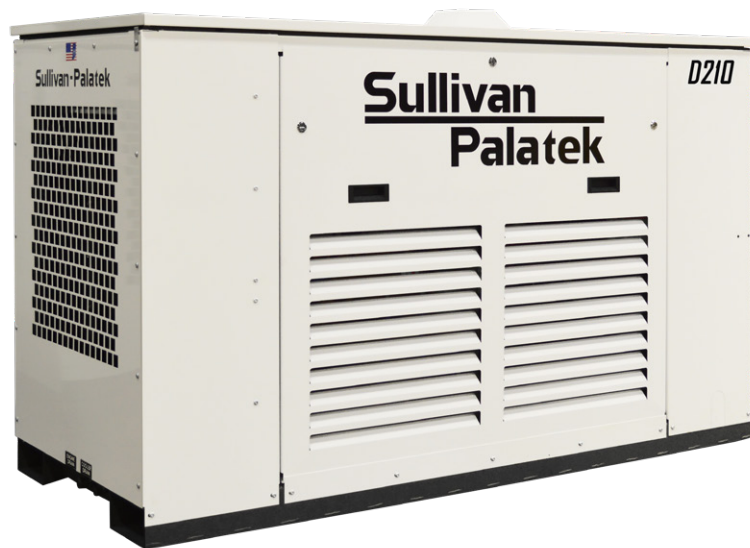


USER MANUAL

UTILITY COMPRESSOR \ PTO AUXILIARY DRIVE \ 210 CFM



D210UHJD4PTOW

JOHN DEERE DIESEL ENGINE
TIER 4 FINAL

DOCUMENT INFORMATION

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Part Number: 05018730 0238
Revision: 00

CONTACT INFORMATION

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RECORD KEEPING

Record the model and serial number of the compressor for future reference when contacting the factory for service or parts.

Model Number: _____

Serial Number: _____

DISCLAIMER

Although this manual is checked for conformity with the machines described, we cannot guarantee that all errors will be excluded. Necessary corrections will be made in future editions of this manual. This manual is subject to change without notice.

REVISION HISTORY

#	DATE	SECTION(S)	DESCRIPTION
00	2018-01-23		Released for publication

Sullivan-Palatek Portable Air Compressor

STANDARD WARRANTY

Sullivan-Palatek warrants its new portable air compressor products to be free from defects in material and workmanship, subject to the following provisions:

Warranty Registration: To validate the warranty for each product the purchaser shall complete and return the Warranty Registration Form within 30 days of delivery to the first user or rental.

Warranty Period: The warranty period for applicable Sullivan-Palatek products is as follows (subject to the Exclusions and Limitations noted below):

Air ends on new machines – stator and rotor assembly: Single stage compressor models: the first to expire; 42 months from shipment by Sullivan-Palatek or 36 months from delivery to the first user. **Two stage high pressure** compressor models: the first to expire; 30 months from shipment by Sullivan-Palatek or 24 months from delivery to the first user.

Remainder of new portable air compressor machines: the first to expire; 18 months from shipment by Sullivan-Palatek or 12 months from delivery to the first user.

Parts, accessories and attachments sold separately from machines, excluding warranty replacement parts and hand tools: the first to expire; 6 months from shipment by Sullivan-Palatek or 3 months from delivery to the first user.

Warranty replacement parts: remainder of the original warranty period of the replaced part.

Sullivan-Palatek's Obligations: Sullivan-Palatek's exclusive obligations under its warranty are (i) to repair or replace any defective part at Sullivan-Palatek's option and subject to return of defective parts, (ii) to pay the reasonable cost of making the repair or reinstalling the replacement part, and (iii) for air compressors having two or more axles, reimbursement of up to four hours travel labor and up to 200 miles (100 miles travel radius) per event to make repairs. Reimbursement rates for travel and mileage are set at the discretion of Sullivan-Palatek and are subject to change without notice.

Purchaser's Responsibility: Purchaser shall (i) give Sullivan-Palatek written notice of any warrantable failure of any Sullivan-Palatek product within the applicable warranty period, (ii) make the product available for repair at a Sullivan-Palatek authorized repair facility, (iii) pay all costs of returning failed parts to Sullivan-Palatek, (iv) pay shipping costs for replacement parts, (v) pay reasonable travel expenses for field repairs performed at purchaser's request, and (vi) pay the costs of investigating performance complaints that are not covered by this warranty.

Exclusions and Limitations: Air end seals are not warranted. Engines, tires and batteries are not warranted by Sullivan-Palatek but are warranted only by the manufacturers of these components. Sullivan-Palatek has no obligation for product failures or defects resulting from overloading, misuse, neglect, accident, failure to comply with Sullivan-Palatek's product manual, or failure to install product improvements provided by Sullivan-Palatek. Use of attachments, accessories or service parts not supplied or recommended by Sullivan-Palatek may void the warranty of that product. Sullivan-Palatek has no obligation to pay costs of returning defective parts to Sullivan-Palatek or shipping replacement parts to purchaser.

THIS WARRANTY IS SULLIVAN-PALATEK'S ONLY WARRANTY OF ITS PORTABLE AIR COMPRESSOR PRODUCTS AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SULLIVAN-PALATEK HAS NO OBLIGATION UNDER THIS WARRANTY OR OTHERWISE (REGARDLESS OF THE FORM OF ACTION) FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS OR LOST INCOME. THE TOTAL RESPONSIBILITY OF SULLIVAN-PALATEK FOR CLAIMS, LOSSES, LIABILITIES OR DAMAGES, WHETHER IN CONTRACT OR TORT ARISING OUT OF OR RELATED TO ITS PRODUCTS SHALL NOT EXCEED THE PURCHASE PRICE OF THE COVERED PRODUCT.

This warranty applies to all Sullivan-Palatek portable air compressors shipped after November 1, 2015 unless expressly superseded by a later warranty. In the event of any conflict between this warranty and earlier warranty statements, the terms of this warranty will apply.

ABOUT THIS MANUAL

I.1 SAFETY INSTRUCTIONS

Instructions for the safe operation and maintenance of the Sullivan-Palatek air compressor are located throughout this manual. These instructions are presented with different labels according to the level of risk involved, described as follows.

WARNING! *is used when death or personal injury could occur if the instruction is not followed.*

CAUTION! *is used when damage to property could occur if the instruction is not followed.*

NOTE! *is used to inform the reader of installation, operation or maintenance information that is important but not hazardous.*

I.2 MANUAL ORGANIZATION

NOTE! *Anyone operating or servicing the Sullivan-Palatek air compressor should read this entire manual and be familiar with its information. The following is a quick guide to the contents in this manual:*

SECTION 1: SAFETY

This section contains important basic information regarding general safety precautions for maintaining and operating air compressors.

SECTION 2: SPECIFICATIONS

This section contains all the engineering information related to the specific air compressor such as application data, dimensional drawings and wiring diagrams.

SECTION 3: COMPONENT DESCRIPTION

This section contains information about how the different systems and components function within an air compressor.

SECTION 4: INSTALLATION AND OPERATION

This section contains instructions and safety guidelines for receiving and locating a utility air compressor; basic operational guidelines, including Engine Regeneration and SPEC instructions; and procedures for pneumatic tool applications.

SECTION 5: MAINTENANCE

This section contains a maintenance schedule and step-by-step instructions for performing common maintenance procedures.

SECTION 6: TROUBLESHOOTING

This section contains symptoms, causes and remedies for common air compressor malfunctions.

SECTION 7: PARTS CATALOG

This section contains procedures for ordering parts, a list of recommended spare parts to keep on hand, and exploded assembly drawings with corresponding lists of all the parts on the air compressor.

I.3 SUPPLEMENTAL DOCUMENTS

For more detailed information on certain components or optional equipment specific to this compressor, supplemental documents are provided in addition to the standard compressor manual.



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1 SAFETY

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**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.

1.1

GENERAL SAFETY

Safety is a prime consideration in the design and manufacture of the compressor. Ultimately, the responsibility for safe operation rests with the individuals who use and maintain the compressor. The following safety precautions are offered as a guide for the safe operation and maintenance of this machinery:

- » Only trained and authorized personnel who have read and understand this user's manual should operate the air compressor. Failure to follow the instructions, procedures, and safety precautions in this manual will increase the possibility of 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. If an unsafe condition exists or maintenance is required, tag the air compressor and render it inoperative by disconnecting the battery so others who may not know of the unsafe condition cannot attempt to operate it until the unsafe condition is corrected.
- » Use and operate the air compressor only in full compliance with all pertinent Federal, State and Local codes or requirements including OSHA, EPA and other relevant agency requirements.
- » Do not modify this compressor or install attachments without consulting the manufacturer.
- » Known and potential hazards associated with the operating and servicing of portable air compressors are detailed in the following pages. Not all hazards can be anticipated and the operator of the equipment is ultimately responsible for identifying hazardous and dangerous conditions, avoiding dangerous operation and preventing accidents.

1.2

PRESSURE RELEASE

- » Remove the pressure from air, oil, and cooling circuits before disconnecting pipes, fittings or related items. Pay attention to the possible residual pressure when you disconnect a device from a pressurized circuit.
- » Do NOT try to detect pressure leaks with your hands. It is not always possible to identify a leak from a tiny hole. Use a piece of paper or wood to locate a suspected leakage. Wear safety glasses when detecting leaks.
- » Oil, fuel, or compressed air can cause injuries. Fluid leaking under pressure has enough force to penetrate under the skin and cause serious bodily injuries.
- » Do not open sump (receiver) oil filler cap when compressor is running and air system is pressurized. Shut down the compressor and bleed the sump (receiver) pressure to zero before removing the oil filler cap.
- » Do not remove cooler cap while the engine is running, or immediately after the engine stops. Wait until the coolant temperature is below its boiling point, then loosen cap slowly to its stop to relieve any excess pressure. Make sure coolant is not boiling before removing cap completely, and protect yourself by wearing safety glasses.

1.3

FIRES AND EXPLOSION

1.3.1 FUEL & LIQUIDS

WARNING!

Fire or explosion can result from spilled fuel, oil and other flammable liquids.

- » Refuel at a service station or from a fuel tank designed for the purpose. Ground the machine to mobile dispensers prior to refueling.
- » Immediately clean up any spills or leaking fuel, battery electrolyte, oil, or anti-freeze solution.
- » Keep sparks, flames, and other sources of ignition away and do not permit smoking in the vicinity when adding fuel, checking or adding electrolyte to batteries, checking or adding oil, or when refilling air line anti-icing systems with anti-freeze.
- » Replace damaged fuel tanks or lines. Do not store or attempt to operate the compressor with any known leaks in the fuel system or oil lines.
- » Do not permit liquids to accumulate in bottom of the compressor frame. Prevent contact with acoustical 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. Do not use flammable solvents for cleaning purposes.

- » Anti-freeze compound used in airline anti-icing 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 anti-freeze compound to temperatures above 150°F (65°C). Vapors from the anti-freeze compound are heavier than air. Do not store compound or discharge treated air in confined or unventilated area. Do not store containers or anti-freeze compound in direct sunlight.
- » Store flammable liquids in suitable containers and cabinets, away from sources of sparks and heat.

1.3.2 BATTERIES AND WIRING

WARNING!

Fire or explosion can result from electrical arcing from terminal, battery connections and improperly grounded equipment.

- » Do NOT check the battery charge by placing a metal object between the terminals. Use a voltmeter or a hydrometer.
- » Do NOT charge a frozen battery. There is risk of explosion. If the battery is frozen, heat it up to at least 61°F (16°C).
- » Do NOT charge a battery that is in excess of 113°F (45°C).
- » Disconnect the grounded (negative) battery connection prior to attempting any repairs or cleaning inside the enclosure. Tag the ground cable with a warning not to reconnect until servicing is complete.
- » Keep electrical wiring, battery terminals and other terminals in good condition. Replace any wiring that has cracked, cut, abraded, or otherwise degraded insulation. Replace terminals if worn, discolored or corroded. Keep all terminals clean and tight. Turn off battery charger before making or breaking connections to the battery. Wear a face shield whenever servicing or working on the battery.
- » Keep tools and other grounded conductive objects away from exposed live electrical parts to avoid arcing, which might serve as a source of ignition.
- » Always avoid electrical parts when washing the compressor.

1.3.3 COMBUSTIBLES

- » Prior to welding or making weld repairs on the compressor, remove any acoustical material or other material that may be damaged by heat or that may support combustion. Remove and isolate negative battery cable.
- » Do not operate compressor under low overhanging leaves or permit leaves and foliage to contact hot exhaust system surfaces when operating in forested areas.
- » Do not expose dry grass, grass cuttings, oil, or any other flammable material to exhaust gases. Always keep the engine and muffler clean.
- » Keep oily rags, trash, leaves, litter, or other combustibles out of and away from the compressor.
- » Keep a suitable fully charged class BC or ABC fire extinguisher or extinguishers nearby when servicing and operating the compressor.

1.4 MOVING PARTS

- » Make sure all personnel are clear of the compressor prior to starting, operating, or shutting off the compressor.
- » Keep hands, arms, and other parts of the body, as well as clothing, away from belts, pulleys, and other moving parts.
- » Wear snug fitting clothing and confine long hair when working around compressors or any machinery.
- » Avoid slips and falls when working around the compressor. Keep hands, feet, floors, controls, and walking surfaces clean and free of oil, water, anti-freeze, or other liquids to minimize the possibility of slips or falls. Use extreme caution when ground is covered with ice or snow.
- » Do not attempt to operate the compressor with the fan guard or other guards removed. Keep access doors closed except when repairing, adjusting or performing service, or when starting or stopping the compressor.
- » Shut down engine before servicing, especially when adding fuel, oil, coolant, lubricants, airline anti-freeze compound, or battery electrolyte. The engine must also be shut down before making adjustments. Restart engine to check adjustment. If adjustment is incorrect, shut down the engine again, readjust, then restart engine to recheck the adjustment.

1.5 TOXIC AND IRRITATING SUBSTANCES

WARNING! *Do not use air from this compressor for breathing air. Breathing unfiltered air from this compressor can result in serious injury or death.*

NOTE! *Under specific guidelines and in full compliance with OSHA Standards 29 CFR 1920 and any other federal, state, or local codes or regulations compressed air can be used for breathing air. Sullivan-Palatek does not provide equipment and instructions for this application and its products are not produced for this application or use.*

- » Operate the compressor only in open or well-ventilated areas.
- » Carbon monoxide will kill. If the machine is operated indoors, discharge the engine exhaust outdoors and be certain there are no exhaust system leaks that can discharge exhaust within the building.
- » Locate the compressor so that exhaust will not be carried toward personnel, air intakes servicing personnel areas or toward the air intake of any other portable or stationary compressor.
- » Fuel, oil, coolant, lubricant, and battery electrolyte used in the compressor are typical of the industry. Care should be taken to avoid accidental ingestion or skin or eye contact. In the event of ingestion or contact, seek medical treatment promptly. Do not induce vomiting if fuel is ingested. Wash with soap and water in the event of skin contact.
- » 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 and wash with large quantities of water.
- » Do not use airline anti-icing systems in airlines supplying respirators or other breathing air utilization and equipment, and do not discharge air from these systems in unventilated or other confined areas.
- » Wear goggles or a full face shield when adding anti-freeze compound to air line anti-icing systems. The anti-freeze compound used in airline anti-icing systems contains methanol and is toxic, harmful, or fatal if swallowed. Avoid contact with the skin or eyes and avoid breathing the fumes. If contact with eyes, wash eyes with large quantities of clean water for at least 15 minutes. Medical attention should be obtained immediately. If swallowed, induce vomiting by administering a tablespoon of salt in a glass of clean, warm water until vomit is clear, then administer two teaspoons of baking soda in a glass of clean water. Lay down and cover eyes to exclude light. Seek medical assistance.
- » Do not store airline anti-icing system anti-freeze compound in operator's cabs or in unapproved containers.
- » Do not mix different types of antifreeze. The mixture may cause a chemical reaction and release harmful substances.

1.5.1 DIESEL EXHAUST FLUID (DEF)

PURITY

- » DEF is a precisely mixed solution of 32.5% high purity chemical grade urea and 67.5% de-ionized water. It must meet the requirements outlined in ISO standard 22241-1 to prevent potential SCR system damage.
- » Store in a cool, dry, well-ventilated area, between 15°F and 77°F (-9°C and 25°C) to maintain DEF integrity.
- » DEF should not be exposed to direct sunlight for long periods of time, as the urea will decompose.
- » Failure to use specific tooling and fittings will result in corrosion and contamination of the DEF supply.
- » Avoid transfer containers when possible to avoid contamination. If transfer containers must be used, keep the container clean and dedicated for DEF.

CORROSION

- » DEF is corrosive and must be stored in tanks constructed of specific materials, as approved by ISO 22241-3:2017.
- » DEF spills must be cleaned up immediately, and machine or engine surfaces should be wiped clean and rinsed with water.
- » Spilling DEF onto hot components will cause harmful vapors.

CAUTION! **Poor handling practices will contaminate the DEF supply and potentially lead to fault codes and emission system failures.**

1.6

HOT SURFACES, SHARP EDGES, SHARP CORNERS AND VACUUM

- » Avoid contact with hot oil, hot coolant, hot surfaces, and sharp edges and corners.
- » Keep all parts of the body away from all points of air discharge and away from hot exhaust gases.
- » Wear personal protective equipment, including gloves, safety glasses and head covering when working in, on, or around the compressor.
- » Keep a first aid kit available. Seek medical assistance promptly in case of injury. Do not ignore small cuts and burns—these may lead to infection.
- » Keep all loose clothing and parts of the body away from engine and/or compressor intakes or air filter intakes.

1.7

ELECTRICAL SHOCK

- » Keep the towing vehicle or equipment carrier, compressor hoses, tools, and all personnel at least 10 feet from power lines and buried cables. Greater separation from power lines may be prudent when working around high voltage. Contact the utility company for guidance.
- » Keep all parts of the body, any hand-held tools, or other conductive objects away from exposed live parts of the compressor 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.

1.8

ENTRAPMENT

- » Make sure all personnel are out of compressor before closing and latching enclosure doors. Larger compressors can hold a man. If it is necessary to enter the enclosure to perform service or adjustments, secure the access door in the open position to avoid the possibility of others closing and latching the door and inform personnel before entering the enclosure.

