure the jack is secured in place prior to towing.

#### **A** WARNING

This equipment may be tongue heavy. DO NOT attempt to raise or lower the drawbar by hand if the weight is more than you can safely handle.

- 8. On two-wheeled models, fully retract front screw jack and any rear stabilizer legs. If a caster wheel is provided on the screw jack it is part of the screw jack and can not be removed. Follow the same procedure for stowing away the wheeled jack as you would for the standard screw jack. Pull the pin connecting the jack to the drawbar and raise the screw jack to its full up position. Rotate the screw jack to its stowed position, parallel to the drawbar, and reinsert the pin. Make sure the jack is secured in place prior to towing.
- 9. Make sure tires are in good condition and are the size (load range) specified and are inflated to the specified pressures. **DO NOT** change the tire size or type. Also, make sure wheel bolts, lugs or nuts are tightened to the specified torques.
- 10. If provided, make sure all dual stop, tail directional and clearance lights are operating properly and that their lenses are clean and functional. Also, make sure all reflectors and reflecting surfaces, including the slow moving vehicle emblem on compressors provided with same, are clean and functional.
- 11. Make sure all service air hoses (not air brake hoses) are disconnected or are fully stowed and secured on hose reels, if provided.
- 12. Make sure all access doors and tool box covers are closed and latched. If the compressor is large enough to hold a man, make sure all personnel are out before closing and latching access doors.
- 13. Make sure parking brakes in towing vehicle are set, or that its wheel are chocked or blocked, or that it is otherwise restrained from moving. Then, release the compressor parking brakes, if provided.
- 14. Make sure the compressor wheels are not chocked or blocked, and that all tie-downs, if any, are free.
- 15. Test running brake operation, including breakaway switch operation if provided, before attempting to tow the compressor at its rated speed or less when conditions prevail.
- 16. **DO NOT** carry loose or inappropriate tools, equipment or supplies on or in the compressor.

17. **DO NOT** load this equipment with accessories or tools such that it is unbalanced from side to side or front to back. Such unbalance will reduce the towability of this equipment and may increase the possibility of tipping, rolling over, jackknifing, etc. Loss of control of the towing vehicle may result.

#### **B. TOWING**

- 1. Observe all Federal, State, and Local laws while towing this equipment (including those specifying minimum speed).
- 2. **DO NOT** exceed the towing speeds listed below under ideal conditions. Reduce your speed according to posted speed limits, weather, traffic, road or terrain conditions.
- a. Two axle four—wheel steerable models: 15MPH (24KMPH).
- b. All other models: 55 MPH (88KMPH).
- 3. Remember that the portable air compressor may approach or exceed the weight of the towing vehicle. Maintain increased stopping distances accordingly. **DO NOT** make sudden lane changes, U-turns, or other maneuvers. Such maneuvers can cause the compressor to tip, roll over, jackknife or slide and cause loss of control of the towing vehicle. Tipping, rolling over, etc. can occur suddenly without warning. U-turns especially should be made slowly and carefully.
- 4. Avoid grades in excess of 15° (27%).
- 5. Avoid potholes, rocks and other obstructions, and soft shoulders or unstable terrain.
- 6. Maneuver in a manner that will not exceed the freedom of motion of the compressor's drawbar and/or coupling device, in or on the towing vehicle's coupling device and/or adjacent structure whether towing forward or backing up, regardless of the terrain being traversed.
- 7. **DO NOT** permit personnel to ride in or on the compressor.
- 8. Make sure the area behind, in front of, and under the compressor is clear of all personnel and obstructions prior to towing in any direction.
- 9. **DO NOT** permit personnel to stand or ride on the drawbar, or to stand or walk between the compressor and the towing vehicle.

#### C. PARKING OR LOCATING COMPRESSOR

- 1. Park or locate compressor on a level surface, if possible. If not, park or locate compressor across grade so the compressor does not tend to roll downhill. **DO NOT** park or locate compressor on grades exceeding 15° (27%).
- 2. Make sure compressor is parked or located on a firm surface than can support its weight.
- 3. Park or locate compressor so the wind, if any, tends to carry the exhaust fumes and radiator heat away from the compressor air inlet openings, and also where the compressor will not be exposed to excessive dust from the work site.

- 4. On four-wheel models, park compressor with front wheels in straight ahead position.
- 5. Set parking brakes and disconnect breakaway switch cable and all other interconnecting electrical and/or brake connections, if provided.
- 6. Block or chock both sides of all wheels.
- 7. If provided, unhook chains and remove them from the points of chain attachment on the towing vehicle, then hook chains to bail on drawbar or wrap chains around the drawbar and hook them to themselves to keep chains off the ground which might accelerate rusting.
- 8. Lower front screw jack and/or any front and rear stabilizer legs. Make sure the surface they contact has sufficient load bearing capability to support the weight of the compressor.

#### **A** WARNING

Retract the front screw jack only after attaching the compressor to the tow vehicle. Raise the screw jack to its full up position and pull the pin connecting the jack to the drawbar. Rotate the screw jack to its stowed position, parallel to the drawbar, and reinsert the pin. Make sure the jack is secured in place prior to towing.

If a caster wheel is provided on the screw jack it is part of the screw jack and can not be removed. Follow the same procedure for stowing away the wheeled jack as you would for the standard screw jack. Pull the pin connecting the jack to the drawbar and raise the screw jack to its full up position. Rotate the screw jack to its stowed position, parallel to the drawbar, and reinsert the pin. Make sure the jack is secured in place prior to towing.

#### **A** WARNING

This equipment may be tongue heavy. DO NOT attempt to raise or lower the drawbar by hand if the weight is more than you can safely handle.

- 9. If a caster wheel is provided on the screw jack it is part of the screw jack and can not be removed. Follow the same procedure for stowing away the wheeled jack as you would for the standard screw jack. Raise the screw jack to its full up position and pull the pin connecting the jack to the drawbar. Rotate the screw jack to its stowed position, parallel to the drawbar, and reinsert the pin. Make sure the jack is secured in place prior to towing.
- 10. Disconnect coupling device, keeping hands and fingers clear of all pinch points. If the compressor is provided with a drawbar, **DO NOT** attempt to lift the drawbar or if hinged, to raise it to the upright position, by hand, if the weight is more than you can safely handle. Use a screwjack or chain fall if you cannot lift or raise the drawbar without avoiding injury to yourself or others
- 11. When possible, stow hinged drawbar in the vertical upright position. Make certain it is se-

- curely latched in the vertical upright position. Keep feet clear of drawbar at all times to avoid crushing accidents in case it should slip from your hands or otherwise fall to the ground.
- 12. Move the towing vehicle well clear of the parked compressor and erect hazard indicators, barricades and/or flares (if at night) if compressor is parked on or adjacent to public roads. Park so as not to interfere with traffic.
- (I) While not towed in the usual sense of the word, many of these instructions are directly applicable to skid-mounted portable air compressors as well.

#### 1.3 PRESSURE RELEASE

- **A.** Open the pressure relief valve at least weekly to make sure it is not blocked, closed, obstructed or otherwise disabled.
- **B.** Install an appropriate flow-limiting valve between the compressor service air outlet and the shutoff (throttle) valve, when an air hose exceeding 1/2" (13mm) inside diameter is to be connected to shut-off (throttle) valve, to reduce pressure in case of hose failure, per OSHA Standard 29 CFR 1926.302 (b) (7) or any applicable Federal, State and Local codes, standards and regulations.
- C. When the hose is to be used to supply a manifold, install an additional appropriate flow—limiting valve between the manifold and each air hose exceeding 1/2" (13mm) inside diameter that is to be connected to the manifold to reduce pressure in case of hose failure.
- **D.** Provide an appropriate flow–limiting valve for each additional 75 feet (23 meters) of hose in runs of air hose exceeding 1/2" (13mm) inside diameter to reduce pressure in case of hose failure.
- **E.** Flow-limiting valves are listed by pipe size and rated CFM. Select appropriate valve accordingly.
- **F. DO NOT** use tools that are rated below the maximum rating of this compressor. Select tools, air hoses, pipes, valves, filters and other fittings accordingly. **DO NOT** exceed manufacturer's rated safe operating pressures for these items.
- **G.** Secure all hose connections by wire, chain or other suitable retaining device to prevent tools or hose ends from being accidentally disconnected and expelled.
- **H.** Open fluid filler cap only when compressor **is not running and is not pressurized.** Shut down the compressor and bleed the sump (receiver) to zero internal pressure before removing the cap.
- I. Vent all internal pressure prior to opening any line, fitting, hose, valve, drain plug, connection or other component, such as filters and line oilers, and before attempting to refill optional air line anti-icer systems with antifreeze compound.

## Section 1 SAFETY

- **J.** Keep personnel out of line with and away from the discharge opening of hoses, tools or other points of compressed air discharge.
- **K. DO NOT** use air at pressures higher than 30 psig (2.1 bar) for cleaning purposes, and then only with effective chip guarding and personal protective equipment per OSHA Standard 29 CFR 1910.242 (b) or any applicable Federal, State and Local codes, standards and regulations.
- L. DO NOT engage in horseplay with air hoses as death or serious injury may result.
- **M.** This equipment is supplied with an ASME designed pressure vessel protected by an ASME rated relief valve. Lift the handle once a week to make sure the valve is functional. **DO NOT** lift the handle while machine is under pressure.
- **N.** If the machine is installed in an enclosed area it is necessary to vent the relief valve to the outside of the structure or to an area of non-exposure.
- O. DO NOT remove radiator filler cap until the coolant temperature is below its boiling point. Then loosen cap slowly to its stop to relieve any excess pressure and make sure coolant is not boiling before removing cap completely. Remove radiator filler cap only when cool enough to touch with a bare hand.
- **P.** The ethyl ether in the replaceable cylinders used in diesel ether starting aid systems (optional) is under pressure. **DO NOT** puncture or incinerate those cylinders. **DO NOT** attempt to remove the center valve core or side pressure relief valve from these cylinders regardless of whether they are full or empty.
- **Q.** If a manual blowdown valve is provided on the receiver, open the valve to insure all internal pressure has been vented prior to servicing any pressurized component of the compressor air/fluid system.

#### 1.4 FIRE AND EXPLOSION

- **A.** Refuel at a service station or from a fuel tank designed for its intended purpose. If this is not possible, ground the compressor to the dispenser prior to refueling.
- **B.** Clean up spills of fuel, fluid, battery electrolyte or coolant immediately if such spills occur.
- C. Shut off air compressor and allow it to cool. Then keep sparks, flames and other sources of ignition away and DO NOT permit smoking in the vicinity when adding fuel, or when checking or adding electrolyte to batteries, or when checking or adding fluid, or when checking diesel engine ether starting aid systems or replacing cylinders, or when refilling air line anti—icer systems antifreeze compound.

- **D. DO NOT** permit liquids, including air line anti—icer system antifreeze compound or fluid film to accumulate on bottom covers or on, under or around acoustical material, or on any external or internal surfaces of the air compressor. Wipe down using an aqueous industrial cleaner or steam clean as required. If necessary remove acoustical material, clean all surfaces and then replace acoustical material. Any acoustical material with a protective covering that has been torn or punctured should be replaced immediately to prevent accumulation of liquids or fluid film within the material. **DO NOT** use flammable solvents for cleaning purposes.
- **E.** Disconnect the grounded (negative) battery connection prior to attempting any repairs or cleaning inside the enclosure. Tag the battery connections so others will not unexpectedly reconnect it.
- **F.** Keep electrical wiring, including the battery terminals and other terminals, in good condition. Replace any wiring that has cracked, cut abraded or otherwise degraded insulation or terminals that are worn, discolored or corroded. Keep all terminals clean and tight.
- **G.** Turn off battery charger before making or breaking connections to the battery.
- **H.** Keep grounded conductive objects such as tools away from exposed live electrical parts such as terminals to avoid arcing which might serve as a source of ignition.
- I. Replace damaged fuel tanks or lines immediately rather than attempt to weld or otherwise repair them. **DO NOT** store or attempt to operate the compressor with any known leaks in the fuel system. Tag the compressor and render it inoperative until repair can be made.
- J. Remove any acoustical material or other material that may be damaged by heat or that may support combustion prior to attempting weld repairs. Remove diesel engine ether starting aid cylinders and air line anti-icer system components containing antifreeze compound, prior to attempting weld repairs in any place other than the fuel system. DO NOT weld on or near the fuel system.
- **K.** Keep a suitable fully charged class BC or ABC fire extinguisher or extinguishers nearby when servicing and operating the compressor.
- L. Keep oily rags, trash, leaves, litter or other combustibles out of and away from the compressor.
- **M.** Open all access doors and allow the enclosure to ventilate thoroughly prior to attempting to start the engine.
- **N. DO NOT** operate compressor under low overhanging leaves or permit such leaves to contact hot exhaust system surfaces when operating the compressor in forested areas.
- O. Ethyl ether used in diesel engine ether starting aid systems is extremely flammable. Change cylin-

ders, or maintain or troubleshoot these systems only in well-ventilated areas away from heat, open flame or sparks. **DO NOT** install, store or otherwise expose ether cylinders to temperatures above 160°F (71°C). Remove ether cylinder from the compressor when operating in ambient temperatures above 60°F (16°C).

- **P. DO NOT** attempt to use ether as a starting aid in gasoline engines or diesel engines with glow plugs as serious personnel injury or property damage may result.
- **Q. DO NOT** spray ether into compressor air filter or into an air filter that serves both the engine and the compressor as serious damage to the compressor or personal injury may result.
- **R.** Antifreeze compound used in air line anti-icer systems contains methanol which is flammable. Use systems and refill with compound only in well-ventilated areas away from heat, open flames or sparks. **DO NOT** expose any part of these systems or the antifreeze compound to temperatures above 150°F (66°C). Vapors from the antifreeze compound are heavier than air. **DO NOT** store compound or discharge treated air in confined or unventilated areas. **DO NOT** store containers or antifreeze compound in direct sunlight.
- **S.** Store flammable fluids and materials away from your work area. Know where fire extinguishers are and how to use them, and for what type of fire they are intended. Check readiness of fire suppression systems and detectors if so equipped.

#### 1.5 MOVING PARTS

- **A.** Keep hands, arms and other parts of the body and also clothing away from belts, pulleys and other moving parts.
- **B. DO NOT** attempt to operate the compressor with the fan or other guards removed.
- **C.** Wear snug-fitting clothing and confine long hair when working around this compressor, especially when exposed to hot or moving parts inside the enclosure.
- **D.** Keep access doors closed except when making repairs or adjustments, performing service or when starting or stopping the compressor.
- **E.** Make sure all personnel are out of and clear of the compressor prior to attempting to start or operate it.
- **F.** Shut off engine before adding fuel, fluid, coolant lubricants, air line antifreeze compound or battery electrolyte, or before replacing ether starting aid cylinders.
- **G.** Disconnect the grounded negative battery connection to prevent accidental engine operation prior to attempting repairs or adjustments. Tag the

battery connection so others will not unexpectedly reconnect it.

- H. When adjusting the controls, it may require operation of the equipment during adjustment. DO NOT come in contact with any moving parts while adjusting the control regulator and setting the engine RPM. Make all other adjustments with the engine shut off. When necessary, make adjustment, other than setting control regulator and engine RPM, with the engine shut off. If necessary, start the engine and check adjustment. If adjustment is incorrect, shut engine off, readjust, then restart the engine to recheck adjustment.
- Keep hands, feet, floors, controls and walking surfaces clean and free of fluid, water, antifreeze or other liquids to minimize possibility of slips and falls.

## 1.6 HOT SURFACES, SHARP EDGES AND SHARP CORNERS

- A. Avoid bodily contact with hot fluid, hot coolant, hot surfaces and sharp edges and corners.
- **B.** Keep all parts of the body away from all points of air discharge and away from hot exhaust gases.
- **C.** Wear personal protective equipment including gloves and head covering when working in, on or around the compressor.
- **D.** Keep a first aid kit handy. Seek medical assistance promptly in case of injury. **DO NOT** ignore small cuts and burns as they may lead to infection.

#### 1.7 TOXIC AND IRRITATING SUBSTANCES

**A. DO NOT** use air from this compressor for respiration (breathing) except in full compliance with OSHA Standards 29 CFR 1920 and any other Federal, State or Local codes or regulations.

### **▲** DANGER

Death or serious injury may occur from inhaling compressed air without using proper safety equipment. See OSHA standards, and/or any Federal, State or Local codes or regulations on safety equipment.

- **B. DO NOT** use air line anti-icer systems in air lines supplying respirators or other breathing air utilization equipment and **DO NOT** discharge air from these systems into unventilated or other confined areas.
- **C.** Operate the compressor only in open or well–ventilated areas.
- **D.** If the compressor is operated indoors, discharge engine exhaust fumes outdoors.
- **E.** Locate the compressor so that exhaust fumes are not apt to be carried towards personnel, air intakes servicing personnel areas or towards the air intake of any portable or stationary compressor.

### Section 1 SAFFTY

- F. Fuels, fluids, coolants, lubricants and battery electrolyte used in the compressor are typical of the industry. Care should be taken to avoid accidental ingestions and/or skin contact. In the event of ingestion seek medical treatment promptly. DO NOT induce vomiting if fuel is ingested. Wash with soap and water in the event of skin contact.
- G. Wear an acid-resistant apron and a face shield or goggles when servicing the battery. If electrolyte is spilled on skin or clothing, immediately flush with large quantities of water.
- **H.** Ethyl ether used in diesel engine ether starting aid systems is toxic, harmful or fatal if swallowed. Avoid contact with the skin or eyes and avoid breathing the fumes. If swallowed, DO NOT induce vomiting, but call a physician immediately.
- Wear goggles or a full face shield when testing ether starting aid systems or when adding antifreeze compound to air line anti-icer systems. Keep openings of valve or atomizer tube of ether starting aid system pointed away from yourself and other personnel.
- J. If ethyl ether or air line anti-icer system antifreeze compound enters the eyes or if fumes irritate the eyes, they should be washed with large quantities of clean water for 15 minutes. A physician, preferably any eye specialist, should be contacted immediately.
- K. DO NOT store ether cylinders or air line anti icer system antifreeze compound in operator's cabs or in other similar confined areas.
- L. The antifreeze compound used in air line anti icer systems contains methanol and is toxic, harmful or fatal if swallowed. Avoid contact with the skin or eyes and avoid breathing the fumes. If swallowed, induce vomiting by administering a tablespoon of salt in each glass of clean warm water until vomit is clear, then administer two tablespoons of baking soda in a glass of clean water. Have patient lay down and cover eyes to exclude light. Call a physician immediately.

#### 1.8 ELECTRICAL SHOCK

- A. Keep the towing vehicle or equipment carrier, compressor hoses, tools and all personnel at least 10 feet (3 meters) from power lines and buried ca-
- B. Keep all parts of the body and any hand-held 1.10 ENTRAPMENT tools or other conductive objects away from exposed live parts of electrical system. Maintain dry footing, stand on insulating surfaces and DO NOT contact any other portion of the compressor when making adjustments or repairs to exposed live parts of the electrical system.
- C. Attempt repairs only in clean, dry and welllighted and ventilated areas.

D. Stay clear of the compressor during electrical storms! It can attract lightning.

#### 1.9 LIFTING

- A. If the compressor is provided with a lifting bail, then lift by the bail provided. If no bail is provided, then lift by sling. Compressors to be air lifted by helicopter must not be supported by the lifting bail, but by slings instead. In any event, lift only in full compliance with OSHA Standards 29 CFR 1910 subpart N or any other Local, State, Military and Federal regulations that may apply.
- B. Inspect lifting bail and points of attachment for cracked welds and for cracked, bent, corroded or otherwise degraded members and for loose bolts or nuts prior to lifting.
- C. Make sure entire lifting, rigging and supporting structure has been inspected, is in good condition and has a rated capacity of at least the net weight of the compressor plus an additional 10% allowance for weight of snow, ice, mud or stored tools and equipment. If your are unsure of the weight, then weigh compressor before lifting.
- D. Make sure lifting hook has a functional safety latch or equivalent, and is fully engaged and latched on the bail.
- E. Use guide ropes or equivalent to prevent twisting or swinging of the compressor once it has been lifted clear of the ground.
- F. DO NOT attempt to lift in high winds.
- G. Keep all personnel out from under and away from the compressor whenever it is suspended.
- **H.** Lift compressor no higher than necessary.
- I. Keep lift operator in constant attendance whenever compressor is suspended.
- J. Set compressor down only on a level surface capable of supporting at least its net weight plus an additional 10% allowance for the weight of snow, ice, mud or stored tools and equipment.
- K. If the compressor is provided with parking brakes, make sure they are set, and in any event, block or chock both sides of all running wheels before disengaging the lifting hook.

- A. Make sure all personnel are out compressor before closing and latching enclosure doors.
- B. If the compressor is large enough to hold a man and if it is necessary to enter it to perform service adjustments, inform other personnel before doing so, or else secure the access door in the open position to avoid the possibility of others closing and possibly latching the door with personnel inside.

#### 1.11 JUMP STARTING

- **A.** Observe all safety precautions mentioned elsewhere in this manual.
- **B.** Batteries may contain hydrogen gas which is flammable and explosive. Keep flames, sparks and other sources of ignition away.
- **C.** Batteries contain acid which is corrosive and poisonous. **DO NOT** allow battery acid to contact eyes, skin, fabrics or painted surfaces as serious personal injury or property damage could result. Flush any contacted areas thoroughly with water immediately. Always wear an acid—resistant apron and face shield when attempting to jump start the compressor.
- **D.** Remove all vent caps (if so equipped) from the battery or batteries in the compressor. **DO NOT** permit dirt or foreign matter to enter the open cells.
- **E.** Check fluid level. If low, bring fluid to proper level before attempting to jump start (not applicable to maintenance—free batteries).
- **F. DO NOT** attempt to jump start if fluid is frozen or slushy. Bring batteries up to at least 60°F (16°C) before attempting to jump start or it may explode.
- **G.** Cover open cells of all compressor batteries with clean dampened cloths before attempting to jump start.
- **H.** Attempt to jump start only with a vehicle having a negative ground electrical system with the same voltage, and is also equipped with a battery or batteries of comparable size or larger than supplied in the compressor. **DO NOT** attempt to jump start using motor generator sets, welders or other sources of DC power as serious damage may result.
- I. Bring the starting vehicle alongside the compressor, but **DO NOT** permit metal to metal contact between the compressor and the starting vehicle.
- **J.** Set the parking brakes of both the compressor (if provided) and the starting vehicle or otherwise block both sides of all wheels.
- **K.** Place the starting vehicle in neutral or park, turn off all non-essential accessory electrical loads and start its engine.
- L. Use only jumper cables that are clean, in good condition and are heavy enough to handle the starting current.
- **M.** Avoid accidental contact between jumper cable terminal clips or clamps and any metallic portion of either the compressor or the starting vehicle to minimize the possibility of uncontrolled arcing which might serve as a source of ignition.

- **N.** Positive battery terminals are usually identified by a plus (+) sign on the terminal and the letters POS adjacent to the terminal. Negative battery terminals are usually identified by the letters NEG adjacent to the terminal or a negative (-) sign.
- O. Connect one end of a jumper cable to the positive (POS) (+) battery terminal in the starting vehicle. When jump starting 24V compressors and if the starting vehicle is provided with two (2) 12V batteries connected in series, connect the jumper cable to the positive (POS) (+) terminal of the ungrounded battery.
- **P.** Connect the other end of the same jumper cable to the positive (POS) (+) terminal of the starter motor battery in the compressor, or when jump starting 24V compressor, to the positive (POS) (+) terminal of the ungrounded battery in the compressor.
- **Q.** Connect one end of the other jumper cable to the grounded negative (NEG) (-) terminal of the battery in the starting vehicle. When jump starting 24V compressors and if the starting vehicle is provided with two (2) 12V batteries connected in series, connect the jumper cable to the negative (NEG) (-) terminal of the grounded battery.
- **R.** Check your connections. **DO NOT** attempt to start a 24V compressor with one 12V battery in the starting vehicle. **DO NOT** apply 24V to one 12V battery in the compressor.
- **S.** Connect the other end of this same jumper cable to a clean portion of the compressor engine block away from fuel lines, the crank case breather opening and the battery.
- T. Start the compressor in accordance with normal procedure. Avoid prolonged cranking.
- **U.** Allow the compressor to warm up. When the compressor is warm and operating smoothly at normal idle RPM, disconnect the jumper cable from the engine block in the compressor, then disconnect the other end of this same cable from the grounded negative (NEG) (–) terminal of the battery in the starting vehicle. Then disconnect the other jumper cable from the positive (POS) (+) terminal of the battery in the compressor, or if provided with two (2) 12V batteries connected in series, from the ungrounded battery in the compressor, and finally, disconnect the other end of this same jumper cable from the positive (POS) (+) terminal of the battery in the starting vehicle or from the positive (POS) (+) terminal of the ungrounded battery in the starting vehicle, if it is provided with two (2) 12V batteries connected in series.
- V. Remove and carefully dispose of the dampened cloths, as they may now be contaminated with acid, then replace all vent caps.

#### Section 2

## **DESCRIPTION**

#### 2.1 INTRODUCTION

The Sullair 125, 130, 185, 185H and 260. CFM Portable Air Compressors offer superior performance and reliability along with a minimal amount of maintenance requirements.

The compressor is equipped with a Sullair rotary screw compressor unit. Compared to other compressors, the Sullair is unique in mechanical reliability and compressor durability. No inspection is required of the working parts within the compressor unit.

As you continue reading this manual and come to learn how the compressor operates and is cared for, you will see how surprisingly easy it is to keep a Sullair compressor in top operating condition.

Read Section 5 (Maintenance) and learn how to keep your compressor in top operating condition. Should any problem or question arise which cannot be answered in this text, contact your nearest Sullair representative or the Sullair Corporation Service Department.

#### 2.2 DESCRIPTION OF COMPONENTS

Refer to Figures 2–1. The components and assemblies of the Sullair Portable Air compressor are clearly shown. The package includes a heavy duty rotary screw air compressor, a diesel engine, fuel tank, compressor inlet system, compressor cooling and lubrication system, compressor discharge system, capacity control system, instrument panel and electrical system.

A low profile canopy offers improved handling and mobility. Large side service doors provide easy access to all serviceable components.

This model meets EPA regulations for 76dbA at 7 meters (23 feet).

The Sullair air compressors are capable of delivering capacities as follows:

Model 125	125 CFM @ 100 PSIG (6.9 bar)
Model 130	130 CFM @ 100 PSIG (6.9 bar)
Model 185	185 CFM @ 100 PSIG (6.9 bar)
Model 185H	185 CFM @ 150 PSIG (10.3 bar)
Model 260	260 CFM @ 100 PSIG (6.9 bar)

The control system can easily be adjusted for pressures from 70 to 125 PSIG (4.8 to 8.6 bar) for standard machines and from 70 to 150 PSIG (4.8 to 10.3 bar) for "H" machines. The compressor unit is driven by an industrial diesel engine designed to provide enough horsepower for more than adequate reserve at rated conditions. Refer to the Engine Operator's Manual for a more detailed description of the engine.

The engine cooling system is comprised of a radia-

tor, high capacity fan and thermostat. The high capacity fan pushes air through the radiator, keeping the engine at the proper operating temperature.

The same fan also cools the fluid in the compressor cooling and lubrication system. The engine radiator and the compressor fluid cooler sit side by side which allows the fan air to push through both simultaneously. As air passes through the fluid cooler, the heat of compression is removed from the fluid.

The compressor is supplied with a large capacity fuel tank which will keep the compressor running through one (1) eight hour shift under normal operating conditions.

## 2.3 SULLAIR COMPRESSOR UNIT, FUNCTIONAL DESCRIPTION

Sullair compressors feature the Sullair compressor unit, a single-stage, positive displacement, flood lubricated-type compressor. This unit provides continuous (pulse-free) compression to meet your needs. With a Sullair compressor, no maintenance or inspection of the internal parts of the compressor unit is required.

Fluid is injected into the compressor unit where it mixes directly with the air as the rotors turn, compressing the air. The fluid flow has three main functions:

- As coolant, it controls the rise of air temperature normally associated with the heat of compression.
- Seals the leakage paths between the rotors and the stator and also between the rotors themselves.
- 3. Acts as a lubricating film between the rotors allowing one rotor to directly drive the other.

After the air/fluid mixture is discharged from the compressor unit, the fluid is separated from the air. At this time, the air flows to your service line and the fluid is cooled in preparation for reinjection.

## 2.4 COMPRESSOR COOLING AND LUBRICATION SYSTEM, FUNCTIONAL DESCRIPTION

Refer to Figure 2–2 and 2–2A. The compressor cooling and lubrication system is designed to provide adequate lubrication as well as maintain the proper operating temperature of the compressor. In addition to the **fluid cooler** and **interconnecting piping**, the system consists also of three other components: **a fluid filter**, **thermal valve**, and **a fan** which perform the following functions:

- The fluid filter filters the fluid.
- The thermal valve functions as a temperature regulator directing fluid either to the cooler or to the compressor unit, bypassing the cooler as will be explained later.
- The fan pushes air through the cooler removing the heat of compression from the fluid.

The functions of the lubrication system are explained in more detail below. Fluid is used in the sys-

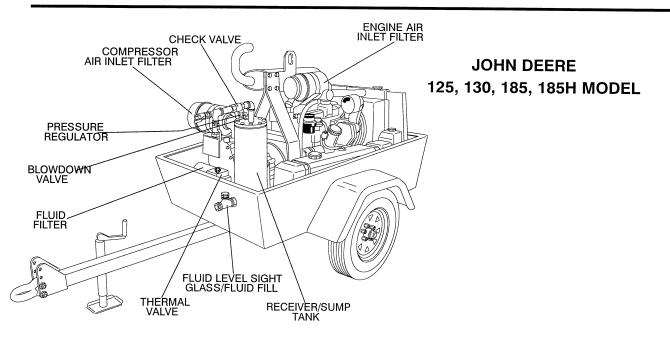
tem as a coolant and as a lubricant. It is housed in the receiver/sump which, will from this time forward, be referred to as the SUMP.

Upon start—up, fluid flows from the sump to the fluid thermal valve. Fluid circulation is achieved by forcing the fluid from the high pressure region of the sump to a lower pressure area in the compressor unit. A minimum pressure device (see Section 2.5

Compressor Discharge System) is provided to assure adequate fluid flow under all conditions.

When entering the thermal valve upon start—up, the fluid temperature is cool and thus it is not necessary to route it through the cooler. Hence the fluid flows through the fluid filter and on to the compressor unit bypassing the cooler. As the compressor continues to operate, the temperature of the fluid rises and the

Figure 2-1 Sullair Rotary Screw Portable Air Compressor



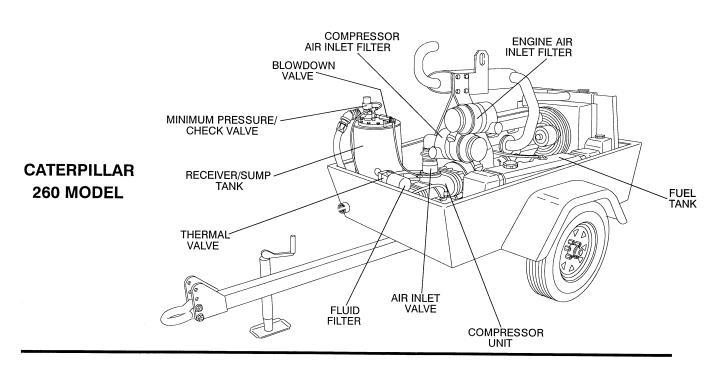
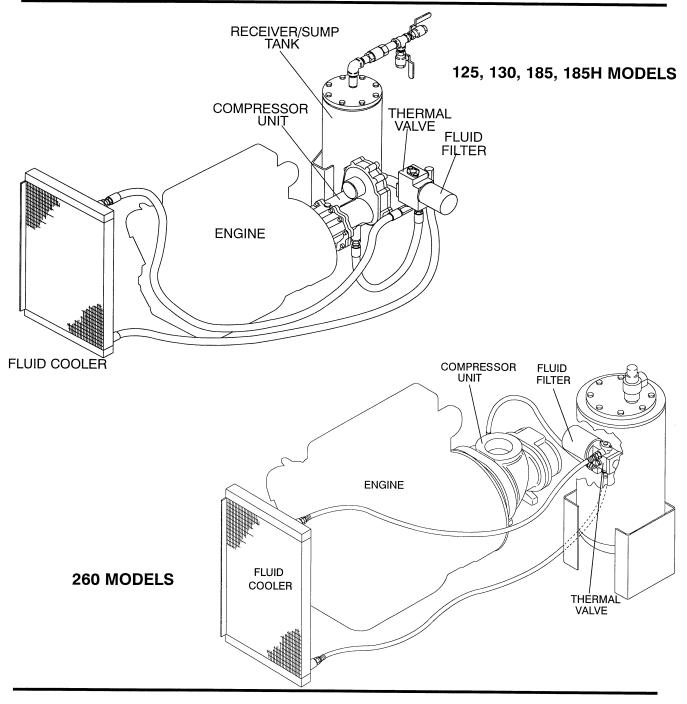


Figure 2-2 Compressor Cooling and Lubrication System



thermostatic control opens, allowing a portion of the fluid to the cooler. When the temperature reaches 140°F (60°C), the thermostat is fully open allowing all fluid entering the thermal valve to be directed to the cooler.