2 SPECIFICATIONS

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» Starter Grounds Harness.	13
» PTO SAE 'A' Drive	14

TECHNICAL DATA

D210UHJD4PTOW

COMPRESSOR	
Type	Single Stage, Oil Flooded Rotary Screw
Rated Delivery	210 cfm (5.0 m ³ /min)
Rated Operating Pressure	100 psig (6.9 bar) LOW
	150 psig (10.4 bar) HIGH
Rated Operating Pressure Range	70–165 psig (4.9–11.3 bar)
Ambient Temperature Range	-20 to +125°F (-29 to +52°C)
Oil Capacity	5.5 gallons (21 L)
Total Receiver Volume	1.7 ft ³ (48 L)
Air Service Connector	Two 3/4-in NPT
Type Cooling System	Oil to Air
Type Air Intake System	2-Stage Dry
Type of Control	0–100% Demand
Noise Level	76 dBA @ 7 meters
Estimated Weight, Serviced	2550 lbs (1157 kg)
Dimensions L x W x H	80 x 35 x 57.31 inches (2032 x 889 x 1456 mm)

ENGINE	
Type	Diesel Tier 4
Engine Make	John Deere
Engine Model	4045TFC03A, B (Tier 4 Final)
Number of Cylinders	4
Bore and Stroke	4.19 × 5.0 in (106 × 127 mm)
Displacement	276 in ³ (435 L)
Horsepower @ Rated RPM	74 hp (55.5 kW)
Total Oil Capacity	9 quarts (8.5 L)
Cooling System Capacity	14 quarts (13.2 L)
Battery Rating Volts	12 volts
Cold Cranking Amps @ 0°F (-18°C)	800 amps
Full Load Speed	2500 rpm
Idle Speed	1600 rpm
Fuel Tank Capacity	25 gallons (94.6 L)

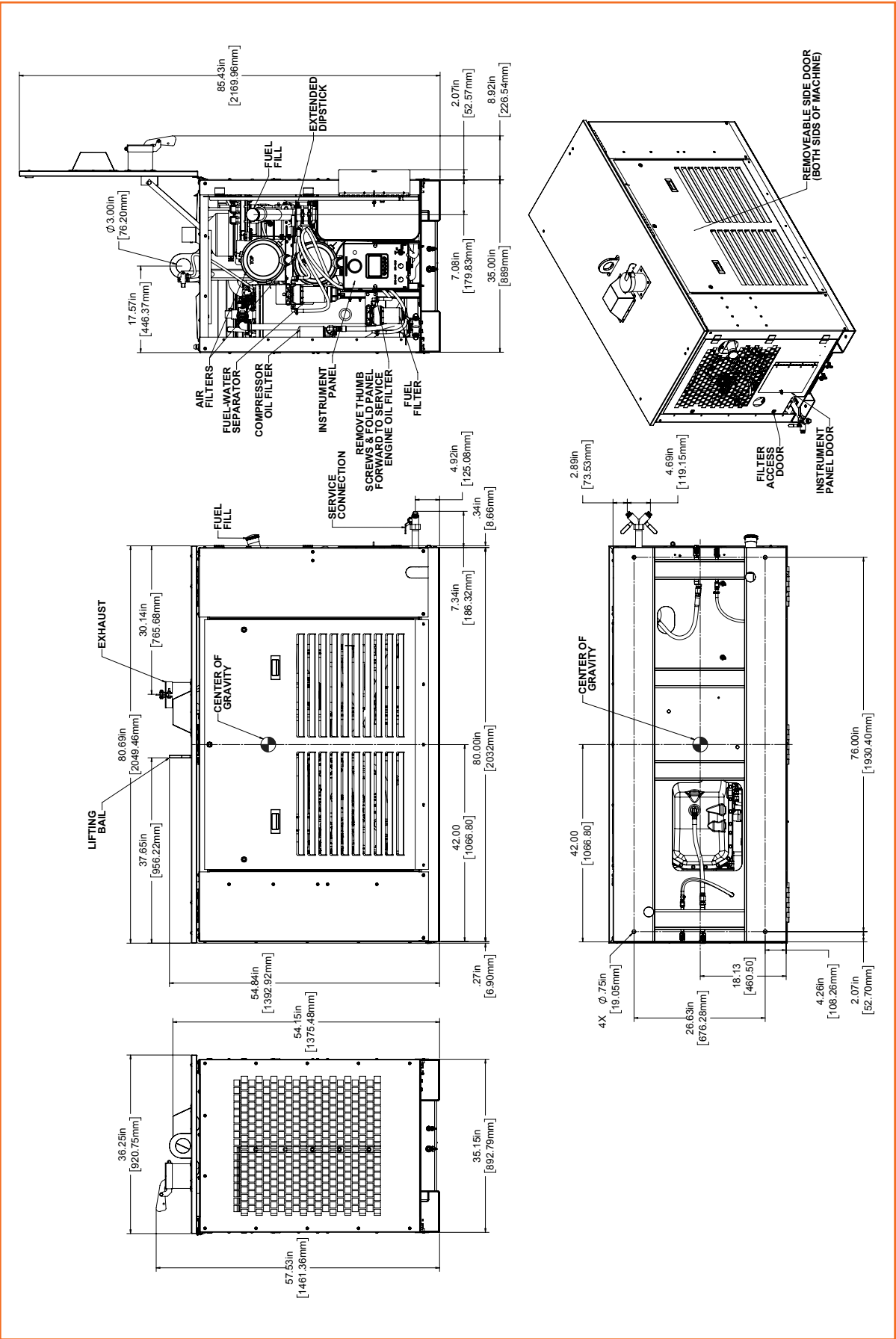


FIGURE 2-1. GA 00006 (REV 00)

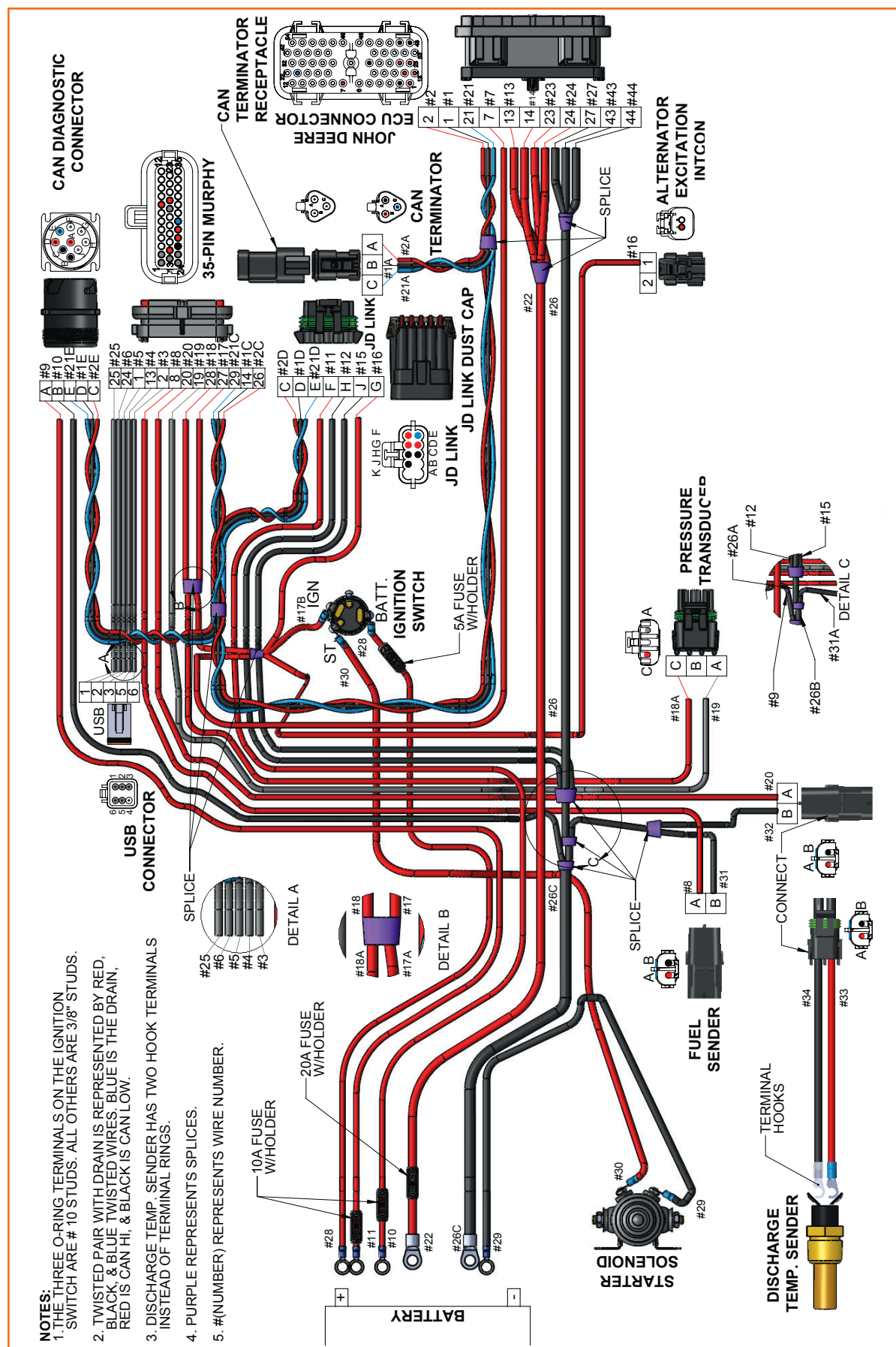
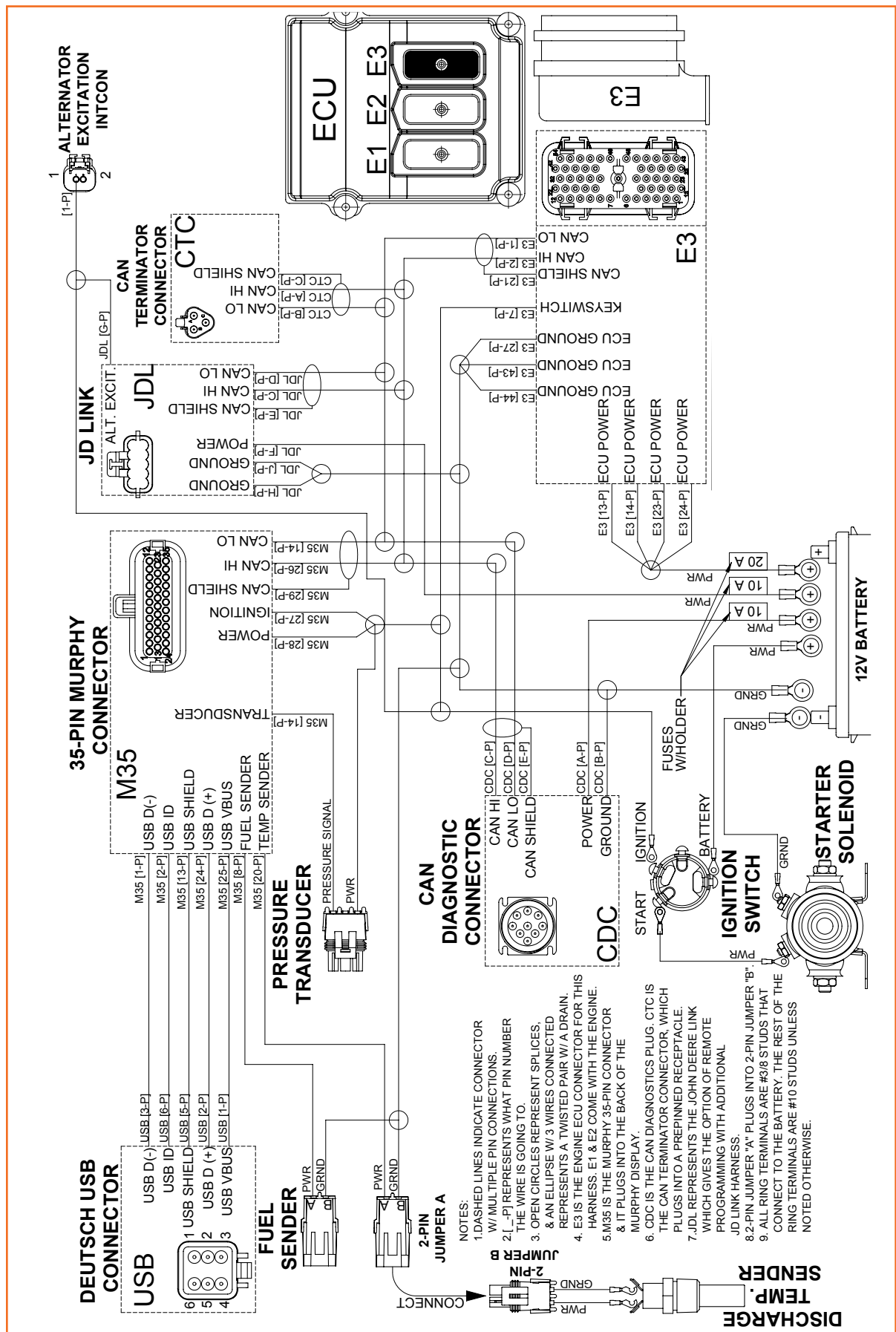


FIGURE 2-2. WD-151115 (REV 01)



2.5 ENGINE-ECU HARNESS

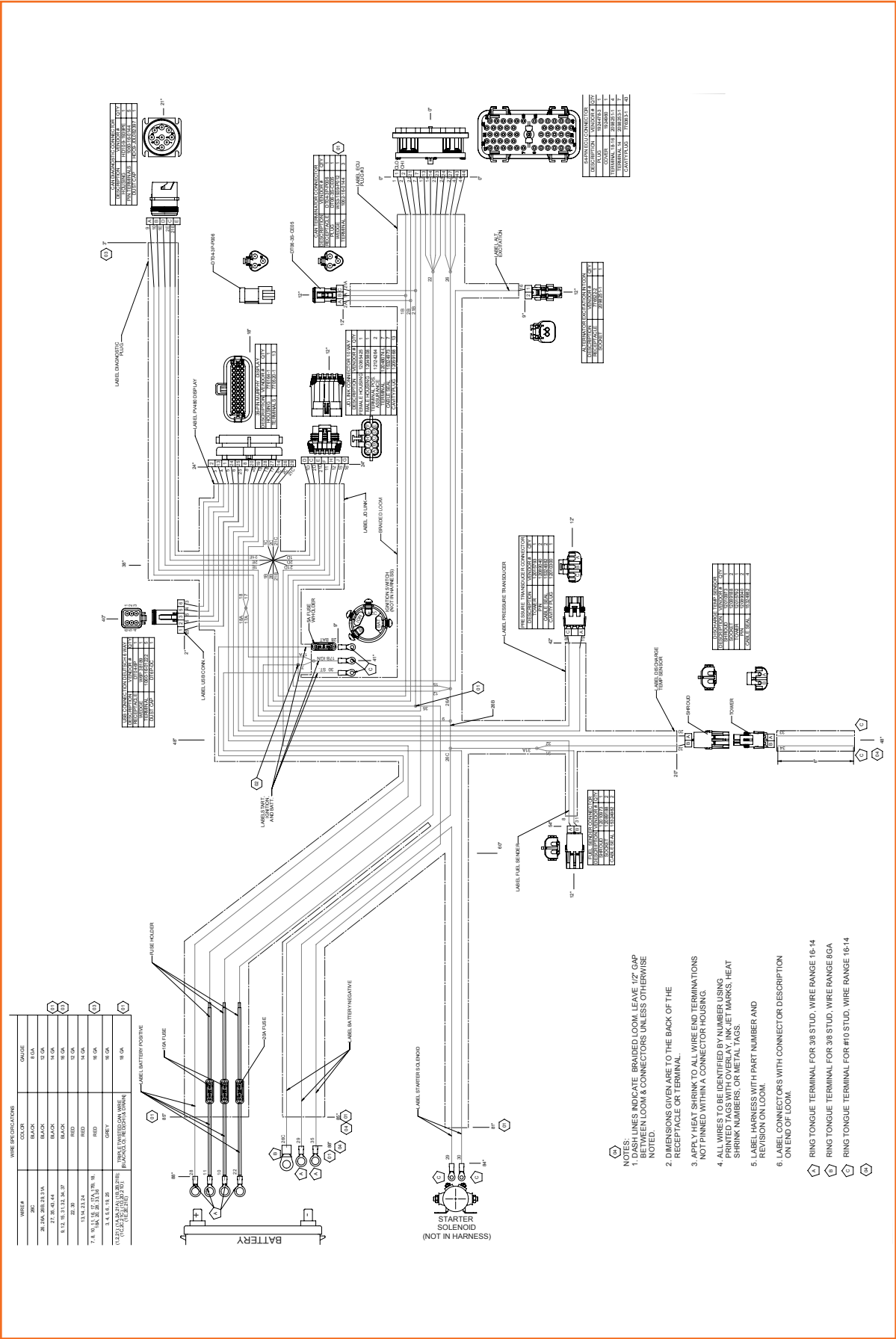


FIGURE 2-4. 05018395 0247 (REV 04)

2.6 STARTER GROUNDS HARNESS

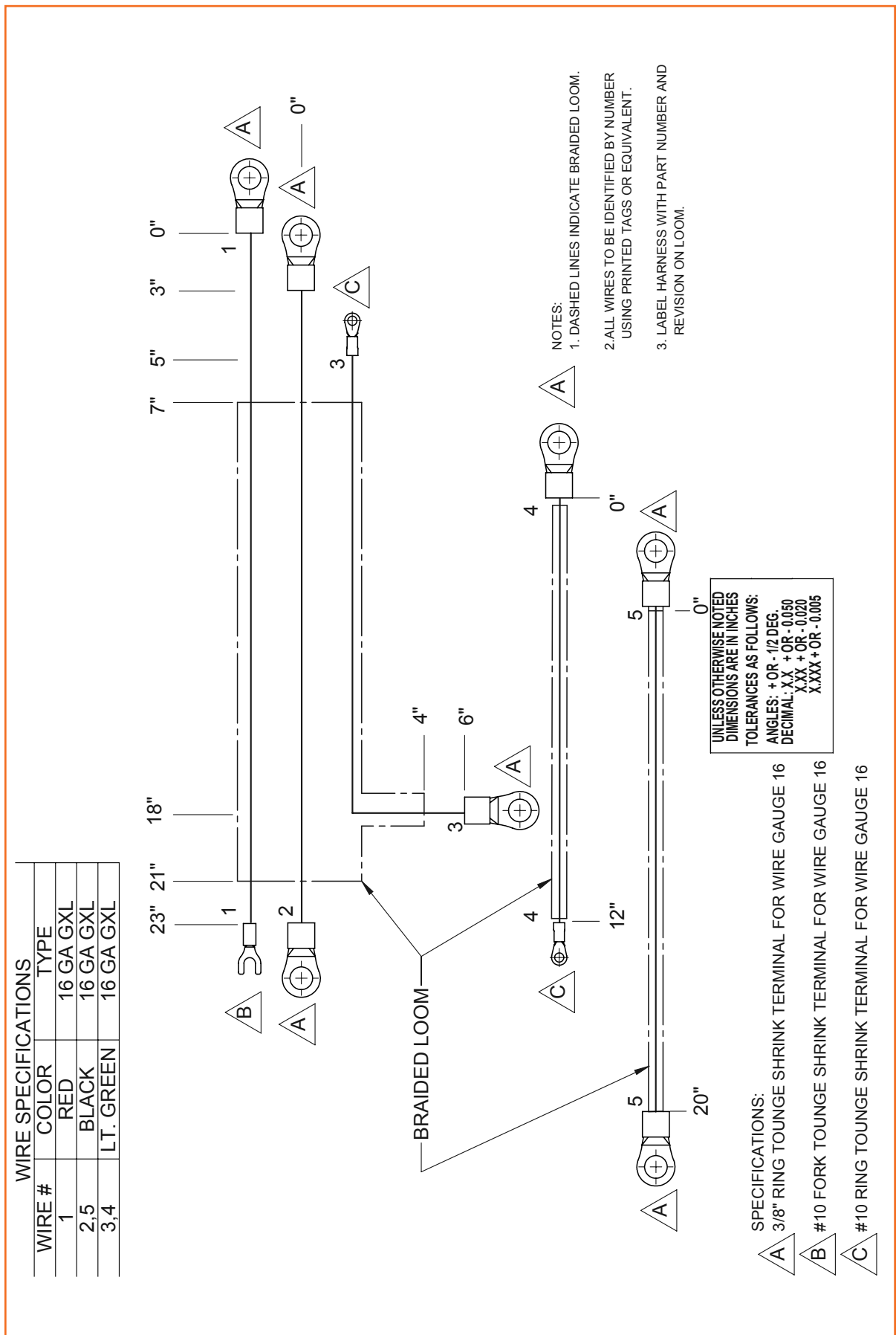


FIGURE 2-5. 05018395 0253 (REV 01)

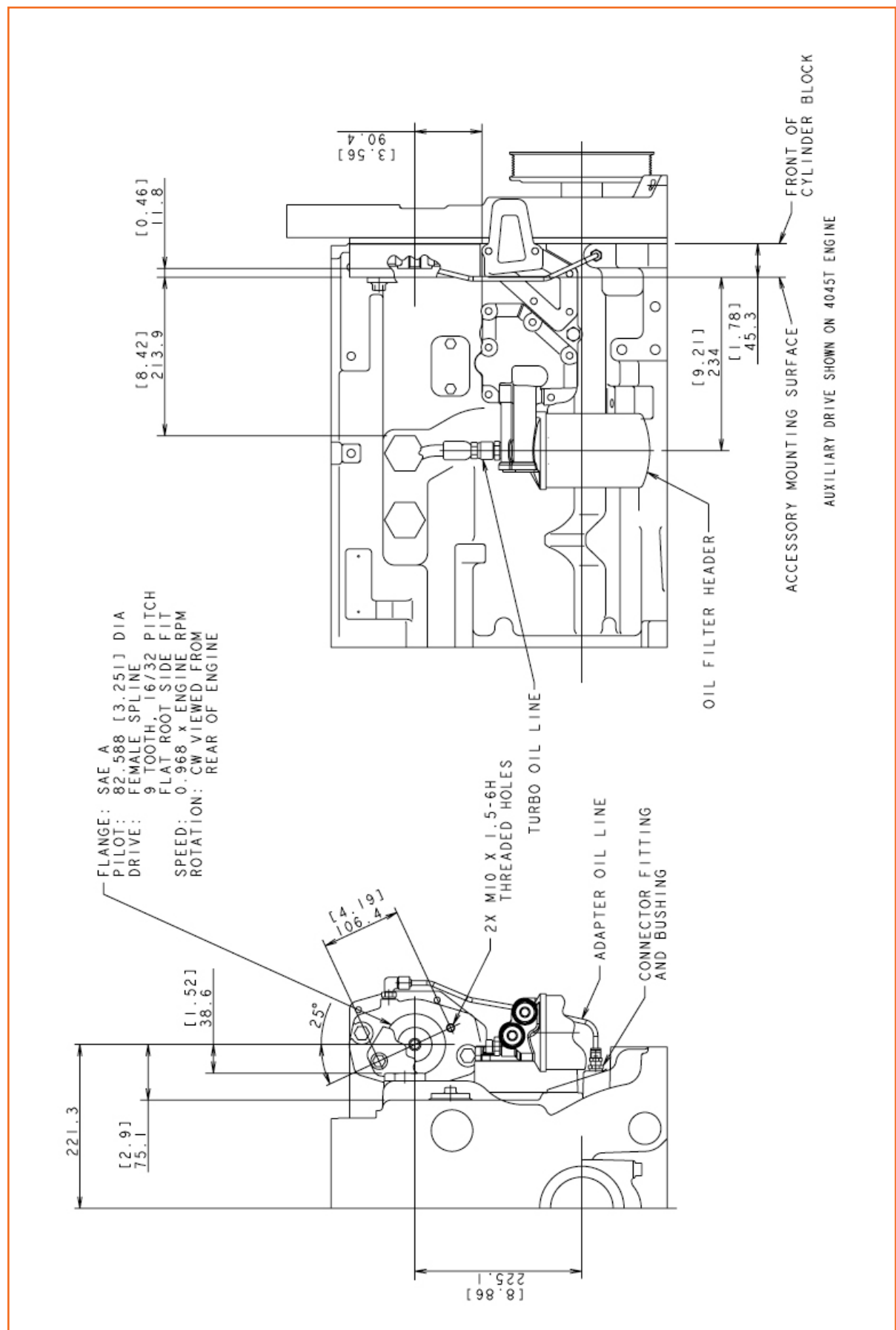


FIGURE 2-6. POWER TAKE-OFF AUXILIARY DRIVE SPECS

3 COMPONENT DESCRIPTION

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» Instrument Panel	21
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3.1 PORTABLE COMPRESSOR PACKAGE

The compressor is a single stage, oil-flooded lubricated rotary screw air compressor. The compressor package is available as a portable wheel-mounted unit, utility mounted unit, or galvanized skid-mounted unit for offshore applications. All models are enclosed in a weather-resistant acoustical enclosure.

The complete operating unit consists of a diesel engine for power, compressor assembly, air/oil separator system, cooling system for the engine and compressor oil, instrumentation, pneumatic control system, and acoustical enclosure.

3.2 ENGINE

The compressor is powered by a diesel engine. For detailed information on the engine refer to the Engine Operators Manual provided with each compressor.

3.2.1 ENGINE COOLING SYSTEM

The engine cooling system utilizes a conventional engine radiator, thermostat, water pump, and fan to maintain the engine coolant at a desired operating temperature.

3.2.2 ENGINE TO COMPRESSOR DRIVE

The compressor and engine are connected through a non-lubricated spline coupling. It consists of a drive ring registered and bolted directly to the engine flywheel and either a splined hub or a disc attached to the compressor drive shaft. Because of low starting torque, no clutch is required.

3.3 AIR END ASSEMBLY

The compressor assembly is an oil flooded, positive displacement, single stage rotary screw unit. Components include a stator housing, male and female rotors, bearings, and bearing supports. Engine power is transferred to the male rotor through a coupling and, if a gear-driven unit, through gears in the gear housing. The male rotor drives the female rotor.

3.3.1 COMPRESSION CYCLE

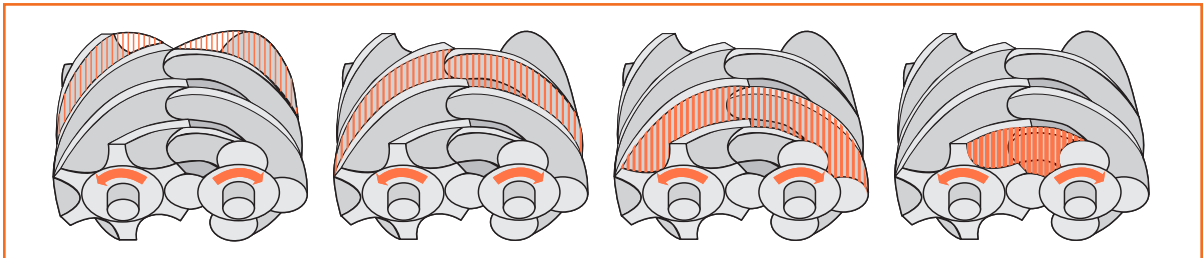


FIGURE 3-1. COMPRESSION CYCLE

Air at atmospheric pressure is drawn in through the inlet and compressed by the rotation of the rotors. During the compression cycle, oil is injected into the compressor performing three important functions:

1. Lubricate the rotating parts and bearings.
2. Provide cooling for the compressed air.
3. Seal the running clearances between the rotors.

3.4 DISCHARGE SYSTEM

3.4.1 RECEIVER/SUMP

From the compressor discharge, oil-laden air enters the receiver/sump tank above the oil level and most of the oil is separated from the air by gravity. The oil runs downward and accumulates for recirculation, while the remaining oil mist passes through the separator element. The oil separator is located in the upper portion of the receiver/sump. When air is demanded at the service line, it passes through the separator element, which provides the final stages of air/oil separation.

3.4.2 MINIMUM PRESSURE VALVE

A minimum pressure valve is provided at the service air outlet (at the top of the separator). This valve serves to maintain a minimum discharge pressure of 65 to 80 psig in operation, which is required to assure proper air/oil separation. At normal operating pressure of 90 to 150 psig, this valve is wide open, effectively removing any restriction to airflow.

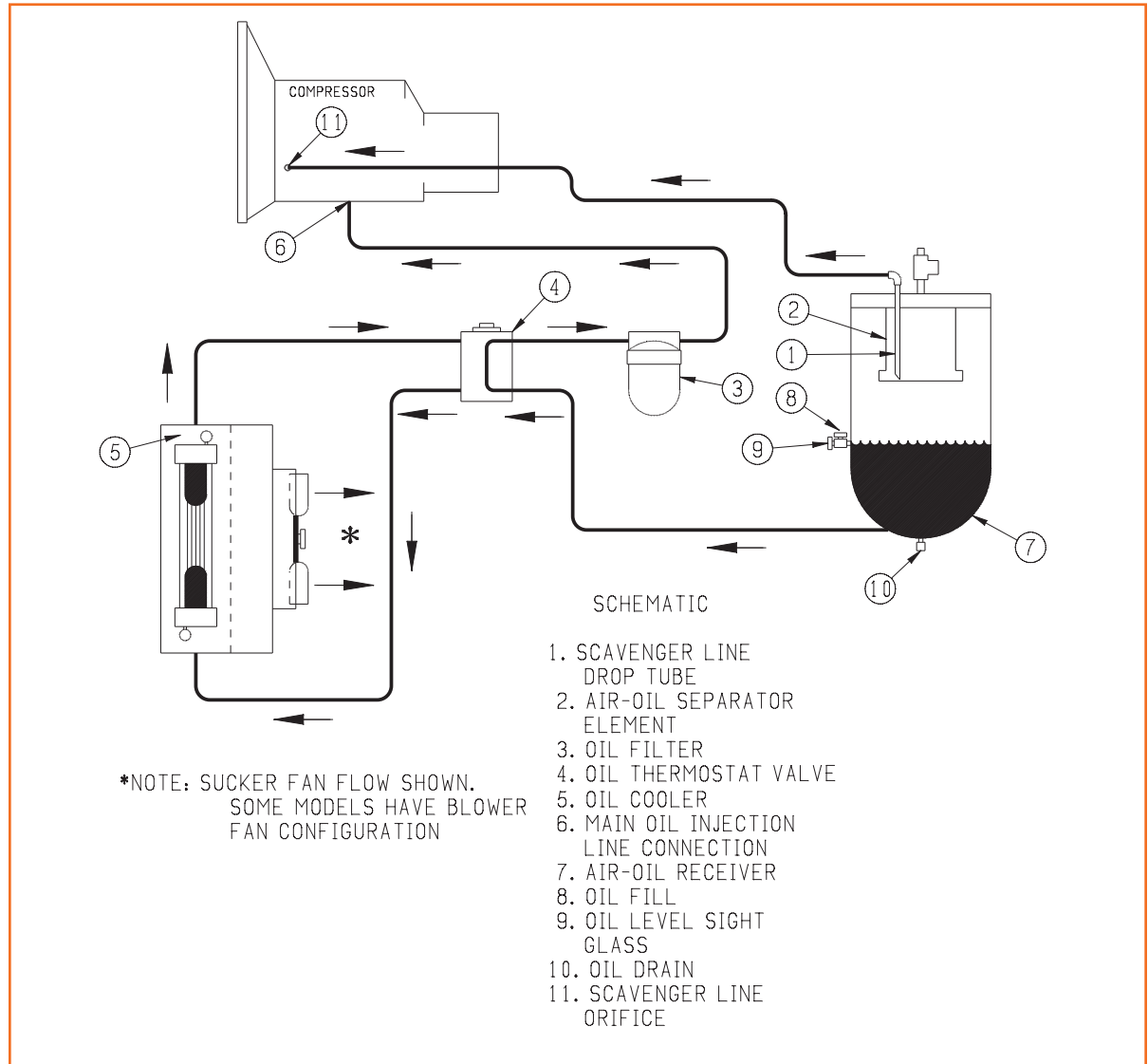


FIGURE 3-2. DIAGRAM, OIL PIPING 185-375 (REV 00)

Oil from the compressor oil sump at compressor discharge pressure is directed through the cooling system and oil filter to a lower pressure region of the compressor stator. At the same time, oil is directed to the bearings and shaft seal of the compressor. The oil-laden air is then discharged back into the sump.

The compressor cooling system consists of an oil cooler mounted adjacent to the engine radiator. Cooling air is pushed through the cooler by the engine fan while oil is circulated through it by the receiver/sump pressure.

3.5.1 OIL RETURN LINE

The oil that is removed by the air/oil separator gravitates to the bottom of the air/oil separator and is returned through an orifice in the oil return scavenger line assembly. The assembly consists of a pickup tube, return line hose, a line strainer and a sight glass/orifice. Flow can be witnessed through the sight glass. Flow is generated via differential pressure between the high pressure sump tank and the lower pressure region of the compressor.

3.5.2 THERMAL VALVE

The thermal valve is the center of the compressor temperature regulating system. Oil circulates through the valve until the oil temperature reaches 140°F at which time the thermostat closes to force the oil through the cooler before returning to the air end.

A full-flow canister-style oil filter is supplied to protect the compressor unit from solid contaminants. The filter has an internal bypass valve to assure adequate oil flow with cold oil or a plugged oil filter element. The filter canister can be removed with a strap wrench.

Control of air delivery is accomplished both by inlet valve regulation and engine speed control as directed by the adjustable discharge pressure regulator valve(s).



The inlet valve cylinder pressure chamber is pneumatically connected to the dry side of the receiver via the pressure regulator valve. When the receiver tank pressure is below the set point of the regulator valve no pressure will exist in the inlet valve chamber. Under these conditions, the inlet valve will remain wide open, causing the compressor to deliver full capacity.

When less than full capacity is required, receiver pressure increases, thereby opening the pressure regulator, which allows a signal from the pressure transducer to reduce the engine speed until it matches the air requirements from 100% down to 60%. From 60% down to 0% both engine speed reduction and inlet valve modulation act together to reduce air output. ***The compressor can only produce its maximum rating of air flow at rated pressure (rated CFM at rated psig). If the tank pressure continues to decrease when the machine is at full speed and the inlet valve fully open, a larger capacity compressor or multiple compressors may be required for the customer's job needs.***

The inlet valve assembly is the heart of the control system, which regulates the amount of air entering the compressor. The engine speed is regulated by a pressure transducer signal through the CANBUS and the Sullivan-Palatek Electronic Controller (SPEC). From full to approximately 60% capacity, the delivery is controlled by engine speed and a gradual closing of the inlet valve. When unloaded the inlet valve is closed to prevent atmospheric air from entering the compressor.

The start-run valve is used to bypass the compressor pressure regulator valve. This results in reduced engine load at start-up. Once the engine is warmed up, the valve can be moved to the RUN position. In the START position, the start-run valve is open. In the RUN position, it is closed.

3.6.3 REGULATOR VALVE (DISCHARGE PRESSURE)

The regulator valve is used to select the desired discharge pressure within the operating pressure range. Turning the regulator adjustment screw clockwise increases the unloaded pressure, and counter-clockwise reduces the unloaded pressure. Observe discharge pressure gauge on the instrument panel for compressor discharge pressure. See 5.16 *Control Adjustments on page 44* for more information.

3.6.4 AUTOMATIC BLOWDOWN VALVE

The automatic blowdown valve relieves pressure in the system upon shutdown. It is closed when the compressor is in operation; however, at shutdown, the inlet valve closes, the unit becomes pressurized and sends a pressure signal to open the normally closed blowdown valve.

3.6.5 RECIRCULATION VALVE

This valve functions automatically in response to the regulated control pressure. Receiving the unload signal to the inlet valve, the recirculation valve is opened allowing a small quantity of pressurized sump air to be recirculated through the compressor in order to hold a positive pressure signal on the inlet side of the air end to prolong the shaft seal life.

3.7 ELECTRICAL AND PROTECTIVE CIRCUIT SYSTEM

The compressor electrical system is a 12-volt negative ground system used on smaller-capacity (185–375 CFM) compressors and a 24-volt negative ground system used on larger-capacity (750–1800 CFM) compressors. It is equipped with a protective circuit to minimize damage. Damage could be caused by high compressor discharge temperature, high engine water temperature, or low engine oil pressure. Refer to wiring diagrams as required. The following conditions will cause automatic shutdown of the compressor:

- » Compressor discharge temperature (CDT) approximately 265°F (129°C). A warning is shown when the temperature reaches 245°F (118°C) and the unit will be forced to unload.
- » Low engine oil pressure (EOP) dependent upon engine manufacturer's specifications.
- » High water temperature (EWT) dependent upon engine manufacturer's specifications.
- » Low fuel (LF) warning at approximately 11% of the fuel tank. Low Fuel (LF) shutdown will occur at 5 to 8%.

3.8 NOISE CONTROL SYSTEMS

Noise control systems incorporated in this compressor have been designed to meet the requirements of federal noise control regulations. The principal components of the noise control systems include the enclosure, engine exhaust system, and compressor intake system. The enclosure has been designed to provide the required noise reduction while maintaining a good distribution of cooling airflow to the radiator and oil cooler.

3.9 ENGINE SHUTDOWN PROTECTION

Sullivan-Palatek uses electronically controlled engines in the 185–1800 CFM line of compressors. Personnel operating and maintaining these compressors MUST be familiar with and understand the operation and protection features available with these engines.

WARNING!

Failure to follow the electronic control warnings and attempts to override, bypass, or ignore these warnings can lead to severe engine damage. This damage will not be covered by either the engine manufacturer's or Sullivan-Palatek's warranty.

Electronically controlled engines have software that monitors engine parameters during operation. If the parameters exceed the normal operating threshold, the engine software will take appropriate actions to protect the engine from damage. There are two levels of action: derate and shutdown. If either of these actions are initiated, the software will also activate the yellow warning sign and red engine shutdown/diagnostic warning sign on the Sullivan-Palatek Electronic Controller (SPEC).

3.9.1 ENGINE DERATE

The first level of protection in the controller is the derate feature. The engine will derate the power output of the engine by 35% in an attempt to correct the parameters that are out of range. In almost every case, power deration will result in the engine stalling, which will protect the engine from damage.

NOTE!

The yellow warning will be lit on the SPEC screen when this occurs.

3.9.2 ENGINE SHUTDOWN

The second level of protection in the controller is engine shutdown. If the derate feature cannot correct the unsafe parameters or the engine does not stall, the controller will shutdown the engine to protect it from damage.

NOTE!

The warning and shutdown information will be lit on the SPEC when this occurs.

If either of these protection features activate, the engine requires inspection by an authorized engine manufacturer's dealer before attempting to run the machine again.

WARNING!

Failure to inspect and correct the fault in the engine or at the point of the external sensor will result in repeated derates and shutdowns, which can lead to engine damage.

NOTE!

The engine software stores all derate and shutdown information to be reviewed by the engine manufacturer's representative. Attempts to restart the compressor without repairing the fault sensed by the protection system will be recorded in the engine software and will void the engine manufacturer's warranty.

NOTE!

The Sullivan-Palatek warranty DOES NOT COVER the engine. The engine and its components are warranted only by the engine manufacturer.

Operators, rental customers and anyone responsible for the operation and maintenance of this compressor MUST be instructed and briefed on the proper responses to control module warnings. In particular, they must be instructed to report warning instances and not attempt to restart the compressor until faults are cleared by certified personnel.

3.10 POWER TAKE-OFF (PTO) DRIVE

The John Deere 4045 diesel engine offers a power take-off (PTO) auxiliary drive, which is ideal for many applications, such as running a generator or hydraulic pump. However, Factory approval is required to determine that the total load on the engine (compressor and PTO) is not exceeded, and also the total load on the P.T.O. drive is not exceeded.

The compressor will always require a portion of the total engine horsepower available, which leaves a percentage of the remaining power to be used for driving auxiliary equipment with the PTO drive. Refer to PTO SAE 'A' Drive on page 14 for more information on physical dimensions.

All PTO applications will require Factory authorization or engine warranty may be voided.

NOTE!

When using a PTO application, the compressor may need to be derated or unloaded in order to obtain PTO power required.

3.10.1 CONNECTING TO THE PTO DRIVE

To gain access to the PTO drive, remove the right louvered side panel. Next, remove two bolts and drive cover (see below).