The cooler is a radiator—type that works in conjunction with the engine fan. The fan pushes air through

the cooler removing the heat of compression from the fluid. From the cooler, the fluid is then routed back through the fluid filter. All fluid flowing to the compressor unit passes through this filter. The fluid leaving the filter flows to the compressor unit where it lubricates, seals and cools the compression chamber as well as lubricates the bearings and gears.

#### 2.5 COMPRESSOR DISCHARGE SYSTEM, FUNC-TIONAL DESCRIPTION

Refer to Figures 2-3, 2-4, 2-4A, 2-4B and 2-4C. The Sullair compressor unit discharges compressed air/fluid mixture into the sump. The sump has three functions:

1. It acts as a primary fluid separator.

- 2. Serves as the compressor fluid sump.3. Houses the air/fluid separator.

The compressed air/fluid mixture enters the sump and is directed against the side of the sump. By change of direction and reduction of velocity, large droplets of fluid separate and fall to the bottom of the sump. The fractional percentage of fluid remaining in the compressed air collects on the surface of the

Figure 2-3 Compressor Discharge System

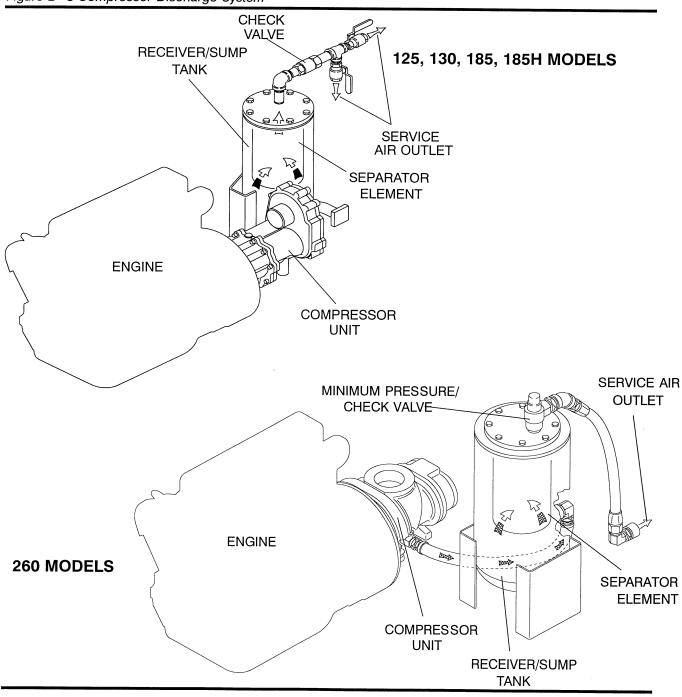


Figure 2-4 Control System with Piping and Instrumentation - 125 &130 Models

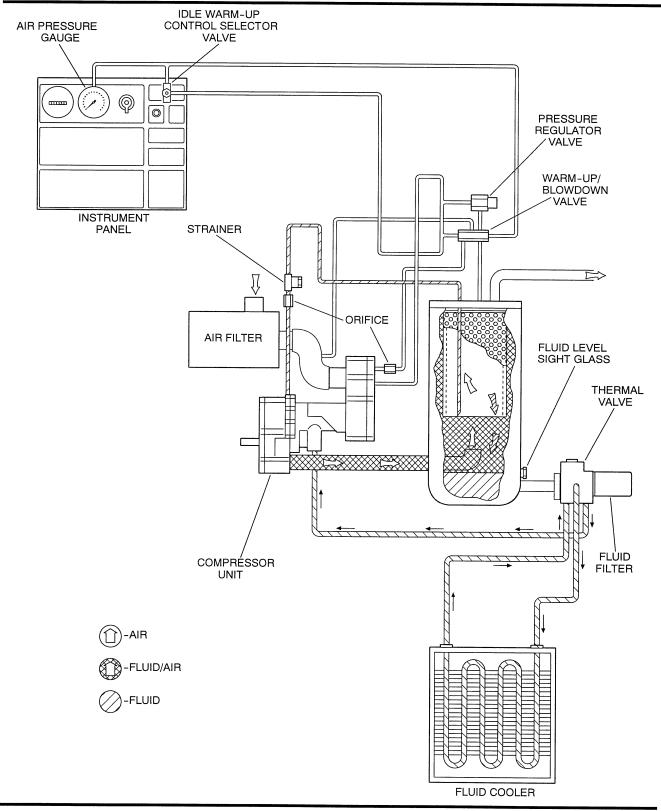
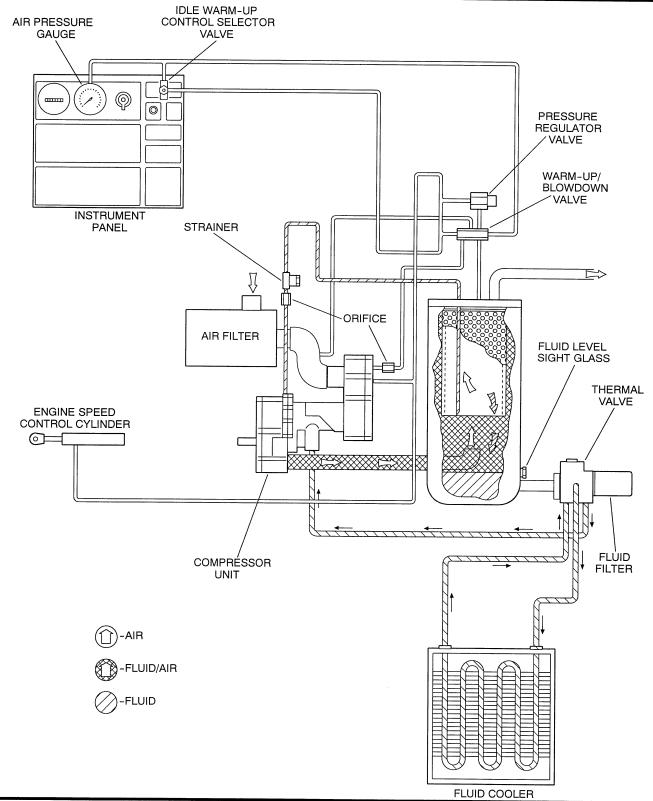
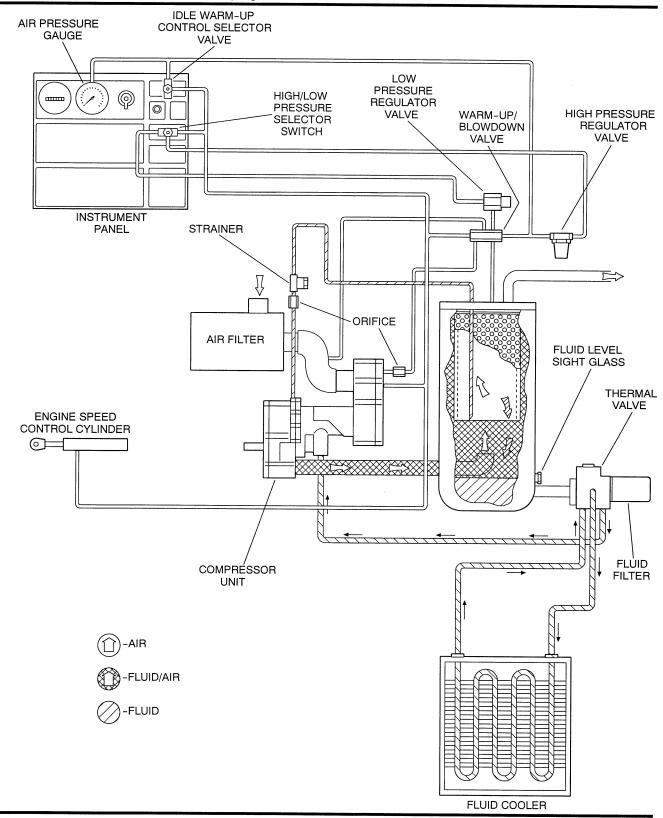


Figure 2-4A Control System with Piping and Instrumentation - 185 Models



## **DESCRIPTION**

Figure 2-4B Control System with Piping and Instrumentation - 185H Models



( 0 AIR FILTER IDLE WARM-UP CONTROL SELECTOR **INLET INSTRUMENT** VALVE VALVE PANEL **ORIFICE** AIR PRESSURE GAUGE BLOWDOWN VAĻVE **\*\*** STRAINER **PRESSURE** REGULATOR VALVE ENGINE SPEED CONTROL CYLINDER MINIMUM PRESSURE/ CHECK VALVE COMPRESSOR UNIT FLUID LEVEL SIGHT GLASS THERMAL VALVE -AIR -FLUID/AIR -FLUID FLUID FILTER FLUID COOLER

Figure 2-4C Control System with Piping and Instrumentation - 260 Models

#### Section 2

### **DESCRIPTION**

final separator element as the compressed air flows through the separator. As more and more fluid collects on the element surface, the fluid descends to the bottom of the separator. A return line (or scavenge tube) leads from the bottom of the separator element to the inlet region of the compressor unit. Fluid collecting on the bottom of the separator element is returned to the compressor by the pressure difference between the area surrounding the separator element and the compressor inlet. An orifice (protected by a strainer) is included in this return line to assure proper flow.

The sump is ASME code rated at 175 psig (12.1 bar) working pressure. A minimum pressure device located downstream from the separator, assures a minimum receiver pressure of 85 psig (5.9 bar) during all conditions. This pressure is necessary for proper air/fluid separation and proper fluid circulation.

A pressure relief valve (located on the wet side of the separator) is set to open if the sump pressure exceeds 140 psig (9.7 bar) or 175 PSIG (12.1 bar) for "H" machines. A temperature switch will shut down the compressor if the discharge temperature reaches the specified limit given in Section 3, Specifications.

Fluid is added to the sump via a capped fluid filler.

#### **A** WARNING

DO NOT remove caps, plugs, and/or other components when compressor is running or pressurized.

Stop compressor and relieve all internal pressure before doing so.

## 2.6 CAPACITY CONTROL SYSTEM, FUNCTIONAL DESCRIPTION

Refer to Figures 2–3 and 2–4 or 2–4A or 2–4B or 2–4C. The purpose of the control system is to regulate the amount of air intake in accordance with the amount of compressed air being used. The control system consists of a pressure regulating valve(s), air inlet valve, system blowdown valve, and tubing connecting the various components to the compressor and engine governor. The functional descriptions of the control system are given in four distinct phases of operation. It applies to any control system with the exception of those with stated pressures which are dependent on pressure requirements. The pressures stated will be in accordance with a compressor having an operating pressure range of 100 to 110 psig (6.9 to 7.6bar).

## START - 0 TO 40 PSIG (0 to 2.8 BAR) COLD WEATHER

To minimize problems in cold weather, starting aids, engine coolant heaters and dry—side receiver relief valves should be used. Refer to the engine operators manual for additional information.

#### COLD START

When the compressor is started, the sump pressure

will quickly rise from 0 to 40 psig (0 to 2.8 bar). During this period the pressure regulator valve is inactive. At this pressure range the idle warm—up control maintains a closed inlet valve for engine idle operation. After engine start—up, turn the handle of the selector valve warm—up control (located on the instrument panel) from the "start" to the "run" position within the first minute of operation. The inlet valve is fully open due to inlet air pressure, and the compressor operates at full capacity, the engine runs at full speed.

## NORMAL OPERATION - 55 TO 100 PSIG (3.8 TO 6.9 BAR) OR 55 TO 150 PSIG (3.8 TO 10.3 BAR) FOR "H" MACHINES

When the warm—up control selector valve handle is moved to the "run" position, the sump pressure rises above 85 psig (5.9 bar). At this time, the inlet valve remains fully open for maximum air output. The engine will continue to run at full speed during this phase of operation.

## MODULATION - 100 TO 110 PSIG (6.9 TO 7.6 BAR) OR 150 TO 165 PSIG (10.3 TO 11.4 BAR) FOR "H" MACHINES

Should less than the rated capacity of air be used, the service line pressure will rise above 100 psig (6.9 bar) low or single pressure rating, 150 psig (10.3 bar) dual or high pressure rating. The pressure regulating valve gradually opens, applying pressure to the inlet valve piston and speed control cylinder (185,185H and 260 models only). This causes the inlet valve to partially close and reduces the speed of the engine. As the pressure increases, the inlet valve piston will further close the inlet valve and continue reducing the speed until it reaches a pre—set idle speed. Now as air demand increases, the sump pressure will fall below the 110 psig (7.6 bar) or 165 psig (11.4 bar) for "H" machines.

The pressure regulating valve will close, the air inlet valve will fully open and the engine will once again run at a pre-set full load speed.

Between the pressure regulating valve and inlet valve, a small orifice is installed which vents a small amount of air to the atmosphere, when the pressure regulating valve is open. This allows variance of air output to match air demand. The orifice also bleeds any accumulated moisture from the regulator.

#### SHUTDOWN

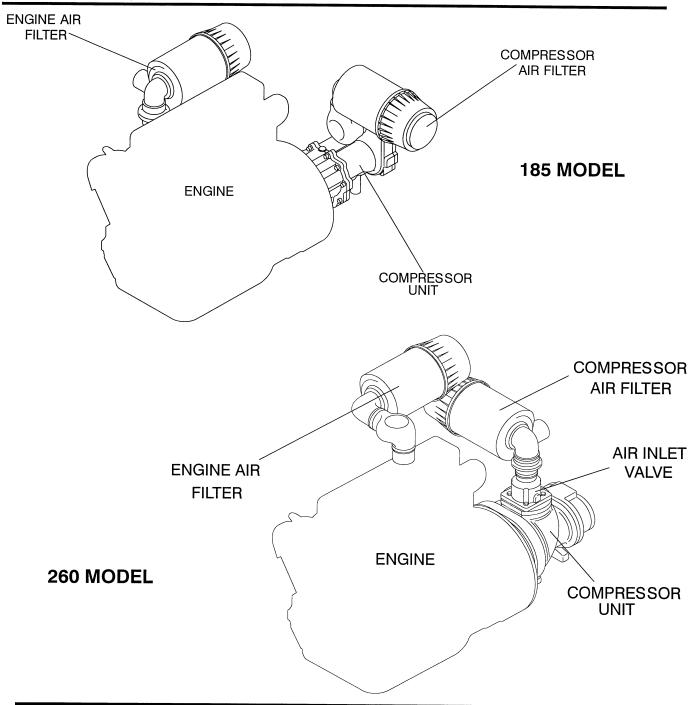
The blowdown valve is normally closed. Upon shutdown, the back pressure in the compressor inlet signals the blowdown valve to vent the sump pressure to the atmosphere.

## 2.7 AIR INLET SYSTEM, FUNCTIONAL DESCRIPTION

Refer to Figure 2–5. The air inlet system consists of **two air filters**, a **compressor air inlet valve** and **interconnecting piping** to the engine and compressor.

The air filters are two-stage dry element-type fil-

Figure 2-5 Air Inlet System



ters. These filters are capable of cleaning extremely dirty air. However, in such cases, frequent checks of the air filter will be required.

See Section 5 for Air Filter Maintenance Procedures.

#### 2.8 INSTRUMENT PANEL GROUP, FUNCTIONAL DE-SCRIPTION

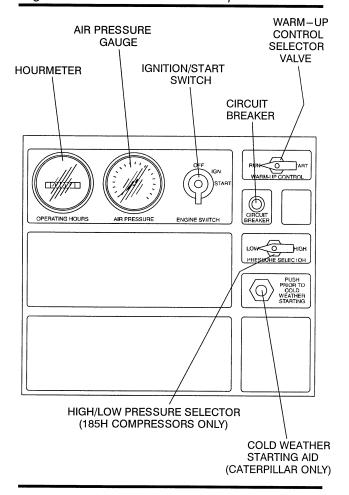
Refer to Figure 2-6. The instrument panel group

consists of a molded panel containing an air pressure gauge, hourmeter, ignition/start switch, circuit breaker, idle warm-up control, and on Caterpillar engines a cold weather starting aid button. A high-low pressure selector switch is located on the panel for 185H compressors.

Refer to Figure 2-6 for locations of the following indicators and controls:

## Section 2 **DESCRIPTION**

#### Figure 2-6 Instrument Panel Group

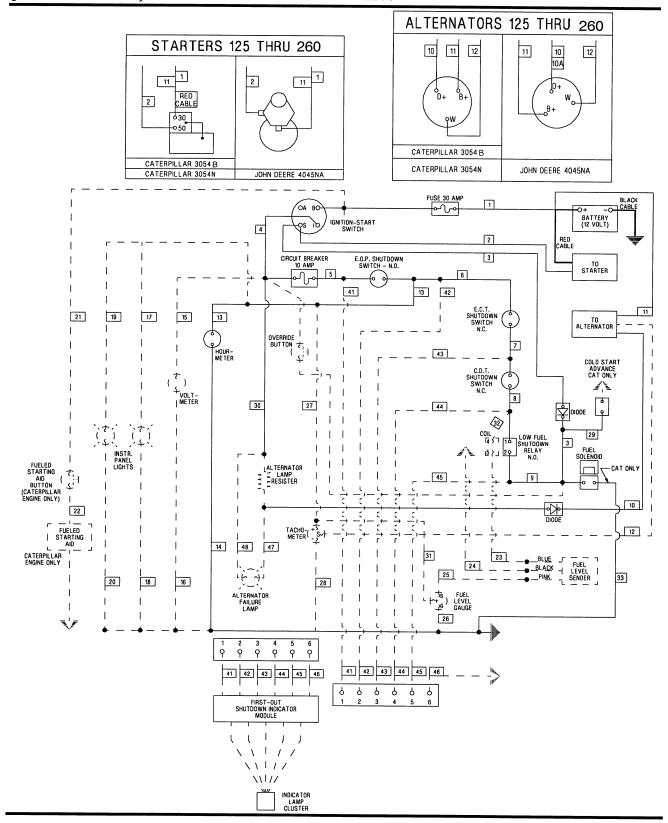


- The air pressure gauge continually monitors the sump pressure at various load or unload conditions.
- The hourmeter indicates the accumulative hours of compressor operation. This is useful for planning and logging service operations.
- The **ignition/start switch** is used to energize the electrical system and start the compressor. The starter switch is rotated to the ignition position to energize the electrical system and momentarily rotated to the start position to engage the starter and start the compressor.
- The **idle warm-up valve control** is turned from start to run after engine start is achieved for full compressor operation.
- The **Pressure selector switch** (185H Models) allows the selection of the compressor operating pressure range, 85 to 110 psig (5.9 to 7.6 bar) or 85 to 160 psig (5.9 to 11.0 bar).
- The **cold** weather starting aid (on Caterpillar engines) should be used when starting in cold amibients. Press the button and hold for 10-30 seconds (depending upon temperature).

## 2.9 ELECTRICAL SYSTEM, FUNCTIONAL DESCRIPTION

Refer to Figure 2-7. The electrical system is comprised of not only the necessary equipment required to operate the compressor, but also a system which shuts down the compressor in the event of a malfunction. The components of the electrical system are an engine starter, a battery, an alternator with a built-in voltage regulator, a fuel solenoid, a compressor discharge temperature switch, which will shut down the compressor should the compressor temperature exceed 250°F (121°C), an engine water temperature switch set to shut down the compressor when water temperature reaches 239°F (115°C) for John Deere 125, 130, 185 and 185H and 260 and 225° (107°C) for Caterpillar 125, 130, and 185, 185H and 260 and an engine oil pressure switch. The engine oil pressure switch is provided to shut down the compressor when the engine oil pressure becomes insufficient.

Figure 2-7 Electrical System - JOHN DEERE and CATERPILLAR



## **SPECIFICATIONS**

#### SPECIFICATIONS - JOHN DEERE

Model Series	Len	igth (I)	Wid	lth	Heig	ht	Weight (	wet)
	<u>in</u>	mm	in	mm	in	mm	lb	kg
125, 130 2 Wheel 125, 130 LRG	132.8 83.1	3373 2111	65.4 47.2	1661 1199	61.0 50.5	1550 1283	2580 2325	1170 1055

(I) Length over drawbar.

COMPRESSOR:	125	130
Type Maximum Operating Pressure	Rotary Screw 125 psig (8.6 bar)	Rotary Screw 125 psig (8.6 bar)
Delivery Fluid Lubricating Compressor Sump Capacity	125 Free CFM (59 L/S)) Compressor Fluid See Lubrication Guide 3 U.S. Gallons	130 Free CFM (61 L/S)) Compressor Fluid See Lubrication Guide 3 U.S. Gallons
Track Width Tire Size (Load Range) Tire Pressure Lug Nut Torque Wheel Size Operating Tilt (maximum) Electrical System Compressor Discharge Temp. Service Valves Maximum Towing Speed Axle Rating Rated Pressure Sound Level	(11 Liters) 55" (1397mm) F78 x 15 (C) 50 psig (3.5 bar) 60 ft.—lbs. (81 Nm) 15 x 6 15 Degrees 12 Volt Shutdown 250°F (121°C) (2) 3/4" 55 mph (88 kmph) 3500 lbs. (1588 kg) 100 psig (7 bar) 76 dBA at 7 meters	(11 Liters) 55" (1397mm) F78 x 15 (C) 50 psig (3.5 bar) 60 ft.—lbs. (81 Nm) 15 x 6 15 Degrees 12 Volt Shutdown 250°F (121°C) (2) 3/4" 55 mph (88 kmph) 3500 lbs. (1588 kg) 100 psig (7 bar) 76 dBA at 7 meters
ENGINE:		
Type Make Model Displacement Cylinders Bore x Stroke	Diesel John Deere JD4045 276 cu. in. (4.5 L) 4 4.19 x 5.00 in	Diesel John Deere JD4045 276 cu. in. (4.5 L) 4 4.19 x 5.00 in.
Rated Speed Rated Power Type of Motor Oil	(106 mm x 127 mm) 2050 RPM 76 HP (56 kW) See Engine	(106 mm x 127 mm) 2100 RPM 77 HP (57 kW) See Engine
Fuel Tank Capacity Radiator Capacity Engine Water Temperature Minimum Idle Speed Alternator Rating	Operator's Manual 25 Gallons (95 liters) 4 U.S. Gallons (15 liters) Shutdown 239°F (115°C) 2050 RPM (II) 65 amp	Operator's Manual 25 Gallons (95 liters) 4 U.S. Gallons (15 liters) Shutdown 239°F (115°C) 2100 RPM (II) 65 amp

 $(II)\;\;$  DO NOT allow engine idle rpm to drop below minimum idle speed. Compressor and/or coupling damage will occur.

#### SPECIFICATIONS - JOHN DEERE

Model Series	Length (I)		Width		Height		Weight (wet) (II)	
	<u>in</u>	<u>mm</u>	<u>in</u>	mm	<u>in</u>	<u>mm</u>	lb	kg
185-185H, 260 2 Wheel 185-185H, 260 LRG	132.8 83.1	3373 2111	65.4 47.2	1661 1199	61.0 50.5	1550 1283	2580 2325	1170 1055

- (I) Length over drawbar.
- $(II)\ \mbox{Add}\ \mbox{400 lbs}$  (181 Kg) for 260 models.

COMPRESSOR:	185	185H	260
Type Maximum Operating Pressure	Rotary Screw 125 psig (8.6 bar)	Rotary Screw 150 psig (10.3 bar)	Rotary Screw 125 psig (8.6 bar)
Delivery Fluid Lubricating Compressor Sump Capacity  Track Width Tire Size (Load Range) Tire Pressure Lug Nut Torque Wheel Size Operating Tilt (maximum) Electrical System Compressor Discharge Temp. Service Valves Maximum Towing Speed Axle Rating Rated Pressure	185 Free CFM (87 L/S) Compressor Fluid See Lubrication Guide 3 U.S. Gallons (11 Liters) 55" (1397mm) F78 x 15 (C) 50 psig (3.5 bar) 60 ft.—lbs. (81 Nm) 15 x 6 15 Degrees 12 Volt Shutdown 250°F (121°C) (2) 3/4" 55 mph (88 kmph) 3500 lbs. (1588 kg) 100 psig (7 bar)	185 Free CFM (87 L/S) Compressor Fluid See Lubrication Guide 3 U.S. Gallons (11 Liters) 55" (1397mm) F78 x 15 (C) 50 psig (3.5 bar) 60 ft.—lbs. (81 Nm) 15 x 6 15 Degrees 12 Volt Shutdown 250°F (121°C) (2) 3/4" 55 mph (88 kmph) 3500 lbs. (1588 kg) 150 psig (10 bar)	5 U.S. Gallons (18 Liters) 55" (1397mm) F78 x 15 (C) 50 psig (3.5 bar) 60 ft.—lbs. (81 Nm) 15 x 6 15 Degrees 12 Volt Shutdown 250°F (121°C) (2) 3/4" 55 mph (88 kmph) 3500 lbs. (1588 kg) 100 psig (7 bar)
Sound Level  ENGINE:	76 dBA at 7 meters	76 dBA at 7 meters	76 dBA at 7 meters
Type Make Model Displacement Cylinders Bore x Stroke  Rated Speed Rated Power Type of Motor Oil  Fuel Tank Capacity Radiator Capacity Engine Water Temperature Minimum Idle Speed Alternator Rating	Diesel John Deere JD4045 276 cu. in. (4.5L) 4 4.19 x 5.00 in. (106mm x 127mm) 2200 RPM 78HP (58kW) See Engine Operator's Manual 25 Gallons (95 liters) 4 U.S. Gallons (15 liters) Shutdown 239°F (115°C) 1700 RPM (II) 65 amp	Diesel John Deere JD4045 276 cu. in. (4.5L) 4 4.19 x 5.00 in. (106mm x 127mm) 2200 RPM 78HP (58kW) See Engine Operator's Manual 25 Gallons (95 liters) 4 U.S. Gallons (15 liters Shutdown 239°F (115°C) 1700 RPM (II) 65 amp	Diesel John Deere JD4045 276 cu. in. (4.5L) 4 4.19 x 5.00 in. (106mm x 127mm) 2200 RPM 78HP (58kW) See Engine Operator's Manual 35 Gallons (132 liters) s) 4 U.S. Gallons (15 liters) Shutdown 239°F (115°C) 1700 RPM (II) 65 amp

 $(II) \ \ \textbf{DO NOT} \ allow \ engine \ idle \ rpm \ to \ drop \ below \ minimum \ idle \ speed. \ Compressor \ and/or \ coupling \ damage \ will \ occur.$ 

## **SPECIFICATIONS**

#### SPECIFICATIONS - CATERPILLAR

Model Series	Len	gth (I)	Wi	dth	He	ight	Weig	ht (wet)
	in	<u>mm</u>	<u>in</u>	<u>mm</u>	<u>in</u>	mm	lb	kg
125, 130 2 Wheel 125, 130 LRG	132.8 83.1	3373 2111	65.4 47.2	1661 1199	61.0 50.5	1550 1283	2558 2303	1160 1045

(I) Length over drawbar.

COMPRESSOR:	125	130
Type Maximum Operating Pressure	Rotary Screw 125 psig (8.6 bar)	Rotary Screw 125 psig (8.6 bar)
Delivery Fluid Lubricating Compressor Sump Capacity	125 Free CFM (59 L/S) Compressor Fluid See Lubrication Guide 3 U.S. Gallons	130 Free CFM (61 L/S) Compressor Fluid See Lubrication Guide 3 U.S. Gallons
Track Width Tire Size (Load Range) Tire Pressure Lug Nut Torque Wheel Size Operating Tilt (maximum) Electrical System Compressor Discharge Temp. Service Valves Maximum Towing Speed Axle Rating Rated Pressure Sound Level Ambient Capability	(11 Liters) 55" (1397mm) F78 x 15 (C) 50 psig (3.5 bar) 60 ft.—lbs. (81 Nm) 15 x 6 15 Degrees 12 Volt Shutdown 250°F (121°C) (2) 3/4 55 mph (88 kmph) 3500 lbs. (1588 kg) 100 psig (7 bar) 76 dBA at 7 meter -25°F to125°F	(11 Liters) 55" (1397mm) F78 x 15 (C) 50 psig (3.5 bar) 60 ft.—lbs. (81 Nm) 15 x 6 15 Degrees 12 Volt Shutdown 250°F (121°C) (2) 3/4" 55 mph (88 kmph) 3500 lbs. (1588 kg) 100 psig (7 bar) 76 dBA at 7 meter —25°F to125°F
ENGINE:		
Type Make Model Displacement Cylinders Bore x Stroke	Diesel Caterpillar 3054 243 cu. in. (4.L) 4 3.937 x 5.0 in.	Diesel Caterpillar 3054 243 cu. in. (4.L) 4 3.937 x 5.0 in.
Rated Speed Rated Power Type of Motor Oil	(100mm x 127mm) 2050 RPM 65HP (48kW) See Engine	(100mm x 127mm) 2100 RPM 66HP (49kW) See Engine
Fuel Tank Capacity Radiator Capacity Engine Water Temperature Minimum Idle Speed Alternator Rating	Operator's Manual 25 Gallons (95 liters) 4 U.S. Gallons (15 liters) Shutdown 225°F (107°C) 2050 RPM (II) 55 amp	Operator's Manual 25 Gallons (95 liters) 4 U.S. Gallons (15 liters) Shutdown 225°F (107°C) 2100 RPM (II) 55 amp

(II) DO NOT allow engine idle rpm to drop below minimum idle speed. Compressor and/or coupling damage will occur.

#### SPECIFICATIONS - CATERPILLAR

Model Series	Len	gth (I)		Vidth	Н	leight	Weight (	wet) (II)
	<u>in</u>	<u>mm</u>	<u>in</u>	mm	<u>in</u>	mm	<u>lb</u>	kg
185-185H, 260 2 Wheel 185-185H, 260 LRG	132.8 83.1	3373 2111	65.4 47.2	1661 1199	61.0 50.5	1550 1283	2558 2303	1160 1045

- (I) Length over drawbar.
- (II) Add 382 lbs (173 Kg) for 260 models.

COMPRESSOR:	185	185H	260
Type Maximum Operating Pressure	Rotary Screw 125 psig (8.6 bar)	Rotary Screw 150 psig (10.3 bar)	Rotary Screw 125 psig (8.6 bar)
Delivery Fluid Lubricating Compressor Sump Capacity  Track Width Tire Size (Load Range) Tire Pressure Lug Nut Torque Wheel Size Operating Tilt (maximum) Electrical System Compressor Discharge Temp. Service Valves Maximum Towing Speed Axle Rating Rated Pressure Sound Level	185 Free CFM (87 L/S) Compressor Fluid See Lubrication Guide 3 U.S. Gallons (11 Liters) 55" (1397mm) F78 x 15 (C) 50 psig (3.5 bar) 60 ft.—lbs. (81 Nm) 15 x 6 15 Degrees 12 Volt Shutdown 250°F (121°C) (2) 3/4" 55 mph (88 kmph) 3500 lbs. (1588 kg) 100 psig (7 bar) 76 dBA at 7 meters	185 Free CFM (87 L/S) Compressor Fluid See Lubrication Guide 3 U.S. Gallons (11 Liters) 55" (1397mm) F78 x 15 (C) 50 psig (3.5 bar) 60 ft. – lbs. (81 Nm) 15 x 6 15 Degrees 12 Volt Shutdown 250°F (121°C) (2) 3/4" 55 mph (88 kmph) 3500 lbs. (1588 kg) 150 psig (10 bar) 76 dBA at 7 meters	260Free CFM (122 L/s) Compressor Fluid See Lubrication Guide 5 U.S. Gallons (18 Liters) 55" (1397mm) F78 x 15 (C) 50 psig (3.5 bar) 60 ft.—lbs. (81 Nm) 15 x 6 15 Degrees 12 Volt Shutdown 250°F (121°C) (2) 3/4" 55 mph (88 kmph) 3500 lbs. (1588 kg) 100 psig (7 bar) 76 dBA at 7 meters
ENGINE:			
Type Make Model Displacement Cylinders Bore x Stroke  Rated Speed	Diesel Caterpillar 3054 243 cu. in. (4.L) 4 3.937 x 5.0 in. (100mm x 127mm) 2200 RPM	Diesel Caterpillar 3054B 258 cu. in. (4.2L) 4 4.055 x 5.0 in. (103mm x 127mm) 2200 RPM	Diesel Caterpillar 3054B 258 cu. in. (4.5L) 4 4.055 x 5.0 in. (103mm x 127mm) 2200 RPM
Rated Power Type of Motor Oil	69HP (51kW) See Engine	82HP (61kW) See Engine	82HP (61kW) See Engine
Fuel Tank Capacity Radiator Capacity Engine Water Temperature Minimum Idle Speed Alternator Rating	Operator's Manual 25 Gallons (95 liters) 4 U.S. Gallons (15 liters) Shutdown 225°F (107°C) 1700 RPM (II) 55 amp	Operator's Manual 25 Gallons (95 liters) 4 U.S. Gallons (15 liters Shutdown 225°F (107°C) 1700 RPM (II) 55 amp	Operator's Manual 35 Gallons (132 liters) s) 4 U.S. Gallons (15 liters) Shutdown 225°F (107°C) 1700 RPM (II) 55 amp

(II) DO NOT allow engine idle rpm to drop below minimum idle speed. Compressor and/or coupling damage will occur.

#### Section 3

### **SPECIFICATIONS**

#### **LUBRICATION GUIDE - COMPRESSOR**

FLUID TYPE	CHANGE PERIOD, HOURS	AMBIENT TEMPERATURE RANGE °F (°C)
Sullair AWF (I)	1200	-20 to 125 (-29 to 52)
D-A Torque Fluid	300	10 to 110 (-12 to 43)
SAE10W SE, SF, SG, CD	300	0 to 100 (-18 to 38)
MIL-L-2104E 10W	300	0 to 100 (-18 to 38)

(I) Sullair part numbers for Sullair AWF are 250030-757 (5 gallons/20 liters) and 250030-758 (55 gallon drum/208 liters).