FIGURE 3-4. PTO DRIVE ACCESS

3.11

INSTRUMENT PANEL

The instrument panel contains all the necessary controls and instrumentation for operation. It is conveniently located and enclosed by a lockable, hinged door. Following is an explanation of the principal controls and instruments:

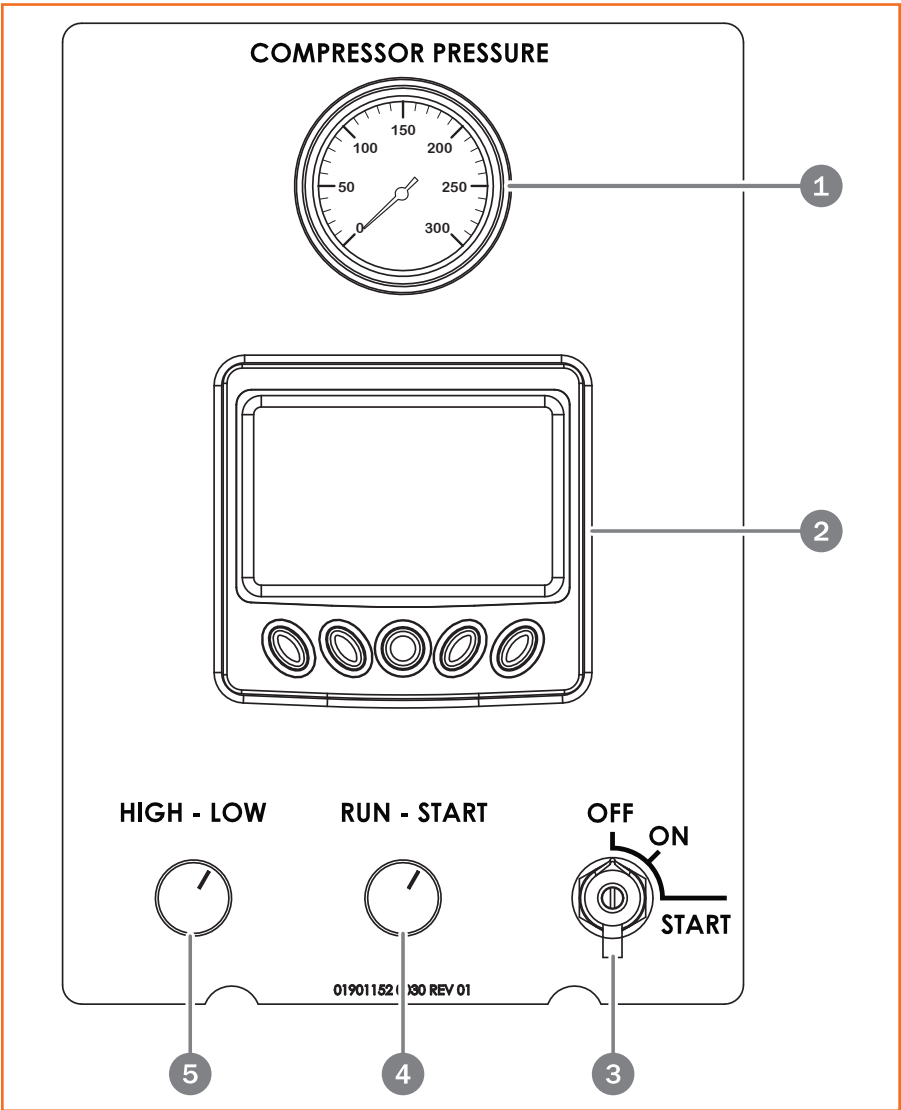


FIGURE 3-5. INSTRUMENT PANEL, DUAL PSI

ITEM	NAME	DESCRIPTION
1	Discharge Air Pressure Gauge	Displays discharge air pressure of compressor.
2	Sullivan-Palatek Electronic Controller (SPEC)	Monitors the engine and compressor parameters, displays warning and shutdown information, and displays engine diagnostic information from the engine ECU.
3	Ignition Switch	START position electrically energizes engine starter motor solenoid. ON position powers up SPEC and ECM.
4	Start-Run Switch	START allows compressor to be started. RUN allows full-load operation.
5	High-Low Switch	HIGH for 150 psi operation and LOW for 100 psi operation.

3.11.1 COMPRESSOR DISCHARGE PRESSURE GAUGE

The compressor discharge pressure gauge indicates the discharge air pressure. Normal operating pressure is 90 to 115 psig for low pressure compressors, and/or 90 to 150 psig for high pressure compressors.

3.11.2 SULLIVAN-PALATEK ELECTRONIC CONTROLLER (SPEC) MODEL PV480

The Sullivan-Palatek Electronic Controller (SPEC) Model PV480 monitors all critical compressor and engine parameters, provides warning and shutdown information and has complete engine diagnostic capabilities. Parameters monitored by the SPEC include engine speed, compressor temperature, engine oil pressure, engine temperature, battery voltage and fuel level. The SPEC provides warning and shutdown information from high compressor temperature and low fuel level. It also has complete engine diagnostic capabilities that can read and display fault codes from the engine ECU. Multiple language options are available including English, Spanish, French, Italian and German.

NOTE!

Engine derate and shutdown are controlled by the engine ECU and displayed on the SPEC. For more information about the SPEC display, refer to page 27.

DEFAULT KEYPAD FUNCTIONS

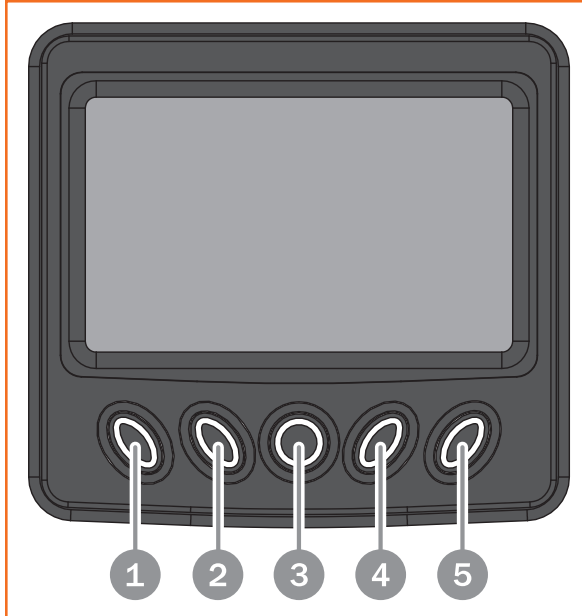


FIGURE 3-6. SPEC KEYPAD

BUTTON	NAME	FUNCTION
1	Soft Key 1	Previous Page
2	Soft Key 2	Decrease Contrast
3	Soft Key 3	Settings / Gauge Display
4	Soft Key 4	Increase Contrast
5	Soft Key 5	Next Page

NOTE!

Pages with unique button functions will display functionality with a symbol directly above the buttons.

3.11.3 IGNITION SWITCH

The ignition switch has 3 functions:

- » In the **ON** position the SPEC/engine display will be powered up. Once the instrument cluster is displayed, the machine is ready to start.
- » In the **START** position the ignition is used to electrically energize the engine starter.
- » The **OFF** position should be used only when the machine is ready to be shut down.

3.11.4 START-RUN SWITCH

The start-run (load-unload) switch unloads the compressor for easier start-up. When positioned on **START** this switch bypasses the pressure regulating valve, thereby closing the inlet valve with reduced discharge pressure. After the compressor is warmed up, the start-run switch can be turned to **RUN** position. The unit is then ready for full-load operations.

Prior to shutdown, the start-run switch must be turned to the **START** position and the service valve opened and closed to reduce pressure to approximately 75 psi or less. Shutdown under full load can damage the compressor and put unnecessary strain on the drive components.

3.11.5 HIGH-LOW SWITCH

When this switch is positioned on **LOW**, the compressor will run at the set point of the low pressure regulator (100 psi discharge pressure). When switched to the **HIGH** option, the compressor will run at the set point of the high pressure regulator (150 psi discharge pressure).

CAUTION!

When High pressure mode is selected, auxiliary PTO drive is not to be used! See 3.10 Power Take-Off (PTO) Drive on page 20 for clarification and PTO auxiliary drive Factory authorization.

3.12

OPTIONAL EQUIPMENT

Sullivan-Palatek offers an extensive variety of options on all portable and utility products. Multiple options are available for each of the sub-categories listed below. Please consult Sullivan-Palatek Sales for more information.

3.12.1 INSTRUMENT PANEL AND PARTS

- » Deluxe panel
- » Additional Indicators
- » E-Stop

3.12.2 ENGINE AND PARTS

- » Battery sizes
- » Auto Start
- » Interlocks
- » Fuel Filters
- » Generators
- » Heaters

3.12.3 ENCLOSURE AND PARTS

- » Brake Harnesses
- » Lighting
- » Machine Paint
- » OEM Offerings

3.12.4 EXHAUST PARTS

- » Rain Cap
- » Spark Arrestors

3.12.5 SERVICE LINE PARTS

- » OSHA Valves
- » Hose Reels
- » Aftercooler

4 INSTALLATION & OPERATION

TOPICS IN THIS SECTION:

» Receiving	26
» Lifting	26
» General Operating Safety	26
» Preparing for Initial Start-Up	26
» Normal Starting	27
» Normal Stopping	27
» Emergency Stop	27
» Engine Regeneration Process	28
» Sullivan-Palatek Electronic Controller (SPEC) Operating Instructions	30
» Operating Under Extreme Conditions	33
» Pneumatic Tools Application	34
» Jump-Starting Battery	35

4.1

RECEIVING

Each compressor is operated and tested at the factory before shipment. This testing assures that the unit is operating properly and that the compressor will deliver its rated capacity. Regardless of the care taken at the factory, there is a possibility that adjustments may be altered or damage may occur during shipment. For this reason it is recommended that the unit be checked for proper operation and carefully inspected before it is put in service. The machine should be observed for any possible malfunction during the first few hours of operation.

NOTE!

Satisfactory performance of the compressor depends upon the operator's knowledge of the controls, instruments, and recommended operating procedures. Consequently, the preceding sections of this manual and also the entire Engine Operator's Manual should be read and understood before attempting to start and operate this machine.

4.2

LIFTING

- » This compressor is provided with a lifting bail and fork pockets for routine lifting and loading onto trucks, oil platforms or similar equipment. It is not intended for extended airlift such as via helicopter. Support the compressor by using slings under the main frame with appropriate spreader bars when airlifting the machine. Lift only in full compliance with OSHA Standards 29 CFR 1910 subpart N, and other applicable regulations.
- » Prior to lifting, inspect lifting bail, fork pockets, and points of attachment for cracked welds and cracked, bent, corroded or otherwise degraded members, and for loose bolts or nuts. Do not lift machine if any of these items are found to be defective.
- » 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 the weight of snow, ice, mud, or stored tools and equipment. If you are unsure of the weight, then weigh the compressor before lifting.
- » Make sure lifting hook has a functional safety latch, or equivalent, and is fully engaged before lifting compressor from the ground. Ensure lift fork has fork retainers.
- » Do not attempt to lift in high winds.
- » Keep all personnel out from under and away from the compressor when suspended.
- » Lift compressor slowly and smoothly, without jerking.
- » Lift compressor no higher than necessary, use guidelines and have spotters properly located.
- » Do not leave suspended compressor unattended.
- » Set compressor down only on level surfaces 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. If the compressor is provided with parking brakes, make sure they are set; and always block or chock both sides of all running wheels plus drawbar stabilizer leg before disengaging the lifting hook.

4.3

GENERAL OPERATING SAFETY

- » Replace any faulty gauge immediately.
- » Allow at least ten feet of unobstructed area in front of cooling air inlets and outlets to assure good airflow.
- » If compressor is connected to a common header with one or more compressors, a check valve must be provided between each compressor and header.
- » Check instruments periodically during operation. If readings are abnormal, refer to *Chapter 6 TROUBLESHOOTING* on page 45 .
- » Make sure that the correct type and viscosity of lubricating oils and fuel are used, especially in extreme ambient temperatures.
- » Keep batteries fully charged and properly maintained.

4.4

PREPARING FOR INITIAL START-UP

1. Inspect the compressor, engine, and other assemblies for damage or loose connections which might have occurred during shipment.
2. Check the engine's crankcase oil level. If required, add oil as recommended in the Engine Manual.
3. Check the radiator coolant level. Also, if the machine will be exposed to sub-freezing temperatures, check the specific gravity to ascertain the freezing point of the coolant.

4. Fill the fuel tank with fuel recommended in the Engine Manual.

WARNING!

Never add gasoline to diesel fuel tank - serious damage to the engine will result.

5. If necessary, add lubricating oil to the compressor sump. Refer to 5.3 *Compressor Lubrication on page 39* for lubricating oil specifications.
6. Check battery posts and cable clamps to assure proper contact. Connect positive cable and negative cable battery terminals.

4.5

NORMAL STARTING

1. Inspect the compressor, engine and other assemblies for damage or loose connections.
2. Check engine coolant, oil, fuel, and battery fluid levels. Check compressor receiver oil level.
3. Close service valves.
4. Set start-run valve to **START** position.
5. Turn engine start switch to allow unit to rotate a few revolutions so that the unit will turn freely.
6. Turn ignition switch to **ON** position. Allow display to boot up and show gauges.
7. Turn ignition switch to **START** position and hold until engine starts.
8. Let engine warm up to 140°F. Set start-run valve to **RUN** position. Compressor is now ready for full load operation.

NOTE!

If the engine stops, do not attempt to restart with the oil receiver under pressure.

4.6

NORMAL STOPPING

1. Position start-run valve to **START**. Close all service valves.
2. Run engine at low idle for 1 to 2 minutes.
3. Open and close the service valve to reduce pressure to approximately 60 psi or less.
4. Turn ignition switch to **OFF**.

4.7

EMERGENCY STOP

In case of emergency turn the ignition switch to the **OFF** position.

4.8

ENGINE REGENERATION PROCESS

The John Deere 4045 Final Tier 4 after treatment system is comprised of a Diesel Oxidation Catalyst (DOC) and a Diesel Particulate Filter (DPF). The DPF captures diesel particulate matter to prevent release into the atmosphere. Accumulated matter must be periodically eliminated from the DPF. This process is controlled by the Engine Control Unit (ECU) and is called “exhaust filter cleaning” or Regeneration. During the Regeneration process, a rise in exhaust temperature occurs and allows the matter to be oxidized within the DPF. The DPF will require periodic maintenance, some of which will occur automatically. When the exhaust filter has accumulated higher levels of soot, the display panel will indicate an exhaust filter cleaning is necessary. The machine requires relocation to a suitable location with adequate ventilation while performing an exhaust filter cleaning.

Both the DPF and DOC have been registered with your specific engine during engine programming. Replacement of either the DOC or DPF will require new programming to be performed on the ECU—please contact your local John Deere service center. For more information on how the exhaust filter works consult the after treatment system section in the John Deere engine manual.

The Regeneration process includes six stages of exhaust filter cleaning. (See Figure 4-1)

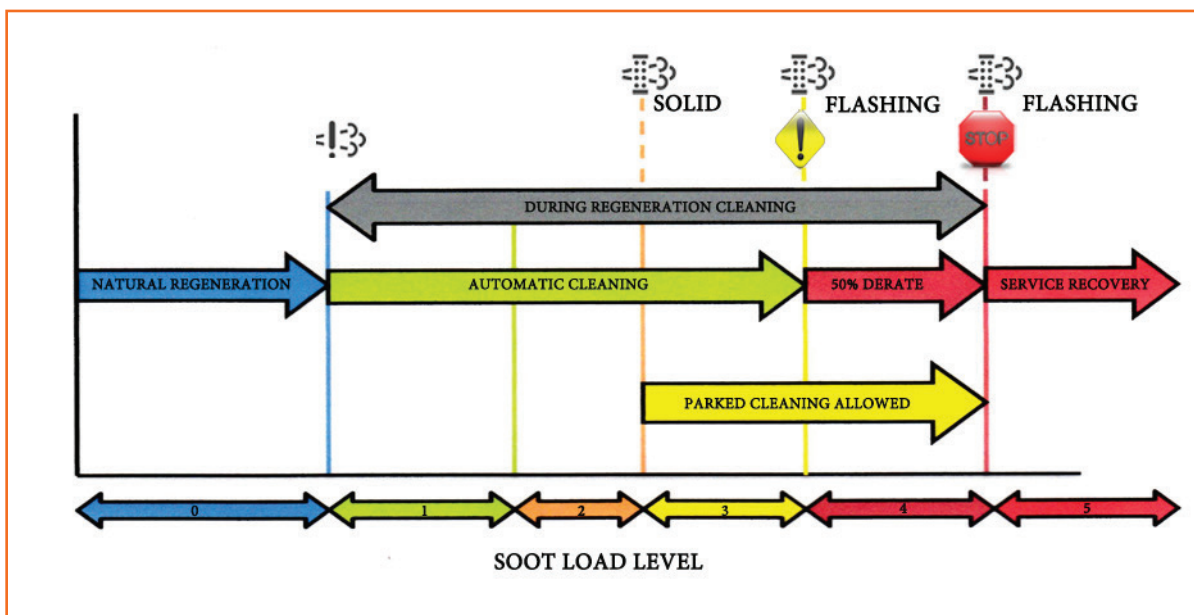


FIGURE 4-1. REGENERATION/OPERATOR INTERFACE STRATEGY

The engine ECU is designed to naturally clean the exhaust filter at high engine loads where higher exhaust temperature levels are reached. This is referred to as “Natural Regeneration”. On the instrument panel Main Menu screen you will see EXHAUST FILTER status followed by a number 0 through 5. During Natural Regeneration no action is required by the operator and EXHAUST FILTER status shows 0.

Eventually, Natural Regeneration will not be enough to fully reduce the DPF soot levels and the following codes will appear on the instrument panel informing the operator that an exhaust filter cleaning is required.

- » Diagnostics Trouble Code (DTC)
- » Suspect Parameter Numbers (SPN) code
- » Failure Mode Identifier (FMI) code

At this point the operator can either perform an automatic Regeneration (stage 1), or skip automatic Regeneration.

WARNING!

The exhaust filter cleaning can only be skipped/disabled twice, and then a manual or parked Regeneration must be performed.

The compressor is factory set with active automatic Regeneration. To perform a manual or parked Regeneration, refer to 4.9 Sullivan-Palatek Electronic Controller (SPEC) Operating Instructions on page 30 for instructions.

WARNING!

Always take precautions while performing either type of Regeneration, as hotter exhaust temperatures may cause a fire or similarly dangerous situation. Refer to the engine manual for proper safety procedures.

When an automatic or manual Regeneration is in process, Regeneration icons are shown on the digital display. The table below shows each Regeneration symbol, active Regeneration process, and required operator action:

4.8.1 REGENERATION SYMBOLS SHOWN ON DISPLAY

INDICATOR	SYMBOL	ACTIVE WHEN	OPERATOR ACTION
Engine Emissions System Malfunction Indicator		1. Engine emissions outside of normal operating range. 2. Engine emissions system fault.	Contact your servicing dealer.
Engine Emissions System Malfunction and Warning Indicator		1. Engine emissions outside of normal operating range. Machine performance will be reduced. 2. Engine emissions system fault. Machine performance will be reduced.	Contact your servicing dealer.
Engine Emissions Temperature Indicator		1. Exhaust gas temperature is high. 2. Exhaust filter cleaning is in process.	Machine can be operated as normal. If operating in an area where high exhaust temperatures may be an issue, abort exhaust filter cleaning by using the disable feature.
Engine Emissions Temperature Indicator and Warning Indicator		Exhaust gas temperature is higher than expected. Machine performance is reduced.	Contact your servicing dealer.
Engine Emissions Temperature Indicator and Stop Indicator		Exhaust gas temperature is higher than expected. Machine performance is reduced.	Contact your servicing dealer.
Exhaust Filter Indicator		1. Soot level in the exhaust filter indicates need for an exhaust filter cleaning. *DTC: 003719.15 will be present. 2. Aftertreatment System Fault.	Enable auto filter cleaning to allow a cleaning cycle or begin a manual/parked cleaning. If filter cleaning is performed and indicator is still active, contact your servicing dealer.
Exhaust Filter and Warning Indicator		1. Machine performance is reduced due to moderately high soot level. *DTC: 003719.16 will be present. 2. Aftertreatment System Fault. Machine performance will be reduced.	Begin a manual/parked cleaning. If filter cleaning is performed and indicator still active, contact your servicing dealer.
Exhaust Filter and Stop Indicator		1. Exhaust filter requires a service. Machine performance is reduced due to extremely high soot level and a stop engine request is made. *DTC: 003719.00 will be present. 2. Aftertreatment System Fault. Machine performance is reduced.	Service the exhaust filter. Contact your servicing dealer.
Auto Cleaning Disabled Indicator		Auto exhaust filter cleaning is disabled.	If possible, enable auto cleaning.

*Diagnostic Trouble Codes (DTC)

SULLIVAN-PALATEK ELECTRONIC CONTROLLER (SPEC) OPERATING INSTRUCTIONS

The buttons for operation will be referred to numerically based upon the image at right.

Button functionality can vary depending on the operator input required for each page. Pages requiring custom button functionality will display button function icons directly above the buttons.

HOME PAGE

The Home Page screen shows current engine and compressor conditions. Additional warnings are displayed within the RPM gauge.

Buttons 1 and 5 cycle between the main screen and the replacement parts list;

Buttons 2 and 4 adjust the display contrast, 2 being darker and 4 being brighter;

Button 3 is the Main Menu button. It activates the Main Menu pop-up, shown below.

MAIN MENU

On the Main Menu pop-up:

Buttons 1 and 2 cycle between the selections;

Button 3 returns back to the Home Page;

Button 4 will display any faults;

Button 5 enters into the option selected with buttons 1 and 2.

Each pop-up menu item description follows:

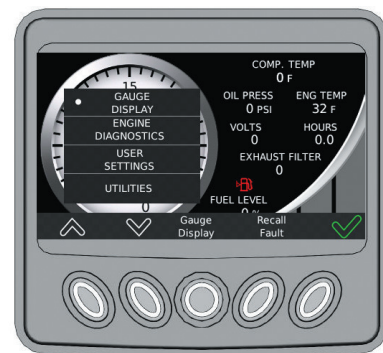
ENGINE DIAGNOSTICS MENU

Diagnostic messages and fault codes will be listed here.

Buttons 2 and 4 cycle between fault codes;

Button 3 returns back to the Home Page;

Button 5 refreshes the list of faults.



USER SETTINGS MENU

User display settings are located here.
Button 1 cycles through the list of selections;
Button 3 returns back to the Home Page;
Button 4 switches between day and night mode (min and max contrast);
Button 5 saves the settings.

Ambient Light: switches between day and light mode;

Brightness: fine tune the brightness/contrast;

Units: switch between units standards;

Language: switch between languages.



EXHAUST FILTER STATUS MENU

Exhaust filter options are located here.
Buttons 1 and 2 cycle through the list of selections;
Button 3 returns back to the Home Page;
Button 5 saves the settings.

Filter Status: displays the current filter status level;
Auto Exh Filter Clean: automatic filter cleaning is active;

Disable Exh Filter Clean: automatic filter cleaning is disabled;

Request Exh Filter Clean: activates manual Regeneration process.



NOTE: ALL UNITS ARE FACTORY PRESET WITH AUTOMATIC Regeneration ACTIVATED.

MANUAL REGENERATION PROCESS

To request a manual exhaust filter cleaning:

- 1.) Disable Exh Filter Clean is Active.
- 2.) Select **Interlock** and press button #5 to confirm. The INTERLOCK PIN PAD MENU (shown below) will appear with a numeric key pad.



INTERLOCK PIN PAD MENU

Enter "1000" and select button #5 to confirm.

- 3.) The **Interlock ON/OFF** page will appear (shown on the next page), with buttons available to change the Interlock setting from OFF to ON.



INTERLOCK ON/OFF

4.) Setting the Interlock to ON, the user must return to the EXHAUST FILTER STATUS MENU and move down to **Request Exh Filter Clean** option and a Regeneration will begin.

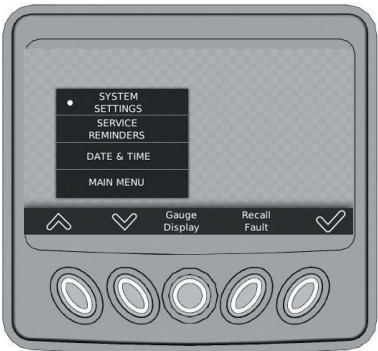


UTILITIES MENU

Buttons 1 and 2 cycle through the list of selections;
Button 3 returns back to the Home Page;
Button 4 recalls active faults;
Button 5 saves and confirms the settings.

System Settings: system operating information;
Service Reminders: recommended service intervals;
Date & Time: set the date and time;
Main Menu: return to the Main Menu/Home Page.

Each pop-up menu item description follows:



SYSTEMS SETTINGS

Button 3 returns back to the Home Page.



SERVICE REMINDERS

Button 3 returns back to the Home Page.



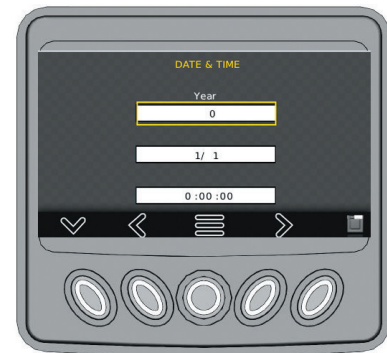
DATE AND TIME

Button 1 moves the selections up and down;

Buttons 2 and 4 increment the selection up or down;

Button 3 returns back to the Home page;

Button 5 saves and confirms the settings.



DIAGNOSTICS MESSAGE POP-UP

Fault codes will generate a pop-up message on screen.

Buttons 2 and 4 cycle between the fault codes.

Button 3 hides the fault pop-up message (the fault still remains listed in memory).



4.10 OPERATING UNDER EXTREME CONDITIONS

4.10.1 COLD WEATHER OPERATION

Use the correct coolant anti-freeze solution and engine oil for the lowest possible temperature expected.

CAUTION!

Make sure coolant and engine oil are approved by the engine manufacturer.

When operating the compressor at ambient temperatures below 20°F, use lubricants suited for these conditions. Refer to the *5.3 Compressor Lubrication on page 39*.

Optional starting aids and component pre-starting warming devices are available for some models for cold weather starting.

WARNING!

Do not inject ether starting fluid directly into air intake.

4.10.2 HOT WEATHER OPERATION

- » Keep the engine cooling system filled with clean coolant.
- » Check the coolant level daily or before each shift.
- » Keep the outside of the radiator and oil cooler clean.
- » Locate the unit in a well-ventilated area.
- » When operating in humid conditions, change the compressor oil more frequently.

4.10.3 DUSTY OR SANDY AREAS

- » When possible, wet down the area surrounding the operating site to keep dust and blowing sand to a minimum.
- » Inspect air filters before each operating shift or daily.
- » Keep radiator and oil cooler clean. Check daily and wash or blow clean as needed.

WARNING! *Check the compressor sump oil level only when the compressor is not operating and system is completely relieved of pressure.
Open pressure relief valve to ensure relief of system air pressure when performing maintenance on compressor air/oil system.
Failure to comply with this warning may cause property damage and serious bodily harm or death.*

4.11 PNEUMATIC TOOLS APPLICATION

WARNING! *Compressed air can be dangerous. Serious injury or death can result from the improper selection, use or application of tools and attachments to this compressor.*

WARNING! *Never inject compressed air into a bodily orifice.*

WARNING! *Never direct compressed air at or toward a person or animal.*

WARNING! *Do not breathe air produced by a portable air compressor.*

- » Install an appropriate flow-limiting valve between the compressor service air outlet and the shut-off (throttle) valve when an air hose exceeding ½-inch inside diameter is to be connected to the shut-off (throttle) valve. This is to reduce pressure in case of hose or connection failure, per OSHA Standard 29 CFR 1926.302 (as) (7).
 - » When a hose will be used to supply a manifold, install an appropriate flow-limiting valve between the manifold and each air hose exceeding ½-inch inside diameter that is to be connected to the manifold. This will reduce pressure in case of hose failure.
 - » Provide an appropriate flow-limiting valve for each additional 75 feet of hose in runs of air hose exceeding ½-inch inside diameter to reduce pressure in case of hose failure.
 - » Flow limiting valves are listed by pipe size and rated CFM. Select appropriate valves accordingly.
 - » Do not use tools that are rated below the maximum relief valve rating on this compressor. Do not exceed manufacturer's rated safe operating pressures for these items.
 - » Secure all hose connections by wire, chain, or other suitable retaining devices to prevent tools or hose ends from being accidentally disconnected. Unrestrained disconnected hoses can flail around and cause injury or damage.
 - » Vent and release all internal pressure prior to opening any line, fitting, hose, valve, drain plug or connection. This includes components such as filters, line oilers and optional airline anti-icing systems.
-

WARNING! *Serious injury can result from the direct discharge of compressed air. Do not allow personnel to be in line or front of the discharge opening of the service valve, hoses or tools or other points of compressed air discharge.*

- » Air gun cleaning devices must not be used and pressures above 30 psig (2 Bars). Always use an appropriate regulator to reduce pressure at the cleaning tool and always use with effective chip guarding and personal protective equipment per OSHA Standard 29 CFR 1910.242 (b).
-

WARNING! *Serious injury or death may result from horseplay with air hoses and compressed air. HORSEPLAY - DO NOT DO IT, DO NOT ALLOW IT!*

4.12 JUMP-STARTING BATTERY

WARNING! Always wear an acid-resistant apron, face shield with goggles and gloves when working with batteries!

WARNING! Batteries may contain hydrogen gas which is explosive and flammable! Keep flames, sparks and any other source of ignition away. Batteries also contain acid which is corrosive and poisonous. DO NOT allow battery acid to contact eyes, skin, or fabrics. Serious personal injury or property damage could result! Flush any contacted areas thoroughly with water immediately and seek medical attention.

NOTE! The following instructions are for single battery 12 VDC starting systems only. Make sure both compressor and starting vehicle have the ignition "OFF" before connecting the jumper cables.

1. Remove all vent caps from the battery or batteries in the compressor. Do not permit dirt or foreign matter to enter the open cells.

CAUTION! Remove vent caps on dead battery if the battery is a maintenance type and add distilled water if needed. This is not required if the battery is a maintenance-free type that is sealed.

2. Check fluid level. If low bring to a proper level before attempting to jump-start.
3. Locate the starting vehicle beside the compressor, but do not permit metal-to-metal contact between the compressor and the starting vehicle. Set the parking brakes of the compressor (if provided) and the starting vehicle, or chock or block both sides of all wheels. Place the starting vehicle in neutral or park, turn off nonessential accessory electrical loads and start its engine.
4. Connect one end of the RED (positive) cable to the positive (+) terminal on the dead battery in the compressor. Make sure the other end of this cable does not touch any metal surface that would cause arcing!
5. Connect the other end of the RED (positive) cable to the positive (+) terminal on the good battery in the starting vehicle.
6. Connect one end of the BLACK (negative) cable to the negative (-) post on the good battery in the starting vehicle.
7. Connect the other end of the BLACK (negative) cable to an unpainted metal surface on the compressor engine with the dead battery.
8. Make sure all the jumper cable clips have a good connection (good clamping force) before attempting to start.
9. Start vehicle with the good battery first and let it run a few minutes. Then attempt to start the compressor with the dead battery.
10. If the compressor starts then allow it to warm up and then remove the jumper cables while keeping the compressor running. Make sure not to let the clips of the cables touch while either end of the cables are attached to one of the batteries. This would cause arcing.
11. Replace vent caps on battery if required.
12. Move starting vehicle away from compressor.
13. If compressor engine starting motor will not crank after repeated attempts or the battery is still dead after running the compressor for over an hour (not taking charge), then the battery must be replaced.

5 MAINTENANCE

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5.1

MAINTENANCE SCHEDULE

COMPRESSOR MAINTENANCE SCHEDULE								
PROCEDURE	FREQUENCY (HOURS)						SEE NOTE	REF.
	DAILY	50	250	1000	2000	AS REQUIRED		
Check oil level (before starting)	x						1	5.3
Check radiator coolant level	x						1	
Check fuel supply (after starting)	x						1	
Check air filter elements	x						1,7	
Check for fuel, oil air and water leaks	x						1	
Drain water from compressor sump		x					2	
Drain water and sediment from fuel tank		x					2,7	
Change oil filter element		x		x			6	5.7
Change compressor oil				x		x	5	5.3, 5.4, 5.5
Check drawbar and bolt torque			x				3	5.2
Check wheel lug nuts			x				3	
Check tire pressure			x				3	
Inspect lifting frame (before each lift)			x				3	
Change compressor air filter element				x			4,7	5.10
Check axle spring shackles and mounting bolts				x			4	
Clean battery terminals				x			4	
Check battery hold-downs and cables for wear				x			4	
Check compressor shaft seal for leaking				x			4	5.15
Check air filter piping, fittings and clamps				x			4	
Check radiator hoses and clamps				x			4	
Check engine and compressor supports				x			4	
Replace air/oil separator element					x		5	5.12
Check all door gaskets, hinges and latches					x		5	
Drain engine radiator coolant and replace					x		5	
Clean and flush cooling system					x		5	5.14
Check protective circuits and verify proper function					x		5	
Check sump pressure relief valve					x		5	
Inspect and clean oil system thermostat						x	6	
Check control adjustment						x	6	5.16
Re-pack wheel bearings						x	6	
NOTES								
<ol style="list-style-type: none"> 1. Or every 10 hours of operation or on rent return 2. Or weekly 3. Or before returning to ready line 4. Or 6 months 5. Or annually 6. After first 50 hours of operation 7. More frequently in extreme operating conditions (dusty, humid, low temperature) 								

NOTE!

For engine maintenance, please refer to the Engine Manufacturer's Maintenance Manual.

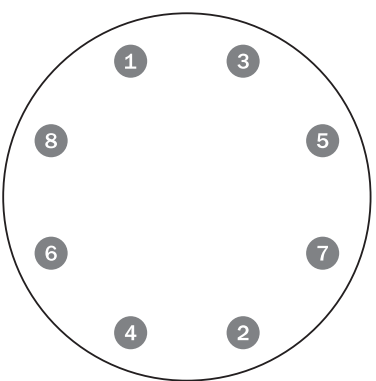
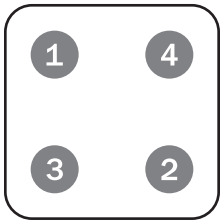
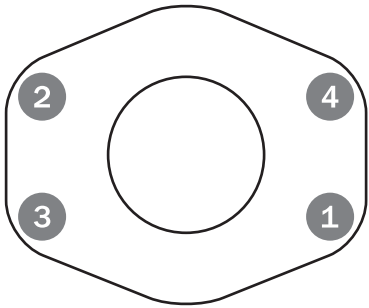
5.2

BOLT TORQUE GUIDELINES

5.2.1 INCH FASTENERS

INCH FASTENERS TORQUE				
Size	SAE Grade 5 (ft-lb)		SAE Grade 8 (ft-lb)	
	Dry	Oiled	Dry	Oiled
¼-20	8	6	12	9
⅜-18	17	13	25	18
⅝-16	30	23	45	35
⅞-14	50	35	70	55
½-13	75	55	110	80
⅝-12	110	80	150	110
¾-11	150	110	220	170
¾-10	260	200	380	280

5.2.2 TORQUE SEQUENCE

TYPICAL BOLT TORQUE PATTERNS		
Circular Pattern (8-Bolt)	Square Pattern	Flange Pattern
		

5.3

COMPRESSOR LUBRICATION

Change oil at least once a year, even if the normal oil change period in hours has not yet been reached.

CAUTION!

Never mix synthetic lubricants with hydrocarbon lubricants. Never mix synthetic lubricants manufactured from different base products. Severe damage to the compressor system may result.

Contamination of non-detergent mineral oils with traces of ATF, or detergent motor oils, may lead to problems such as foaming and plugging of filters, orifices, and lines. Lubricant manufacturers include a variety of additives in the blending process to enhance lubrication, product life and performance. Mixing different types or brands of lubricants is not recommended due to the possibility of a dilution of the additives or a reaction between additives of different types.

Environmental conditions in the area of compressor operation such as the presence of reactive gases or vapors in the air may lead to chemical changes and premature degradation of the lubricant. The useful life of synthetic lubricants may extend the normally recommended drain and replace period; however, the user is encouraged to closely monitor the lubricant condition and to participate in an oil analysis program with the fluid supplier. When ambient conditions exceed those noted, or if conditions warrant use of "extended life" lubricants, contact Sullivan-Palatek for a recommendation.

5.3.1 CHECK

The oil level should be checked daily.

1. Shut down the compressor (or check before the compressor is turned on).
2. Wait two minutes after the compressor stops to allow the pressure to be relieved and the oil to settle.
3. Observe the oil level in the fluid sight glass. The fluid sight glass should be ½ to ⅔ full.
4. While the compressor is running, the oil should be visible in the sight glass.

5.3.2 FILL

Before adding or changing compressor oil, completely relieve the sump of pressure. Venting the sump tank pressure relief valve will do this.

5.3.3 LEVEL

The proper oil level, when unit is shut down and oil has had time to settle, is across the center of the oil level sight glass. For oil sump capacity, see the 2.1 *Technical Data* on page 8.

WARNING!

Compressor must be shut down and pressure completely relieved from system before checking fluid levels. Open pressure relief valve to assure relief of system air pressure. Failure to comply with this warning may cause property damage and serious bodily harm or death.

5.3.4 DRAIN

Always warm compressor thoroughly prior to changing the compressor oil. A drain valve is provided at the bottom of the sump tank and oil cooler. When changing the oil, make sure system is completely drained to reduce potential contamination. Oil is added at the fill plug on the side of the sump tank.

WARNING!

Do not attempt to drain water, remove the oil level fill plug, or break any connection in the air or oil system until all the pressure has been relieved. Check by manually opening the sump pressure relief valve. Serious injury or death may result if this warning is not followed.

5.4

WEATHER-ALL™ COMPRESSOR LUBRICANT

All of Sullivan-Palatek's portable air compressors are initially filled with Sullivan-Palatek's WEATHER-ALL HP™ Compressor Fluid at factory. This custom-formulated, multi-viscosity 5W-20 lubricant is specifically designed for long life under severe, demanding conditions. Maximum protection against scuffing and wear to bearings and rotors, and wear-control for steel and brass parts when operating at maximum pressure ratings results in extended compressor life. Extensive testing has shown this fluid exhibits excellent resistance to foaming, oil oxidation and corrosion of yellow metals and limits rust of ferrous metals.

This synthesized hydrocarbon-based fluid provides quick water separation which enhances equipment protection in wet and humid service environments. It offers an excellent viscosity index of 180 as well as low pour point of -40°F.

Sullivan-Palatek strongly advises the continued use of WEATHER-ALL to ensure optimal compressor performance, and lower equipment maintenance costs.

LUBRICANT SPECIFICATIONS			
ISO Viscosity Grade	32	Normal Service Life	1000 hours*
SAE Viscosity Grade	5W-20	Viscosity Index	180
Viscosity, cst. 210°F	50 SUS	Pour Point	-40°C / -40°F
Viscosity, cst. 100°F	170 SUS	Flash Point	199°C

NOTE!