#### **APPLICATION GUIDE**

Sullair Air Compressors are supplied with Sullair AWF which is heavy duty multi-viscosity, all-weather fluid. Sullair AWF also allows an extended change interval. Detergent motor oils (SAE 10W Class SE,SF, SG or CD) can also be used. Any of these oils are suitable under conditions where severe oil oxidations can occur.

Water must be drained from the receiver periodically. In high ambient temperature and high humidity conditions, condensed moisture may emulsify with the oil forming a "milky" color. SAE 10W is especially prone to this condition. The fluid should be changed if this condition develops.

**DO NOT** mix types of fluids. Combinations of different fluids may lead to operational problems such as foaming, filter plugging, orifice or line plugging.

When ambient conditions exceed those noted or if conditions warrant use of other extended life lubricants, contact Sullair for recommendations.

Sullair encourages the user to participate in a fluid analysis program. This could result in a fluid change interval differing from that stated in the manual. Sullair Corporation offers a fluid analysis program for Sullair AWF. Contact your local Sullair representative for details.

D-A Lubricant® Company Inc. offers an analysis program for users of D-A products and Sullair AWF. Contact your D-A lubricant supplier or Sullair representative for details.

#### **LUBRICATION GUIDE - ENGINE**

For engine oil specifications, refer to the Engine Operator's Manual.

# Section 4 OPERATION

#### 4.1 GENERAL

While Sullair has built into this compressor a comprehensive array of controls and indicators to assure you that it is operating properly, you will want to recognize and interpret the reading which will call for

service or indicate the beginning of a malfunction. Before starting your Sullair compressor, read this section thoroughly and familiarize yourself with the controls and indicators – their purpose, location and use.

#### 4.2 PURPOSE OF CONTROLS

CONTROL OR INDICATOR	PURPOSE
IGNITION/START SWITCH	Turn this switch to the "IGN" (ignition) position to energize the electrical system of the compressor. Turn the switch to the "START" position to momentarily engage the starter and start the compressor. Turn to the "OFF" position to shut the compressor down. This switch is located on the instrument panel.
COLD WEATHER STARTING AID BUTTON	(For Caterpillar engines) Push this button, prior to compressor start-up, to allow the engine to warm-up for easy starting.
AIR PRESSURE GAUGE	Continually monitors the pressure inside the receiver sump at various load and unload conditions.
HOURMETER	Indicates the accumulated hours of operation. Useful for planning and logging service schedules.
FLUID LEVEL SIGHT GLASS	Monitors the fluid level in the sump. Proper level is visible halfway up the sight glass. Check the level when the compressor is shut down and on level ground.
COMPRESSOR DISCHARGE TEMPERATURE SWITCH	Opens the electrical circuit to shut down the compres—sor when the discharge temperature reaches a specific value (see Section 3, Specifications).
THERMAL VALVE	Functions as a temperature regulator directing the compressor fluid either to the cooler or to the compressor unit.
MINIMUM PRESSURE DEVICE	Maintains the minimum of 85 psig (5.9 bar) in the compressor sump.
PRESSURE RELIEF VALVE	Opens sump pressure to the atmosphere should pressure inside the sump exceed 140 psig (9.7 bar) or 175 psig (12.1 bar) on 185H.
AIR INLET VALVE	Regulates the amount of air allowed to enter the air inlet valve. This regulation is determined by a pressure signal from the pressure regulator.
PRESSURE REGULATOR (S)	Allows a pressure signal to reach the engine speed control cylinder and the air inlet valve to control air delivery according to demand.

## **OPERATION**

#### 4.2 PURPOSE OF CONTROLS (Continued)

CONTROL OR INDICATOR	PURPOSE
BLOWDOWN VALVE	Vents sump pressure to the atmosphere at shutdown.
IDLE WARM-UP CONTROL	Maintains a closed air inlet valve for reduced compressor load on start—up. After engine starts, turn the handle of the selector valve from the "start" to the "run" position for full operation within the first minute of operation.
PRESSURE SELECTOR SWITCH (185H)	Allows compressor operation in the "low" range from 85 to 110 psig (5.9 to 7.6 bar) or in the "high" range from 85 to 160 psig (5.9 to 11 bar).

#### 4.3 START-UP PROCEDURE

The following procedure should be used to make the initial start-up of your compressor:

- 1. Position the compressor on a level surface so that proper amounts of liquid can be added if neces-
- 2. Check oil and fluid levels both in the engine and the cooling system(s). Maintain the proper level; add if necessary.
- 3. Fill the fuel tank. Drain water from the fuel-water separator.
- 4. Crack open one service line.
- 5. Bleed fuel injection lines if necessary (see Engine Operator's Manual).
- 6. Turn the warm-up control selector valve to the start position.
- 7. Place the pressure selector switch in the "low" position (185H).
- 8. On Caterpillar engines in cold weather, engage cold weather starting aid button. Hold button for 10-30 seconds and then release.
- 9. Turn ignition/start switch to the "IGN" position.
- 10. Turn the ignition/start switch to the "START" position momentarily to engage starter, when engine starts release switch.
- 11. After the engine starts, turn the idle warm-up selector valve from start to run for full compressor operation within the first minute of operation.
- 12. Close all doors in order to maintain proper noise control.
- 13. After the initial run, shut the compressor down and 4.5 SHUTDOWN PROCEDURE refill the radiator and compressor fluid sump as required. Tighten any loose fittings and check fan belt tension.
- (I) The radiator is filled with a 50/50 mixture of ethylene glycol and water. All engines receive Supplemental Coolant Additive (SCA) at the factory before

shipment. Refer to your Engine Operator's Manual for details and specific engine requirements.

#### 4.4 SUBSEQUENT START-UP PROCEDURE

On subsequent starts, follow the procedure explained below:

- Check engine oil, water and fuel levels.
- 2. Check compressor fluid level (should be visible in sight glass). Drain water from the fuel-water separator.
- 3. Check dust collectors and clean if necessary.
- Crack open service valve.
- 5. Bleed fuel injection lines if necessary (see Engine Operator's Manual).
- 6. Turn the warm-up control selector valve to the start position.
- 7. Place the pressure selector switch in the "low" position (185H).
- 8. On Caterpillar engines in cold weather, engage cold weather starting aid button. Hold button for 10-30 seconds and then release.
- 9. Turn ignition/start switch to the "IGN" position.
- 10. Turn the ignition/start switch to the "START" position momentarily to engage starter, when engine starts release switch.
- 11. Allow for sufficient warm up of compressor before operating.
- 12. After the engine starts, turn the idle warm-up selector valve from the start to run position for full operation within the first minute of operation.

To shut the compressor down, close the service valves and run compressor for approximately 5 minutes to allow the compressor to cool down and turn the ignition/start switch to the OFF position. In case of emergency where immediate shutdown is required, this procedure is not necessary. The ignition/start switch should be put in the OFF position immediately.

## Section 5 MAINTENANCE

#### 5.1 GENERAL

A good maintenance program is the key to long compressor life. Below is a program that, when adhered to, should keep the compressor in top operating condition. For maintenance requirements on engine, refer to the Engine Operator's Manual for a detailed description of service instructions. See Section 5.12, Parts Replacement and Adjustment Procedures for a detailed description of specific compressor system components. Prior to performing maintenance, read the CIMA Safety Manual, if applicable in your area.

#### **A** WARNING

DO NOT remove caps, plugs and/or other components when compressor is running or pressur-

Stop compressor and relieve all internal pressure before doing so.

#### 5.2 DAILY OPERATION

Prior to starting the compressor, it is necessary to check the fluid level in the sump. Should the level be low, simply add the necessary amount. If the addition of fluid becomes too frequent, a simple problem has developed which is causing this excessive loss. See the Troubleshooting Section (5.13) under Excessive Fluid Consumption for a probable cause and remedy. Also check the engine oil level and the 5.6 MAINTENANCE EVERY 250 HOURS radiator coolant level and drain water from the engine fuel/water separator prior to starting.

### NOTE

The radiator and engine cooling system must be drained and flushed every two (2) years. Replace the coolant with a solution of 50% ethylene glycol and 50% water or as required for your geographic location. DO NOT use a leak sealing type of anti – freeze. All engines must have Supplemental Coolant Additive (SCA) added to the engine coolant system. Refer to your Engine Operator's Manual for details and specific engine requirements.

After a routine start has been made, observe the instrument panel gauge and be sure it monitors the correct reading for that particular phase of operation. After the compressor has warmed up, it is recommended that a general check on the overall compressor and instrument panel be made to assure that the compressor is running properly. Also check the air filter maintenance indicators if supplied.

#### 5.3 MAINTENANCE AFTER INITIAL 50 HOURS OF **OPERATION**

After the initial 50 hours of operation, a few maintenance requirements are needed to rid the system of any foreign materials. Perform the following maintenance operations to prevent unnecessary prob-

- 1. Clean the return line orifice and strainer.
- 2. Change compressor fluid filter.
- 3. Check Engine Operator's Manual for required service.

4. Check fuel filter for water.

#### **5.3A MAINTENANCE EVERY 50 HOURS**

- 1. Inspect and replace air filter elements (if required).
- 2. Check fuel filter for water.

#### 5.4 MAINTENANCE AFTER INITIAL 100 HOURS OF OPERATION

1. Change engine oil and filter (John Deere engines)

#### **5.4A MAINTENANCE EVERY 100 HOURS**

After 100 hours of operation, it will be necessary to perform the following:

- 1. Clean the radiator and cooler exteriors.
- 2. Check Engine Operator's Manual for required service.

#### 5.5 MAINTENANCE EVERY 200 HOURS

Perform the following after every 200 hours of opera-

- 1. Check fan belt tension.
- 2. Clean the radiator and cooler exterior. Depending on how contaminated the atmosphere may be. more frequent cooler and radiator cleaning may be necessary.
- 3. Check Engine Operator's Manual for required service.

1. Change engine oil and filter (John Deere and Caterpillar engines).

#### 5.7 MAINTENANCE EVERY 300 HOURS

## NOTE

Fluid change period will vary according to fluid brand. Refer to Lubrication Guide in Section 3.

Perform the following after every 300 hours of operation:

- 1. Change the compressor fluid and fluid filter, if not using Sullair AWF. Run the compressor for 5 to 10 minutes to warm the fluid. Shut the compressor off and relieve all internal pressure before proceeding. Drain the fluid sump by removing the plug at the bottom of the sump tank. For fluid filter element replacement, see Filter Element Replacement under the Maintenance Section 5.12 Parts Replacement and Adjustment Procedures. Fill the sump with fluid according to specifications in Section 3. Remove any accumulated dirt from the fluid filler cap prior to filling the sump.
- 2. Clean return line strainer.
- 3. Check Engine Operator's Manual for required

#### 5.8 MAINTENANCE EVERY 500 HOURS

Perform the following after every 500 hours of operation:

1. Check the engine RPM. Idle speeds should never be allowed to fall below the minimums (see Section 3 Specifications).

#### Section 5

### **MAINTENANCE**

- Change the fuel filter (John Deere engines). Should persistant clogging be evident, change the fuel filter more frequently.
- Change engine fuel water separator (Caterpillar engines).

## NOTE

Operation at speeds below the minimum idle speeds shown in the Table in Section 3, Specifications will damage the compressor. Extended operation below those speeds will induce coupling and/or compressor failures.

- 4. Lubricate the control linkage.
- 5. Check Engine Manual for required service.

#### **5.9 MAINTENANCE EVERY 600 HOURS**

- Change the fuel filter (Caterpillar engines). Should persistant clogging be evident, change the fuel filter more frequently.
- 2. Change the compressor fluid filter.
- 3. Change engine fuel-water separator (John Deere engines).

#### 5.10 MAINTENANCE EVERY 1000 HOURS

Perform the following after every 1000 hours of operation:

1. Clean the return line orifice.

#### 5.11 MAINTENANCE EVERY 1200 HOURS

When using Sullair AWF, change the compressor fluid and replace the fluid filter element (See maintenance procedures in Section 5.12).

## 5.11A MAINTENANCE EVERY YEAR OR 12,000 MILES

Lubricate axle bearings on wheel-mounted units.

## 5.12 PARTS REPLACEMENT AND ADJUSTMENT PROCEDURES

#### COMPRESSOR FLUID CHANGE PROCEDURE

Warm—up compressor for 5 to 10 minutes to warm the fluid. Shut the compressor off and relieve all internal pressure before proceeding. Drain the fluid sump by removing the plug at the bottom of the sump tank. Change the compressor fluid and replace the fluid filter element. For element replacement see procedure for servicing the fluid filter in this section. Fill the sump with fluid according to specifications in Section 3.

#### COMPRESSOR FLUID FILTER ELEMENT RE-PLACEMENT

- 1. Using a strap wrench, remove the old element.
- 2. Clean the gasket seating surface.
- 3. Apply a light film of fluid to the new gasket.
- Hand tighten the new element (from kit P/N 250028-032) until the new gasket is seated on the gasket seat.

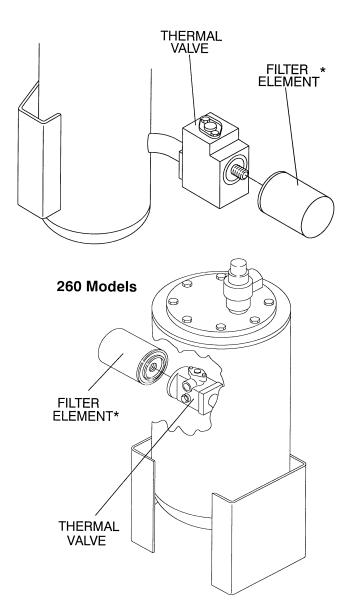
- 5. Continue tightening the element by hand an additional 1/2 to 3/4 turn.
- 6. Restart the compressor and check for leaks.

#### AIR FILTER MAINTENANCE

Refer to Figure 5–2. Air filter maintenance should be performed as often as conditions require. If the filters are equipped with an optional maintenance indicator, maintenance should be done when the in-

Figure 5-1 Compressor Fluid Filter

#### 125, 130, 185 185H Models



\* Replacement Element Kit P/N 250028-032

# Section 5 MAINTENANCE

Figure 5-2 Air Filter

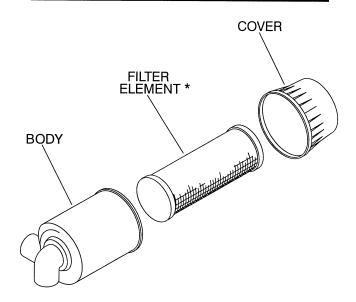
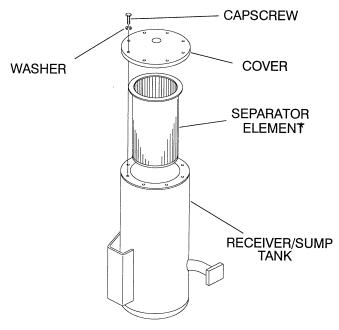


Figure 5-3 Air/Fluid Separator

#### 125, 130, 185, 185H Models



#### 125, 130, 185, 185H Models

\*Filter Element P/N 02250102-158 (2 req'd.) **260 Models** 

\*Filter Element P/N 02250102-158 (1 req'd.) P/N 02250122-816 (1 req'd.)

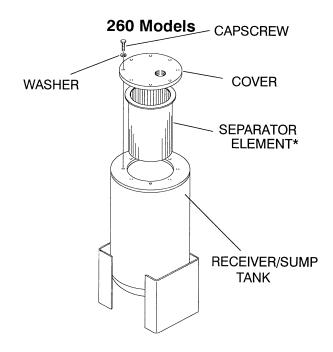
dicator shows red. The following procedure will explain how to replace the air filter element.

#### AIR FILTER ELEMENT REPLACEMENT

- 1. Loosen and remove the air filter end cover.
- 2. Remove element.
- 3. Clean the body and cover with a damp cloth inside and out.
- 4. Replace the new filter element.
- 5. Reposition the cover and lock into position.
- Reset the air filter restriction indicator if so equipped, and the unit will be ready for operation.

#### **ELEMENT INSPECTION**

 Place a bright light inside the element to inspect for damage or leak holes. Concentrated light will shine through the element and disclose any holes.



125, 130, 185, 185H Models

\*Replacement Separator Kit P/N 250034-112

#### 260 Models

\*Replacement Separator Kit P/N 02250078-031

### **MAINTENANCE**

- Inspect all gaskets and gasket contact surfaces of the housing. Should faulty gaskets be evident, correct the condition immediately.
- 3. If the clean element is to be stored for later use, it must be stored in a clean container.
- After the element has been installed, inspect and tighten all air inlet connections prior to resuming operation.

#### SEPARATOR ELEMENT REPLACEMENT

Refer to Figure 5–3. When fluid carry over is evident after the fluid return line strainer and orifice as well as the blowdown valve seal has been inspected and found to be in satisfactory condition, separator element replacement is necessary. Use element no. 250034–143 (02250078–029 for 260 models) and follow the procedure explained below.

- 1. Remove all piping connected to the sump cover to allow removal (return line, service line, etc.).
- Remove the fluid return line from the fitting in the cover.
- 3. Remove the eight (8) cover bolts and washers and lift the cover from the sump.
- 4. Remove the separator element.
- Scrape the old gasket material from the cover and the flange on the sump. Be sure to keep all scrapings from falling inside tank.
- 6. Install the new element.
- 7. Replace the sump cover and bolts. Run the cover bolts in finger tight, then gradually tighten in a crisscross pattern in 4 to 5 steps. Always tighten the bolts alternately at opposite sides of the cover. Never tighten bolts adjacent to each other. Torque bolts to 60 ft.—lbs. (81 Nm).
- Reconnect all piping. The fluid return line tube should extend to the bottom of the separator element. This will assure the proper fluid return flow.
- Clean the fluid return line strainer and clear the orifice prior to restarting the compressor.
- After 24 hours of operation, tighten sump cover bolt to torque specification listed in step number 7.

## PROCEDURE FOR SETTING SPEED AND PRESSURE CONTROLS ON PORTABLE COMPRESSORS WITH POPPET VALVE

Refer to Figure 5–4. Prior to adjusting the Control System, it is necessary to determine the rated full load pressure and the high/low RPM settings for your particular compressor. This information can be obtained from the Operator's Manual (Specifications Section) or by contacting your local authorized Sullair Representative. The following explanation applies to a compressor with 100 psig (6.9 bar) rated full load pressure.

- Start the compressor and allow the engine to warm—up to normal operating temperature with the service valve closed.
- 2. With the service valve closed, set the engine low speed (idle) to its specified setting with the idle stop screw on the engine injector pump.

## NOTE

Operation at speeds below the minimum idle speeds shown in Section 3 under Specifications will damage the compressor. Extended operation below those speeds will induce coupling and/or compressor failures.

- 3. Adjust the pressure regulator so that the compressor maintains 115 psig (8 bar).
- 4. Gradually open the service valve to atmosphere until the engine comes up in speed and sump pressure is held at 100 psig (6.9 bar). At this point, set the engine high speed to its specified setting by adjusting the high idle threaded rod located on the engine speed control (185, 185H and 260 only). To raise or lower the speed, lengthen or shorten the rod respectively.
- 5. Open the service valve to 100 psig (6.9 bar) (rated full load pressure) and recheck top engine speed and control response. Close the service valve and allow the compressor to cycle and recheck low engine speed (idle).

The following explanation applies to "H" compressor with dual pressure controls.

- 1. Start the compressor and allow the engine to warm—up to normal operating temperature with the service valve closed and the pressure selector switch set to the "low" position.
- Follow the procedure for setting the controls at 100 psig (6.9 bar) rated full load pressure as described in Steps 2 through 5 above.
- Switch the pressure selector switch to the "high" position with the service valve closed.
- Adjust the high pressure regulator so that the compressor maintains 165 psig (11.4 bar).
- 5. Gradually open the service valve to atmosphere until the engine comes up in speed and sump pressure is held at 150 psig (10.3 bar). At this point the engine should be at rated speed. If necessary, to raise or lower the speed, lengthen or shorten the rod respectively.

#### OPERATING ADJUSTMENTS

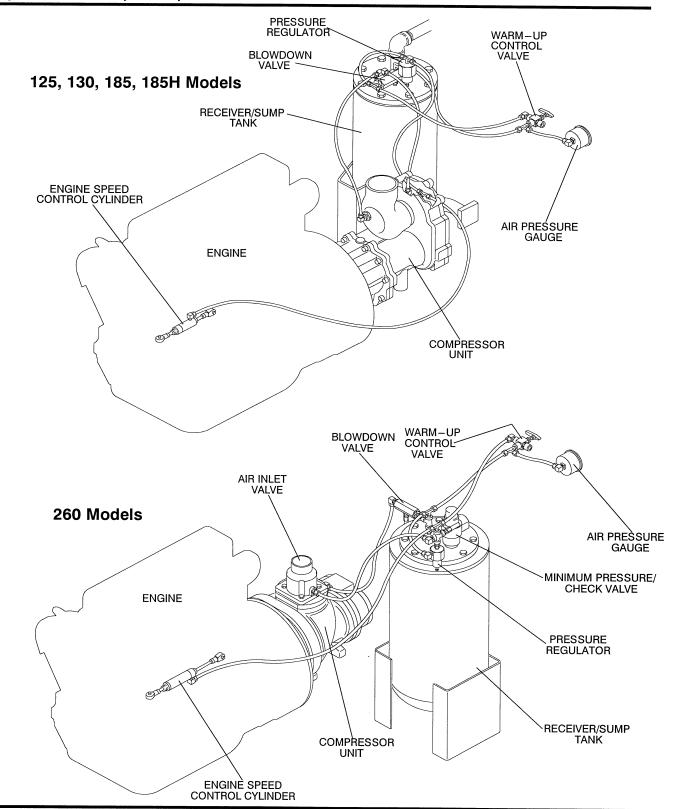
The first step is to start the compressor according to the instructions in Section 4, Subsequent Start—up. Allow the engine to operate until it reaches the normal operating temperature. Open the service valve until the engine speed increases to, or close to, the maximum specified operating speed.

#### **BEARING LUBRICATION**

Refer to Figure 5–5. Proper lubrication is essential to the proper functioning and reliability of your portable compressor axle. Wheel bearings should be lubricated at least once every 12 months, or more frequently to help insure proper performance. Use wheel bearing grease that conforms to military specification MIL–G–10924 or a high temperature wheel bearing grease such as lithium complex NLGI Consistency #2.

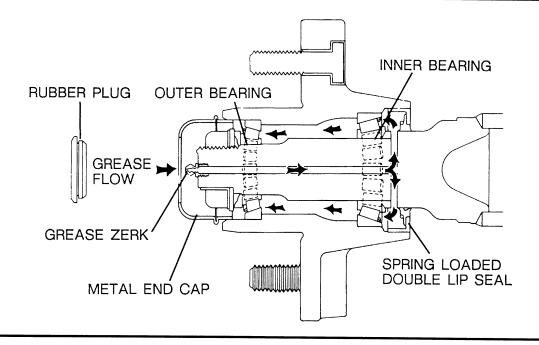
If your axle is equipped with the E-Z Lube feature, the bearings can be periodically lubricated without

Figure 5-4 Control System Adjustment



#### **MAINTENANCE**

Figure 5-5 Typical E-Z Lube Axle



removing the hubs from the axle. This feature con- 5.13 TROUBLESHOOTING sists of axle spindles that have been specially drilled and fitted with a grease zerk in their ends. When grease is pumped into the zerk, it is channeled to the inner bearing and then flows back to the outer bearing and eventually back out of the grease cap hold (see Figure 5-5). The procedure is as follows:

- 1. Remove the rubber plug from the end of the grease cap.
- 2. With a standard grease gun filled with a quality wheel bearing grease, place the gun onto the grease zerk located in the end of the spindle. Make sure the grease gun nozzle is fully engaged on the fitting.
- 3. Pump grease into the zerk. The old, displaced grease will begin to flow back out the cap around the grease gun nozzle.
- 4. When the new, clean grease is observed, remove the grease gun, wipe off any excess, and replace the rubber plug in the cap.

The following Troubleshooting Chart is based upon the data obtained both from testing at the factory and from applied situations in the field. It contains symptoms and usual causes for the described problems, however DO NOT assume that these are the only problems that may occur. All available data concerning the trouble should be systematically analyzed before undertaking any repairs or component replacement procedures.

A detailed visual inspection is worth performing for almost all problems. Doing so may prevent unnecessary additional damage to the compressor.

Always remember to:

- 1. Check for loose wiring.
- 2. Check for damaged piping.
- 3. Check for parts damaged by heat or an electrical short circuit, usually apparent by discoloration or a burnt odor.

Should the problem(s) persist after making the recommended check, consult your nearest Sullair representative or the Sullair Corporation.

#### TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	REMEDY
COMPRESSOR WILL NOT START	No Fuel	Check fuel level and add fuel if necessary. Check fuel shut-off valve.
	Plugged Fuel Filter	Replace the element.
	Low Battery Voltage	Recharge or replace if necessary.

# Section 5 MAINTENANCE

#### TROUBLESHOOTING (CONTINUED)

SYMPTOM	PROBABLE CAUSE	REMEDY
COMPRESSOR WILL NOT START (continued)		Loose battery cables; tighten cables. Dirty battery cables; clean thoroughly.
	Plugged Air Filter	Clean or replace the element.
	Engine Problems May Have Developed.	Refer to Engine Operator's Manual.
	Defective Engine Oil Pressure Switch	Check continuity flow and replace the switch if necessary.
	Blown Fuse In Wiring Harness	Check continuity and replace if necessary.
COMPRESSOR SHUTS DOWN WITH AIR DEMAND PRESENT	No Fuel	Check fuel level and add fuel if necessary.
	Compressor Discharge Temperature Switch Is Open	Cooling air flow is insufficient; clean cooler and check for proper ventilation.
		Low fluid sump level; add fluid.
		Clogged compressor fluid filter; change element.
		The temperature regulating section of the fluid control center is not functioning properly; change the thermostat element.
		Defective discharge temperature switch; check for a short or open circuit to the engine fuel rack solenoid. Should this check out normally, it could be possible that the temperature switch itself is defective.
	Defective Engine Oil Pressure Switch	Check continuity and replace if necessary.
	Blown Fuse In Wiring Harness	Check continuity and replace if necessary.
COMPRESSOR WILL NOT BUILD UP FULL DISCHARGE PRESSURE		For compressors with idle warm-up controls, switch toggle to "run" for full operation.
	Air Demand Is Too Great.	Check service lines for leaks or open valves.
	Dirty Air Filter	Check the filter indicator and change element if required.
COMPRESSOR WILL NOT BUILD UP FULL DISCHARGE PRESSURE (continued)	Defective Pressure Regulator	Check diaphragm and replace if necessary (kit available).
	Defective Idle Warm-up Control	Replace control.
IMPROPER UNLOADING WITH AN EXCESSIVE PRESSURE BUILD-UP CAUSING PRESSURE RELIEF VALVE TO OPEN	Pressure Regulating Valve Is Set Too High	Readjust.
	Leak In Control System Causing Loss Of Pressure Signal	Check control lines.
	or control of gridi	Defective pressure regulating valve; repair valve (kit available).
	Inlet Valve Jammed	Free or replace valve.

# Section 5 MAINTENANCE

#### TROUBLESHOOTING (CONTINUED)

SYMPTOM	PROBABLE CAUSE	REMEDY
IMPROPER UNLOADING WITH AN EXCESSIVE PRESSURE BUILDIMPROPER UNLOADING RELIEF VALVE TO OPEN (continued)	Restriction In The Control System Restriction In The Control System	Check all control lines and components. Ice and/or other contaminants could cause Check all control lines and components. Ice and/or other contaminants could cause restrictions.—UP CAUSING PRESSURE
	Defective Pressure Relief Valve Opening At Too Low Of Pressure	Replace pressure relief valve.
	Defective Pressure Regulator	Check diaphragm and replace if necessary (kit available).
INSUFFICIENT AIR DELIVERY	Engage Idle Warm-up Control In "Run" Position For Full Compressor Operation.	
	Plugged Air Filter	Replace.
	Plugged Air/Fluid Separator	Replace separator element and also change compressor fluid and fluid filter at this time.
	Defective Pressure Regulator	Adjust or repair.
	Engine Speed Too Low	Readjust engine speed.
	Defective Idle Warm-up Control	Replace control.
EXCESSIVE COMPRESSOR FLUID CONSUMPTION	Clogged Return Line	Clear orifice and return line strainer.
	Leak In The Lubrication System	Check all pipes, connections and components.
	Separator Element Damaged Or Not Functioning Properly	Change separator element.
COMPRESSOR OVERHEATING	Low Sump Fluid Level	Fill.
	Loose Or Broken Fan Belt	Tighten or change belt.
	Dirty Fluid Cooler Core	Clean core thoroughly.
	Plugged Compressor Fluid Filter	Change element.
	Faulty Thermostat	Change thermostat element.
	Plugged Fluid Cooler Tube (Internal)	Replace cooler.
ENGINE OVERHEATING	Loose Or Broken Fan Belt	Tighten or change belt.
	Dirty Radiator Core	Clean thoroughly.
	Low Fluid Level	Refill.
	Faulty Water Pump	Change pump.
	Plugged Radiator	Clean and flush thoroughly.
	Defective Engine Thermostat	Replace engine thermostat.

## Section 6 NOISE CONTROL

#### **6.1 NOISE EMISSIONS WARRANTY**

Sullair Corporation warrants to the ultimate purchaser and each subsequent purchaser that this air compressor was designed, built and equipped to conform at the time of sale to the first retail purchaser, with all applicable U.S. E.P.A. and/or any Federal, State or Local noise control regulations.

This warranty is not limited to any particular part, component, or system of the air compressor. Defects in the design, assembly, or in any part, component, or system of the compressor which, at the time of sale to the first retail purchaser, caused noise emissions to exceed Federal standards are covered by this warranty for the life of the air compressor.

## 6.2 TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED

Federal Law prohibits the following acts or the causing thereof:

The removal or rendering inoperative by any persons, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new compressor for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use.

2. The use of the compressor after such device or element of design has been removed or rendered inoperative by any person.

Among those acts included in the prohibition against tampering are the acts listed below:

- 1. Removal or rendering inoperative any of the following:
  - a. Engine exhaust system or parts thereof
  - b. Compressor air intake system or part thereof
  - c. Enclosure of part thereof
- 2. Removal of any of the following:
  - a. Vibration isolators
  - b. Control silencer
  - c. Floor panel
  - d. Fan shroud
  - e. Acoustical materials including fiberglass foam or foam tape
- 3. Operation with canopy doors open for any purpose other than starting, stopping, adjustment, repair, replacement of parts or maintenance.

## 6.3 NOISE EMISSIONS MAINTENANCE AND MAINTENANCE RECORD LOG

The following instructions and maintenance record log book, for the proper maintenance, use and repair of this compressor, is intended to prevent noise emission degradation (refer to Figure 6–1).

Figure 6-1 Noise Emission Maintenance and Maintenance Record Log

1. ANNUAL MUFFLER AND EXHAUST SYSTEM INSPECTION

# indicated in the Parts List. Maintenance Performed By Location Date Maintenance Performed By Location Date

•••••••••••

At least annually inspect muffler(s) and engine exhaust system to make sure all parts are securely mounted, that all joints and connections are tight, and that the muffler is in good condition. **DO NOT** operate compressor with defective exhaust system. Remove and replace any defective parts by ordering with part numbers

#### Section 6

## **NOISE CONTROL**

2. ANNUAL AIR FILTER(S) AND AIR INLET SYSTEM INSPECTION In addition to the instructions in the Maintenance section of the Operator's Manual, the air filter(s) and entire air inlet system should be inspected at least annually, to make sure all parts are securely mounted, that all joints and connections are tight, that there are no other leaks in the system, and that the filter element(s) are intact. DO NOT operate compressor with defective air inlet system. Remove and replace defective parts by ordering with part numbers indicated in the Parts List.
Maintenance Performed
Ву
Location
Date
Maintenance Performed
Ву
Location
Date
•••••••
3. ANNUAL ENGINE VIBRATION MOUNT INSPECTION At least annually inspect engine vibration mounts for security of attachment and to make sure the resilient parts are intact. DO NOT operate compressor with defective engine mounting system. Remove and replace defective parts by ordering with part numbers indicated in Parts List.
Maintenance Performed
Ву
Location
Date
Date  Maintenance
Date  Maintenance Performed

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# Section 6 NOISE CONTROL

4. ANNUAL FRAME,	CANOPY.	AND	<b>PARTS</b>	INSPECTION
------------------	---------	-----	--------------	------------

At least annually inspect frame, canopy and parts, for security of attachment. Make sure there are not any missing or deformed members, including all hinged doors, covers and their fastening devices. **DO NOT** operate compressor with defective frame, canopy and parts. Remove and replace defective parts by ordering with part numbers indicated in Parts List.

Maintenance Performed
Ву
Location
Date
Maintenance Performed
Ву
Location
Date
5. ANNUAL ACOUSTICAL MATERIALS INSPECTION  At least annually inspect all acoustical materials, if any, for security of attachment. Make sure that there is not any material missing or damaged (refer to Parts List). Clean or replace, if necessary. DO NOT operate compressor with defective acoustical material. Remove and replace defective parts by ordering with part numbers indicated in the Parts List. Maintenance Performed
Ву
Location
Date
Maintenance Performed
Ву
Location

••••••••••

Date

### Section 6 **NOISE CONTROL**

6. ANNUAL INSPECTIONS FOR PROPER OPERATION OF ALL SYSTEMS.

In addition to other instructions in the Operator's Manual, at least annually, operate compressor and inspect to make sure all systems are operating properly and that engine runs at rated speed and pressure. DO NOT operate malfunctioning or improperly adjusted compressor. Repair or adjust, per instructions in Operator's Manual, as required.