These values are not intended for use in preparing specifications.

*Service life is only a guideline for typical oil life if temperature is the only variable to be considered. Many variables affect the oil life, i.e. environmental impact from various gases, dust and dirt, compressor short cycling, etc.

Sullivan-Palatek recommends oil sampling as the best guide for your fluid change interval. Changing fluid once a year may not be adequate or it can be excessive. For this reason an hourly service on lubricants is merely a guide. Please consult your factory-trained servicing distributor for questions concerning your lubricant life and Sullivan-Palatek's lubricant sampling program. See 5.5 *Oil Sample for Analysis* for additional information.

5.5

OIL SAMPLE FOR ANALYSIS

The first oil sample should be drawn after the compressor has run for 500 hours or 3 months. Intervals for following oil samples will be determined by the analysis results.

SAMPLE OIL FROM SUMP TANK

1. Run the compressor long enough to reach normal operating temperatures.
2. Turn compressor OFF and allow pressure to blow down to 0 psi.
3. Remove the drain plug from the end of the drain line at the bottom of the sump tank.
4. Open the drain valve and drain any water from the sump tank. Discard in an approved manner.
5. Fill the clear sample bottle (2) with oil. The sample bottle (2) must be at least one-third full.
6. Close the drain valve and replace the plug in the drain line.
7. Start the compressor according to 5.3 *Normal Starting* procedures.
8. Check the oil level during operation. Add oil if necessary according to 5.3.2 *Fill* procedures.

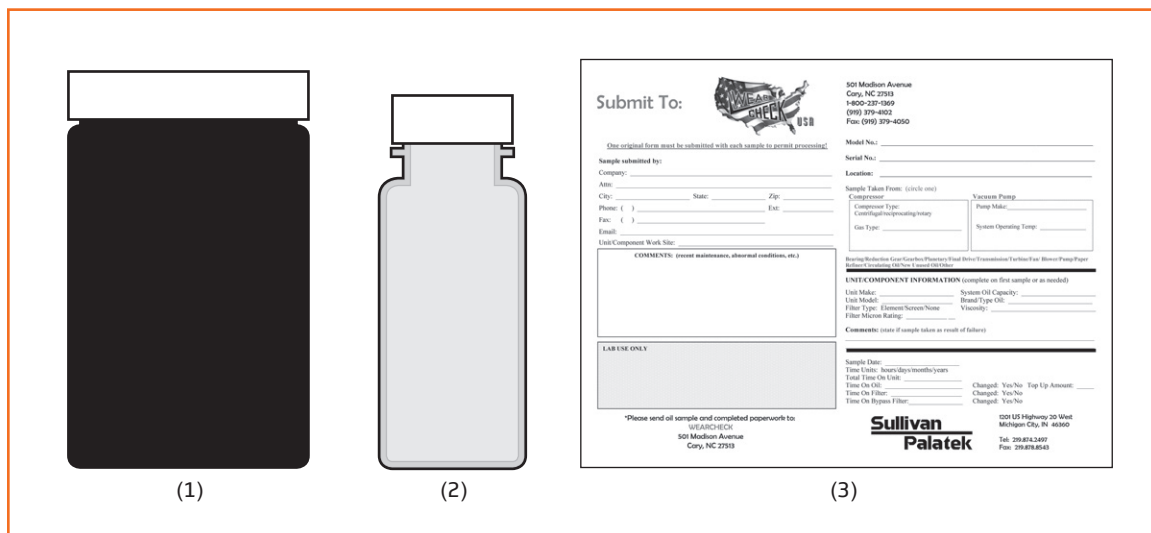


FIGURE 5-1. OIL ANALYSIS KIT (P/N K00031-035)

SUBMIT OIL SAMPLE

1. Fill out all the information on the oil sample form (3) provided with the oil analysis kit. Please make sure the form is completely and legibly filled out.
2. Place the oil sample bottle (2) inside the black canister and put the lid on.
3. Mail the sample with the form to:
Wear Check
501 Madison Avenue
Cary, NC 27513

INTERPRET RESULTS

Once the sample is processed the laboratory will e-mail the results of the oil analysis to the sender of the sample. The analysis report includes customer unit information, sample data, spectrochemical analysis, physical properties, additional test results and analysis recommendations. If previous oil samples have been submitted for analysis, that information will also be on the report. Information to assist in understanding the analysis report is included on the front of the report.

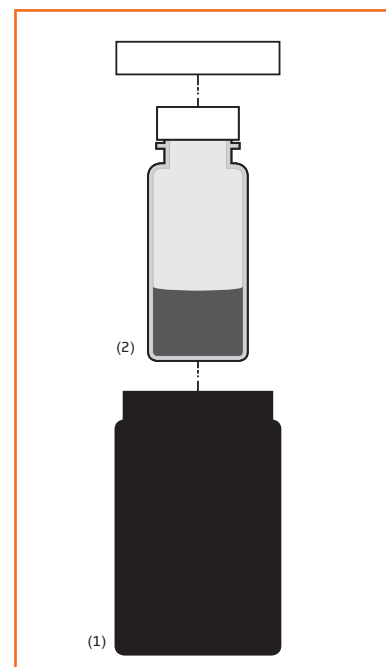


FIGURE 5-2. MAIL ANALYSIS KIT

5.6

CURBSIDE SERVICE ACCESS

All maintenance points, drains, and the SPEC controller display are conveniently located behind the curbside access door. Fuel fill and serviceable parts such as filters can be accessed from this location.

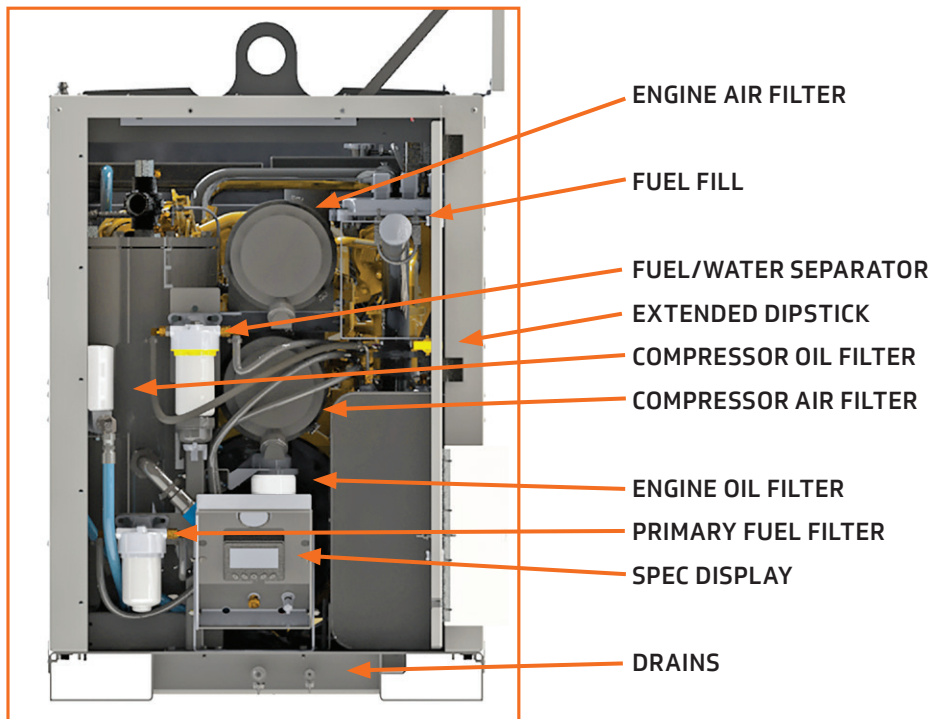


FIGURE 5-3. CURBSIDE FUEL AND FILTER ACCESS

5.7

COMPRESSOR OIL FILTER

Replace the oil filter element once after the first 50 hours of operation, then every 1,000 hours. Replace more frequently in extreme operating conditions.

5.7.1 INSPECTION

The compressor oil filter should be checked making sure it has the proper element and it is properly installed and not leaking.

5.7.2 REMOVAL

1. Make sure the system pressure is relieved.
2. Place oil spill pan under filter. Remove oil filter element by unscrewing it from the filter head (turn counter-clockwise) and discard. The use of a strap-type wrench may be necessary.

5.7.3 INSTALLATION

1. Install a new oil filter by applying a thin film of oil to the seal. Screw the oil filter on by hand, turning it clockwise until the gasket seats. Then turn an additional $\frac{1}{2}$ to $\frac{3}{4}$ turn by hand.
2. Check for leaks in operation.

5.8

ENGINE LUBRICATION

Refer to Engine Operation and Maintenance Manual for recommended engine lubricating oil, service intervals, and maintenance practices.

5.9

GREASE

Use a multi-purpose type grease (MKG) or multi-purpose type grease with molybdenum disulfide (MPGM) conforming to MIL-L-7866 for all parts.

5.10

AIR INTAKE FILTER

Check daily, every 10 hours of operation or on rent return. Replace every 1,000 hours or 6 months. Replace more frequently in dusty conditions. Empty the evacuator valve (dust boot) daily.

5.10.1 REMOVAL AND INSPECTION

1. Unscrew wingnut to remove air filter cover.
2. Remove and inspect the used primary element by turning counter-clockwise to unscrew. Unscrew air filter wingnut and pull used primary element to remove.
3. The air filter elements should be thoroughly inspected for holes by placing a lamp inside the element and carefully checking for areas of bright light passing through the element and seal.

5.10.2 INSTALLATION

1. Insert new filter(s) into place and tighten wingnuts.
2. Place cover back on air filter and tighten wingnut/close locking devices.

5.11 OIL RETURN LINE

Check the oil return line periodically to make sure that it does not become clogged. A clogged line results in excessive oil consumption and oil in the service lines.

5.11.1 INSPECTION

Inspect oil return line for clogging.

5.11.2 CLEANING

If clogging is indicated, check and clean the entire line, including the orifice fitting at the compressor end, and the siphon tube inside the separator. Usually, blowing with a reverse flow of compressor air will clean the line.

5.12 AIR/OIL SEPARATOR

Replace the air/oil separator every 2,000 hours, annually, or when differential exceeds 10 psi. The air/oil separator employs a unitized element.

The separator element is a single piece unit, which requires replacement when it fails to remove the oil from the discharge air. Prior to replacing the separator element be sure to check the oil return line and orifice for plugging or restrictions.

WARNING!

Prevent separator flash or fire. Maintain the separator element in proper condition and do not allow it to become plugged with dirt and oxidized oil; be certain that the sump lid is properly grounded to the sump when installing a new separator. DO NOT REMOVE THE GROUNDING STAPLES IN SEPARATOR GASKET.

The combination of a build-up of dirt and oxidized oil can clog the element causing an increase in air velocity at narrow points on the element media. Elevated temperatures at these points can result in ignition of the fluid in the oil sump.

5.12.1 REMOVAL

1. Relieve sump pressure to zero pressure.
2. Disconnect oil return line. Loosen fitting and pull siphon tube up out of separator.
3. Remove service air piping from minimum pressure valve.
4. Mark and disconnect necessary tubing at separator cover and then remove cover.

5.12.2 INSTALLATION

WARNING!

Failure to properly ground the sump lid and separator can result in the build-up of an electric charge leading to ignition inside the sump. DO NOT REMOVE THE GROUNDING STAPLES IN SEPARATOR GASKET. Failure to comply with this warning may cause property damage and serious bodily harm or death.

1. Remove and replace element.

WARNING!

Lid and sump tank top must be clean to ensure proper grounding between element and tank. Make sure grounding staples are in top and bottom gasket.

2. Replace separator cover; tighten bolts gradually in an opposing manner until required torque is reached. Refer to 5.2 Bolt Torque Guidelines.
3. Clean oil return line and orifice.
4. Install service air piping and reconnect all tubing. When replacing the oil return siphon tube, allow it to contact the bottom of the sump tank then back off no more than 1/16 inch.

NOTE!

If the separator element has to be replaced frequently because it is plugged, it is an indication that dirt is entering the inlet system, the compressor oil filter is faulty, or the oil is breaking down. The complete inlet system, starting with the air cleaner, and all joints in piping to the inlet valve, should be checked for leaks.

5.13 THERMAL VALVE

Inspect and clean the thermal valve if the unit shuts down because of high compressor discharge oil temperature.

5.13.1 INSPECTION

Inspect the valve by removing it from the bypass housing. Sediment particles may lodge in the valve-seating surface and prevent it from opening, thereby allowing hot oil to pass directly to the compressor without being cooled.

5.14 OIL COOLER

The interior of the oil cooler should be cleaned when the pressure drop across the cooler at full load exceeds 25 psi.

5.14.1 INSPECTION

Inspect compressor oil system for signs of varnish.

5.14.2 REMOVAL

1. Drain compressor fluid.
2. Remove oil cooler.

5.14.3 CLEANING

Circulate a suitable solvent to dissolve and remove varnish and sludge.

5.14.4 INSTALLATION

1. Replace oil cooler and fill compressor with fresh oil.
2. Operate the machine normally for 50 hours.
3. After 50 hours, change compressor oil and install a new oil filter element.

5.15 COMPRESSOR SHAFT OIL SEAL

Check the compressor shaft seal for leaking oil every 1,000 hours or 6 months.

5.15.1 INSPECTION

Inspect the compressor shaft seal for signs of leaking oil.

NOTE!

If replacement is necessary, removal and installation instructions will be provided with the shaft seal kit.

5.16 CONTROL ADJUSTMENTS

The engine speed governor and pressure regulator are preset at the factory and normally require no servicing. However, if it becomes necessary to make adjustments, use the following procedures:

5.16.1 DISCHARGE PRESSURE ADJUSTMENT

Unit must be in RUN mode before adjusting. To increase pressure, loosen locknut on pressure regulator adjustment screw and turn screw clockwise. Lower the operating pressure by turning screw counter-clockwise. Reset locknut after adjustment is completed. See Figure 5-4.

Check engine speed whenever pressure settings have been changed. Only the unloaded pressure can be selected with the pressure regulating valve. Full and part load pressures are a function of air usage.

5.16.2 ENGINE SPEED

Engine speed is controlled by the Sullivan-Palatek Electronic Controller (SPEC). The full load and idle speeds are programmed at the factory and there should be no need for adjustment. If the machine is experiencing speed problems please contact our Service Department. For full load speed and discharge pressure values see 2.1 *Technical Data* on page 8.

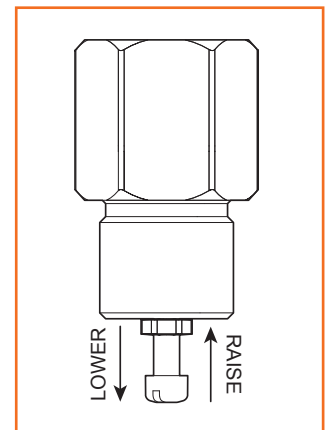


FIGURE 5-4. PRESSURE REGULATING VALVE

6 TROUBLESHOOTING

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6.1

INTRODUCTION

This section contains instructions for troubleshooting the equipment following a malfunction. Each issue or problem is followed by a list of probable causes and suggested actions to be followed in order to eliminate the cause.

The actions listed should be performed in the order listed, although the order may be varied if the need is indicated by conditions under which the problem occurred. The action which can be performed in the least amount of time and with the removal or disassembly of the fewest parts should be performed first.

6.2

UNPLANNED SHUTDOWN

POSSIBLE CAUSE	ACTION
Low Fuel	Fill the machine with fuel and retest.
High compressor discharge temperature	Check compressor oil level; add as needed. Clean the coolers and pressure check. Check the fan belt tension. Adjust or replace as needed. Verify correct operation of thermal by-pass valve. Change compressor oil and oil filter element. Clean oil cooler internally. Inspect and clean the thermal by-pass valve by removing valve from by-pass housing. Sediment particles can lodge in the valve-seating surface and prevent from closing, allowing hot oil to pass directly to the compressor without being cooled.
Water or contamination in fuel filter	Replace all fuel filters and drain the water from the fuel tank(s).
Low engine coolant and/or high engine coolant temperature	Check the engine coolant level. Add as needed. Clean the coolers. Check the fan belt tension. Adjust or replace as needed. Refer to Engine Manufacturer's manual.
Low engine oil pressure fault code	Check engine oil; add as needed. Verify the engine oil pressure exceeds engine manufacturer's spec with the engine running.
Obstruction in radiator and/or oil cooler	Remove any external obstructions and clean the coolers.
Improper fan belt tension	Replace the fan belt or tensioner as needed.
Broken hoses or oil lines	Repair/Replace any broken hoses or oil lines.
Loose or broken wires	Repair/Replace any loose or broken wires.

If none of the above caused the shutdown, restart the engine and observe the engine oil pressure, engine water temperature, and compressor discharge temperature and pressure. Refer to the *Wiring Diagram on page 10* and information on the protection circuits for shutdown conditions. If it is found that low engine oil pressure or high engine water temperature is causing the shutdown, refer to the Engine Manufacturer's manual.

6.3

DISCHARGE PRESSURE IS TOO LOW

POSSIBLE CAUSE	ACTION
Start/Run valve in the START position	Move the Start/Run valve to the RUN position and retest.
Too much air demand	Add additional compressor to handle the demand or decrease the air demand.
Service valve open	Close service valve and retest.
Regulator valve faulty or mis-adjusted	Properly adjust the regulator. Rebuild/replace the regulator valve if necessary.
Service line leaks	Repair any leaks found and retest.
Compressor inlet air filter restricted	Replace the air filter and retest.

6.4

DISCHARGE PRESSURE IS TOO HIGH OR RELIEF VALVE BLOWS

POSSIBLE CAUSE	ACTION
Regulator valve faulty or mis-adjusted	Properly adjust the regulator. Rebuild/replace the regulator if necessary.
Inlet valve not closing properly	Check the white sealing ring for the poppet valve, to ensure it is intact and not damaged.
Ice or debris in control lines	Clean debris from the control lines. Thaw out the control lines to remove the ice buildup. Optional Heater Kit available—consult factory for information. Direct the lines so there is a low point to drain any condensate.
Pressure relief valve faulty	Replace the faulty relief valve.
Oil separator plugged	Replace the oil separator.
Inlet valve leaks at base	Replace O-ring.
Compressor shaft seal leaking	Replace the compressor shaft seal and retest.

6.5

RELIEF VALVE BLOWS WITH THROTTLE LEVER IN IDLE POSITION

POSSIBLE CAUSE	ACTION
Inlet valve not closing properly	Check the white sealing ring for the poppet valve, to ensure it is intact and not damaged. (185–375 CFM compressors) Rebuild/replace valve.

6.6

PRESSURE DOES NOT BLOW DOWN AFTER SHUTDOWN

POSSIBLE CAUSE	ACTION
Automatic blowdown valve may be faulty	Check operation of the automatic blowdown valve. Replace if necessary.
Air line from inlet valve or sump to blowdown valve may be restricted	Verify the pilot signal is reaching the automatic blowdown valve. Verify the blowdown valve is plumbed correctly.

6.7

COMPRESSOR OIL LEVEL IS DECREASING EXCESSIVELY

POSSIBLE CAUSE	ACTION
Oil line leaking	Repair or replace any leaking lines and retest.
Oil cooler leaking	Repair or replace the leaking oil cooler and retest.
Compressor shaft seal leaking	Replace the compressor shaft seal and retest.
Oil in service line	See 6.8 <i>Oil in Service Line</i> section.

6.8

OIL IN SERVICE LINE

POSSIBLE CAUSE	ACTION
Oil return line plugged or restricted	Remove the oil return line and clean.
Separator element plugged or damaged	Replace the separator element and change compressor oil.
Discharge pressure below 90 psi	The air demand may be too much. Add compressors or decrease the demand. Adjust the discharge pressure above 90 psi. Check MPV operation; rebuild/replace as needed.