Maintenance Performed			
Ву			
Location			
Date			
Maintenance Performed			
Ву			
Location			
Date			

•••••••

#### 7.1 PROCEDURE FOR ORDERING PARTS

Parts should be ordered from the nearest Sullair Representative or the Representative from whom the compressor was purchased. If for any reason parts cannot be obtained in this manner, contact the factory directly at the address, phone or fax numbers below.

When ordering parts always indicate the **Serial Number** of the compressor. This can be obtained from the Bill of Lading for the compressor or from the Serial Number Plate located on the compressor.

#### **SULLAIR CORPORATION**

3700 East Michigan Boulevard
Michigan City, Indiana 46360 U.S.A.
Telephone: 1-800-SULLAIR (U.S.A. Only) or
1-219-879-5451
FAX: (219) 874-1273
FAX: (219) 874-1835 (Parts)
FAX: (219) 874-1205 (Service)

#### **SULLAIR ASIA, LTD.**

Sullair Road, No. 1 Chiwan, Shekou Shenzhen, Guangdong PRV. P.R.C. Post Code 518068 Telephone: 755–6851686 FAX: 755–6853473

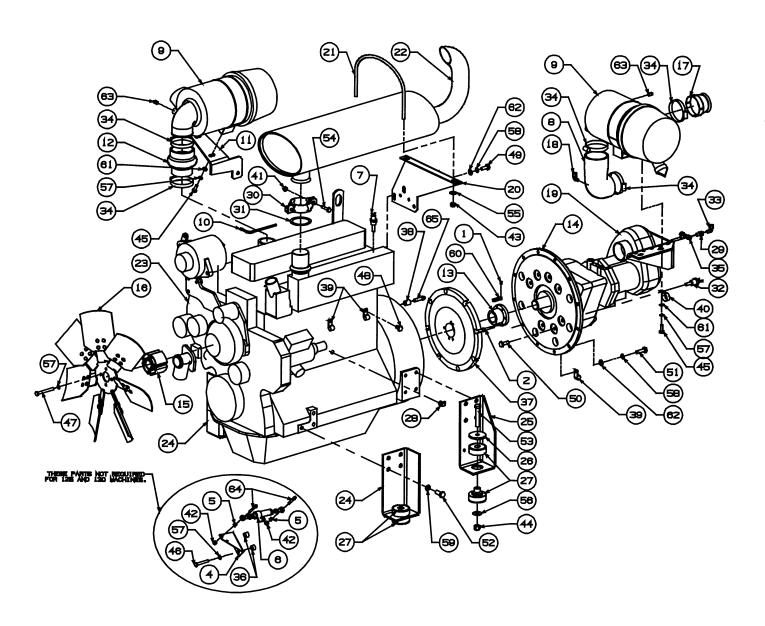
#### SULLAIR EUROPE, S.A.

Zone Des Granges BP 82 42602 Montbrison Cedex, France Telephone: 33-477968470 Fax: 33-477968499

#### 7.2 RECOMMENDED SPARE PARTS LIST

Description	Kit Number	Quantity
element for engine fuel/water separator	02250118-495	. 1
element for air filter assy. 02250102-489	02250102-158	2
element for air filter assy. 02250110-197 (CAT 125, 130, 185	i, 185H) <b>02250102-158</b>	1
element for air filter assy. 02250122-797 (260 only)	02250122-816	1
element for main compressor fluid filter	250028-032	1
element for air/fluid separator	250034-112	1
element for air/fluid separator (260 only)	02250078-031	1
repair kit for blowdown valve 02250102-248	250031-772	1
element for thermal valve	02250104-907	1
repair kit for pressure regulator valve 250017-280	250019-453	1
repair kit for pressure regulator valve 041517 (185H)	041742	1
repair kit for return line strainer 241771	241772	1
repair kit for minimum pressure/check valve 02250083-049 (	(260 only) <b>250026-758</b>	1
kit, coupling 250034-921 (125, 130, 185, 185H only)	02250103-596	1
kit, coupling 250034-921 (260 only)	02250099-930	1
repair kit for flange (sae o-ring)	02250099-416	1
repair kit for inlet valve (125, 130, 185, 185H only)	02250109-684	1
repair kit for inlet valve 02250088-348 (260 only)	250019-451	1
element for engine oil filter (John Deere)	02250100-288	1
element for engine oil filter (Caterpillar)	02250083-017	1
element for engine fuel filter (John Deere)	02250100-289	1
element for engine fuel filter (Caterpillar)	02250083-016	1
Sullair AWF-5 gallons (20 liter)	250030-757	1
Sullair AWF -55 gallon drum (208 liter)	250030-758	1
manual, portable compressor component	02250056-343	1
manual, CIMA safety	250023-146	1

7.3 ENGINE, COMPRESSOR , INLET AND EXHAUST - JOHN DEERE MODELS 125, 130, 185, 185H



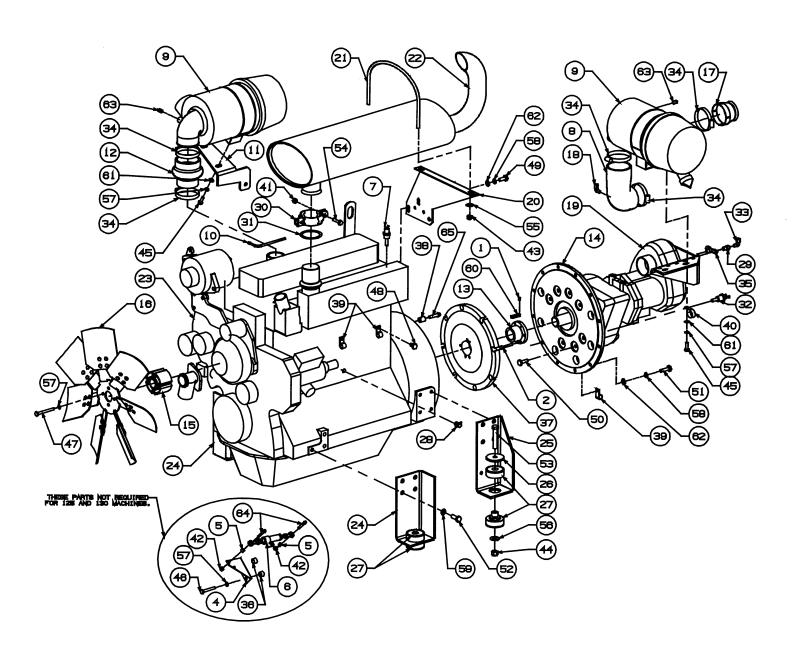
## 7.3 ENGINE, COMPRESSOR, INLET AND EXHAUST - JOHN DEERE MODELS 125,130,185, 185H

key number	description	part number	quantity
1	screw, set 1/4-20	_	1
2	capscrew, gr5 1/4-20 x 1.88 lg.		3
3	sealant, thread locking	005898-010	1
4	support, cylinder mount	02250061-551	1
5	spacer, brake lever	02250064-594	2
6	sub assembly,control cylinder	02250085-731	1
7	switch, temp 239 deg. f.	02250098-484	1
8	elbow, rubber 90 red 3 x 2.75 spcl	02250101-979	1
9	filter, air 7" plastic 3" x 90 deg o(I)	02250102-489	2
10	tube, fuel return 1/4"	02250102-573	1
11	support, air filter	02250103-194	1
12	hose, hump red 3 x 2.5" x4.25lg	02250103-227	1
13	bushing, taper qd sd 38mm bore	02250103-559	1
14	adaptor,eng/compr sae4-8f	02250103-560	1
15	spacer, fan 2" 2.5 b.c. 1.5 pilot	02250104-640	1
16	fan, blower 20"-30 deg	02250107-474	1
17	tube,inlet choke 3"	02250108-500	1
18	elbow, 90m 5/16"tube x 1/8"npt	02250109-423	1
19	compressor	02250110-211	1
20	support, muffler	02250116-164	1
21	clamp, muffler 3/8 bent rod	02250116-227	1
22	muffler, exhaust	02250117-384	1
23	engine, diesel	02250124-057	1
24	support, engine front l&r jd	02250125-469	2
25	support, engine rear l&r jd	02250125-470	2
26	washer, snubbing vibration mount	02250125-471	4
27	mount, vibration isolator	02250125-472	4
28	drainlock, 1/4"	040061	1
29	orifice,.062 .125m x .125f hrs	040127	1
30	clamp, exhaust	046780	2
		(Continued on P	ane 43 )

(Continued on Page 43)

<sup>(</sup>I) For maintenance on filter 02250102-489, order repair kit no. 02250102-158.

7.3 ENGINE, COMPRESSOR , INLET AND EXHAUST - JOHN DEERE MODELS 125, 130,185, 185H



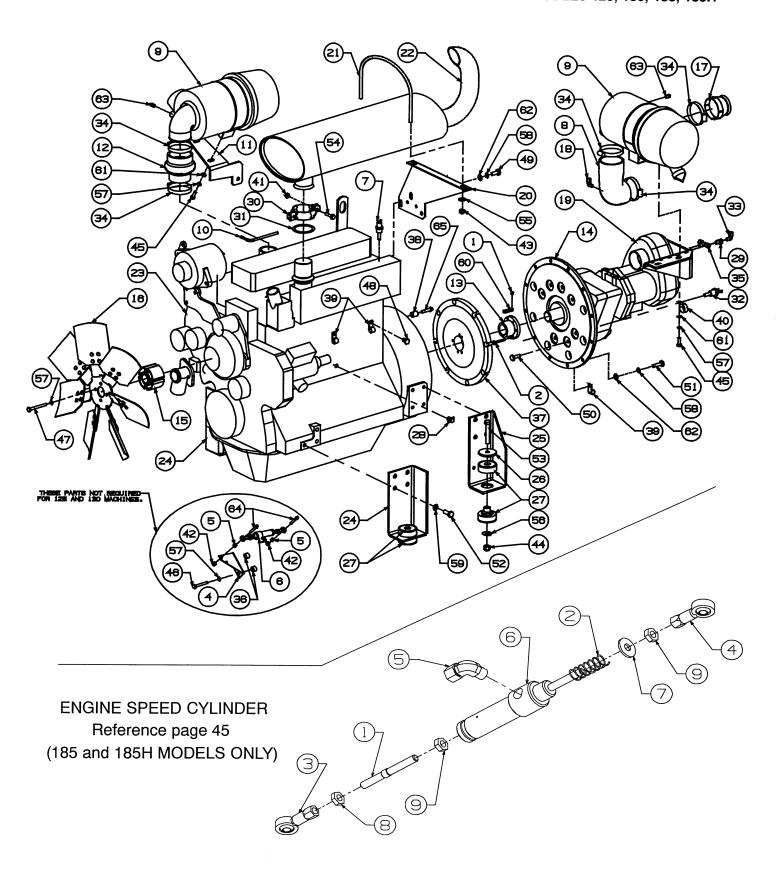
## 7.3 ENGINE, COMPRESSOR, INLET AND EXHAUST – JOHN DEERE MODELS 125, 130,185, 185H (continued)

key number	description (continued)	part number	quantity
31	gasket, exhaust	046781	1
32	switch, temp nc 250°F	242257	1
33	elbow, 90 1/4"tube x 1/8"npt	250018-429	1
34	clamp, hose 2-13/16 to 3-3/4"	250018-550	5
35	tee,male 1/4" tube x 1/8"npt	250028-581	1
36	spacer, break lever	250028-681	2
37	coupling (II)	250034-921	1
38	pin,drive coupling	250035-041	8
39	clamp, hose 9/16"id	408300-001	3
40	clamp, hose 5/8" i.d.	408300-005	1
41	nut,hex f pltd 5/16-18	825305-283	2
42	nut,hex locking 1/4-20	825504-145	2
43	nut,hex locking 3/8-16	825506-198	2
44	nut,hex locking 1/2-13	825508-262	4
45	capscr, hex 8.8 m8 x 25mm	828008-025	4
46	capscr, hex 8.8 m8 x 55mm	828008-055	2
47	capscr, hex 8.8 m8 x 75mm	828008-075	4
48	capscr, hex 8.8 m10 x 16mm	828010-016	2
49	capscr, hex 8.8 m10 x 25mm	828010-025	2
50	capscr, hex 8.8 m10 x 30mm	828010-030	7
51	capscr, hex 8.8 m10 x 35mm	828010-035	12
52	capscr, hex 8.8 m12 x 30mm	828012-030	14
53	capscr, hex gr5 $1/2-13 \times 3$	829108-300	4
54	screw, hex ser washer 5/16-18 x 1 1/	829705-150	2
55	washer, pl-b reg pltd 3/8	838206-071	2
56	washer, pl-b reg pltd 1/2	838208-112	4
57	washer, spr lock-metric pltd m8	838808-200	10
58	washer, spr lock-metric pltd m10	838810-220	14
59	washer, spr lock-metric pltd m12	838812-250	14
60	key,paral iso r773 10x8x40	865210-040	1
		(0 1: 1 5	

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<sup>(</sup>II) For maintenance on coupling 250034-921 order repair kit no. 02250103-596.

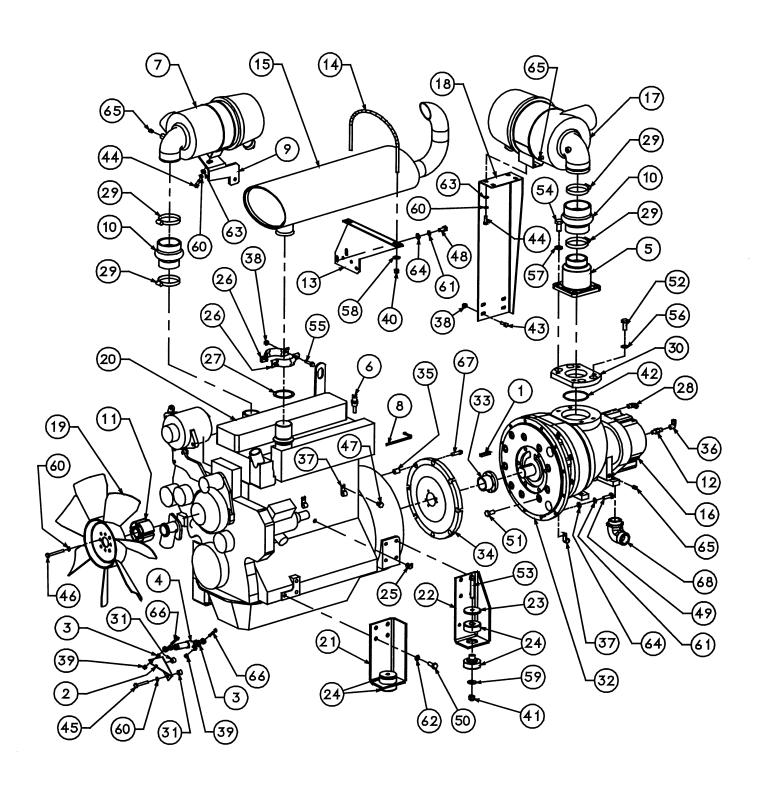
7.3 ENGINE, COMPRESSOR , INLET AND EXHAUST - JOHN DEERE MODELS 125, 130, 185, 185H



## 7.3 ENGINE, COMPRESSOR, INLET AND EXHAUST – JOHN DEERE MODELS 125, 130, 185, 185H (continued)

key number	description: engine, compressor & parts (continued)	part number	quantity
61	washer, metric-iso7089- 8	865408-170	4
62	washer, metric-iso7089- 10	865410-210	14
63	plug, pipe 1/8" 3000# stl plt	866900-005	2
64	capscrew, ferry head hd pltd 1/4-20 x 1 1/2	867304-150	2
65	capscrew, ferry head hd pltd 3/8-16 x 1 1/2	867306-150	8
	description: engine speed cylinder		
1	rod, threaded speed control 1/4-28	02250064-593	1
2	spring, speed cylinder	02250100-422	1
3	joint, ball female 1/4" l.h.	250011-578	1
4	joint, ball female 1/4" r.h.	250011-597	1
5	elbow, 90 1/4t pls x 1/8 npt m	250018-429	1
6	cylinder, speed	250021-405	1
7	washer, pl-b reg pltd 1/4	838204-071	1
8	nut, hex jam lh pltd 1/4-28	866604-164	1
9	nut, hex jam rh pltd 1/4-28	868204-164	2

7.3A ENGINE, COMPRESSOR, INLET AND EXHAUST - JOHN DEERE MODELS 260



#### 7.3A ENGINE, COMPRESSOR, INLET AND EXHAUST - JOHN DEERE MODELS 260

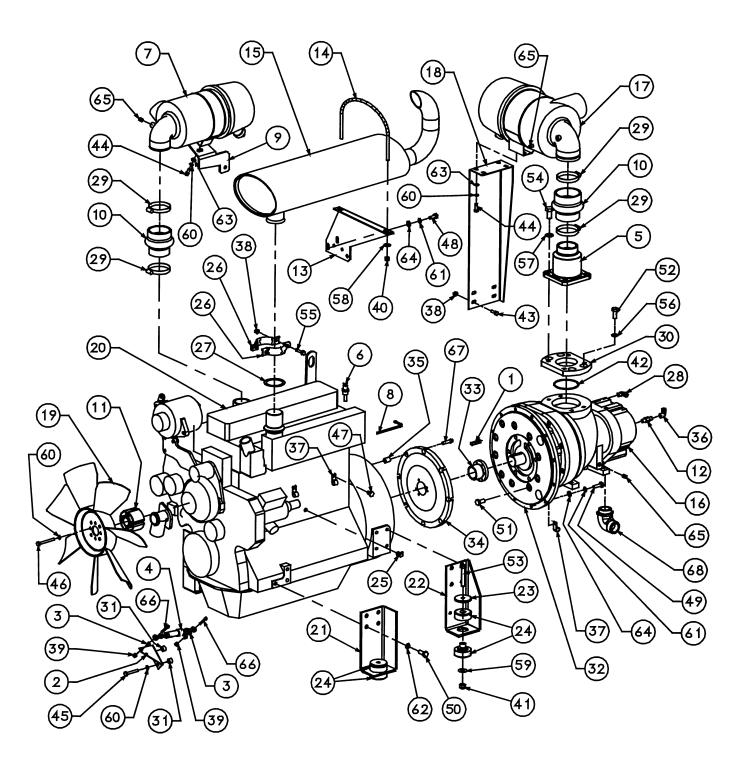
key number	description	part number	quantity
1	key,.375 x .312 x 1.80 class #2	02250060-568	1
2	support, cylinder mount	02250061-551	1
3	spacer, brake lever	02250064-594	2
4	sub assembly,control cylinder	02250085-731	1
5	valve, air inlet 2 1/2" black	02250088-348	1
6	switch, temp 239 deg. f.	02250098-484	1
7	filter, air 7" plastic 3" x 90 deg o(I)	02250102-489	1
8	tube, fuel return 1/4"	02250102-573	1
9	support, air filter	02250103-194	1
10	hose, hump red 3 x 2.5" x4.25lg	02250103-227	2
11	spacer, fan 2" 2.5 b.c. 1.5 pilot	02250104-640	1
12	orifice, .040" x .25m x .25m nptf	02250109-215	1
13	support, muffler	02250116-164	1
14	clamp, muffler 3/8 bent rod	02250116-227	1
15	muffler, exhaust	02250117-384	1
16	compr model, 12series_unit	02250120-514	1
17	filter, air 8" plastic (II)	02250122-797	1
18	support, fltr compr	02250123-088	1
19	fan, 20" blower	02250123-338	1
20	engine, diesel	02250124-057	1
21	support, engine front l&r jd	02250125-469	2
22	support, engine rear l&r jd	02250125-470	2
23	washer, snubbing vibration mount	02250125-471	4
24	mount, vibration isolator	02250125-472	4
25	drainlock, 1/4"	040061	1
26	clamp, exhaust	046780	2
27	gasket, exhaust	046781	1
28	elbow, 90 1/4t pls x 1/4 npt m	250018-430	1
29	clamp, hose 2-13/16 to 3-3/4"	250018-550	4
30	spacer, air conn vlv	250022-950	1

(Continued on Page 49)

<sup>(</sup>I) For maintenance on filter 02250102-489, order repair kit no. 02250102-158.

<sup>(</sup>II) For maintenance on filter 02250122-797 order repair kit no. 02250122-816.

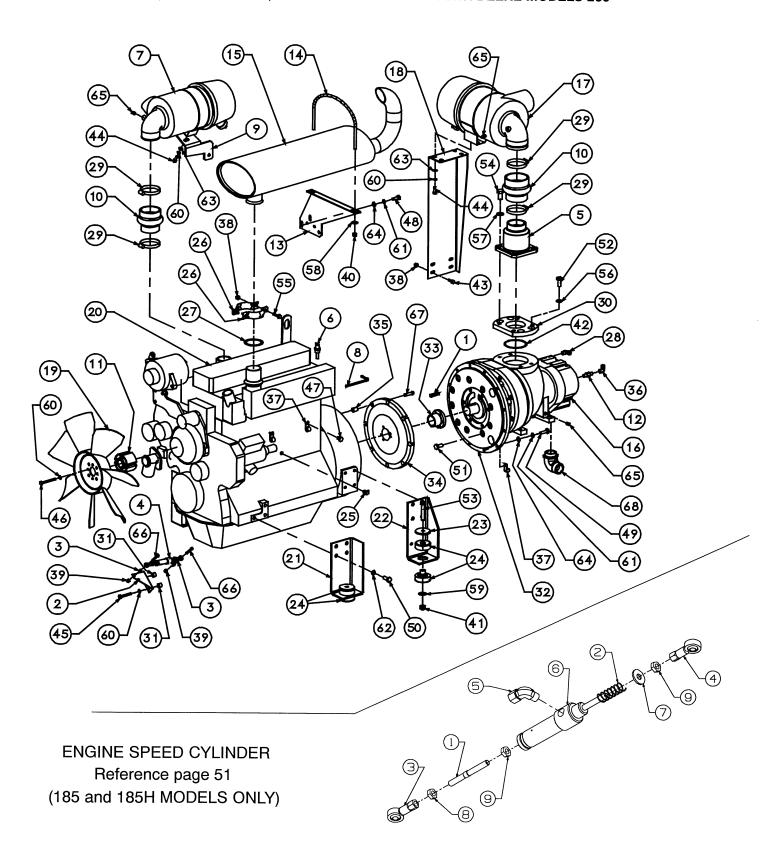
7.3A ENGINE, COMPRESSOR , INLET AND EXHAUST - JOHN DEERE MODELS 260



## 7.3A ENGINE, COMPRESSOR, INLET AND EXHAUST - JOHN DEERE MODELS 260 (continued)

key number	description (continued)	part number	quantity
31	spacer, break lever	250028-681	2
32	housing, adapter (250034-402c)	250034-403	1
33	bushing,taper wood-sd 1.75	250034-920	1
34	coupling	250034-921	1
35	pin,drive coupling	250035-041	8
36	elbow, 90 $^{\circ}$ 1/4" tube x 1/4"fnpt	250041-287	1
37	clamp, hose 9/16"id	408300-001	3
38	nut,hex f pltd 5/16-18	825305-283	4
39	nut,hex locking 1/4-20	825504-145	2
40	nut,hex locking 3/8-16	825506-198	2
41	nut,hex locking 1/2-13	825508-262	4
42	o-ring,neoprene 3 1/2 x 1/8"	826202-238	1
43	capscr, hex gr8 5/16-18 x 1	827905-100	2
44	capscr, hex 8.8 m8 x 25mm	828008-025	6
45	capscr, hex 8.8 m8 x 55mm	828008-055	2
46	capscr, hex 8.8 m8 x 75mm	828008-075	4
47	capscr, hex 8.8 m10 x 16mm	828010-016	2
48	capscr, hex 8.8 m10 x 25mm	828010-025	2
49	capscr, hex 8.8 m10 x 35mm	828010-035	12
50	capscr, hex 8.8 m12 x 30mm	828012-030	14
51	capscr, hex gr5 1/2-13 x 1	829108-100	10
52	capscr, hex gr5 1/2-13 x 1 1/4	829108-125	4
53	capscr, hex gr5 1/2-13 x 3	829108-300	4
54	capscr, hex gr5 5/8-11 x 1 1/4	829110-125	4
55	screw, hex ser washer $5/16-18 \times 1 1/$	829705-150	2
56	washer, spr lock reg pltd 1/2	837808-125	4
57	washer, spr lock reg pltd 5/8	837810-156	4
58	washer, pl-b reg pltd 3/8	838206-071	2
59	washer, pl-b reg pltd 1/2	838208-112	4
60	washer, spr lock-metric pltd m8	838808-200	12
		(Continued on F	age 51)

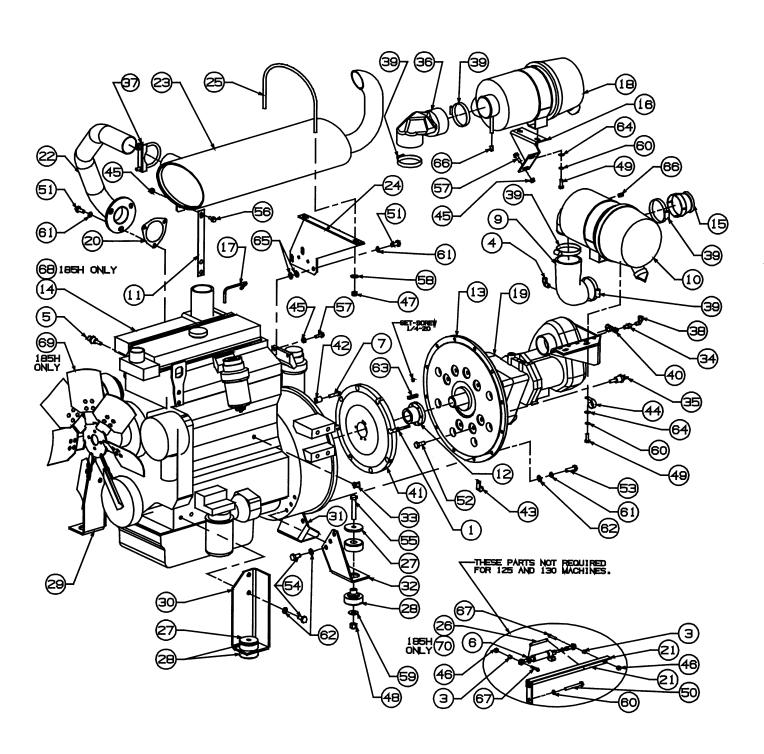
7.3A ENGINE, COMPRESSOR , INLET AND EXHAUST - JOHN DEERE MODELS 260



#### 7.3A ENGINE, COMPRESSOR, INLET AND EXHAUST - JOHN DEERE MODELS 260 (continued)

description (continued)	part number	quantity
washer, spr lock-metric pltd m10	838810-220	14
washer, spr lock-metric pltd m12	838812-250	14
washer, metric-iso7089- 8	865408-170	6
washer, metric-iso7089- 10	865410-210	14
plug, pipe 1/8" 3000# stl plt	866900-005	3
capscrew, ferry head hd pltd 1/4-20 x 1 1/2	867304-150	2
capscrew, ferry head hd pltd 3/8-16 x 1 1/2	867306-150	8
connector,90d str x jic 1 7/8 x 1 7/8	870624-024	1
description: engine speed cylinder		
rod, threaded speed control 1/4-28	02250064-593	1
spring, speed cylinder	02250100-422	1
joint, ball female 1/4" l.h.	250011-578	1
joint, ball female 1/4" r.h.	250011-597	1
elbow, 90 1/4t pls x 1/8 npt m	250018-429	1
cylinder, speed	250021-405	1
washer, pl-b reg pltd 1/4	838204-071	1
nut, hex jam lh pltd 1/4-28	866604-164	1
nut, hex jam rh pltd 1/4-28	868204-164	2
	washer, spr lock-metric pltd m10 washer, spr lock-metric pltd m12 washer, metric-iso7089- 8 washer, metric-iso7089- 10 plug, pipe 1/8" 3000# stl plt capscrew, ferry head hd pltd 1/4-20 x 1 1/2 capscrew, ferry head hd pltd 3/8-16 x 1 1/2 connector,90d str x jic 1 7/8 x 1 7/8  description: engine speed cylinder rod, threaded speed control 1/4-28 spring, speed cylinder joint, ball female 1/4" l.h. joint, ball female 1/4" r.h. elbow, 90 1/4t pls x 1/8 npt m cylinder, speed washer, pl-b reg pltd 1/4 nut, hex jam lh pltd 1/4-28	description (continued)       number         washer, spr lock—metric pltd m10       838810-220         washer, spr lock—metric pltd m12       838812-250         washer, metric—iso7089-8       865408-170         washer, metric—iso7089-10       865410-210         plug, pipe 1/8" 3000# stl plt       866900-005         capscrew, ferry head hd pltd 1/4-20 x 1 1/2       867304-150         capscrew, ferry head hd pltd 3/8-16 x 1 1/2       867306-150         connector,90d str x jic 1 7/8 x 1 7/8       870624-024         description: engine speed cylinder         rod, threaded speed control 1/4-28       02250064-593         spring, speed cylinder       02250100-422         joint, ball female 1/4" I.h.       250011-578         joint, ball female 1/4" r.h.       250011-597         elbow, 90 1/4t pls x 1/8 npt m       250018-429         cylinder, speed       250021-405         washer, pl-b reg pltd 1/4       838204-071         nut, hex jam Ih pltd 1/4-28       866604-164

7.4 ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 125, 130, 185, 185H



## 7.4 ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 125, 130, 185, 185H

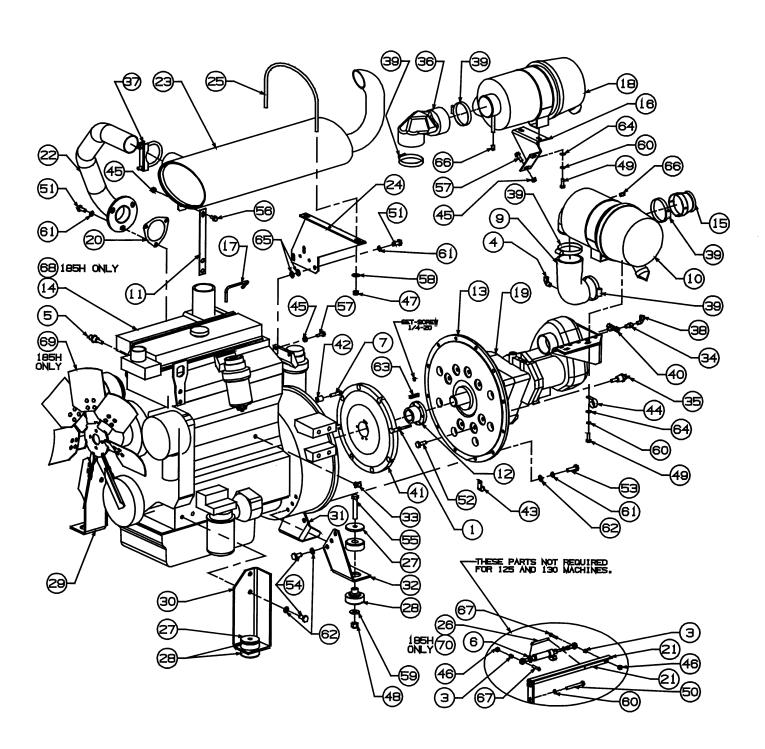
key number	description	part number	quantity
1	capscrew, gr5 1/4-20 x 1.88 lg.		3
2	sealant, thread locking	005898-010	1
3	spacer, brake lever	02250064-594	2
4	elbow, 90° 5/16" tube x 1/4"npt	02250081-218	1
5	switch, engine hi temp 225 deg nc	02250084-094	1
6	sub assembly,control cyl	02250086-890	1
7	capscrew, ferry head 3/8-24x1-1/2 pltd	02250092-529	8
8	support, air filter unit	02250101-948	1
9	elbow, rubber 90 red 3 x 2.75 spcl	02250101-979	1
10	filter, air 7" plastic 3" x 90 deg o(I)	02250102-489	1
11	support,muff frt	02250103-085	1
12	bushing, taper qd sd 38mm bore	02250103-559	1
13	adaptor,eng/compr sae3-8f	02250103-561	1
14	engine, diesel	02250104-773	1
15	tube,inlet choke 3"	02250108-500	1
16	support, engine air fltr	02250110-049	1
17	tube, fuel return	02250110-082	1
18	filter, air plastic strt inl(II)	02250110-197	1
19	compressor	02250110-211	1
20	gasket	02250110-425	1
21	support, control cyl mtg	02250110-657	1
22	tube,exhast muff	02250112-159	1
23	muffler, exhaust	02250116-163	1
24	support, muffler	02250116-164	1
25	clamp, muffler 3/8 bent rod	02250116-227	1
26	spring, extension 3.0lg 4.52lb/in .313od	02250124-065	1
27	washer, snubbing vibration mount	02250125-471	4
28	mount, vibration isolator	02250125-472	4
29	support, engine front	02250125-474	1
30	support, front eng	02250125-475	1

(Continued on Page 55)

<sup>(</sup>I) For maintenance on filter 02250102-489, order repair kit no. 02250102-158.