6.9

ENGINE DOES NOT ACCELERATE OR WILL NOT MAINTAIN FULL LOAD SPEED

POSSIBLE CAUSE	ACTION
Compressor discharge pressure too high	Adjust the pressure to the maximum operating pressure for the machine.
Engine problem	Have an authorized engine repair facility inspect the engine.
Operating above maximum altitude rating of engine	Refer to Engine Manufacturer's recommendation on maximum altitude.

6.10

SEPARATOR PLUGGING

POSSIBLE CAUSE	ACTION
Dirt and dust blockage in air inlet filters	Replace the air inlet filters.
Check compressor oil filter element	Replace the compressor oil and filter if necessary.

If the separator element has to be replaced frequently because it is plugging up, it is an indication that foreign material may be entering the compressor inlet or the compressor oil is breaking down. Compressor oil can break down prematurely for a number of reasons:

- » Extreme operating temperature
- » Failure to drain condensate from oil sump
- » Using the incorrect type of oil
- » Mixing different types of oil
- » Prolonged operation at extreme ambient temperatures
- » Foreign material, gases or vapors entering compressor inlet

6.11

ENGINE SPEED CONTROL DOES NOT CHANGE TO IDLE SPEED WITH SERVICE VALVES CLOSED

POSSIBLE CAUSE	ACTION
Faulty pressure transducer	Replace pressure transducer.
Faulty or broken wires to SPEC or pressure transducer	Fix or replace broken wires.
Faulty SPEC	Replace the SPEC or flash new program.

6.12

ENGINE SPEED CONTROL DOES NOT CHANGE TO FULL SPEED WITH AIR DEMAND

POSSIBLE CAUSE	ACTION
Start/Run valve is positioned in START instead of RUN	Move the Start/Run valve to the RUN position.
Discharge pressure regulator faulty or improperly set	Properly adjust the regulator. Rebuild/replace the regulator if necessary.
Faulty pressure transducer	Replace pressure transducer.
Faulty or broken wires to SPEC or pressure transducer	Fix or replace broken wires.
Faulty SPEC	Replace the SPEC or flash new program.

6.13

COMPRESSOR OIL LEAKING IN CONTROL LINES/ORIFICES

POSSIBLE CAUSE	ACTION
Compressor oil level in sump tank too full	Check and adjust compressor oil as needed.
Oil return line (scavenger tube) plugged or restricted	Remove the oil return line and clean.
Separator element plugged or damaged	Replace the separator element and change compressor oil.
High compressor discharge temperature	Check the compressor oil level; add oil as needed. Clean the oil cooler. Check the fan belt. Adjust or replace as needed. Check thermal by-pass valve (compressor oil thermostat). Change compressor oil and oil filter element. Clean the oil cooler internally.
Discharge pressure below 90 psi	The air demand may be too much. Add compressors or decrease the demand. Adjust the discharge pressure above 90 psi. Check MPV operation, rebuild/replace as needed.
Diaphragm in recirculation valve ruptured	Inspect the diaphragm, rebuild/replace as needed.



PARTS CATALOG

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7.1

ORDERING PARTS

A list of recommended spare parts for this compressor is provided on the following page. These parts can be kept on hand to minimize downtime for the most common maintenance issues. A complete parts listing is included with exploded drawings for all the parts on the compressor.

Parts should be ordered from the nearest full-service distributor or factory-authorized compressor center. Only call the factory if parts cannot be obtained locally. Before calling to order parts, please have the model and serial number information available. This information can be found on the serial number plate located on the compressor.

NOTE!

Use the space provided on the inside cover of the manual to record the model and serial number of the compressor for future reference.

7.1.1 CONTACT INFORMATION

For replacement parts and manuals contact:

Sullivan-Palatek, Inc.
1201 West US Highway 20
Michigan City, Indiana 46360

Phone: (219) 874-2497
Fax: (219) 872-5043
Toll Free: (800) 438-6203
www.sullivan-palatek.com

7.2

PARTS DRAWINGS

The parts drawings are exploded drawings of the various assemblies and sub-assemblies which make up this machine. Standard models and more popular options available are covered.

NOTE!

In referring to the rear, the front or to either side of the unit, always consider the instrument panel end of the unit as the front. Standing at the rear of the unit facing the instrument panel (front) will determine the right and left sides.

7.3

FASTENERS

Both SAE/inch and ISO/metric hardware have been used in the design and assembly of these units. In the disassembly and reassembly of parts, extreme care must be taken to avoid damaging threads by the use of wrong fasteners.

7.4

RECOMMENDED SPARE PARTS

D210UHD4

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00521-082	ELEMENT, AIR FILTER (PRIMARY)	1
2	00521-0825	ELEMENT, AIR FILTER (SECONDARY)	1
3	01900520 0012	ELEMENT, OIL FILTER (COMPRESSOR)	1
4	01900520 0030	ELEMENT, OIL FILTER (ENGINE)	1
5	01900522 0119	ELEMENT, FUEL FILTER (PRIMARY)	1
6	01900522 0118	ELEMENT, FUEL/WATER SEPARATOR JD4045TFC03	1
7	00543117 0026	ELEMENT, AIR/OIL SEPARATOR	1
8	05018155 0036	FILTER, CRANK CASE VENT.	1
9	01228207 0025	GASKET, THERMOSTAT 1-1/2"	1
10	00600701 0406	SWITCH, IGNITION	1
11	05019415 0053	SWITCH, COMPRESSOR DISCHARGE TEMP (CDT)	1
12	050194150010	SWITCH, ENGINE WATER TEMP (EWT)	1
13	03100-008	VALVE, SAFETY	1
14	05019820 0001	VALVE, 2-WAY 1/4 NPT (START-RUN)	1
15	09661-002	VALVE, PRESSURE REGULATOR	1
16	01900152 0066	BELT, FAN JD 4045	1
17	KB09147-362	KIT, SHAFT SEAL	1
18	00717708 0021	KIT, DRIVE COUPLING REPLACEMENT	1
19	00717708 0004	KIT, SERVICE INLET VALVE 108MM	1
20	00823062 0009	FLUID, COMPRESSOR WEATHER-ALL (5 GALLON)	1
	00823062 0010	FLUID, COMPRESSOR WEATHER-ALL (55 GALLON)	1

NOTE!

Use only service parts supplied or recommended by Sullivan-Palatek. Use of substitutes may void warranty. See **STANDARD WARRANTY** for details.

7.5

SERVICE KITS

Service kits are available for basic servicing of the compressor and engine. Buying kits offers savings over buying individual parts. There are annual kits (wet or dry) for a year's worth of compressor and engine servicing and line service kits for a single compressor and engine service.

DESCRIPTION	CONTENTS	PART NUMBER
SERVICE KIT, ANNUAL (WET)	4 ELEMENT, AIR FILTER (PRIMARY) 4 ELEMENT, AIR FILTER (SECONDARY) 2 ELEMENT, OIL FILTER (COMPRESSOR) 2 ELEMENT, OIL FILTER (ENGINE) 2 ELEMENT, FUEL FILTER 1 ELEMENT, SEPARATOR AIR/OIL 2 ELEMENT, SEPARATOR FUEL/WATER 2 FLUID, COMPRESSOR WEATHER-ALL (5 GALLON)	00717701 0135
SERVICE KIT, ANNUAL (DRY)	4 ELEMENT, AIR FILTER (PRIMARY) 4 ELEMENT, AIR FILTER (SECONDARY) 2 ELEMENT, OIL FILTER (COMPRESSOR) 2 ELEMENT, OIL FILTER (ENGINE) 2 ELEMENT, FUEL FILTER 2 ELEMENT, SEPARATOR FUEL/WATER 2 FLUID, COMPRESSOR WEATHER-ALL (5 GALLON)	00717701 0136
SERVICE KIT, LINE	2 ELEMENT, AIR FILTER (PRIMARY) 2 ELEMENT, AIR FILTER (SECONDARY) 1 ELEMENT, OIL FILTER (COMPRESSOR) 1 ELEMENT, OIL FILTER (ENGINE) 1 ELEMENT, FUEL FILTER 1 ELEMENT, SEPARATOR FUEL/WATER 1 FLUID, COMPRESSOR WEATHER-ALL (5 GALLON)	00717701 0132

7.6 ENGINE ASSEMBLY

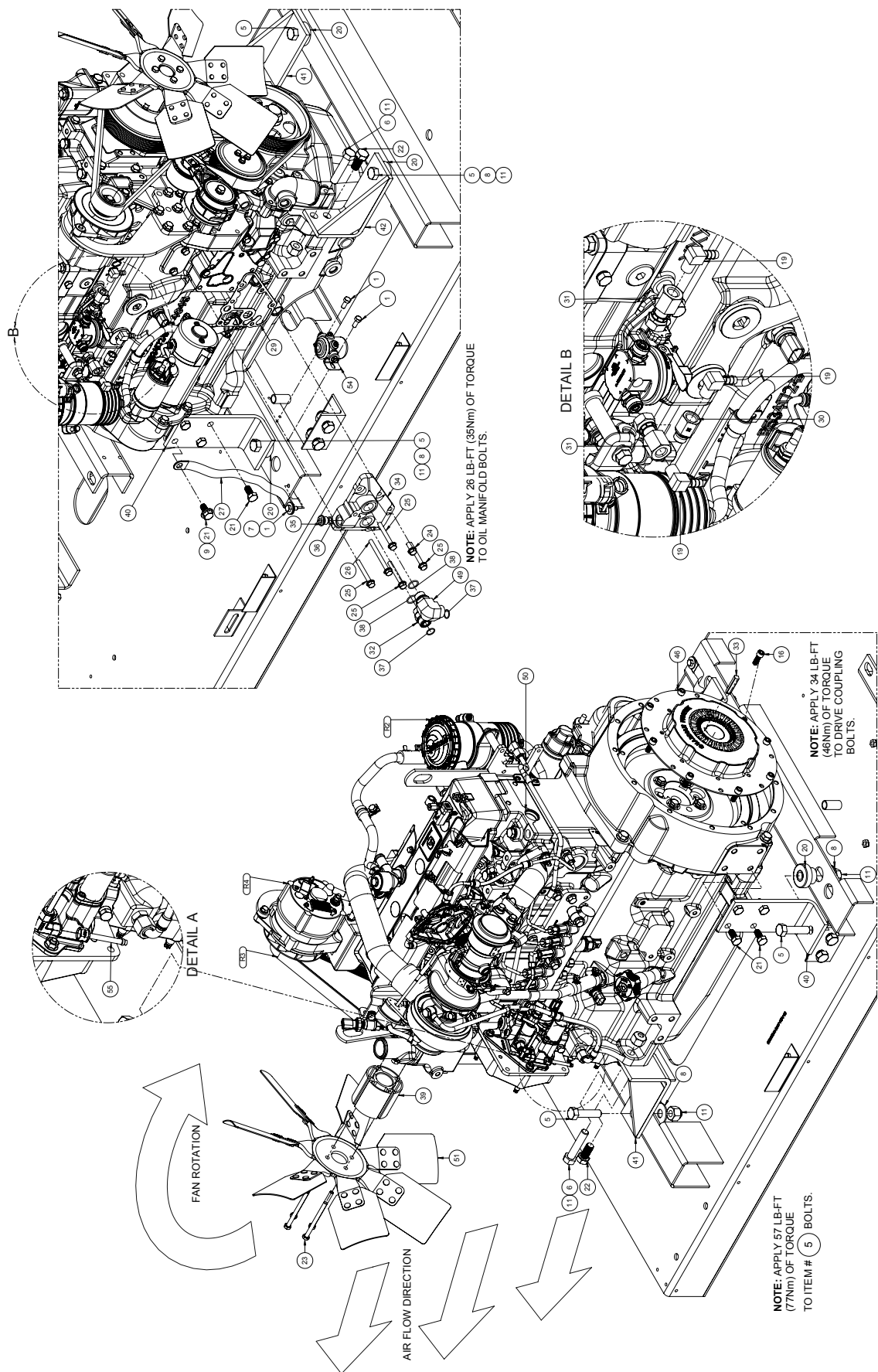


FIGURE 8-1. 00717585 0301 (REV 01)

00717585 0301 ENGINE ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00900112 0002	BOLT, HEX 5/16-18 X 3/4 GR8	4
2	00900112 0013	BOLT,HEX 3/8-16 X 1 GR8	2
3	00900112 0032	BOLT,HEX 5/16-18 X 1 1/2 GR8	4
4	00900112 0061	BOLT,HEX .250-20 X 2.250 GR8	2
5	00900112 0075	BOLT, HEX 5/8-11 X 2 1/2" GR8	4
6	00900112 0095	BOLT, HEX 5/8-11 X 3" GR8	2
7	00900321 0004	WASHER, FLAT .375 ZINC PLATED	1
8	00900321 0006	WASHER,FLAT 5/8" ZINC PLATED	4
9	00900323 0011	WASHER, FLAT .500 ZINC PLATED	1
10	00900490 0112	NUT, NYLOK 3/8-16 SS	2
11	00900490 0098	NUT,NYLOK 5/8-11,S.S.	6
12	00900490 0130	NUT, NYLOK .250-20 STAINLESS STEEL	2
13	00900490 0131	NUT, NYLOK 5/16-18 STAINLESS STEEL	5
14	00900718 0004	UNION, FEMALE ADAPT 1/2NPT X 1/2NPT	1
15	00901241 0570	SEAL, OIL JD 4045	1
16	00902224 0071	BOLT, SOCKET HEAD CAP SCREW .38-16 X 1.0	8
17	00902905 0006	CLAMP, SUPPORT .94 ID	1
18	00906814 0018	HOSE ASSY, JD 4045 REMOTE OIL	2
19	00908397 0034	BARB, ELB 5/16 HOSE X 1/4 MNPT	3
20	00910335 0007	ISOLATOR,VIBRATION 450#	4
21	00925012 1117	BOLT, HEX HD M12-1.75 X 25MM GR 8.8 ZINC PLATED	8
22	00925012 1321	BOLT, HEX HD M16-2 X 35MM GR 8.8 ZN PLT	2
23	00925025 0933	SCREW, 8MM X 100MM LG G8	4
24	00925012 0916	FLANGE BOLT, M8-1.25 X 20MM	1
25	00925012 0927	FLANGED BOLT, M8-1.25 X 65MM	4
26	00925012 0931	FLANGE BOLT, M8-1.25 X 90MM	1
27	01660689	STRAP, GROUND	1
28	01900216 0823	BRACKET, JD 4045 OIL FILTER	1
29	01900460 0056	GASKET OIL MANIFOLD JD4045	1
30	01900592 0070	ADAPTER, M14-1.5 X 1/4FPT	1
31	01900592 0071	ADAPTER 0.38FPT X .025FPT SWIVEL	2
32	01900592 0076	ADAPTER, M22-1.5 X 1"-14 UNS	2
33	01900858 0001	KEY, 3/8 X 3/8 X 1-7/8 RND END	1
34	01900912 0011	MANIFOLD, REMOTE OIL JD4045	1
35	01901166 0035	PLUG, M16-1.5 SOCKET HD	2
36	01901244 0032	O-RING JD 4045 13.3 X 2.2MM	2
37	01901244 0033	O-RING JD 4045 OIL KIT	4
38	01901244 0034	O-RING JD 4045 19.3 X 2.2MM	4
39	01901416 0092	SPACER, FAN	1
40	01901520 0256	SUPPORT, REAR ENGINE	2
41	01901520 0278	SUPPORT, ENGINE FRONT LH	1
42	01901520 0279	SUPPORT, ENGINE FRONT RH	1
43	05017420 0059	CABLE, BATTERY POSITIVE	1
44	05017420 0062	CABLE, BATTERY GROUND 13.0	1

ITEM	PART NUMBER	DESCRIPTION	QTY
45*	05017687 0103	ENGINE ECU JD 4045T4 (REF)	1
46‡	05017720 0041	COUPLING, DRIVE D185-250 108MM AIREND	1
47	05017851 0010	DIPSTICK ASSY, JD 4045 T4F	1
48	05017930 0011	ELBOW, 90° 1/2MJIC X M18X1.5	1
49	05017930 0021	ELBOW, 90 DEG, M22 X 1.5 X 1"-14 UNS	2
50*	05017990 0210	ENGINE, JD4045TFC003 74HP T4 PTO A	1
51	05018095 0041	FAN, BLOWER 20.0 OD	1
52	05018185 0050	FILTER HEAD, REMOTE ENGINE OIL JD 4045	1
53	05018485 0418	HOSE ASSY, 1/2 ID X 24.0 LG	1
54	05019280 0015	RELAY, SOLENOID 12VDC WEATHERPROOF	1
55	05019550 0085	TUBE, ASSY VIBRA LOK NUT AND BARB	1
NS	05018395 0247	HARNESS, ENG-ECU JD 4045 T4F	1
NS	05018395 0253	HARNESS, STARTER GRNDS JD 4045	1

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	01900520 0030	ELEMENT, ENGINE OIL FILTER	1
R2	05018155 0036	FILTER, CRANK CASE VENT.	1
R3	01900152 0066	BELT, FAN JD 4045	1
R4	01900018 0002	ALTERNATOR, 12V 70 AMP JD	1
	00717708 0021	KIT, DRIVE COUPLING‡	1

*For all John Deere engine parts, please contact your local John Deere Dealer.

‡The Drive Coupling Replacement Kit (p/n 00717708 0021) contains items #46, #33 and #16.