<sup>(</sup>II) For maintenance on filter 02250110-197, order repair kit no. 02250102-158.

7.4 ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 125, 130, 185, 185H

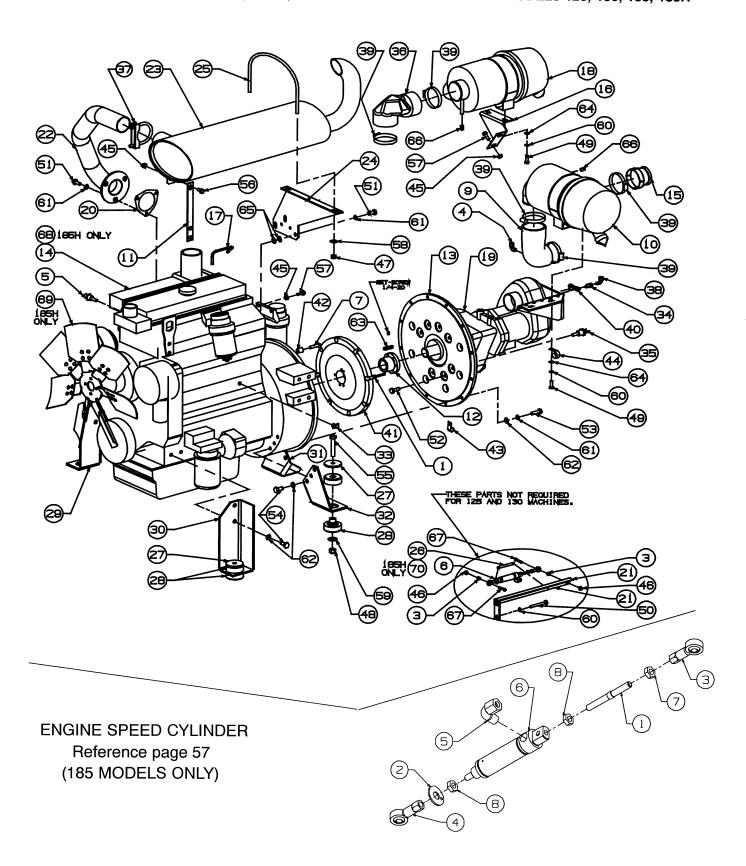


7.4 ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 125, 130, 185, 185H (continued)

key number	description (continued)	part number	quantity
31	support, engine rear	02250125-476	1
32	support, eng rear	02250125-477	1
33	drainlock, 1/4"	040061	1
34	orifice,.062 .125m x .125f hrs	040127	1
35	switch, temp nc	242257	1
36	elbow, rub 90deg 3 x 3	250003-758	1
37	clamp, exh 2 1/2"	250004-198	1
38	elbow, 90 1/4"tube x 1/8"npt	250018-429	1
39	clamp, hose 2-13/16 to 3-3/4"	250018-550	5
40	tee,male 1/4" tube x 1/8"npt	250028-581	1
41	coupling (III)	250034-921	1
42	pin,drive coupling	250035-041	8
43	clamp, hose 9/16"id	408300-001	1
44	clamp, hose 5/8" i.d.	408300-005	1
45	nut,hex f pltd 5/16-18	825305-283	5
46	nut,hex locking 1/4-20	825504-145	2
47	nut,hex locking 3/8-16	825506-198	2
48	nut,hex locking 1/2-13	825508-262	4
49	capscr, hex 8.8 m8 x 25mm	828008-025	4
50	capscr, hex 8.8 m8 x 70mm	828008-070	2
51	capscr, hex 8.8 m10 x 25mm	828010-025	4
52	capscr, hex 8.8 m10 x 30mm	828010-030	7
53	capscr, hex 8.8 m10 x 35mm	828010-035	12
54	capscr, hex 8.8 m12 x 25mm	828012-025	10
55	capscr, hex gr5 $1/2-13 \times 3$	829108-300	4
56	screw, hex ser washer 5/16-18 x 3/4	829705-075	1
57	screw, hex ser washer 5/16-18 x 1	829705-100	2
58	washer, pl-b reg pltd 3/8	838206-071	2
59	washer, pl-b reg pltd 1/2	838208-112	4
60	washer, spr lock-metric pltd m8	838808-200	6
		(Continued on Pa	age 57)

(III) For maintenance on coupling 250034-921 order repair kit no. 02250103-596.

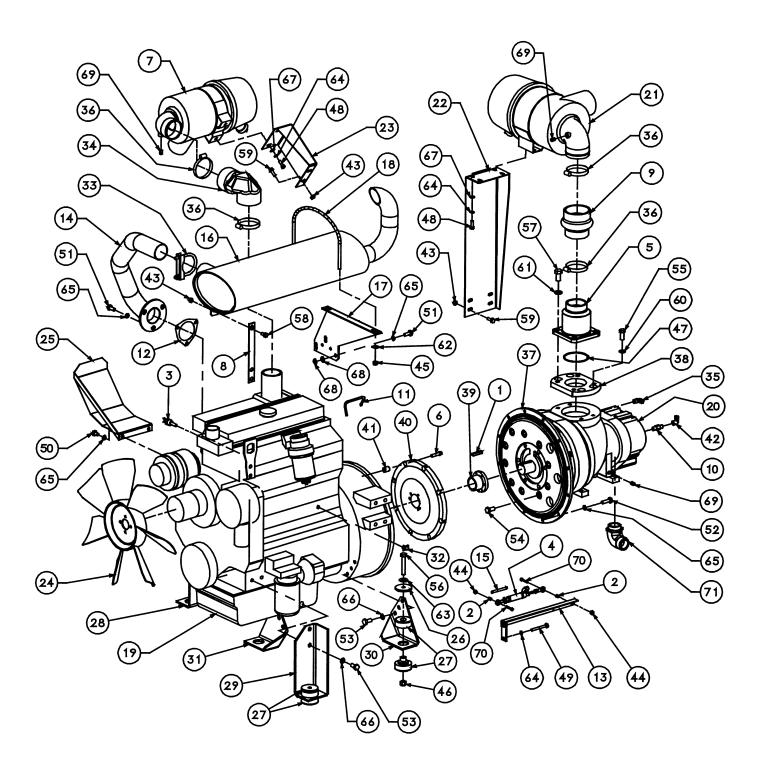
7.4 ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 125, 130, 185, 185H



## 7.4 ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 125, 130, 185, 185H

key number	description	part number	quantity
61	washer, spr lock-metric pltd m10	838810-220	16
62	washer, spr lock-metric pltd m12	838812-250	22
63	key,paral iso r773 10x8x40	865210-040	1
64	washer, metric-iso7089- 8	865408-170	4
65	washer, metric-iso7089- 10	865410-210	2
66	plug, pipe 1/8" 3000# stl plt	866900-005	2
67	capscrew, ferry head hd pltd 1/4-20 x 1 1/4	867304-125	2
68	engine	02250119-525	1
69	fan, 20" blower 250dpq cat	02250123-339	1
70	spring, ext 3"lg 4.5lb/in	02250124-918	1
	description: engine speed cylinder		
1	rod, threaded speed control 1/4-28	02250064-593	1
2	washer, rtnr ctl cyl spring 5/16"	02250078-842	1
3	joint, ball female 1/4" I.h.	250011-578	1
4	joint, ball female 1/4" r.h.	250011-597	1
5	elbow, 90 1/4"tube x 1/8"npt	250018-429	1
6	cylinder, speed air 3/4"bore x 1"str	250024-272	1
7	nut, hex jam lh pltd 1/4-28	866604-164	1
8	nut, hex jam rh pltd 1/4-28	868204-164	2

7.4A ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 260



#### 7.4A ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 260

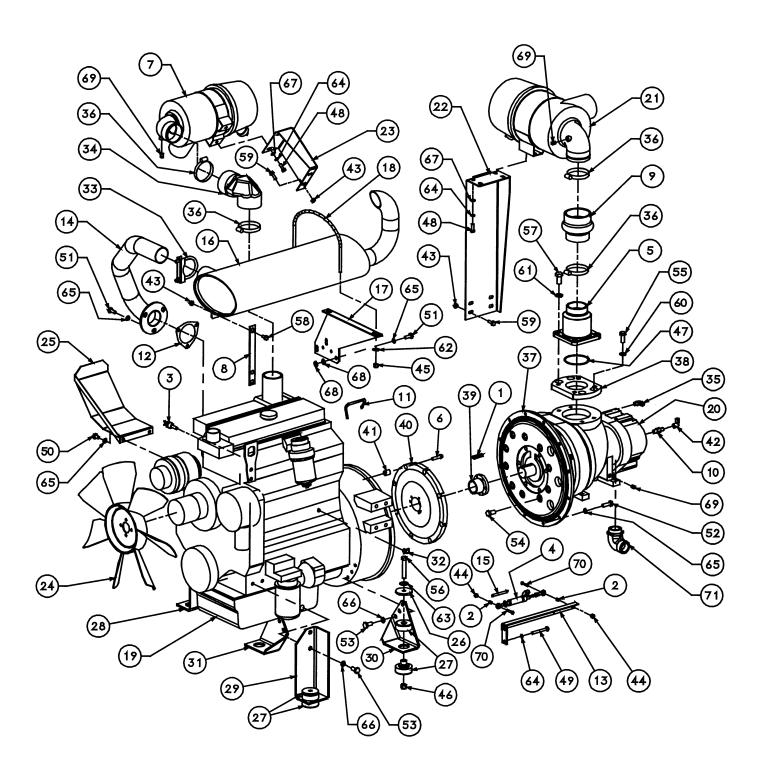
key		part	
number	description	number	quantity
1	key,.375 x .312 x 1.80 class #2	02250060-568	1
2	spacer, brake lever 250p	02250064-594	2
3	switch, engine hi temp 225 deg nc	02250084-094	1
4	sub assembly,control cyl	02250086-890	1
5	valve, air inlet 2 1/2" black	02250088-348	1
6	capscrew, ferry head 3/8-24x1-1/2 pltd	02250092-529	8
7	filter, air 7" plastic 3" x 90 deg $o(I)$	02250102-489	1
8	support,muff frt	02250103-085	1
9	hose, hump red 3 x 2.5" x4.25lg	02250103-227	1
10	orifice, .040" x .25m x .25m nptf	02250109-215	1
11	tube, fuel return 185q cat 8f	02250110-082	1
12	gasket	02250110-425	1
13	support, control cyl mtg	02250110-657	1
14	tube,exhast muff	02250112-159	1
15	spring, extension .31 x 7.5#/in	02250112-337	1
16	muffler, exhaust	02250116-163	1
17	support, muffler	02250116-164	1
18	clamp, muffler 3/8 bent rod	02250116-227	1
19	engine	02250119-525	1
20	compr model, 12series_unit	02250120-514	1
21	filter, air 8" plastic(II)	02250122-797	1
22	support, fltr compr	02250123-088	1
23	support, air fltr eng.	02250123-328	1
24	fan, 20" blower	02250123-339	1
25	shield, heat	02250123-413	2
26	washer, snubbing vibration mount	02250125-471	4
27	mount, vibration isolator	02250125-472	4
28	support, engine front	02250125-474	1
29	support, front eng	02250125-475	1
30	support, engine rear	02250125-476	1

(Continued on Page 61)

<sup>(</sup>I) For maintenance on filter 02250102-489, order repair kit no. 02250102-158.

<sup>(</sup>II) For maintenance on filter 02250122-797, order repair kit no. 02250122-816.

7.4A ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 260



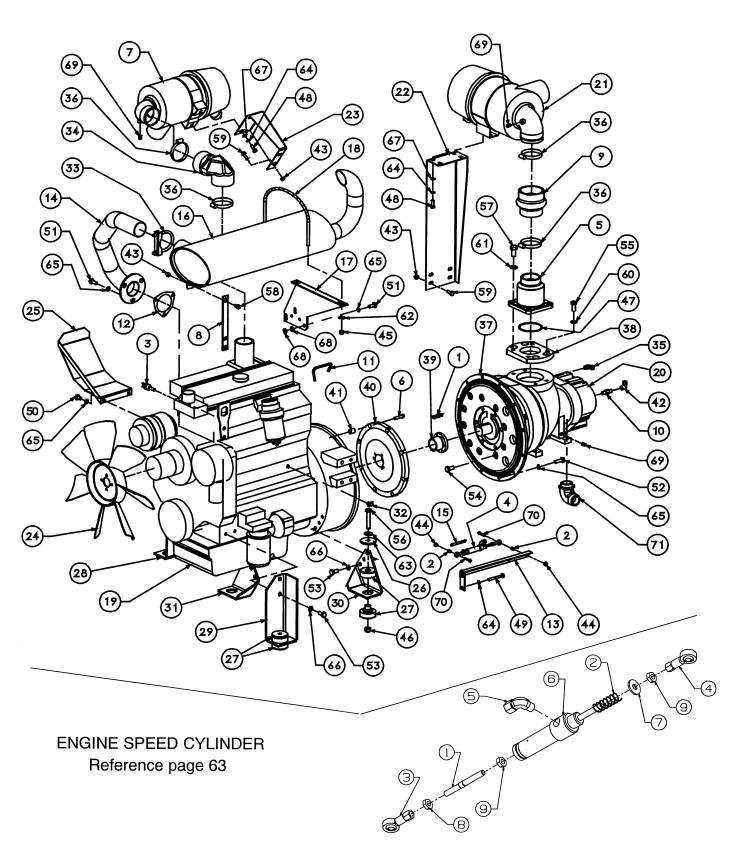
#### 7.4A ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 260 (continued)

key number	description (continued)	part number	quantity
31	support, eng rear	02250125-477	1
32	drainlock, 1/4"	040061	1
33	clamp, exhaust 2-1/2" od tube	043203	1
34	elbow, rub 90deg 3 x 3	250003-758	1
35	elbow, 90 1/4t pls x 1/4 npt m	250018-430	1
36	clamp, hose 2-13/16 to 3-3/4"	250018-550	4
37	adapter, hsg	250022-869	1
38	spacer, air conn vlv	250022-950	1
39	bushing,taper wood-sd 1.75	250034-920	1
40	coupling, eng-compr lord 250(III)	250034-921	1
41	pin,drive coupling	250035-041	8
42	elbow, 90° 1/4" tube x 1/4"fnpt	250041-287	1
43	nut,hex f pltd 5/16-18	825305-283	5
44	nut,hex locking 1/4-20	825504-145	2
45	nut,hex locking 3/8-16	825506-198	2
46	nut,hex locking 1/2-13	825508-262	4
47	o-ring,neoprene 3 1/2 x 1/8"	826202-238	1
48	capscr, hex 8.8 m8 x 25mm	828008-025	6
49	capscr, hex 8.8 m8 x 70mm	828008-070	2
50	capscr, hex 8.8 m10 x 16mm	828010-016	2
51	capscr, hex 8.8 m10 x 25mm	828010-025	4
52	capscr, hex 8.8 m10 x 35mm	828010-035	12
53	capscr, hex 8.8 m12 x 25mm	828012-025	10
54	capscr, hex gr5 1/2-13 x 1	829108-100	10
55	capscr, hex gr5 1/2-13 x 1 1/4	829108-125	4
56	capscr, hex gr5 $1/2-13 \times 3$	829108-300	4
57	capscr, hex gr5 $5/8-11 \times 1 1/4$	829110-125	4
58	screw, hex ser washer 5/16-18 x 3/4	829705-075	1
59	screw, hex ser washer 5/16-18 x 1	829705-100	4
60	washer, spr lock reg pltd 1/2	837808-125	4

(Continued on Page 63)

(III) For maintenance on coupling 250034-921 order repair kit no. 02250099-930.

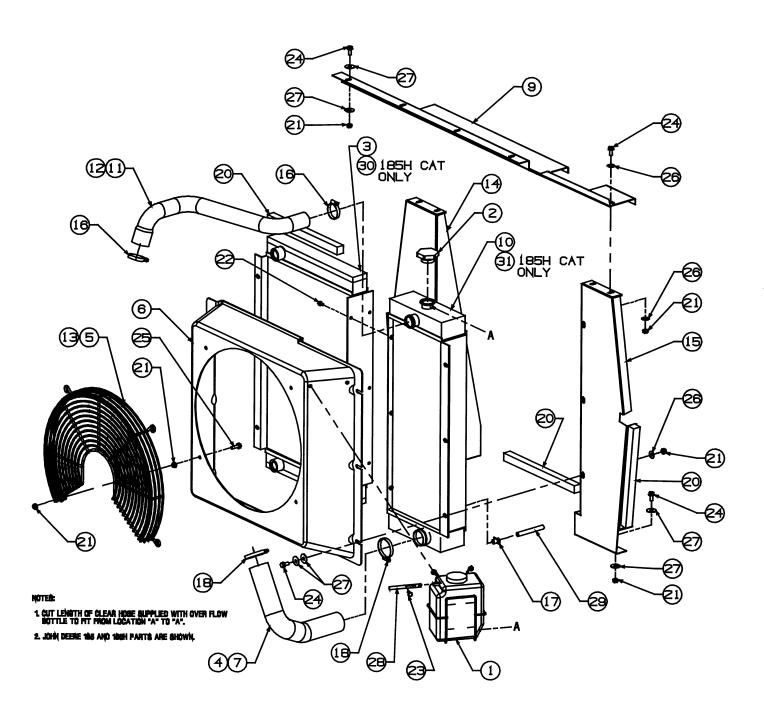
7.4A ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 260



## 7.4A ENGINE, COMPRESSOR, INLET, AND EXHAUST - CATERPILLAR MODELS 260 (continued)

key number	description	part number	quantity
61	washer, spr lock reg pltd 5/8	837810-156	4
62	washer, pl-b reg pltd 3/8	838206-071	2
63	washer, pl-b reg pltd 1/2	838208-112	4
64	washer, spr lock-metric pltd m8	838808-200	8
65	washer, spr lock-metric pltd m10	838810-220	18
66	washer, spr lock-metric pltd m12	838812-250	10
67	washer, metric-iso7089- 8	865408-170	6
68	washer, metric-iso7089- 10	865410-210	2
69	plug, pipe 1/8" 3000# stl plt	866900-005	3
70	capscrew, ferry head hd pltd $1/4-20 \times 1 \cdot 1/4$	867304-125	2
71	connector,90d str x jic 1 7/8 x 1 7/8	870624-024	1
	description: engine speed cylinder		
1	rod, threaded speed control 1/4-28	02250064-593	1
2	spring, speed cylinder	02250100-422	1
3	joint, ball female 1/4" l.h.	250011-578	1
4	joint, ball female 1/4" r.h.	250011-597	1
5	elbow, 90 1/4t pls x 1/8 npt m	250018-429	1
6	cylinder, speed	250021-405	1
7	washer, pl-b reg pltd 1/4	838204-071	1
8	nut, hex jam lh pltd 1/4-28	866604-164	1
9	nut, hex jam rh pltd 1/4-28	868204-164	2

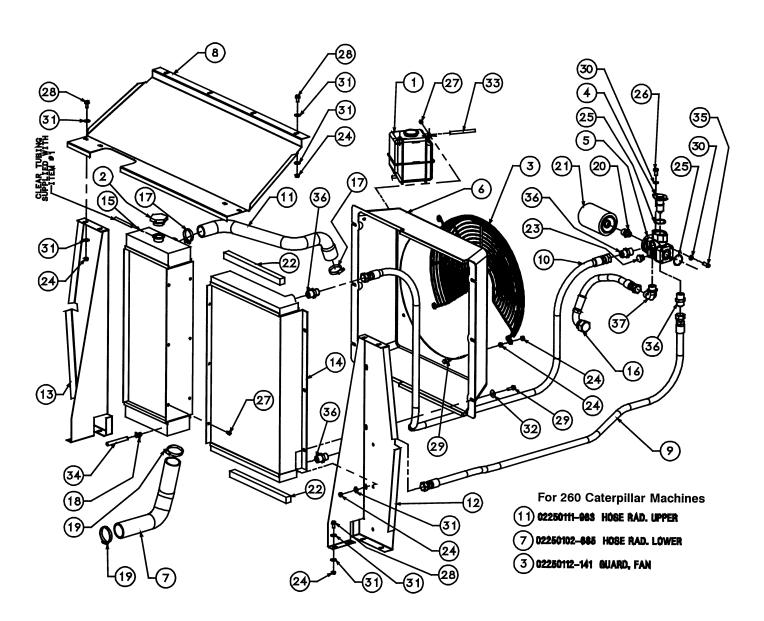
7.5 RADIATOR & COMPRESSOR FLUID COOLING SYSTEM - JOHN DEERE AND CATERPILLAR MODELS 125,130,185, 185H



## 7.5 RADIATOR & COMPRESSOR FLUID COOLING SYSTEM - JOHN DEERE AND CATERPILLAR MODELS 125,130,185, 185H

key number	description	part number	quantity
1	bucket,radiator fluid recovery	02250083-466	1
2	cap,radiator 10 psi	02250099-019	1
3	cooler, oil blower	02250101-725	1
4	hose,rad lower	02250102-685	1
5	guard, fan 20"	02250104-839	1
6	shroud, fan 20"	02250106-595	1
7	hose,rad lower	02250106-596	1
9	baffle,top cooler blower	02250106-895	1
10	radiator, blower cent inlet	02250111-961	1
11	hose,rad upper	02250111-962	1
12	hose,rad upper	02250111-963	1
13	guard, fan 20"	02250112-141	1
14	baffle, cooler Ih w/supt	02250118-440	1
15	baffle, cooler rh	02250118-441	1
16	clamp, hose 1 5/16" to 2 1/4" adj.	040014	2
17	drainlock, 1/4"	040061	1
18	clamp, hose 1 13/16" x 2 3/4" adj.	040083	2
20	weatherstrip, 1"thick x 1"wide (ft)	250041-174	6
21	nut,hex f pltd 5/16-18	825305-283	33
22	screw, hex ser washer 1/4-20 x 1/2	829704-050	6
23	screw, hex ser washer 1/4-20 x 3/4	829704-075	2
24	screw, hex ser washer 5/16-18 x 3/4	829705-075	25
25	screw, hex ser washer 5/16-18 x 1	829705-100	4
26	washer, pl-b reg pltd 5/16	838205-071	14
27	washer, pl-b wide pltd 5/16	838305-071	42
28	hose,fuel line 1/4" (ft)	842315-025	4
29	hose, fuel line 5/16" (ft)	842315-031	1
30	cooler, oil blower fan	02250122-796	1
31	radiator, eng. blower fan	02250122-803	1

7.5A RADIATOR & COMPRESSOR FLUID COOLING SYSTEM - JOHN DEERE AND CATERPILLAR MODELS 260

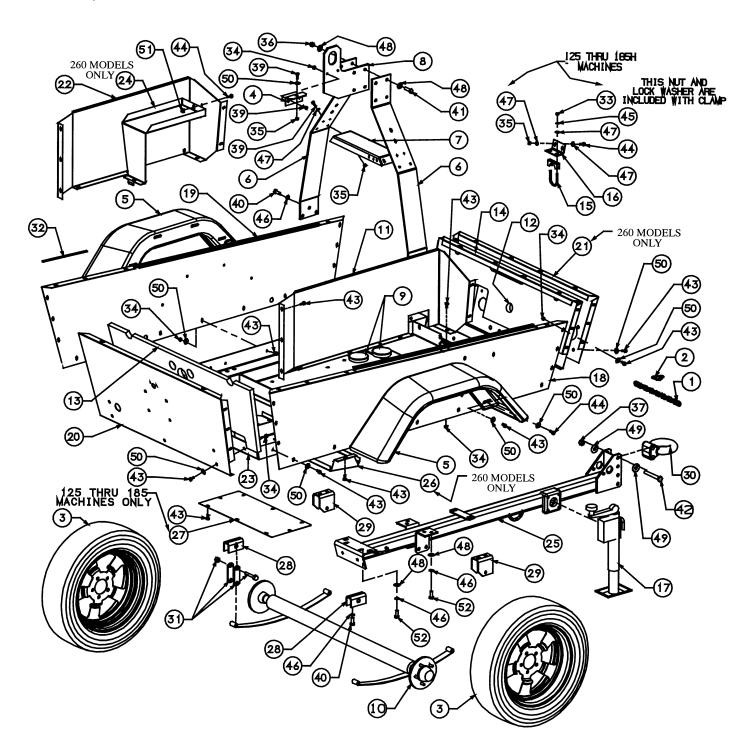


## 7.5A RADIATOR & COMPRESSOR FLUID COOLING SYSTEM - JOHN DEERE AND CATERPILLAR MODELS 260

key number	description	part number	quantity
1	bucket,radiator fluid recovery	02250083-466	1
2	cap,radiator 10 psi	02250099-019	1
3	guard, fan 20"	02250104-839	1
4	element, thermal valve	02250104-907	1
5	manifold,thrm by-pass molded	02250105-011	1
6	shroud, fan 20"	02250106-595	1
7	hose,rad lower	02250106-596	1
8	baffle,top cooler blower	02250106-895	1
9	hose, hydraulic parkrimp 3/4 x 72	02250107-493	1
10	hose, hydraulic parkrimp 3/4 x 88	02250107-494	1
11	hose,rad upper	02250111-962	1
12	baffle, cooler Ih	02250118-440	1
13	baffle, cooler rh	02250118-441	1
14	cooler, oil blower fan	02250122-796	1
15	radiator, eng.blower fan	02250122-803	1
16	hose, hydraulic parkrimp 3/4 x 19	02250123-640	1
17	clamp, hose 1 5/16" to 2 1/4" adj.	040014	2
18	drainlock, 1/4"	040061	1
19	clamp, hose 1 13/16" x 2 3/4" adj.	040083	2
20	adapter, oil filter $.970-20 \times 3/4-16$	250025-914	1
21	element, fluid filter	250026-982	1
22	weatherstrip, 1"thick $x$ 1"wide (ft)	250041-174	2
23	plug,straight thread 3/4-16 viton	250042-623	1
24	nut,hex f pltd 5/16-18	825305-283	33
25	o-ring, viton 1 1/2 x 3/32"	826502-128	2
26	capscr, hex gr5 3/8-16 x 3/4	829106-075	2
27	screw, hex ser washer $1/4-20 \times 1/2$	829704-050	8
28	screw, hex ser washer $5/16-18 \times 3/4$	829705-075	19
29	screw, hex ser washer 5/16-18 x 1	829705-100	10
30	washer, spr lock reg pltd 3/8	837806-094	6
31	washer, pl-b reg pltd 5/16	838205-071	44
32	washer, pl-b wide pltd 5/16	838305-071	6
33	hose, fuel line 1/4" (ft)	842315-025	4
34	hose, fuel line 5/16" (ft)	842315-031	1
35	capscrew, ferry head hd pltd 3/8-16 x 1	867306-100	4
36	connector, straight x jic 1 $1/16 \times 1 1/16$	870112-012	4
37	connector,90d str x jic 1 1/16 x 1 1/16	870612-012	1

7.6 FRAME, AXLE & PARTS & AXLE ASSEMBLY (Exploded View) - ALL MODELS

FRAME, AXLE & PARTS



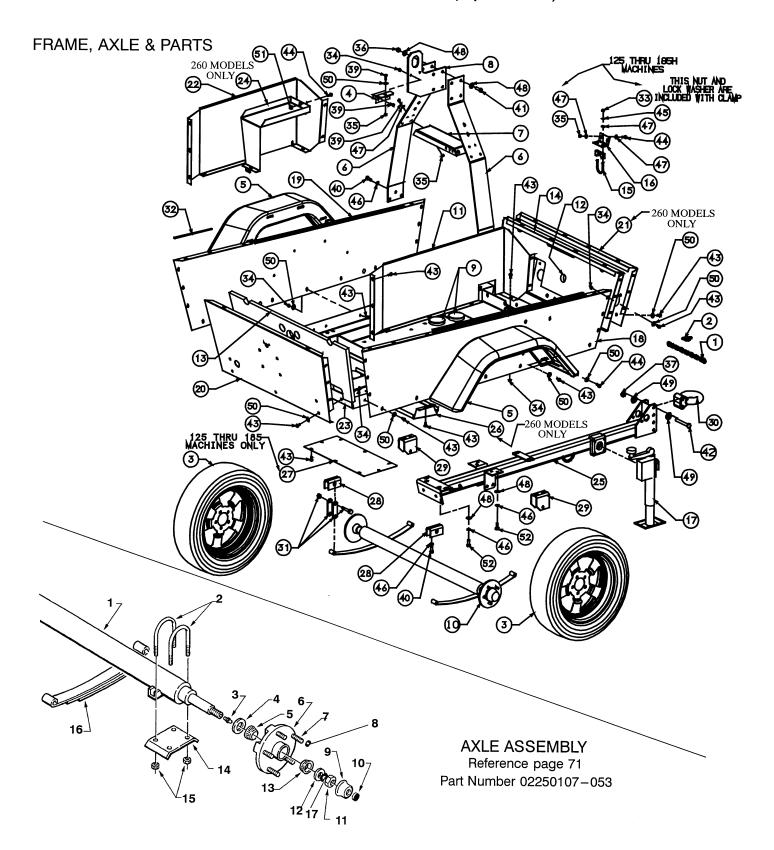
### 7.6 FRAME, AXLE & PARTS & AXLE ASSEMBLY (Exploded View) - ALL MODELS

key number	description	part number	quantity
1	chain, 1/4 x 72 w/2 ez3 hooks	02250094-269	1
2	connector, delta-shaped chain 1/4"	02250100-538	1
3	tire,assembly f78-15 (c)	02250101-234	2
4	angle, canopy supt lift bail	02250101-983	1
5	fender,plastic	02250103-927	2
6	support, lifting bail 1&r	02250105-978	2
7	support, lifting bail	02250105-980	1
8	plate, lifting bail eye	02250105-981	1
9	plug,4" round black plastic	02250106-068	3
10	axle, assembly 3500# 55"tr x 41.5sc	02250107-053	1
11	panel, tool box	02250107-123	1
12	panel, acst foam front frame 1"	02250108-508	1
13	panel, acst foam rear frame 1"	02250108-509	1
14	panel, frame front	02250110-332	1
15	clamp, pipe 1 1/2" plated h.d.	02250114-560	1
16	support, bracket oil fill	02250115-522	1
17	jack, hd w/pad	02250116-794	1
18	panel, frame side Ih	02250118-442	1
19	panel, frame side rh	02250118-443	1
20	panel, frame rear plates	02250119-647	1
21	panel, frame front	02250123-165	1
22	panel, toolbox	02250123-169	1
23	frame, assembly	02250123-171	1
24	panel, battery cover	02250123-172	1
25	drawbar assy, wedge style	02250123-199	1
26	baffle, frame bottom rear	02250123-228	1
27	panel, frame bottom	02250124-308	1
28	bracket, spring hanger rear	250002-070	2
29	bracket, spring hanger front	250002-071	2
30	eye, 3" lunette demountable	250002-221	1
31	kit,hdwr running gear	250002-968	1
32	weatherstrip, $3/16 \times 3/8$ ft	250022-436	13
33	nut,hex pltd 5/16-18	825105-273	2
34	nut,hex f pltd 5/16-18	825305-283	23
35	nut,hex locking 5/16-18	825505-166	7
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PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

(Continued on Page 71)

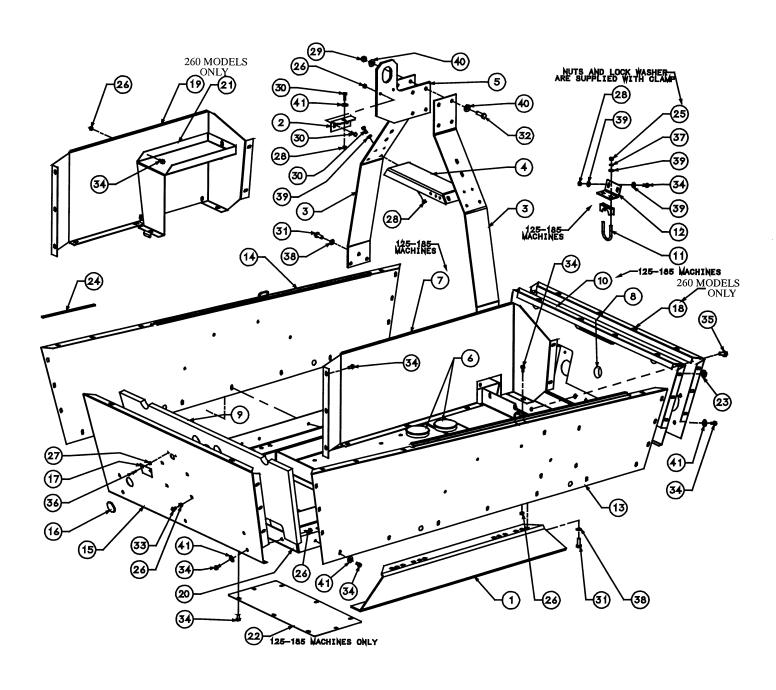
7.6 FRAME, AXLE & PARTS & AXLE ASSEMBLY (Exploded View) - ALL MODELS



## 7.6 FRAME, AXLE & PARTS & AXLE ASSEMBLY (Exploded View) - ALL MODELS (continued)

key number	description	part number	quantity
36	nut,hex locking 1/2-13	825508-262	4
37	nut,hex locking 5/8-11	825510-329	2
38	capscr, hex gr5 $1/2-13 \times 1$	828608-100	2
39	capscr, hex gr5 5/16-18 x 1	829105-100	7
40	capscr, hex gr5 $1/2-13 \times 1 1/4$	829108-125	14
41	capscr, hex gr5 1/2-13 x 1 3/4	829108-175	4
42	capscrew, hex gr5 5/8-11 x 4 3/4	829110-475	2
43	screw, hex ser washer 5/16-18 x 3/4	829705-075	53
44	screw, hex ser washer 5/16-18 x 1	829705-100	7
45	washer, spr lock reg pltd 5/16	837805-078	2
46	washer, spr lock reg pltd 1/2	837808-125	20
47	washer, pl-b reg pltd 5/16	838205-071	10
48	washer, pl-b reg pltd 1/2	838208-112	14
49	washer, pl-b reg pltd 5/8	838210-112	4
50	washer, pl-b wide pltd 5/16	838305-071	42
51	nut,retainer 5/16-18	861405-092	1
52	capscrew, hex gr5 1/2-13 x 1 1/4 plt	875608-125	6
key number	description: axle assembly	part number	quantity
	description: axle assembly axle, beam 3500#		quantity
number	•	nümber	
<i>number</i> 1	axle, beam 3500#	<i>number</i> 02250107-052	1
number 1 2	axle, beam 3500# U-bolt	<i>number</i> 02250107–052 242048	1 4
number 1 2 3	axle, beam 3500# U-bolt fitting, grease	<i>number</i> 02250107–052 242048 861000–025	1 4 2
number  1 2 3 4	axle, beam 3500# U-bolt fitting, grease seal, grease	number 02250107-052 242048 861000-025 250040-783	1 4 2 2
number  1 2 3 4 5 6 7	axle, beam 3500# U-bolt fitting, grease seal, grease bearing, inner	number  02250107-052 242048 861000-025 250040-783 250023-467	1 4 2 2 2
number  1 2 3 4 5 6 7	axle, beam 3500# U-bolt fitting, grease seal, grease bearing, inner hub, wheel 5" x 4 1/2"	number  02250107-052 242048 861000-025 250040-783 250023-467 250023-469	1 4 2 2 2 2
number  1 2 3 4 5 6 7 8 9	axle, beam 3500# U-bolt fitting, grease seal, grease bearing, inner hub, wheel 5" x 4 1/2" stud, wheel 1/2"-20 nut, wheel 1/2"-20 cap, grease	number  02250107-052 242048 861000-025 250040-783 250023-467 250023-469 250023-468	1 4 2 2 2 2 2 10
number  1 2 3 4 5 6 7 8 9 10	axle, beam 3500# U-bolt fitting, grease seal, grease bearing, inner hub, wheel 5" x 4 1/2" stud, wheel 1/2"-20 nut, wheel 1/2"-20 cap, grease plug, rubber	number  02250107-052 242048 861000-025 250040-783 250023-467 250023-468 250023-470	1 4 2 2 2 2 2 10
number  1 2 3 4 5 6 7 8 9 10 11	axle, beam 3500# U-bolt fitting, grease seal, grease bearing, inner hub, wheel 5" x 4 1/2" stud, wheel 1/2"-20 nut, wheel 1/2"-20 cap, grease plug, rubber nut, spindle	number  02250107-052 242048 861000-025 250040-783 250023-467 250023-469 250023-468 250023-470 250040-785	1 4 2 2 2 2 2 10 10 2
number  1 2 3 4 5 6 7 8 9 10 11 12	axle, beam 3500# U-bolt fitting, grease seal, grease bearing, inner hub, wheel 5" x 4 1/2" stud, wheel 1/2"-20 nut, wheel 1/2"-20 cap, grease plug, rubber nut, spindle washer, spindle	number  02250107-052 242048 861000-025 250040-783 250023-467 250023-469 250023-468 250023-470 250040-785 250040-786	1 4 2 2 2 2 10 10 2 2
number  1 2 3 4 5 6 7 8 9 10 11 12 13	axle, beam 3500# U-bolt fitting, grease seal, grease bearing, inner hub, wheel 5" x 4 1/2" stud, wheel 1/2"-20 nut, wheel 1/2"-20 cap, grease plug, rubber nut, spindle washer, spindle bearing, outer	number  02250107-052 242048 861000-025 250040-783 250023-467 250023-468 250023-470 250040-785 250040-786 040122	1 4 2 2 2 2 10 10 2 2
number  1 2 3 4 5 6 7 8 9 10 11 12 13 14	axle, beam 3500# U-bolt fitting, grease seal, grease bearing, inner hub, wheel 5" x 4 1/2" stud, wheel 1/2"-20 nut, wheel 1/2"-20 cap, grease plug, rubber nut, spindle washer, spindle bearing, outer plate, tie	number  02250107-052 242048 861000-025 250040-783 250023-467 250023-469 250023-468 250023-470 250040-785 250040-786 040122 047874	1 4 2 2 2 2 10 10 2 2 2
number  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	axle, beam 3500# U-bolt fitting, grease seal, grease bearing, inner hub, wheel 5" x 4 1/2" stud, wheel 1/2"-20 nut, wheel 1/2"-20 cap, grease plug, rubber nut, spindle washer, spindle bearing, outer plate, tie nut, U-bolt 1/2"-20	number  02250107-052 242048 861000-025 250040-783 250023-467 250023-468 250023-470 250040-785 250040-786 040122 047874 250023-466	1 4 2 2 2 2 10 10 2 2 2 2
number  1 2 3 4 5 6 7 8 9 10 11 12 13 14	axle, beam 3500# U-bolt fitting, grease seal, grease bearing, inner hub, wheel 5" x 4 1/2" stud, wheel 1/2"-20 nut, wheel 1/2"-20 cap, grease plug, rubber nut, spindle washer, spindle bearing, outer plate, tie	number  02250107-052 242048 861000-025 250040-783 250023-467 250023-468 250023-470 250040-785 250040-786 040122 047874 250023-466 045197	1 4 2 2 2 2 10 10 2 2 2 2 2

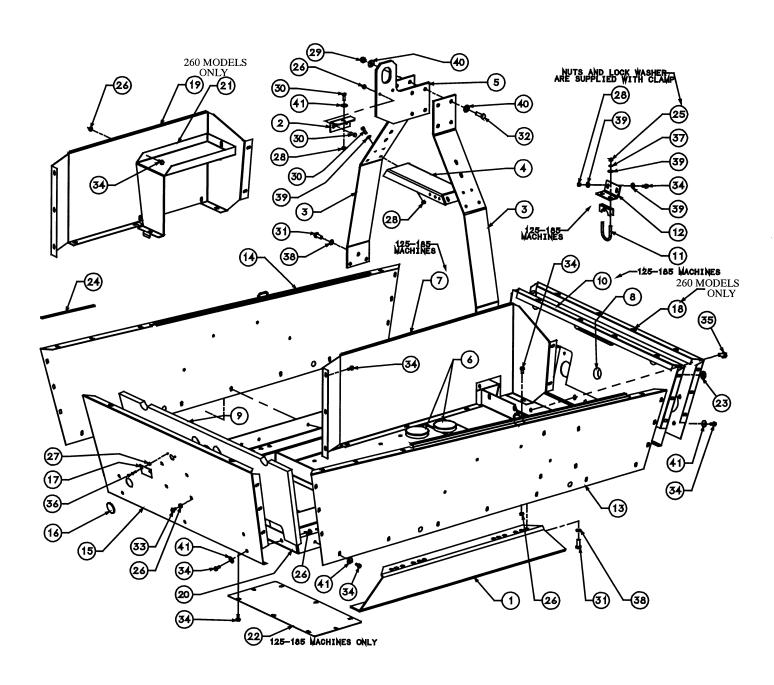
### 7.6A LESS RUNNING GEAR FRAME & PARTS- ALL MODELS



### 7.6A LESS RUNNING GEAR FRAME & PARTS - ALL MODELS

key number	description	part number	quantity
1	channel, utility mount	02250044-205	2
2	angle, canopy supt lift bail	02250101-983	1
3	support,lifting bail l&r	02250105-978	2
4	support,lifting bail	02250105-980	. 1
5	plate, lifting bail eye	02250105-981	1
6	plug,4" round black plastic	02250106-068	3
7	panel, tool box	02250107-123	1
8	panel, acst foam front frame 1"	02250108-508	1
9	panel, acst foam rear frame 1"	02250108-509	1
10	panel, frame front	02250110-332	1
11	clamp, pipe 1 1/2" plated h.d.	02250114-560	1
12	support, bracket oil fill	02250115-522	1
13	panel, frame side Ih	02250118-442	1
14	panel, frame side rh	02250118-443	1
15	panel, frame rear plates	02250119-647	1
16	plug,plastic 1.75" dia	02250119-699	2
17	plate, cover license plate hole	02250119-849	1
18	panel, frame front	02250123-165	1
19	panel, toolbox	02250123-169	1
20	frame, assembly	02250123-171	1
21	panel, battery cover	02250123-172	1
22	panel, frame bottom 1	02250124-308	1
23	plug,plastic 1" dia	234114	1
24	weatherstrip, 3/16 x 3/8 ft	250022-436	13
25	nut,hex pltd 5/16-18	825105-273	2
26	nut,hex f pltd 5/16-18	825305-283	32
27	nut,hex locking #10-24	825502-083	2
28	nut,hex locking 5/16-18	825505-166	4
29	nut,hex locking 1/2-13	825508-262	4
30	capscr, hex gr5 5/16-18 x 1	829105-100	4
		(Continued on Pa	ıge 75)

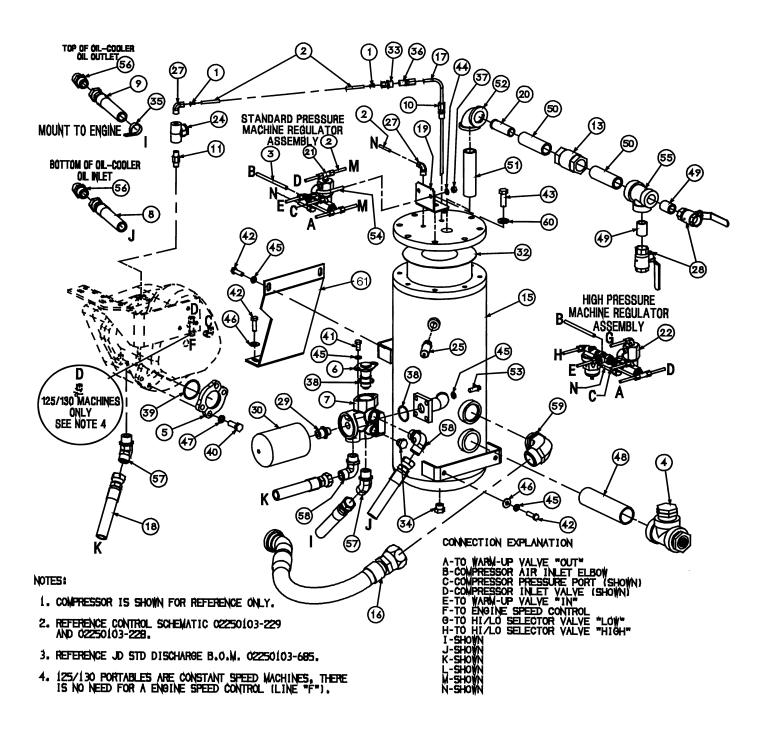
#### 7.6A LESS RUNNING GEAR FRAME & PARTS - ALL MODELS



### 7.6A LESS RUNNING GEAR FRAME & PARTS - ALL MODELS (continued)

key number	description	part number	quantity
31	capscr, hex gr5 1/2-13 x 1 1/4	829108-125	14
32	capscr, hex gr5 1/2-13 x 1 3/4	829108-175	4
33	screw, hex ser washer 5/16-18 x 1/2	829705-050	4
34	screw, hex ser washer 5/16-18 x 3/4	829705-075	48
35	screw, hex ser washer 1/2-13 x 1	829708-100	3
36	screw, mach-rd hd #10-24 x 3/4	831602-075	2
37	washer, spr lock reg pltd 5/16	837805-078	2
38	washer, spr lock reg pltd 1/2	837808-125	14
39	washer, pl-b reg pltd 5/16	838205-071	10
40	washer, pl-b reg pltd 1/2	838208-112	8
41	washer, pl-b wide pltd 5/16	838305-071	35

7.7 CONTROL PARTS, DISCHARGE PARTS & RECEIVER ASSEMBLY PARTS - ALL 125, 130, 185, 185H MODELS



# 7.7 CONTROL PARTS, DISCHARGE PARTS & RECEIVER ASSEMBLY PARTS – ALL 125, 130, 185, 185H MODELS

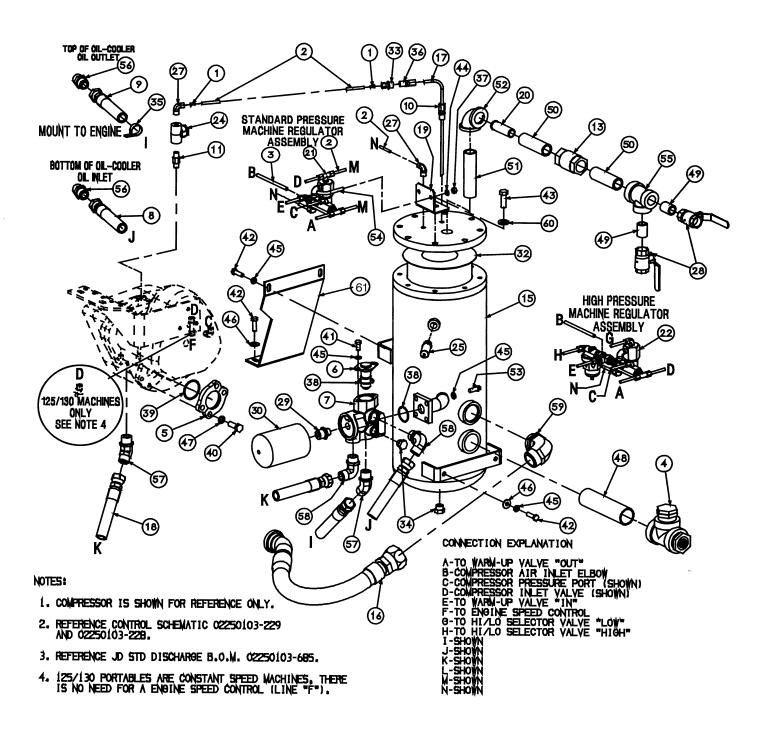
key number	description	part number	quantity
1	insert, nylon tubing 1/4"od	02250052-841	4
2	tube,nylon 1/4"od x .04w black (ft)	02250054-861	17
3	tube,5/16 od x .040 wall	02250081-220	2
4	sub assembly,receiver oil fill (I)	02250085-729	1
5	flange,half sae 1-1/2"	02250102-574	2
6	element, thermal valve	02250104-907	1
7	manifold,thrm by-pass molded	02250105-011	1
8	hose,hydraulic parkrimp jic 3/4" x	02250107-493	1
9	hose,hydraulic parkrimp jic 3/4" x	02250107-494	1
10	connector, tube oil return 1/4 x 1/4	02250108-700	1
11	orifice, .040" x .25m x .25m nptf	02250109-215	1
12	elbow, 90m 5/16"tube x 1/8"npt	02250109-423	1
13	valve, inline check 1" npt ball	02250109-661	1
14	compressor	02250110-211	1
15	receiver, remote mnt	02250112-769	1
16	hose, hydraulic	02250112-770	1
17	tube, oil siphon 1/4"od	02250114-091	1
18	hose, hydraulic parkrimp 3/4" x 16"	02250114-606	1
19	support, reg vlv	02250118-558	1
20	orifice,min pressure nylon 9mm	02250121-007	1
21	sub assembly,reg/blowdown vlv	02250126-651	1
22	sub assembly,reg/blowdown vlvs	02250126-653	1
23	orifice,.062 .125m x .125f hrs	040127	1
24	strainer, v type 300# x 1/4" (II)	241771	1
25	valve, relief 140psi 1/2" npt	249807	1
26	elbow, 90 1/4"tube x 1/8"npt	250018-429	1
27	elbow, 90 1/4t pls x 1/4 npt m	250018-430	2
28	valve, ball 3/4" service	250019-865	2
29	adapter, oil filter .970-20 x 3/4-16	250025-914	1
30	element, fluid filter (III)	250026-982	1
		(Continued on Pa	age 79)

<sup>(</sup>I) See Section 7.7A

<sup>(</sup>II) For maintenance on strainer 241771, order repair kit no. 241772.

<sup>(</sup>III) For maintenance on fluid filter 250026-982, order repair kit no. 250028-032.

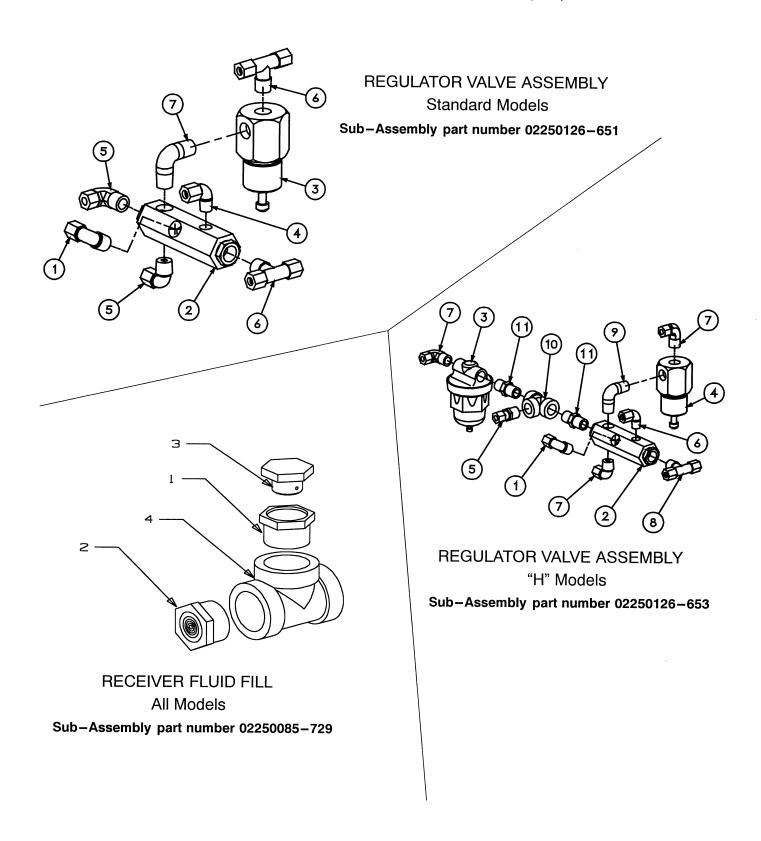
7.7 CONTROL PARTS, DISCHARGE PARTS & RECEIVER ASSEMBLY PARTS – ALL 125, 130, 185, 185H MODELS



# 7.7 CONTROL PARTS, DISCHARGE PARTS & RECEIVER ASSEMBLY PARTS – ALL 125, 130, 185, 185H MODELS

key number	description	part number	quantity
31	tee,male 1/4" tube x 1/8"npt	250028-581	1
32	element, sep-fin 10 25/30	250034-143	1
33	connector,fem 1/4t x 1/4 npt	250041-084	1
34	plug, straight thread 3/4-16 viton	250042-623	2
35	clamp, hose 5/8" i.d.	408300-005	1
36	connector, tube-m 1/4 x 1/4	810204-025	1
37	nut,hex unfin 5/16-18	825005-273	1
38	o-ring, viton 1 1/2 x 3/32"	826502-128	2
39	o-ring, viton 1 7/8 x 1/8"	826502-225	1
40	capscr, hex 8.8 m12 x 35mm	828012-035	4
41	capscr, hex gr5 3/8-16 x 3/4	829106-075	2
42	capscr, hex gr5 3/8-16 x 1 1/4	829106-125	6
43	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	8
44	washer, spr lock reg pltd 5/16	837805-078	2
45	washer, spr lock reg pltd 3/8	837806-094	10
46	washer, pl-b reg pltd 3/8	838206-071	4
47	washer, spr lock-metric pltd m12	838812-250	4
48	nipple,pipe pltd 1 1/2 x 7	866324-070	1
49	nipple,pipe-xs plt 3/4 x cl	866412-000	2
50	nipple,pipe-xs plt 1 x 4	866416-040	2
51	nipple,pipe-xs plt 1 x 5	866416-050	1
52	elbow, pipe 90 deg 300# plt 1"	867030-040	1
53	capscrew, ferry head hd pltd $3/8-16 \times 1$	867306-100	4
54	u-bolt,5/16" x 1 1/4" pipe pltd	868305-125	1
55	tee, reducing pltd 1 x 3/4 x 3/4	868604-033	1
56	connector, straight x jic 1 $1/16 \times 1 1/16$	870112-012	2
57	connector,45 deg str x jic 1 1/16 x 1 1/	870512-012	2
58	connector,90d str x jic 1 1/16 x 1 1/16	870612-012	2
59	connector,90d str x jic 1 7/8 x 1 7/8	870624-024	1
60	washer, extra thk pltd 1/2	870708-153	8
61	support, receiver	02250124-785	1

7.7A REGULATOR VALVE AND FLUID FILL SUB-ASSEMBLIES - ALL 125, 130, 185 & 185H MODELS



## 7.7A REGULATOR VALVE AND FLUID FILL SUB-ASSEMBLIES - ALL 125, 130, 185 & 185H MODELS

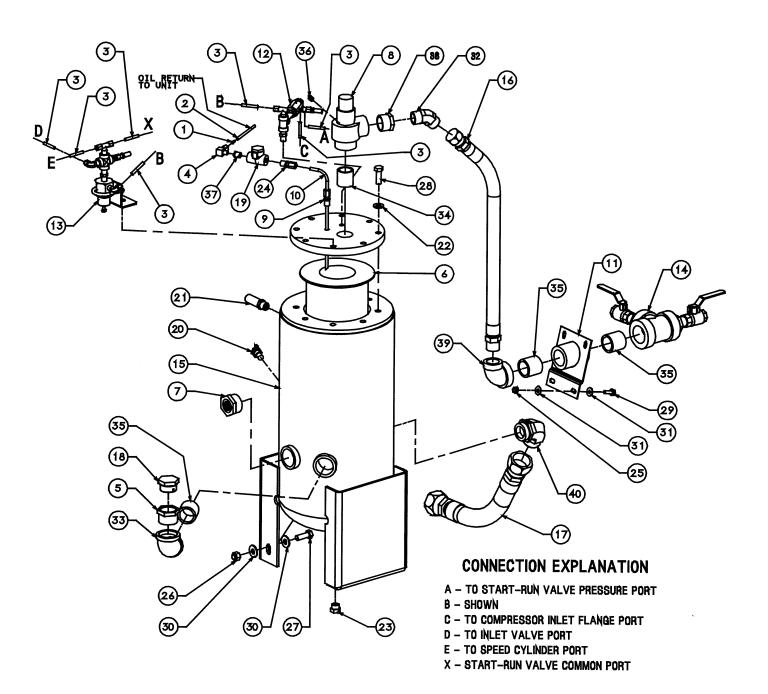
key number	description: Regulator valve assembly Standard Models	part number	quantity
1	elbow, 90° 5/16" tube x 1/4"npt	02250081-218	1
2	valve, pneu 2-way 1/4" npt(I)	02250102-248	1
3	valve, pressure regulator(II)	250017-280	1
4	elbow, 90 1/4"tube x 1/8"npt	250018-429	1
5	elbow, 1/4" tube x 1/4" npt	250018-430	2
6	tee,male 1/4 tube x 1/4 npt	250028-582	2
7	elbow, pipe 90m 1/4" x 1/4" npt	860504-025	1
key number	description: Regulator valve assembly "H" Models	part number	quantity
1	elbow, 90° 5/16" tube x 1/4"npt	02250081-218	1
2	valve, pneu 2-way $1/4$ " npt(I)	02250102-248	1
3	valve, regulator back press(III)	041517	1
4	valve, pressure regulator(II)	250017-280	1
5	connector,1/4t x 1/4 npt str	250018-428	1
6	elbow, 90 1/4"tube x 1/8"npt	250018-429	1
7	elbow, 1/4" tube x 1/4" npt	250018-430	3
8	tee,male 1/4 tube x 1/4 npt	250028-582	1
9	elbow, pipe 90m 1/4" x 1/4" npt	860504-025	1
10	tee, pipe 150# plt 1/4	866815-010	1
11	nipple,pipe-hx pltd 1/4 x 1/4	868504-025	2
key number	description: Receiver fluid fill assembly All Models	part number	quantity
1	adapter,receiver fluid fill	02250064-595	1
2	glass, sight oil level 1-1/2" pltd	02250081-779	1
3	plug,o-ring boss sae 1 1/4	040029	1
4	tee, pipe 150# plt 1 1/2	866815-060	1

<sup>(</sup>I) For maintenance on pneumatic valve no. 02250102-248, order repair kit no. 250031-772.

<sup>(</sup>II) For maintenance on regulator valve no. 250017-280, order repair kit no. 250019-453.

<sup>(</sup>III) For maintenance on pressure valve no. 041517, order repair kit no. 041742.

7.7B CONTROL PARTS, DISCHARGE PARTS & RECEIVER ASSEMBLY PARTS - ALL 260 MODELS



## 7.7B CONTROL PARTS, DISCHARGE PARTS & RECEIVER ASSEMBLY PARTS - ALL 260 MODELS

key number	description	part number	quantity
1	insert, nylon tubing 1/4"od	02250052-841	2
2	tube,nyl .25 od x 040w wht(ft)	02250054-860	4
3	tube,nyl .25 od x .040w blk (ft)	02250054-861	7
4	elbow,check valve 1/4t x 1/8p	02250058-275	1
5	adaptor,receiver oil fill	02250064-595	1
6	element, sep	02250078-029	1
7	glass, sight oil level 1-1/2" pltd	02250081-779	1
8	valve,1-1/4" npt min press chk	02250083-049	1
9	connector, tube oil return 1/4 x 1/4	02250108-700	1
10	tube, oil siphon 1/4"od 110-185	02250114-091	1
11	manifold,1-1/2 fnpt 375 serv air	02250114-390	1
12	sub assembly,blowdown valve std (I)	02250118-381	1
13	sub assembly,reg vlv assy (I)	02250118-560	1
14	sub assembly, service valves std (I)	02250118-603	1
15	tank, air-oil sep	02250123-164	1
16	hose, air service 1" x 26 lg	02250123-594	1
17	hose, hydraulic 1-1/2	02250126-510	1
18	plug,o-ring boss sae 1 1/4	040029	1
19	strainer, v-type 300psix1/4 (II)	241771	1
20	switch,temperature nc 250deg f	242257	1
21	valve, relief 140psi 1/2" npt	249807	1
22	washer, .500 hardened	250040-099	8
23	plug,straight thread 3/4-16 viton	250042-623	1
24	connector, tube-m 1/4 x 1/4	810204-025	1
25	nut,hex f pltd 5/16-18	825305-283	4
26	nut,hex locking 1/2-13	825508-262	3
27	capscr, hex gr8 1/2-13 x 1 1/2	828208-150	3
28	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	8
29	screw, hex ser washer 5/16-18 x 1	829705-100	4
30	washer, pl-b reg unfin 1/2	837208-112	6
		(Continued on Pa	age 85)

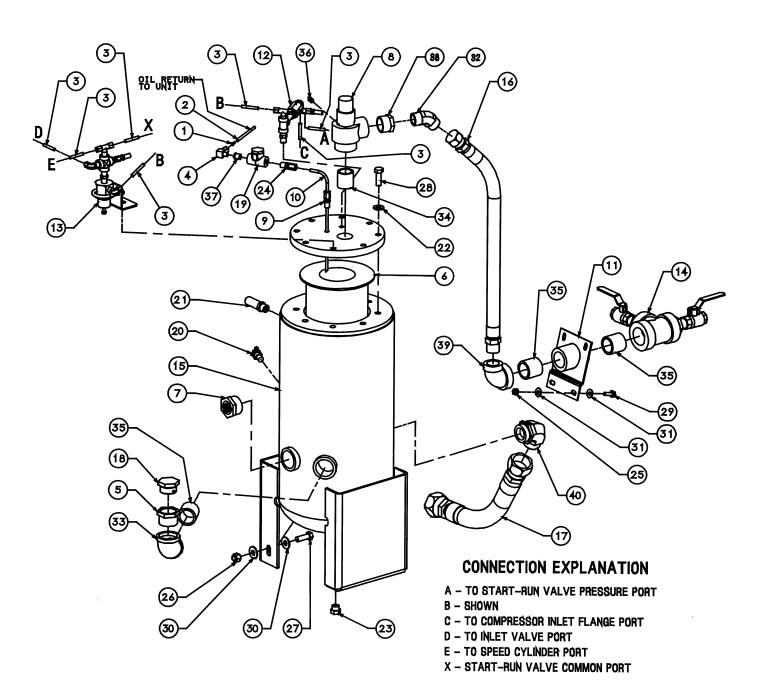
(Continued on Page 85)

<sup>(</sup>I) See Section 7.7C

<sup>(</sup>II) For maintenance on strainer 241771, order repair kit no. 241772.

<sup>(</sup>III) For maintenance on fluid filter 250026-982, order repair kit no. 250028-032.

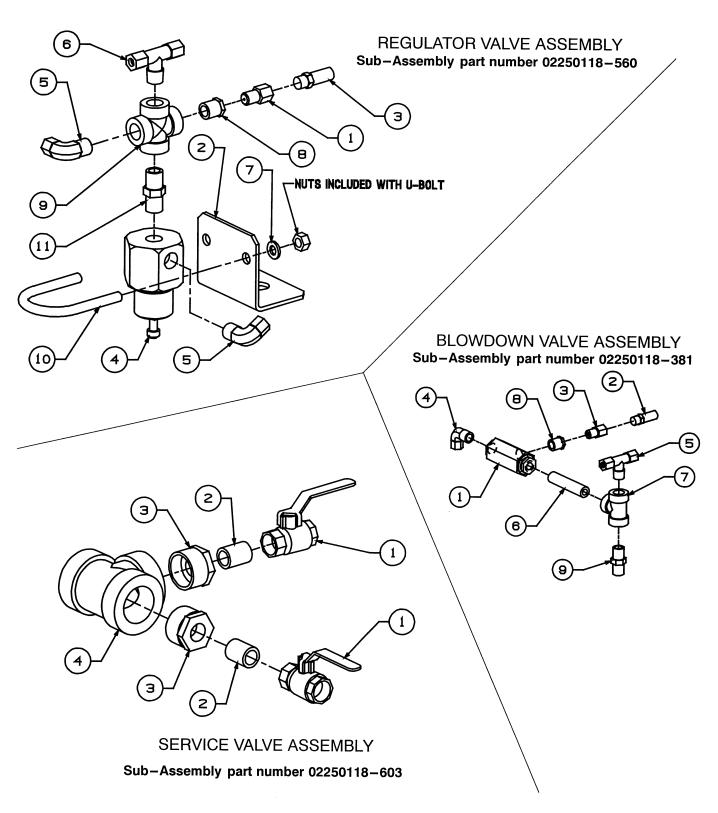
7.7B CONTROL PARTS, DISCHARGE PARTS & RECEIVER ASSEMBLY PARTS - ALL 260 MODELS



## 7.7B CONTROL PARTS, DISCHARGE PARTS & RECEIVER ASSEMBLY PARTS - ALL 260 MODELS

key number	description	part number	quantity
31	washer, pl-b reg pltd 5/16	838205-071	8
32	elbow, 37fl 45m 1 x 1	860016-100	1
33	elbow, pipe 90 deg plt 1 1/2"	866215-060	1
34	nipple,pipe-xs plt 1 1/4 x cl	866420-000	1
35	nipple,pipe-xs plt 1 1/2 x cl	866424-000	3
36	plug, pipe 1/8" 3000# stl plt	866900-005	1
37	bushing,red pltd 1/4 x 1/8	867100-005	1
38	bushing,red pltd 1 1/4 x 1	867105-040	1
39	elbow, red 1 1/2 x 1 150# plt	869206-040	1
40	connector,90d str x jic 1 7/8 x 1 7/8	870624-024	1

7.7C REGULATOR VALVE, BLOWDOWN VALVE AND SERVICE VALVE SUB-ASSEMBLIES-ALL 260 MODELS

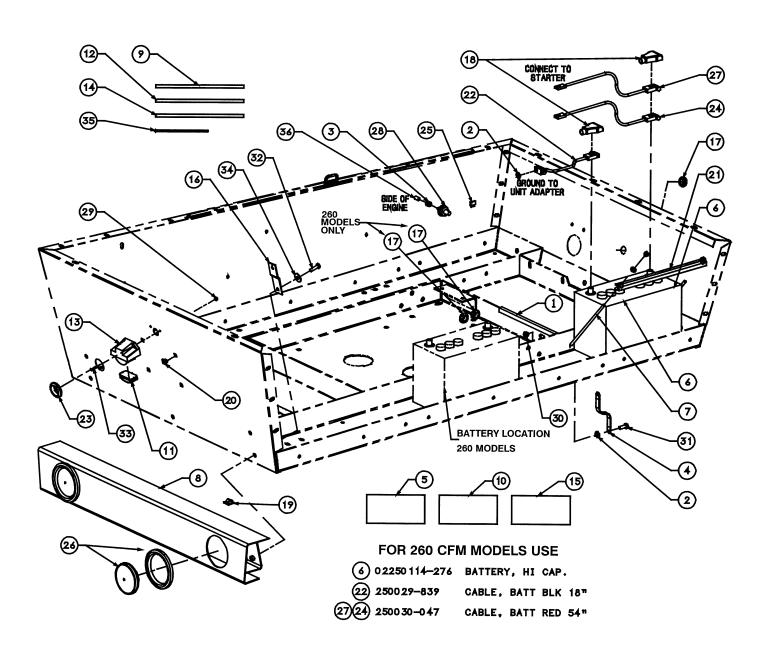


# 7.7C REGULATOR VALVE, BLOWDOWN VALVE AND SERVICE VALVE SUB-ASSEMBLIES - ALL 260 MODELS

key number	description: Regulator valve assembly	part number	quantity
1	orifice,.078" 1/8 fnpt x 1/8 mnpt	02250069-264	1
2	support, reg vlv	02250118-558	1
3	silencer, air ejection	248755	1
4	valve, pressure regulator (I)	250017-280	1
5	elbow, 90 1/4t pls x 1/4 npt m	250018-430	2
6	tee,male 1/4 tube x 1/4 npt	250028-582	1
7	washer, spr lock reg pltd 5/16	837805-078	2
8	bushing,red pltd 1/4 x 1/8	867100-005	1
9	cross, pipe 1/4" plt	867615-010	1
10	u-bolt,5/16" x 1 1/4" pipe pltd	868305-125	1
11	nipple,pipe-hx pltd 1/4 x 1/4	868504-025	1
key number	description: Blowdown valve assembly	part number	quantity
1	valve, blowdown 1/4 npt hi prs	02250049-634	1
2	silencer, air ejection 1/8"npt-male	248755	1
3	orifice, .093 x .125m x .125f	250014-060	1
4	elbow, 90 1/4t pls x 1/4 npt m	250018-430	1
5	tee,male 1/4 tube x 1/4 npt	250028-582	1
6	nipple,pipe-xs plt 1/4 x 2 1/2	866404-025	1
7	tee, pipe 150# plt 1/4	866815-010	1
8	bushing,red pltd 1/4 x 1/8	867100-005	1
9	nipple,pipe-hx pltd 1/4 x 1/4	868504-025	1
key number	description: Service Valve assembly	part number	quantity
1	valve, ball 3/4" service	250019-865	2
2	nipple,pipe-xs plt 3/4 x cl	866412-000	2
3	bushing,red pltd 1 1/2 x 3/4	867106-030	2
4	tee, pipe pltd 1 1/2	868430-060	1

<sup>(</sup>I) For maintenance on regulator valve no. 250017-280, order repair kit no. 250019-453.

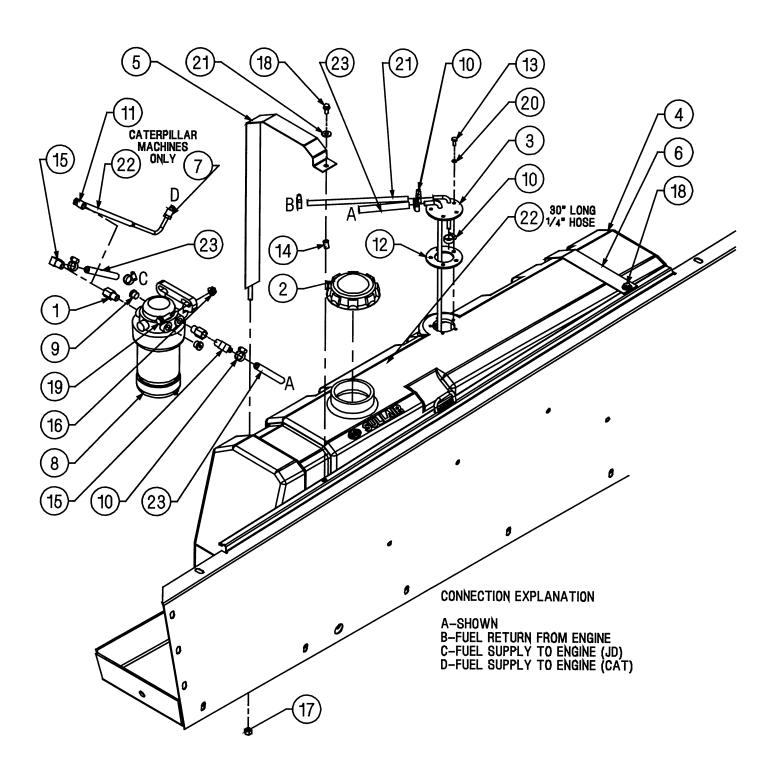
7.8 ELECTRICAL PARTS - ALL MODELS



#### 7.8 ELECTRICAL PARTS - ALL MODELS

key number	description	part number	quantity
1	channel, extruded rubber "u" .25"w	02250086-448	2
2	washer, external serrated m10	02250092-169	2
3	connector,female pipe 1/8-27 npt	02250097-138	1
4	cable,ground 4-gauge strap	02250101-258	1
5	wire-diagram, electrical parts	02250101-290	1
6	battery, c30h 12 volt	02250104-192	1
7	hold-down, battery 11" j-bolt	02250104-193	2
8	bumper,std rear w/lights	02250119-640	1
9	harness, 4-wire lights	02250119-646	1
10	wire-diagram, 4 & 6 wire	02250119-654	1
11	lamp,license plate std	02250119-658	1
12	harness, 6-wire lights	02250119-673	1
13	bracket, license plate lamp	02250119-678	1
14	harness, 7-wire lights	02250119-698	1
15	wire-diagram, 7 wire recessed lights	02250119-700	1
16	support, brace bumper	02250126-203	2
17	grommet,rubber 1" hole	040162	3
18	boot,battery terminal	041561	2
19	clip,cord holder self adhesive	041632	4
20	nut,plastic square license plate	250006-076	4
21	angle, hold-down battery	250019-104	1
22	cable,batt 0 ga x 15" black	250019-480	1
23	grommet,rubber 1-3/4" hole	250020-358	1
24	cable,batt 0 ga x 48" red (jd)	250023-024	1
25	fuse, blade type atc 30amp	250023-996	1
26	lamp,tail/turn/stop (shock mtg)	250028-415	2
27	cable,batt 0 ga x 54 red (cat)	250030-047	1
28	switch, engine oil pressure	250041-638	1
29	nut,hex locking #10-24	825502-083	2
30	nut,hex locking 3/8-16	825506-198	1
31	capscr, hex gr5 3/8-16 x 1	829106-100	1
32	capscr, hex gr5 3/8-16 x 1 1/4	829106-125	4
33	screw, mach-rd hd #10-24 x 3/4	831602-075	2
34	washer, pl-b wide pltd 3/8	838306-112	4
35	wrap,tie plastic ty25	843200-025	8
36	nipple,pipe-xs plt 1/8 x cl	866402-000	1

7.9 FUEL TANK & CONNECTIONS - ALL 125, 130, 185, 185H MODELS

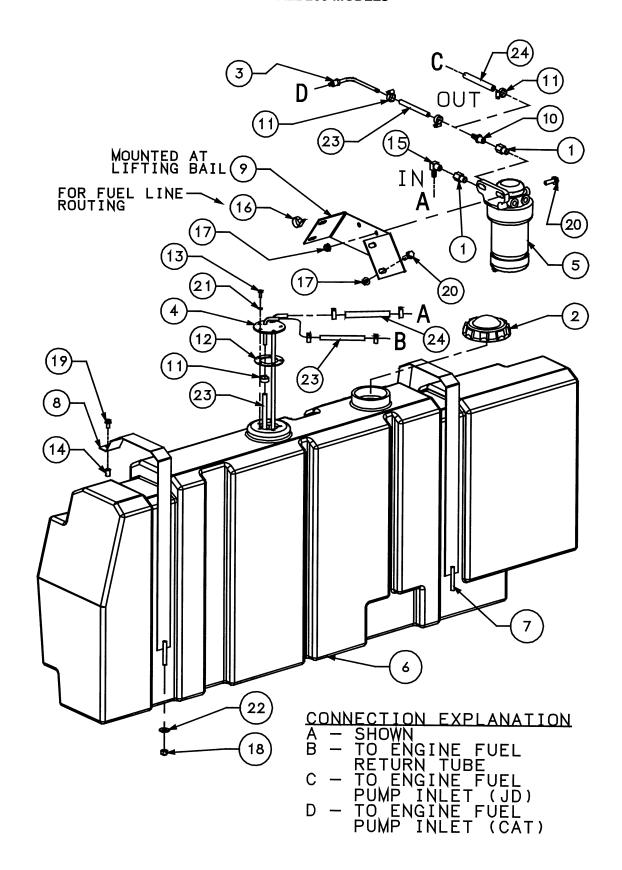


### 7.9 FUEL TANK & CONNECTIONS - ALL 125, 130, 185, 185H MODELS

key number	description	part number	quantity
1	adaptor,1/2str oring x 1/4 fnpt	02250075-714	2
2	cap, fuel fill buttress thread	02250094-791	1
3	flange, fuel pick-up & return	02250102-423	1
4	tank, fuel 25gaL	02250107-454	1
5	strap, fuel tank mtg lh	02250107-455	1
6	strap, fuel tank mtg	02250107-456	1
7	tube, fuel pump 90 deg	02250110-586	1
8	filter, ass'y fuel/water sep (I)	02250118-494	1
9	plug,fuel/water sep 1/2-20 unf	02250118-524	2
10	clamp, hose 3/8"	047235	7
11	elbow, 1/4" hose x 1/4" pipe	250003-573	1
12	gasket, fuel guage neoprene	250004-752	1
13	screw, mach phill #10-24 x 1/2	250025-692	5
14	insert, 1/4-20 blind	250034-538	2
15	elbow, 5/16"hose x 1/4"npt	406615	2
16	nut,hex f pltd 5/16-18	825305-283	2
17	nut,hex locking 5/16-18	825505-166	2
18	screw, hex ser washer $1/4-20 \times 1/2$	829704-050	2
19	screw, hex ser washer $5/16-18 \times 1$	829705-100	2
20	washer, spr lock reg pltd #10	837802-047	5
21	washer, pl-b reg pltd 1/4	838204-071	2
22	hose, fuel line 1/4" (ft)	842315-025	6
23	hose, fuel line 5/16" (ft)	842315-031	4

<sup>(</sup>I) For maintenance on filter part no. 02250118-494, order kit number 02250118-495.

#### 7.9A FUEL TANK & CONNECTIONS - ALL 260 MODELS

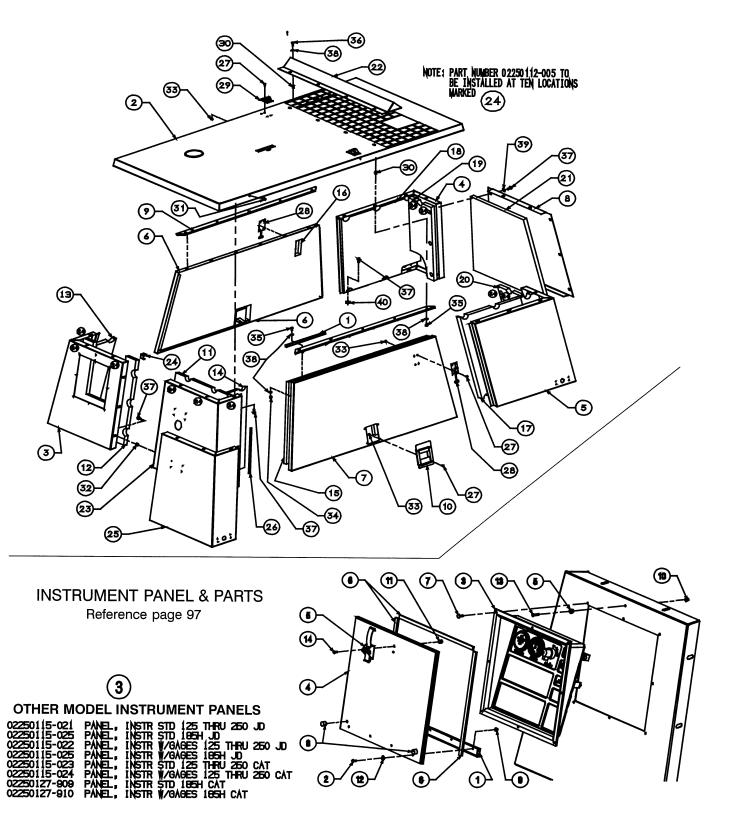


### 7.9A FUEL TANK & CONNECTIONS - ALL 260 MODELS

key number	description	part number	quantity
1	adaptor,1/2str oring x 1/4 fnpt	02250075-714	2
2	cap, fuel fill buttress thread	02250094-791	1
3	tube, fuel pump 90 deg	02250110-586	1
4	flange,fuel pick-up retrn	02250116-337	1
5	filter, ass'y fuel/water $sep(I)$	02250118-494	1
6	tank, fuel 34 gal	02250123-084	1
7	strap, fuel tank mtg.	02250123-086	1
8	strap, fuel tank mtg. rear	02250123-087	1
9	support, fuel filter mtg.	02250123-128	1
10	connector, hose 5/16"hose x 1/4"npt	043258	1
11	clamp, hose 3/8"	047235	7
12	gasket, fuel gauge neoprene	250004-752	1
13	screw, mach phill #10-24 x 1/2	250025-692	5
14	insert, 1/4-20 blind	250034-538	1
15	elbow, 5/16"hose x 1/4"npt	406615	1
16	clamp, hose 7/8"i.d.	408300-004	1
17	nut,hex f pltd 5/16-18	825305-283	6
18	nut,hex locking 5/16-18	825505-166	2
19	screw, hex ser washer $1/4-20 \times 1/2$	829704-050	2
20	screw, hex ser washer 5/16-18 x 1	829705-100	6
21	washer, spr lock reg pltd #10	837802-047	5
22	washer, pl-b reg pltd 5/16	838205-071	2
23	hose, fuel line 1/4" (ft)	842315-025	5
24	hose, fuel line 5/16" (ft)	842315-031	6

<sup>(</sup>I) For maintenance on filter part no. 02250118-494, order kit number 02250118-495.

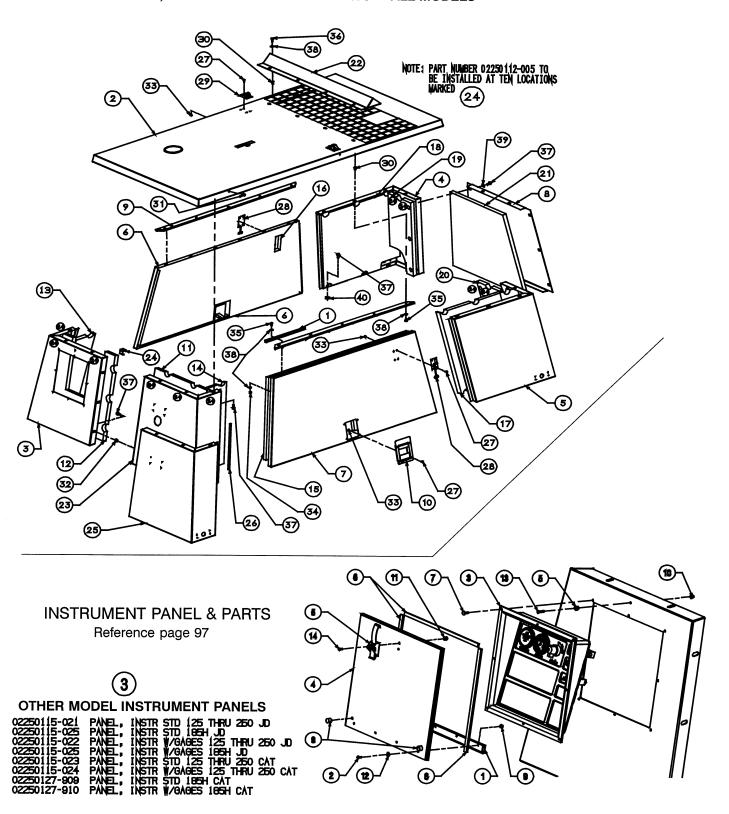
7.10 CANOPY, ACOUSTICAL PANELS & PARTS - ALL MODELS



### 7.10 CANOPY, ACOUSTICAL PANELS & PARTS - ALL MODELS

key number	description	part number	quantity
1	seal,weatherstrip 1/2" x 1/2"	02250101-614	8
2	panel,canopy top	02250106-766	1
3	panel, canopy front l.h.	02250106-767	1
4	panel, canopy rear l.h.	02250106-769	1
5	panel, canopy rear r.h.	02250106-770	1
6	panel, canopy door l.h.	02250106-771	1
7	panel,canopy door r.h.	02250106-772	1
8	panel, canopy rear access	02250106-773	1
9	hinge, canopy door l&r	02250107-086	2
10	catch,pivot slam pad lck blk	02250107-837	2
11	panel, acst foam rh canopy front 1"	02250108-510	1
12	panel, acst foam lh canopy front 1"	02250108-511	1
13	panel, acst foam Ih can frt	02250108-512	1
14	panel, acst foam rh can frt	02250108-513	1
15	panel, acst foam rh canopy door 1"	02250108-515	1
16	panel, acst foam lh canopy door 1"	02250108-516	1
17	panel, acst foam rh canopy side 1.5"	02250108-517	1
18	panel, acst foam lh canopy side 1.5"	02250108-518	1
19	panel, acst foam lh can rear 1"	02250108-519	1
20	panel, acst foam rh can rear 1"	02250108-520	1
21	panel, acst foam canopy rear 1"	02250108-521	1
22	baffle,canopy top	02250110-301	1
23	panel, frame frt rh low serv	02250110-675	1
24	clip,insullation retaining	02250112-005	10
25	panel, canopy frt	02250123-424	1
26	weatherstrip, 3/16 x 3/8 ft	250022-436	18
27	screw, mach phill #10-24 x 1/2	250025-692	24
28	hook,door latch male ss	250033-828	2
29	catch, door latch female ss	250033-829	2
30	insert, 1/4-20 blind	250034-538	12
		(Continued on Pa	age 97)

7.10 CANOPY, ACOUSTICAL PANELS & PARTS - ALL MODELS

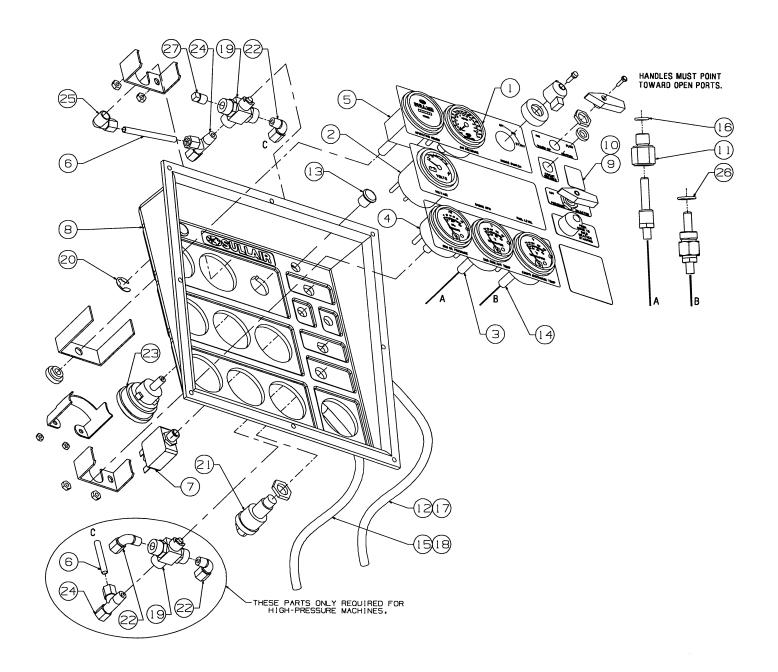


### 7.10 CANOPY ACOUSTICAL PANELS & PARTS - ALL MODELS (continued)

key number	description	part number	quantity
31	bumper,rubber 1/2 dia	250035-095	4
32	nut,hex f pltd 5/16-18	825305-283	9
33	nut,hex locking #10-24	825502-083	24
34	nut,hex locking 1/4-20	825504-145	10
35	capscr, hex gr5 1/4-20 x 1/2	829104-050	22
36	screw, hex ser washer 1/4-20 x 3/4	829704-075	2
37	screw, hex ser washer 5/16-18 x 3/4	829705-075	37
38	washer, pl-b reg pltd 1/4	838204-071	36
39	washer, pl-b reg pltd 5/16	838205-071	6
40	nut,retainer 5/16-18	861405-092	14
key number	instrument panel and parts description	part number	quantity
1	hinge, instrument panel door	02250103-623	1
2	screw,phil pan hd #6-32 x3/8	02250112-009	4
3	panel,instr std (I)	02250116-332	1
4	door,instrument panel	02250125-510	1
5	catch, locking instrument panel	02250125-511	2
6	weatherstrip, 3/16 x 3/8 ft	250022-436	3
7	screw, mach phill #10-24 x 1/2	250025-692	8
8	bumper,rubber 1/2 dia	250035-095	2
9	nut,hex locking #6-32	825500-102	4
10	nut,hex locking #8-32	825501-070	1
11	nut,acorn pltd #8-32	825615-002	2
12	washer, pl-b reg pltd #6	838200-045	4
13	screw,flt phillips 8-32 x 3/4"	875901-075	1
14	screw,rnd phillips 8-32 x 3/8"	876001 – 038	2

<sup>(</sup>I) See Listing for other Model Instrument Panel part numbers

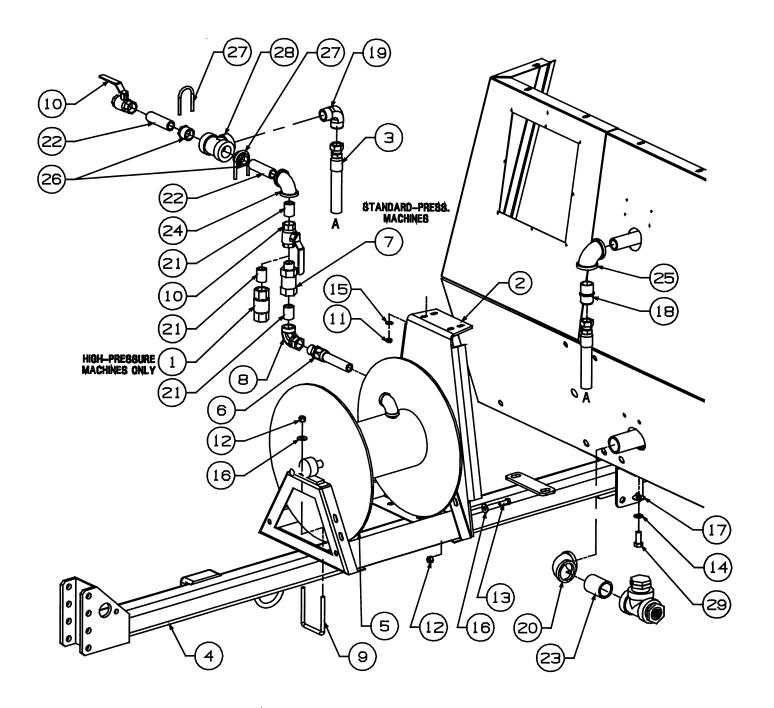
### 7.11 INSTRUMENT PANEL & PARTS - ALL MODELS



#### 7.11 INSTRUMENT PANEL & PARTS - All MODELS

key number	description	part number	quantity
1	gauge, pressure air	02250044-361	1
2	gauge, volt-meter	02250044-366	1
3	gauge, temp	02250050-514	1
4	gauge, pressure	02250050-516	1
5	hour-meter	02250050-517	1
6	tube,nylon .25"od x .04w black (ft)	02250054-861	2
7	circuit-breaker	02250064-284	1
8	panel, instrument	02250099-928	1
9	decal,group gauge panel	02250100-088	1
10	decal,group	02250100-089	1
11	adapter, m14 x 1.5 to $5/8-18$ unf	02250101-345	1
12	harness, wiring <b>JD</b>	02250101-462	1
13	plug,plastic 1/2" black	02250101-613	2
14	gauge, temp	02250102-619	1
15	harness, wiring CAT	02250103-230	1
16	o-ring,strt thrd metric m14x1.5	02250111-856	1
17	harness, e&c-panel JD	02250116-329	1
18	harness, e&c-panel CAT	02250116-330	1
19	valve, ball 3-way 1/8" npt	02250117-385	2
20	clip,e-ring 1/2"	02250118-240	2
21	switch, starter push-button	040038	1
22	elbow, 90 1/4"tube x 1/8"npt	250018-429	3
23	switch, ignition anti-restart	250034-601	1
24	tee,m run 1/4t plsx 1/8npt	250041-088	2
25	elbow, 90deg 1/4" tube x 1/8"fnpt	250041-286	1
26	o-ring,str thd 70 vit 1/2"-908	250042-643	1
27	plug, pipe 1/8" 3000# stl plt	866900-005	1

7.12 SINGLE HOSE REEL OPTION - 125, 130, 185, 185H MODELS



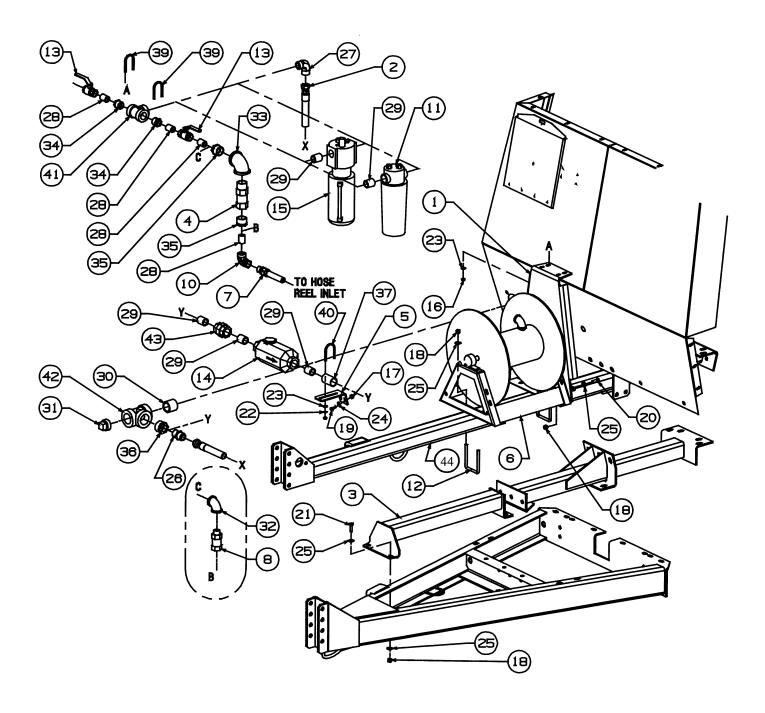
#### NOTES:

- 1. 043480 YALYE USED FOR STANDARD MACHINES. REPLACE 043480 WITH 02250045-062 AND 866412-000, FOR HIGH-PRESSURE MACHINES.
- 2. REAR OF MANIFOLD SUPPORT TO BE 12" FROM FRAME.

### 7.12 SINGLE HOSE REEL OPTION - 125, 130, 185, 185H MODELS

key number	description	part number	quantity
1	valve, air velocity safety flow 3/4"	02250045-062	1
2	support, manifold single hose reel	02250054-447	1
3	hose, medium pressure 1"jic x 32"long	02250054-969	1
4	drawbar, tube x-lg btm mnt 185	02250123-201	1
5	reel, hose 100ft 3/4"hose x 3/4"npt	040170	1
6	hose,assembly 5/8"id x 28"long	040701	1
7	valve, air velocity safety flow 3/4"	043480	1
8	adapter, swivel 90deg 3/4"h x 3/4"p	045241	1
9	u-bolt,hose reel mount 110-250	250008-322	2
10	valve, ball 3/4" service	250019-865	2
11	nut,hex f pltd 1/4-20	825304-236	4
12	nut,hex locking 3/8-16	825506-198	8
13	capscr, hex gr5 3/8-16 x 1	829106-100	4
14	washer, spr lock reg pltd 1/2	837808-125	6
15	washer, pl-b reg pltd 1/4	838204-071	4
16	washer, pl-b reg pltd 3/8	838206-071	8
17	washer, pl-b reg pltd 1/2	838208-112	6
18	connector,37 fl/mpt pltd 1 x 1	860116-100	1
19	elbow, 37fl 90m 1 x 1	860216-100	1
20	elbow, pipe 90 deg plt 1 1/2"	866215-060	1
21	nipple,pipe-xs plt 3/4 x cl	866412-000	3
22	nipple,pipe-xs plt 3/4 x 3 1/2	866412-035	2
23	nipple,pipe-xs plt 1 1/2 x 2 1/2	866424-025	1
24	elbow, pipe 90 deg 300# plt 3/4"	867030-030	1
25	elbow, pipe 90 deg 300# plt 1"	867030-040	1
26	bushing,red pltd 1 x 3/4	867104-030	2
27	u-bolt,1/4" x 1" pipe pltd	868304-100	2
28	tee, pipe pltd 1	868430-040	1
29	capscrew, hex gr5 1/2-13 x 1 1/4 plt	875608-125	6

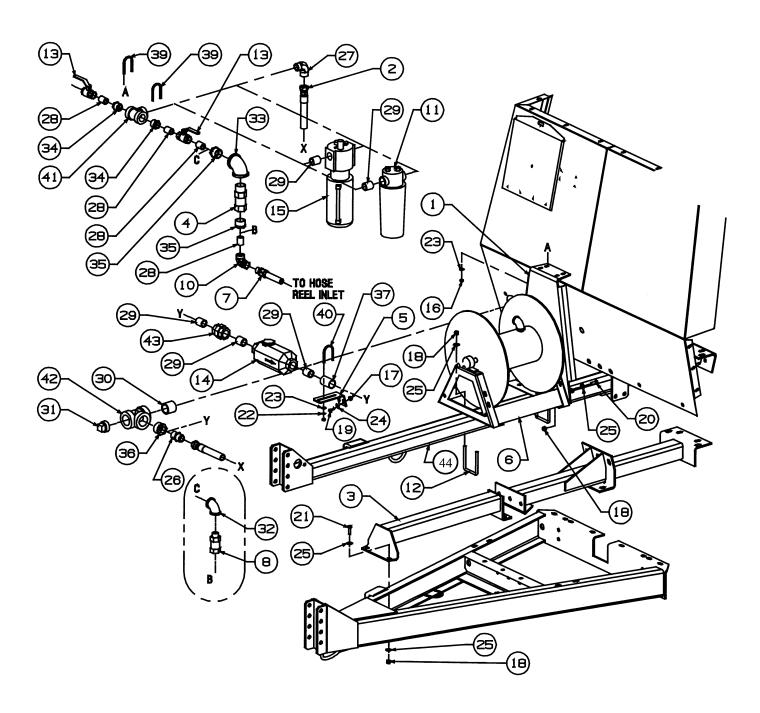
7.13 SINGLE HOSE REEL WITH OILERS OPTION - 260 MODELS



### 7.13 SINGLE HOSE REEL WITH OILERS OPTION - 260 MODELS

key number	description	part number	quantity
1	support, manifold single hose reel	02250054-447	1
2	hose, medium pressure 1"jic x 32"long	02250054-969	1
3	support,dual hose reel a-frm	02250083-462	1
4	valve, air velocity $1-1/4$	02250093-945	1
5	support,oilers & h20 sep	02250121-934	1
6	reel, hose 100ft 3/4"hose x 3/4"npt	040170	1
7	hose,assembly 5/8"id x 28"long	040701	1
8	valve, air velocity safety flow 3/4"	043480	1
9	valve, air velocity 1"	043481	1
10	adapter, swivel 90deg 3/4"h x 3/4"p	045241	1
11	oiler,1qt microfog nogren	250005-016	1
12	u-bolt,hose reel mount	250008-322	2
13	valve, ball 3/4" service	250019-865	2
14	lubricator, cf 1 pt 1" 30cf	251315	1
15	oiler,line 2-quart 1" npt	405403	1
16	nut,hex f pltd 1/4-20	825304-236	4
17	nut,hex f pltd 5/16-18	825305-283	2
18	nut,hex locking 3/8-16	825506-198	12
19	capscr, hex gr8 5/16-18 x 3/4	827905-075	2
20	capscr, hex gr5 3/8-16 x 1	829106-100	4
21	capscr, hex gr5 3/8-16 x 1 1/4	829106-125	4
22	washer, spr lock reg pltd 1/4	837804-062	2
23	washer, pl-b reg pltd 1/4	838204-071	6
24	washer, pl-b reg pltd 5/16	838205-071	2
25	washer, pl-b reg pltd 3/8	838206-071	16
26	connector,37 fl/mpt pltd 1 x 1	860116-100	1
27	elbow, 37fl 90m 1 x 1	860216-100	1
28	nipple,pipe-xs plt 3/4 x cl	866412-000	4
29	nipple,pipe-xs plt 1 x cl	866416-000	5
30	nipple,pipe-xs plt 1 1/2 x cl	866424-000	1

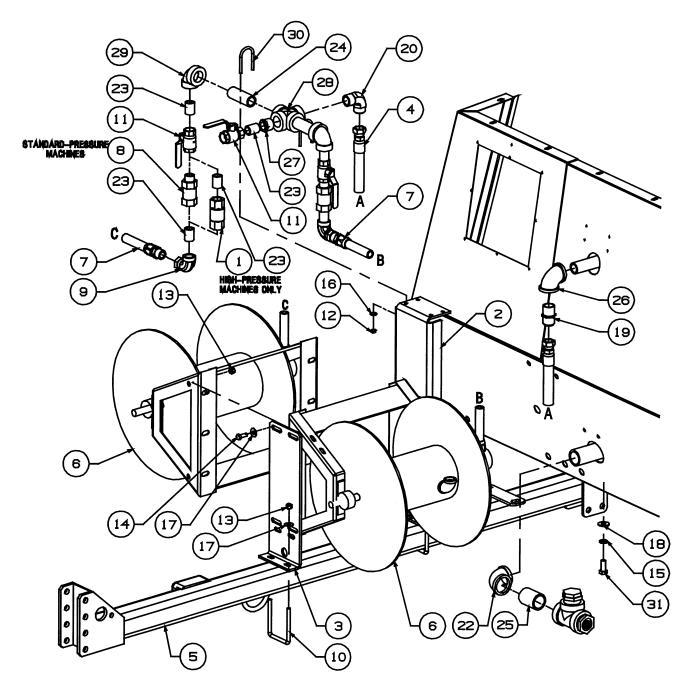
### 7.13 SINGLE HOSE REEL WITH OILERS OPTION - 260 MODELS



### 7.13 SINGLE HOSE REEL WITH OILERS OPTION - 260 MODELS

key number	description	part number	quantity
31	plug, pipe 1 1/2" 3000# stl plt	866900-060	1
32	elbow, pipe 90 deg 300# plt 3/4"	867030-030	1
33	elbow, pipe 90 deg 300# plt 1 1/4"	867030-050	1
34	bushing,red pltd 1 x 3/4	867104-030	3
35	bushing,red pltd 1 1/4 x 3/4	867105-030	2
36	bushing,red pltd 1 1/2 x 1	867106-040	1
37	coupling,pipe 1" 300# plt	867430-040	1
38	elbow, red 1 x 3/4 plt	868104-075	1
39	u-bolt,1/4" x 1" pipe pltd	868304-100	2
40	u-bolt,1/4" x 1 1/4" pipe pltd	868304-125	1
41	tee, pipe pltd 1	868430-040	1
42	tee, pipe pltd 1 1/2	868430-060	1
43	union, pipe brass seat galv 1" 300#	873530-040	1
44	drawbar	02250123-201	1

7.14 DUAL HOSE REEL OPTION - 125, 130, 185, 185H MODELS

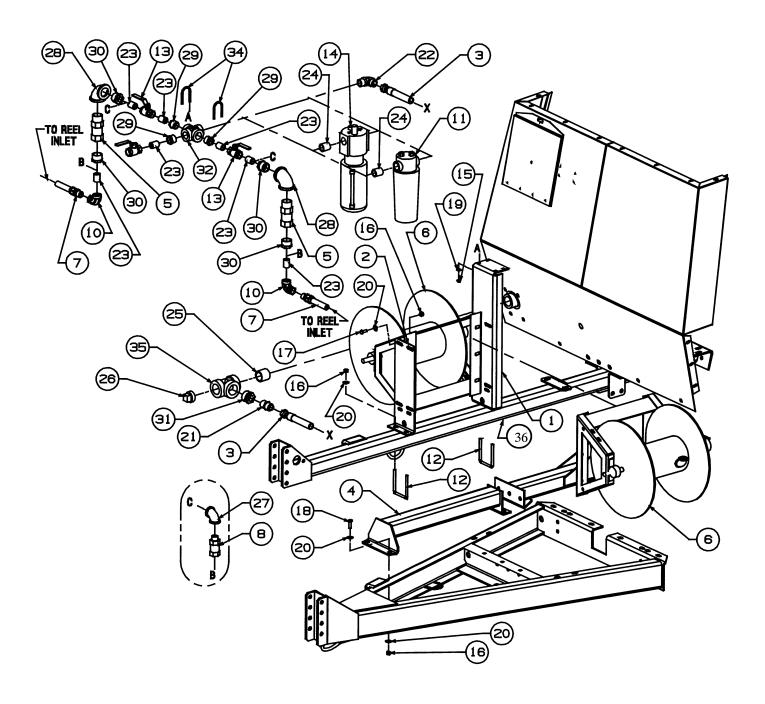


NOTE:
043480 VALVE USED FOR STANDARD WACHINES.
REPLACE 043480 WITH 02250045-062 AND 866412-000,
FOR HIGH-PRESSURE WACHINES.

### 7.14 DUAL HOSE REEL OPTION - 125, 130, 185, 185H MODELS

key number	description	part number	quantity
1	valve, air velocity safety flow 3/4"	02250045-062	2
2	support, hose reel and manifold	02250048-573	1
3	support, hose reel	02250048-574	1
4	hose, medium pressure 1"jic x 32"long	02250054-969	1
5	drawbar, tube x-lg btm mnt	02250123-201	1
6	reel, hose 100ft 3/4"hose x 3/4"npt	040170	1
7	hose,assembly 5/8"id x 18"long	040885	2
8	valve, air velocity safety flow 3/4"	043480	2
9	adapter, swivel 90deg 3/4"h x 3/4"p	045241	2
10	u-bolt,hose reel mount	250008-322	2
11	valve, ball 3/4" service	250019-865	3
12	nut,hex f pltd 1/4-20	825304-236	4
13	nut,hex locking 3/8-16	825506-198	12
14	capscr, hex gr5 3/8-16 x 1	829106-100	8
15	washer, spr lock reg pltd 1/2	837808-125	6
16	washer, pl-b reg pltd 1/4	838204-071	4
17	washer, pl-b reg pltd 3/8	838206-071	12
18	washer, pl-b reg pltd 1/2	838208-112	6
19	connector,37 fl/mpt pltd 1 x 1	860116-100	1
20	elbow, 37fl 90m 1 x 1	860216-100	1
21	elbow, pipe 90 deg plt 3/4"	866215-030	. 1
22	elbow, pipe 90 deg plt 1 1/2"	866215-060	1
23	nipple,pipe-xs plt 3/4 x cl	866412-000	7
24	nipple,pipe-xs plt 1 x 3 1/2	866416-035	2
25	nipple,pipe-xs plt 1 1/2 x 2 1/2	866424-025	1
26	elbow, pipe 90 deg 300# plt 1"	867030-040	1
27	bushing,red pltd 1 x 3/4	867104-030	1
28	cross, pipe 1" plt	867830-040	1
29	elbow, red 1 x $3/4$ plt	868104-075	2
30	u-bolt,1/4" x 1" pipe pltd	868304-100	2
31	capscrew, hex gr5 1/2-13 x 1 1/4 plt	875608-125	6

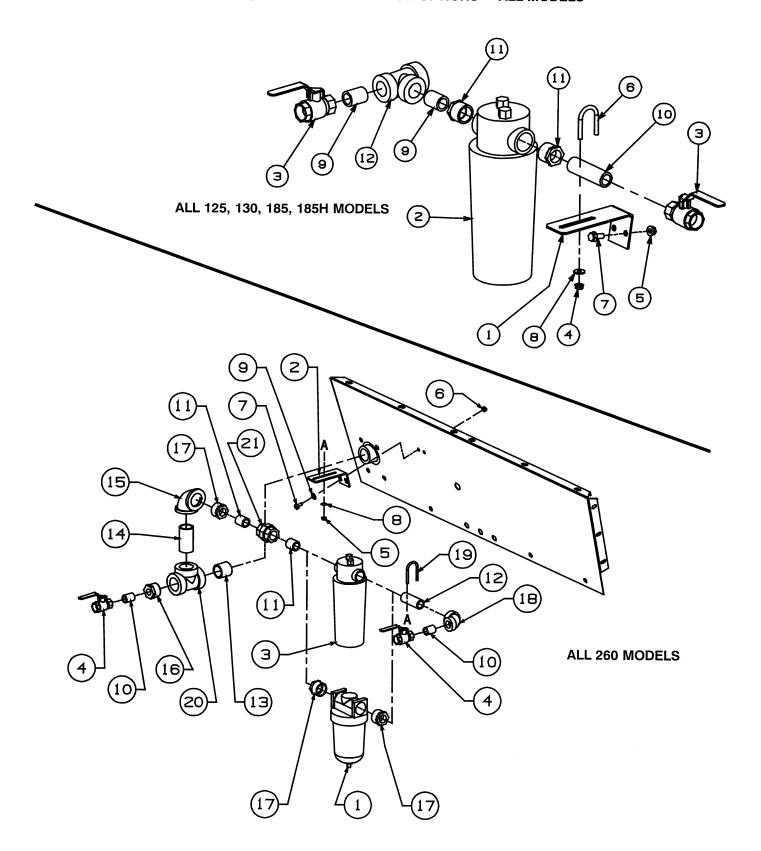
7.15 DUAL HOSE REEL WITH OILERS OPTION - 260 MODELS



#### 7.15 DUAL HOSE REEL WITH OILERS OPTION - 260 MODELS

key number	description	part number	quantity
1	support, hose reel and manifold	02250048-573	1
2	support, hose reel	02250048-574	1
3	hose, medium pressure 1"jic x 32"long	02250054-969	1
4	support,dual hose reel a-frm	02250083-462	1
5	valve, air velocity $1-1/4$	02250093-945	2
6	reel, hose 100ft 3/4"hose x 3/4"npt	040170	2
7	hose,assembly 5/8"id x 18"long	040885	2
8	valve, air velocity safety flow 3/4"	043480	2
9	valve, air velocity 1"	043481	2
10	adapter, swivel 90deg 3/4"h x 3/4"p	045241	2
11	oiler,1qt microfog nogren	250005-016	1
12	u-bolt,hose reel mount	250008-322	2
13	valve, ball 3/4" service	250019-865	3
14	oiler,line 2-quart 1" npt	405403	1
15	nut,hex f pltd 1/4-20	825304-236	4
16	nut,hex locking 3/8-16	825506-198	16
17	capscr, hex gr5 3/8-16 x 1	829106-100	8
18	capscr, hex gr5 3/8-16 x 1 1/4	829106-125	4
19	washer, pl-b reg pltd 1/4	838204-071	4
20	washer, pl-b reg pltd 3/8	838206-071	20
21	connector,37 fl/mpt pltd 1 x 1	860116-100	1
22	elbow, 37fl 90m 1 x 1	860216-100	1
23	nipple,pipe-xs plt 3/4 x cl	866412-000	7
24	nipple,pipe-xs plt 1 x cl	866416-000	2
25	nipple,pipe-xs plt 1 1/2 x cl	866424-000	1
26	plug, pipe 1 1/2" 3000# stl plt	866900-060	1
27	elbow, pipe 90 deg 300# plt 3/4"	867030-030	2
28	elbow, pipe 90 deg 300# plt 1 1/4"	867030-050	2
29	bushing,red pltd 1 x 3/4	867104-030	4
30	bushing,red pltd 1 1/4 x 3/4	867105-030	4
31	bushing,red pltd 1 1/2 x 1	867106-040	1
32	cross, pipe 1" plt	867830-040	1
33	elbow, red 1 x 3/4 plt	868104-075	2
34	u-bolt,1/4" x 1" pipe pltd	868304-100	2
35	tee, pipe pltd 1 1/2	868430-060	1
36	drawbar	02250123-201	1

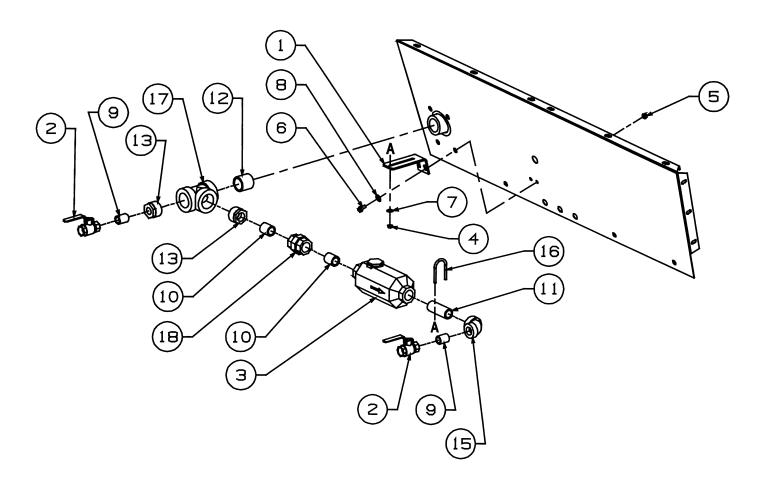
### 7.16 ONE QUART OILER / MOISTURE SEPARATOR OPTIONS - ALL MODELS



### 7.16 ONE QUART OILER / MOISTURE SEPARATOR OPTION - ALL MODELS

key number	description: 125, 130, 185, 185H Models	part number	quantity
1	support, line oiler manifold	02250112-006	1
2	oiler,1qt microfog nogren	250005-016	1
3	valve, ball 3/4" service	250019-865	2
4	nut,hex f pltd 1/4-20	825304-236	4
5	nut,hex f pltd 5/16-18	825305-283	2
6	u-bolt,1/4" x 3/4" pipe	829004-075	1
7	screw, hex ser washer 5/16-18 x 3/4	829705-075	2
8	washer, pl-b reg pltd 1/4	838204-071	2
9	nipple,pipe-xs plt 3/4 x cl	866412-000	2
10	nipple,pipe-xs plt 3/4 x 3 1/2	866412-035	1
11	bushing,red pltd 1 x 3/4	867104-030	2
12	tee, reducing pltd 1 x 3/4 x 3/4	868604-033	1
key number	description: 260 Models	part number	quantity
1	separator,moisture 1 1/2" npt es11	02250078-841	1
2	support,oilers & h20 sep	02250121-934	1
3	oiler,1qt microfog nogren	250005-016	1
4	valve, ball 3/4" service	250019-865	2
5	nut,hex f pltd 1/4-20	825304-236	2
6	nut,hex f pltd 5/16-18	825305-283	2
7	screw, hex ser washer 5/16-18 x 3/4	829705-075	2
8	washer, pl-b reg pltd 1/4	838204-071	2
9	washer, pl-b reg pltd 5/16	838205-071	2
10	nipple,pipe-xs plt 3/4 x cl	866412-000	2
11	nipple,pipe-xs plt 1 x cl	866416-000	2
12	nipple,pipe-xs plt 1 x 3 1/2	866416-035	1
13	nipple,pipe-xs plt 1 1/2 x cl	866424-000	1
14	nipple,pipe-xs plt 1 1/2 x 3 1/2	866424-035	1
15	elbow, pipe 90 deg 300# plt 1 1/2"	867030-060	1
16	bushing,red pltd 1 1/2 x 3/4	867106-030	1
17	bushing,red pltd 1 1/2 x 1	867106-040	3
18	elbow, red 1 x 3/4 plt	868104-075	1
19	u-bolt,1/4" x 1" pipe pltd	868304-100	1
20	tee, pipe pltd 1 1/2	868430-060	1
21	union, pipe brass seat galv 1" 300#	873530-040	1

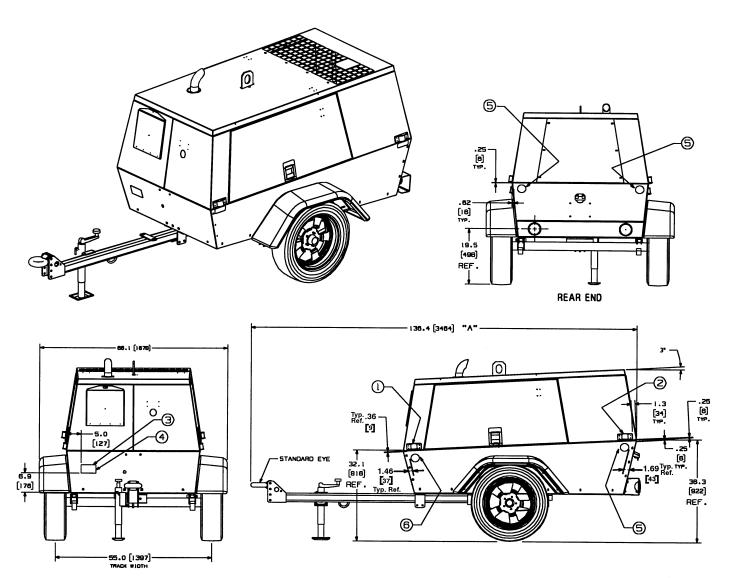
7.17 ONE PINT LINE OILER OPTION - ALL 260 MODELS



### 7.17 ONE PINT LINE OILER OPTION - ALL 260 MODELS

key number		part number	quantity
1	support,oilers & h20	02250121-934	1
2	valve, ball 3/4" service	250019-865	2
3	lubricator, cf 1 pt 1" 30cf	251315	1
4	nut,hex f pltd 1/4-20	825304-236	2
5	nut,hex f pltd 5/16-18	825305-283	2
6	screw, hex ser washer 5/16-18 x 3/4	829705-075	2
7	washer, pl-b reg pltd 1/4	838204-071	2
8	washer, pl-b reg pltd 5/16	838205-071	2
9	nipple,pipe-xs plt 3/4 x cl	866412-000	2
10	nipple,pipe-xs plt 1 x cl	866416-000	2
11	nipple,pipe-xs plt 1 x 3 1/2	866416-035	1
12	nipple,pipe-xs plt 1 1/2 x cl	866424-000	1
13	bushing,red pltd 1 1/2 x 3/4	867106-030	1
14	bushing,red pltd 1 1/2 x 1	867106-040	1
15	elbow, red 1 x 3/4 plt	868104-075	1
16	u-bolt,1/4" x 1" pipe pltd	868304-100	1
17	tee, pipe pltd 1 1/2	868430-060	1
18	union, pipe brass seat galv 1" 300#	873530-040	1

#### 7.18 CANADIAN TAIL / CLEARANCE LIGHTS - ALL MODELS



#### ENGINEERING NOTES:

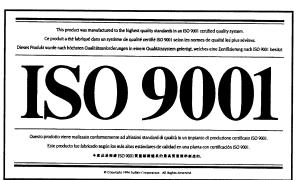
- 1. LOCATIONS, TYPE OF LIGHTS,& REFLECTORS PER CANADIAN TRANSPORT DIRECTIVE CMVSS108.
- 2. ALL LIGHTS MUST HAVE S.A.E. MARKINGS.
- 3. ALL REFLEX REFLECTORS MUST HAVE D.O.T. MARKINGS.
- 4. DIMENSIONS ARE IN INCHES AND [MILL[METERS].
- 5. ALL DIMENSION TOLERANCES: ±.25" (6.3mm)

OPTION	ADD TO DIMENSION "A"
STANDARD EYE	0
SURGE BRAKES	11.75 [300]
BALL HITCH	5.25 [133]
A-FRAME DRAWBAR	20.25 [515]
EXTENDED DRAWBAR WITH STANDARD EYE	21.25 [540]

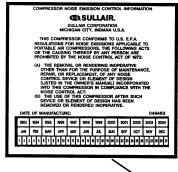
### 7.18 CANADIAN TAIL / CLEARANCE LIGHTS - ALL MODELS

key number		part number	quantity
1	lamp,clearance amber	02250101-283	2
2	lamp,clearance red	02250101-282	2
3	nameplate,vin canada dual language	02250101-371	1
4	cover,vin canada	02250101-403	1
5	reflector, amber	02250129-279	2
6	reflector, red	02250129-278	4

#### 7.19 DECALS



9.



FOR COMPRESSO

3

#### OIL FOR COMPRESSOR - SULLAIR ® AWF -(ALL WEATHER FLUID)

DO NOT ATTEMPT TO OPEN FILLER CAP WHILE UNIT IS RUNNING OR PRESSURIZED.

CAP IS SELF-SEALING. NO PIPE DOPE IS REQUIRED ON CAP.

OIL LEVEL SHOULD BE VISIBLE IN THE SIGHTGLASS. DO NOT OVERFILL.

2



5, 6, 7

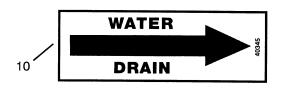


body away.



11





CAUTION
DIESEL FUEL ONLY
SHUT ENGINE OFF
BEFORE REFUELING





## **WARNING**

To prevent serious burning or scalding:

- \* Pressurized cooling system.
- \* Allow system to cool.
- \* Remove cap slowly with gloves on.

02250051-826

13

#### **7.19 DECALS**

key number	description	part number	quantity
1	decal, ISO 9001	02250057-624	1
2	decal, noise emission control (U.S. compressors only)	049463	1
3	decal, Sullair AWF	250032-902	1
4	decal, Sullair logo – black	02250121-623	3
5	decal, "185 Sullair" front (I)	02250109-740	1
	<ul><li>decal "185H Sullair front (I)</li></ul>	02250109-781	1
	•decal "125 Sullair front (I)	02250117-638	1
	•decal "130 Sullair front (I)	02250112-828	1
	•decal "260 Sullair front (I)	02250127-644	1
6	decal, "185 Sullair" R.H. side	02250109-739	1
	•decal, "185H Sullair" R.H. side (I)	02250109-780	1
	•decal, "125 Sullair" R.H. side (I)	02250117-640	1
	•decal, "130 Sullair" R.H. side (I)	02250112-830	1
	•decal, "260 Sullair" R.H. side (I)	02250127-643	1
7	decal, "185 Sullair" L.H. side	02250109-738	1
	•decal, "185H Sullair" L.H. side (I)	02250109-779	1
	•decal, "125 Sullair" L.H. side (I)	02250117-639	1
	•decal, "130 Sullair" L.H. side (I)	02250112-829	1
	•decal, "260 Sullair" L.H. side (I)	02250127-642	1
8	sign, warning hot surfaces	407408	2
9	sign, warning crush/sever	408919	1
10	decal, water drain	040345	2
11	decal, diesel fuel	040248	1
12	decal, doors closed	250038-030	4
13	decal, warning pressurized clg sys	02250051-826	1
		(Continued on Pa	ige 119)

(I) Not shown

NOTE: SEE SECTION 7.20 FOR DECAL LOCATIONS

#### **7.19 DECALS**



DO NOT PERMIT AIR FROM THIS EQUIPMENT TO CONTACT FOODSTUFF, EXCEPT IN FULL COMPLIANCE WITH FDA STANDARD 21CFR 178.3570 AND ALL OTHER APPLICABLE FEDERAL STATE AND LOCAL CODES, STANDARDS AND REGULATIONS

20

### **AWARNING**



CONNECT AIR HOSES ONLY IN FULL COMPLIANCE WITH OSHA STANDARD 29 CFR 1926,302(b)(7).

THE REQUIRED SAFETY
DEVICES SHOULD BE
TESTED IN ACCORDANCE
WITH THEIR MANUFACTURER'S
RECOMMENDATIONS TO
VERIFY THAT THEY REDUCE
PRESSURE IN CASE OF
HOSE FAILURE AND WILL
NOT NUISANCE TRIP
WITH THE HOSE AND
TOOL COMBINATIONS
IN USE

14

## **A** DANGER



DEATH OR SERIOUS INJURY CAN OCCUR FROM INHALING COMPRESSED AIR WITHOUT USING PROPER SAFETY EQUIPMENT

SEE OSHA STANDARDS ON SAFETY EQUIPMENT

# **AWARNING**



Do not remove caps, plugs, or other components when compressor is running or pressurized.

Stop compressor and relieve all internal pressure before doing so.



Keep clear of unguarded moving parts.

AWARNING

Do not operate

Do not operate without fan guard in place.

16—

RATED SPEED 2200 RPM
MIN IDLE SPEED 1700 RPM

(185, 185H & 260 MODELS)

### 7.19 DECALS (continued)

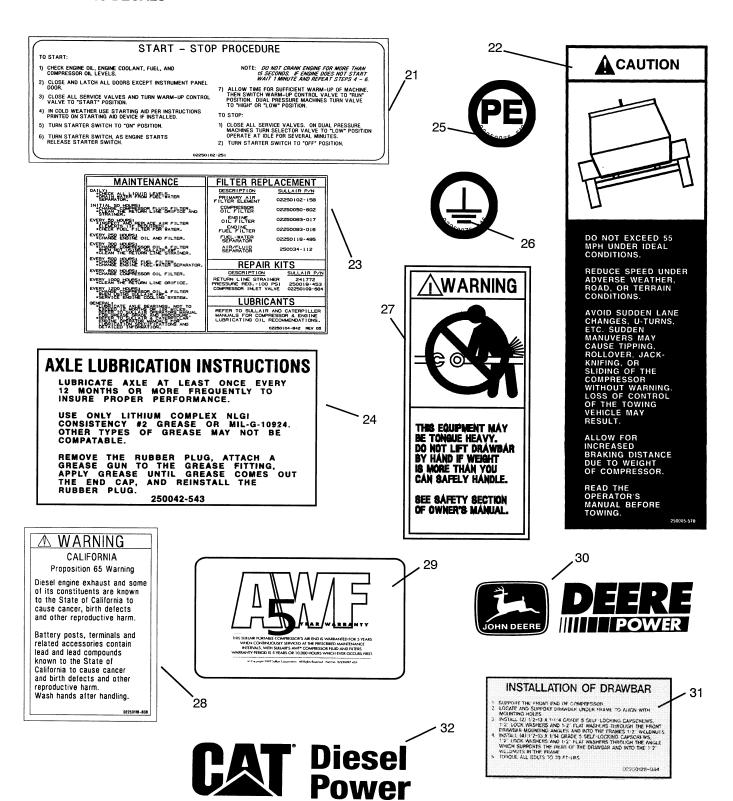
key number	description	part number	quantity
14	decal, warning 100/1600 (I)	250028-258	1
15	sign, warning compressor fluid fill cap	049685	1
16	reflector, 2" x 8" red stripe	040103	4
17	reflector, amber	250034-319	2
18	decal, speed rated(185,185H,260 Models)	02250102-621	1
	<ul><li>decal, rated speed 2100RPM(130 Models) (</li></ul>	II)02250050-273	1
	<ul><li>decal, rated speed 2050RPM(125 Models) (</li></ul>	II)02250117-637	1
19	sign, warning sever fan port	049965	2
20	sign, warning sever belt drive	049964	1
		(Continued on Pa	age 121)

<sup>(</sup>I) OSHA guidelines are superceded by any Federal, State or Local regulations whenever applicable.

**NOTE: SEE SECTION 7.20 FOR DECAL LOCATIONS** 

<sup>(</sup>II) Not shown

#### 7.19 DECALS



#### 7.19 DECALS (continued)

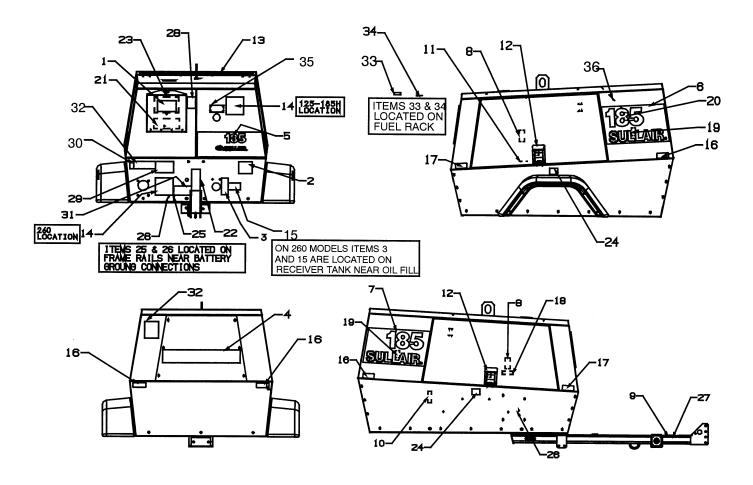
key number	description	part number	quantity
21	decal, operation instructions (John Deere)	02250102-251	1
	<ul><li>decal, operation instructions (CAT)</li></ul>	02250103-130	1
22	sign, caution towing 55mph	250005-578	1
23	decal, maintenance 125-185H (JD)(I)	02250112-103	1
	<ul><li>decal, maintenance 125-185H (CAT)</li></ul>	02250104-842	1
	<ul><li>decal, maintenance 260 (JD)</li></ul>	02250123-833	1
	<ul><li>decal, maintenance 260 (CAT)</li></ul>	02250123-832	1
24	decal, axle lube	250042-543	2
25	decal, PE designation	02250075-540	1
26	decal, earth ground	02250075-046	3
27	decal, warning tougue heavy	02250077-929	1
28	decal, warning proposition 65 (U.S. compressors ony)	02250118-638	1
29	decal, AWF warranty	02250097-455	1
30	decal, Deere Power	02250084-295	1
31	decal, drawbar installation	02250126-044	1
32	decal, Cat Diesel Power	02250109-529	1
33	tag, rpm warranty void (I)	250025-437	1
34	seal, wire w/lead disc (I)	250026-962	1
35	nameplate, Sullair serial no. (I)	02250108-078	1
36	decal, wiring diagram (I)	02250108-071	1

(I) Not shown

**NOTE: SEE SECTION 7.20 FOR DECAL LOCATIONS** 

#### 7.20 DECAL LOCATIONS

Decal Location Key Numbers on this page are cross-referenced to Section 7.19 Decal Key Numbers



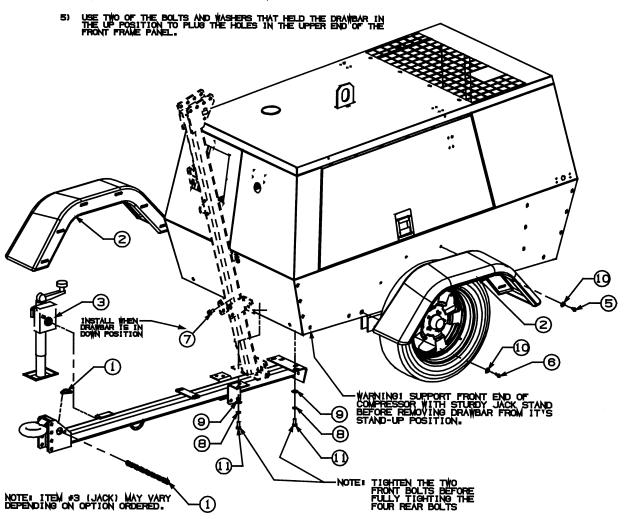
	DECAL LOCATION REFERENCE			
REF.	QUANTITY	DESCRIPTION	LOCATION	
10	2	DECAL, WATER DRAIN	ON ENGINE NEAR DRAINCOCK (CURBSIDE)	
15 3	1	SIGN, WARNING COMPR. OIL FILL CAP. DECAL, SULLAIR AWF INSTRUCTION	ON RECEIVER ABOVE FILL	
19	2	SIGN, WARNING SEVER BELT FAN PORT.	ON RECEIVER ABOVE FILL  EACH SIDE OF FAN GUARD ON COOLER SHROUD	
20	1	SIGN, WARNING SEVER BELT DRIVE	EACH SIDE OF FAN GUARD ON COOLER SHROUD ON ALTENATOR	
8	2	SIGN, WARNING HOT SURFACES	ON LIFTING BAIL STREETSIDE	
13			ON LIFTING BAIL CURBSIDE	
12	3	DECAL, CAUTION DOORS CLOSED	INSIDE ON BACK OF DOOR LATCH!	
13	11	DECAL, WARNING PRESSURIZED CLG SYS	CANOPY TOP, CENTER ON RADIATOR FILL OPEN. TO REAR	

#### 7.21 DRAWBAR AND PARTS

#### DRAWBAR/LOOSE PARTS INSTALLATION

WARNING! BEFORE REMOVING DRAWBAR FROM IT'S STANDUP POSITION SUPPORT FRONT END OF COMPRESSOR WITH STURDY JACK STAND(S).

- 1) REMOVE DRAWBAR FROM THE STANDUP POSITION. INSTALL AS SHOWN WITH PROVIDED HARDWARE. TOROUE ALL 1/2" BOLTS TO 65 T-LBS. NOTE: BOLTS AND FRAME NUTS MUST BE CLEAN AND FREE OF OIL.
- 2) INSTALL SUPPLIED JACK STAND OVER IT'S RECEPTACLE AND SECURE WITH IT'S SUPPLIED STAY PIN IN THE STAND UP POSITION. THIS MAY BE DONE BEFORE ATTACHING DRAWBAR TO ASSIST INSTALLING DRAWBAR.
- 3) INSTALL TOW CHAIN THROUGH BOTH HOLES IN FRONT OF DRAW-BAR. CENTER THE CHAIN AND ATTACH THE CHAIN CONNECTOR ITEM #2 THROUGH THE CENTER LINK.
- 4) ATTACH FENDERS AS SHOWN USING THE 1" LONG SCREWS IN THE BOTTOM TWO HOLES OF EACH FENDER AND THE 3/4" LONG SCREWS IN THE FOUR UPPER HOLES OF EACH FENDER.



#### 7.21 DRAWBAR AND PARTS

key number	description	part number	quantity
1	connector, delta-shaped chain 1/4"	02250100-538	1
2	fender,plastic	02250103-927	2
3	jack, hd w/pad	02250116-794	1
4	capscr, hex gr5 1/2-13 x 1	828608-100	1
5	screw, hex ser washer $5/16-18 \times 3/4$	829705-075	8
6	screw, hex ser washer 5/16-18 x 1	829705-100	4
7	screw, hex ser washer $1/2-13 \times 1$	829708-100	3
8	washer, spr lock reg pltd 1/2	837808-125	6
9	washer, pl-b reg pltd 1/2	838208-112	6
10	washer, pl-b wide pltd 5/16	838305-071	12
11	capscrew, hex gr5 1/2-13 x 1 1/4 plt	875608-125	6

## **⚠ WARNING**

#### **CALIFORNIA**

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

Battery posts, terminals and related accessories contain lead and lead compounds known to the State of California to cause cancer and birth defects and other reproductive harm.

Wash hands after handling.

02250118-638