ENGINE ASSEMBLY (CONTINUED)

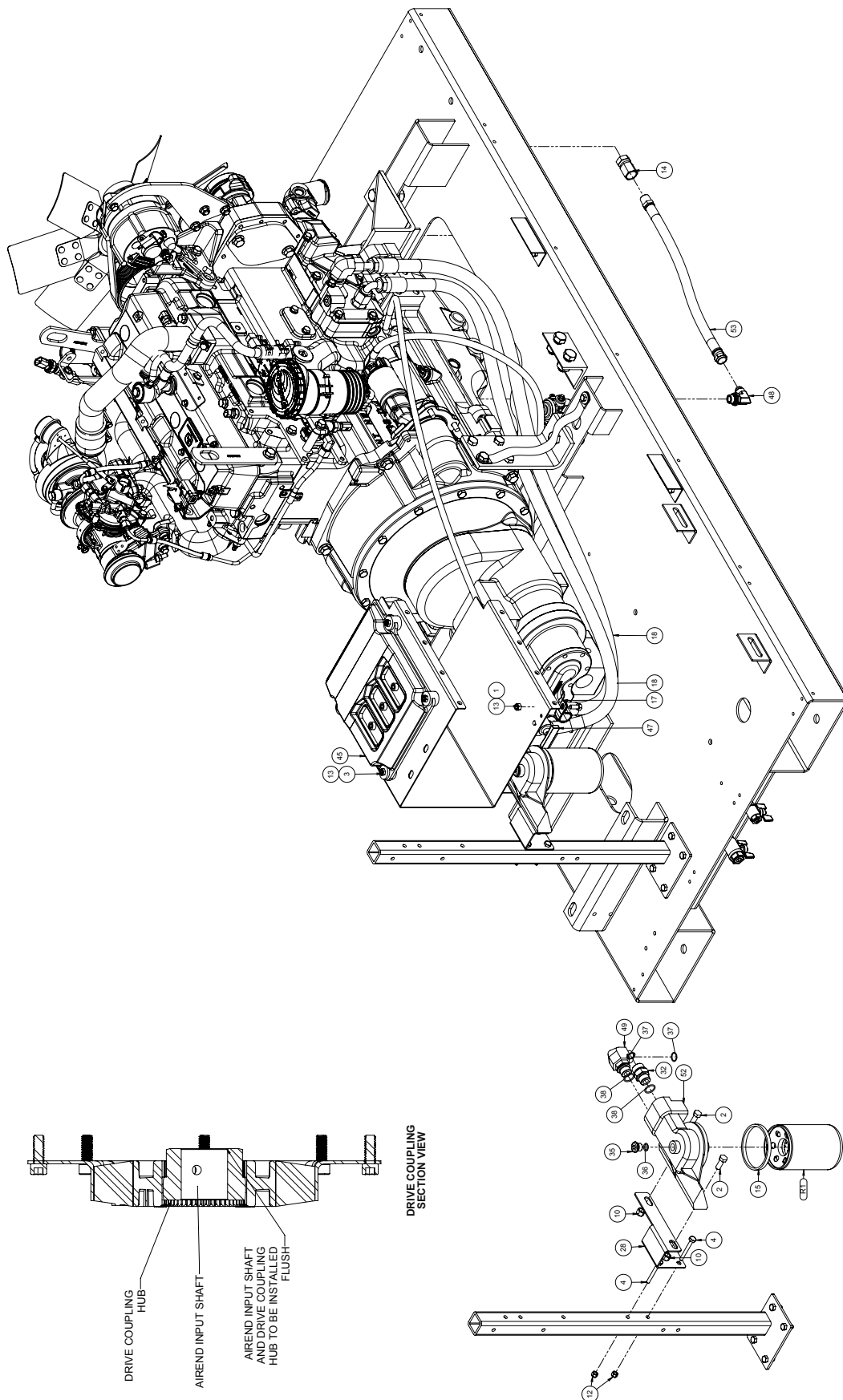


FIGURE 8-2. 00717585 0301 (REV 01)

00717585 0301 ENGINE ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00900112 0002	BOLT, HEX 5/16-18 X 3/4 GR8	4
2	00900112 0013	BOLT, HEX 3/8-16 X 1 GR8	2
3	00900112 0032	BOLT, HEX 5/16-18 X 1 1/2 GR8	4
4	00900112 0061	BOLT, HEX .250-20 X 2.250 GR8	2
5	00900112 0075	BOLT, HEX 5/8-11 X 2 1/2" GR8	4
6	00900112 0095	BOLT, HEX 5/8-11 X 3" GR8	2
7	00900321 0004	WASHER, FLAT .375 ZINC PLATED	1
8	00900321 0006	WASHER, FLAT 5/8" ZINC PLATED	4
9	00900323 0011	WASHER, FLAT .500 ZINC PLATED	1
10	00900490 0112	NUT, NYLOK 3/8-16 SS	2
11	00900490 0098	NUT, NYLOK 5/8-11.5.S.	6
12	00900490 0130	NUT, NYLOK .250-20 STAINLESS STEEL	2
13	00900490 0131	NUT, NYLOK 5/16-18 STAINLESS STEEL	5
14	00900718 0004	UNION, FEMALE ADAPT 1/2NPT X 1/2NPT	1
15	00901241 0570	SEAL, OIL JD 4045	1
16	00902224 0071	BOLT, SOCKET HEAD CAP SCREW .38-16 X 1.0	8
17	00902905 0006	CLAMP, SUPPORT .94 ID	1
18	00906814 0018	HOSE ASSY, JD 4045 REMOTE OIL	2
19	00908397 0034	BARB, ELB 5/16 HOSE X 1/4 MNPT	3
20	00910335 0007	ISOLATOR, VIBRATION 450#	4
21	00925012 1117	BOLT, HEX HD M12-1.75 X 25MM GR 8.8 ZINC PLATED	8
22	00925012 1321	BOLT, HEX HD M16-2 X 35MM GR 8.8 ZN PLT	2
23	00925025 0933	SCREW, 8MM X 100MM LG G8	4
24	00925012 0916	FLANGE BOLT, M8-1.25 X 20MM	1
25	00925012 0927	FLANGED BOLT, M8-1.25 X 65MM	4
26	00925012 0931	FLANGE BOLT, M8-1.25 X 90MM	1
27	01660689	STRAP, GROUND	1
28	01900216 0823	BRACKET, JD 4045 OIL FILTER	1
29	01900460 0056	GASKET OIL MANIFOLD JD4045	1
30	01900592 0070	ADAPTER, M14-1.5 X 1/4FPT	1
31	01900592 0071	ADAPTER 0.38FPT X .025FPT SWIVEL	2
32	01900592 0076	ADAPTER, M22-1.5 X 1"-14 UNS	2
33	01900858 0001	KEY, 3/8 X 3/8 X 1-7/8 RND END	1
34	01900912 0011	MANIFOLD, REMOTE OIL JD4045	1
35	01901166 0035	PLUG, M16-1.5 SOCKET HD	2
36	01901244 0032	O-RING JD 4045 13.3 X 2.2MM	2
37	01901244 0033	O-RING JD 4045 OIL KIT	4
38	01901244 0034	O-RING JD 4045 19.3 X 2.2MM	4
39	01901416 0092	SPACER, FAN	1
40	01901520 0256	SUPPORT, REAR ENGINE	2
41	01901520 0278	SUPPORT, ENGINE FRONT LH	1
42	01901520 0279	SUPPORT, ENGINE FRONT RH	1
43	05017420 0059	CABLE, BATTERY POSITIVE	1
44	05017420 0062	CABLE, BATTERY GROUND 13.0	1

ITEM	PART NUMBER	DESCRIPTION	QTY
45*	05017687 0103	ENGINE ECU JD 4045T4 (REF)	1
46†	05017720 0041	COUPLING, DRIVE D185-250 108MM AIREND	1
47	05017851 0010	DIPSTICK ASSY, JD 4045 T4F	1
48	05017930 0011	ELBOW, 90° 1/2MJIC X M18X1.5	1
49	05017930 0021	ELBOW, 90 DEG, M22 X 1.5 X 1"-14 UNS	2
50*	05017990 0210	ENGINE, JD4045TFC003 74HP T4 PTO A	1
51	05018095 0041	FAN, BLOWER 20.0 OD	1
52	05018185 0050	FILTER HEAD, REMOTE ENGINE OIL JD 4045	1
53	05018485 0418	HOSE ASSY, 1/2 ID X 24.0 LG	1
54	05019280 0015	RELAY, SOLENOID 12VDC WEATHERPROOF	1
55	05019550 0085	TUBE, ASSY VIBRA LOK NUT AND BARB	1
NS	05018395 0247	HARNESS, ENG-ECU JD 4045 T4F	1
NS	05018395 0253	HARNESS, STARTER GRNDS JD 4045	1

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	01900520 0030	ELEMENT, ENGINE OIL FILTER	1
R2	05018155 0036	FILTER, CRANK CASE VENT.	1
R3	01900152 0066	BELT, FAN JD 4045	1
R4	01900018 0002	ALTERNATOR, 12V 70 AMP JD	1
	00717708 0021	KIT, DRIVE COUPLING†	1

*For all John Deere engine parts, please contact your local John Deere Dealer.

†The Drive Coupling Replacement Kit (p/n 00717708 0021) contains items #46, #33 and #16.

ENGINE ASSEMBLY (CONTINUED)

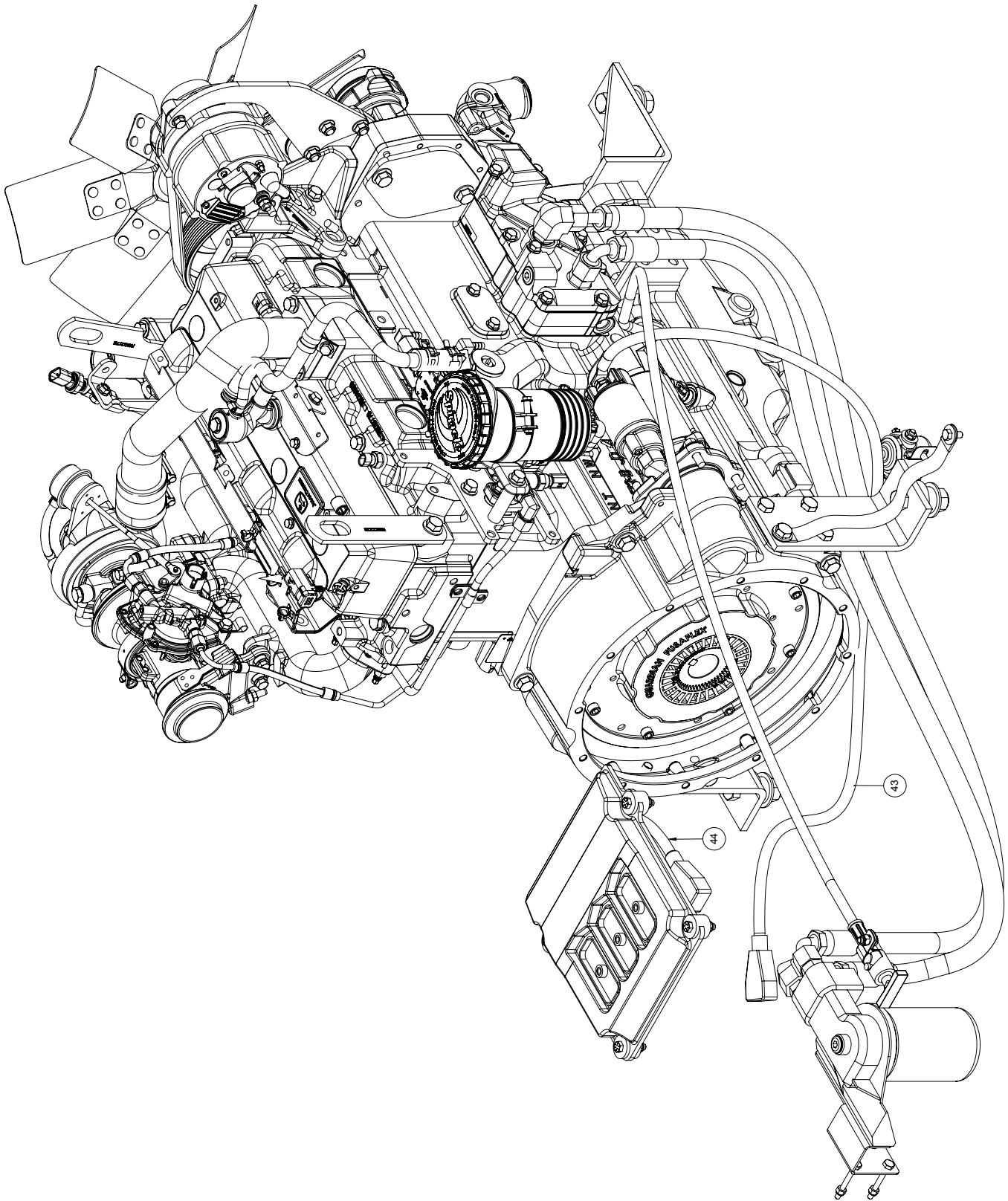


FIGURE 8-3. 00717585 0301 (REV 01)

00717585 0301 ENGINE ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00900112 0002	BOLT, HEX 5/16-18 X 3/4 GR8	4
2	00900112 0013	BOLT,HEX 3/8-16 X 1 GR8	2
3	00900112 0032	BOLT,HEX 5/16-18 X 1 1/2 GR8	4
4	00900112 0061	BOLT,HEX .250-20 X 2.250 GR8	2
5	00900112 0075	BOLT, HEX 5/8-11 X 2 1/2" GR8	4
6	00900112 0095	BOLT, HEX 5/8-11 X 3" GR8	2
7	00900321 0004	WASHER, FLAT .375 ZINC PLATED	1
8	00900321 0006	WASHER,FLAT 5/8" ZINC PLATED	4
9	00900323 0011	WASHER, FLAT .500 ZINC PLATED	1
10	00900490 0112	NUT, NYLOK 3/8-16 SS	2
11	00900490 0098	NUT,NYLOK 5/8-11,S.S.	6
12	00900490 0130	NUT, NYLOK .250-20 STAINLESS STEEL	2
13	00900490 0131	NUT, NYLOK 5/16-18 STAINLESS STEEL	5
14	00900718 0004	UNION, FEMALE ADAPT 1/2NPT X 1/2NPT	1
15	00901241 0570	SEAL, OIL JD 4045	1
16	00902224 0071	BOLT, SOCKET HEAD CAP SCREW .38-16 X 1.0	8
17	00902905 0006	CLAMP, SUPPORT .94 ID	1
18	00906814 0018	HOSE ASSY, JD 4045 REMOTE OIL	2
19	00908397 0034	BARB, ELB 5/16 HOSE X 1/4 MNPT	3
20	00910335 0007	ISOLATOR,VIBRATION 450#	4
21	00925012 1117	BOLT, HEX HD M12-1.75 X 25MM GR 8.8 ZINC PLATED	8
22	00925012 1321	BOLT, HEX HD M16-2 X 35MM GR 8.8 ZN PLT	2
23	00925025 0933	SCREW, 8MM X 100MM LG G8	4
24	00925012 0916	FLANGE BOLT, M8-1.25 X 20MM	1
25	00925012 0927	FLANGED BOLT, M8-1.25 X 65MM	4
26	00925012 0931	FLANGE BOLT, M8-1.25 X 90MM	1
27	01660689	STRAP, GROUND	1
28	01900216 0823	BRACKET, JD 4045 OIL FILTER	1
29	01900460 0056	GASKET OIL MANIFOLD JD4045	1
30	01900592 0070	ADAPTER, M14-1.5 X 1/4FPT	1
31	01900592 0071	ADAPTER 0.38FPT X .025FPT SWIVEL	2
32	01900592 0076	ADAPTER, M22-1.5 X 1"-14 UNS	2
33	01900858 0001	KEY, 3/8 X 3/8 X 1-7/8 RND END	1
34	01900912 0011	MANIFOLD, REMOTE OIL JD4045	1
35	01901166 0035	PLUG, M16-1.5 SOCKET HD	2
36	01901244 0032	O-RING JD 4045 13.3 X 2.2MM	2
37	01901244 0033	O-RING JD 4045 OIL KIT	4
38	01901244 0034	O-RING JD 4045 19.3 X 2.2MM	4
39	01901416 0092	SPACER, FAN	1
40	01901520 0256	SUPPORT, REAR ENGINE	2
41	01901520 0278	SUPPORT, ENGINE FRONT LH	1
42	01901520 0279	SUPPORT, ENGINE FRONT RH	1
43	05017420 0059	CABLE, BATTERY POSITIVE	1
44	05017420 0062	CABLE, BATTERY GROUND 13.0	1

ITEM	PART NUMBER	DESCRIPTION	QTY
45*	05017687 0103	ENGINE ECU JD 4045T4 (REF)	1
46‡	05017720 0041	COUPLING, DRIVE D185-250 108MM AIREND	1
47	05017851 0010	DIPSTICK ASSY, JD 4045 T4F	1
48	05017930 0011	ELBOW, 90° 1/2MJIC X M18X1.5	1
49	05017930 0021	ELBOW, 90 DEG, M22 X 1.5 X 1"-14 UNS	2
50*	05017990 0210	ENGINE, JD4045TFC003 74HP T4 PTO A	1
51	05018095 0041	FAN, BLOWER 20.0 OD	1
52	05018185 0050	FILTER HEAD, REMOTE ENGINE OIL JD 4045	1
53	05018485 0418	HOSE ASSY, 1/2 ID X 24.0 LG	1
54	05019280 0015	RELAY, SOLENOID 12VDC WEATHERPROOF	1
55	05019550 0085	TUBE, ASSY VIBRA LOK NUT AND BARB	1
NS	05018395 0247	HARNESS, ENG-ECU JD 4045 T4F	1
NS	05018395 0253	HARNESS, STARTER GRNDS JD 4045	1

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	01900520 0030	ELEMENT, ENGINE OIL FILTER	1
R2	05018155 0036	FILTER, CRANK CASE VENT.	1
R3	01900152 0066	BELT, FAN JD 4045	1
R4	01900018 0002	ALTERNATOR, 12V 70 AMP JD	1
	00717708 0021	KIT, DRIVE COUPLING‡	1

*For all John Deere engine parts, please contact your local John Deere Dealer.

‡The Drive Coupling Replacement Kit (p/n 00717708 0021) contains items #46, #33 and #16.

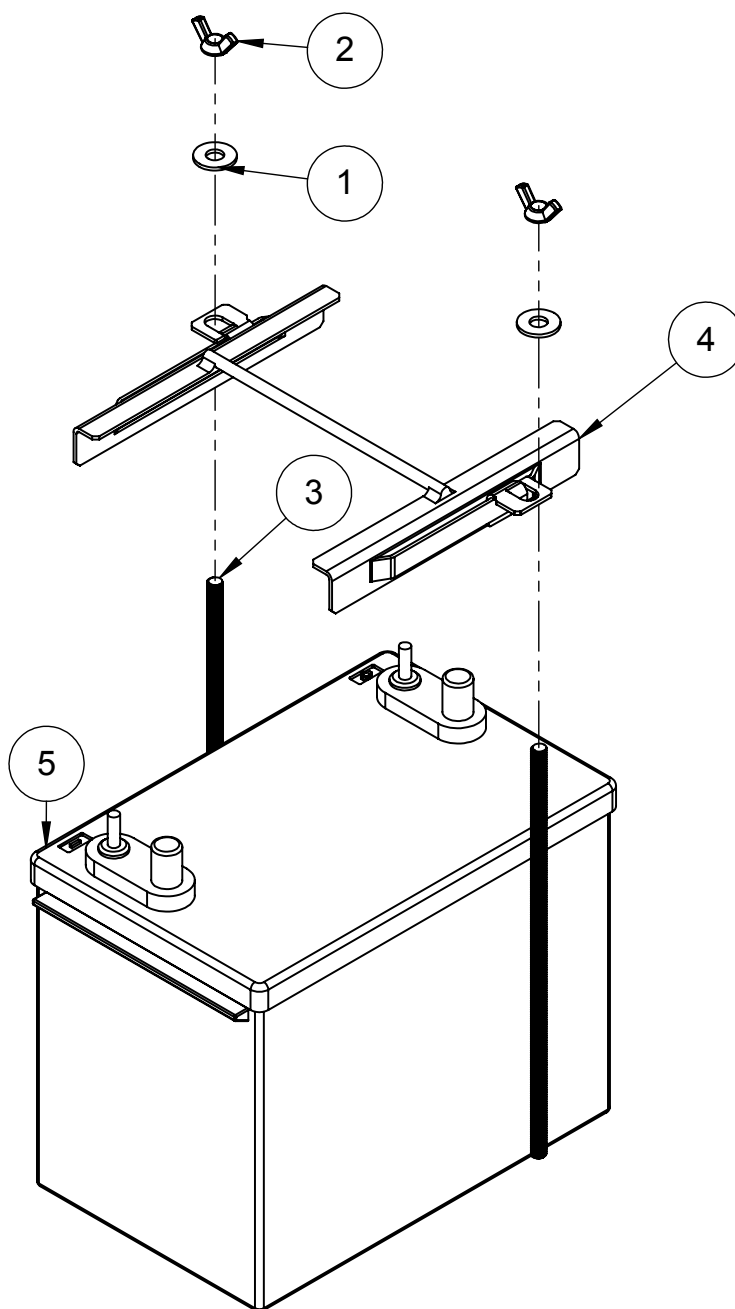


FIGURE 8-4. 00717820 0050 (REV 02)

00717820 0050 BATTERY ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	2
2	00903192 0003	NUT, WING .3125-18 ZINC PLATED	2
3	00910106 0230	THREADED ROD, 5/16-18 X 10.00	2
4	03903040 0022	BRACKET, BATTERY HOLD DOWN	1
5	05017195 0004	BATTERY, STANDARD 800CCA	1

7.8 EXHAUST ASSEMBLY

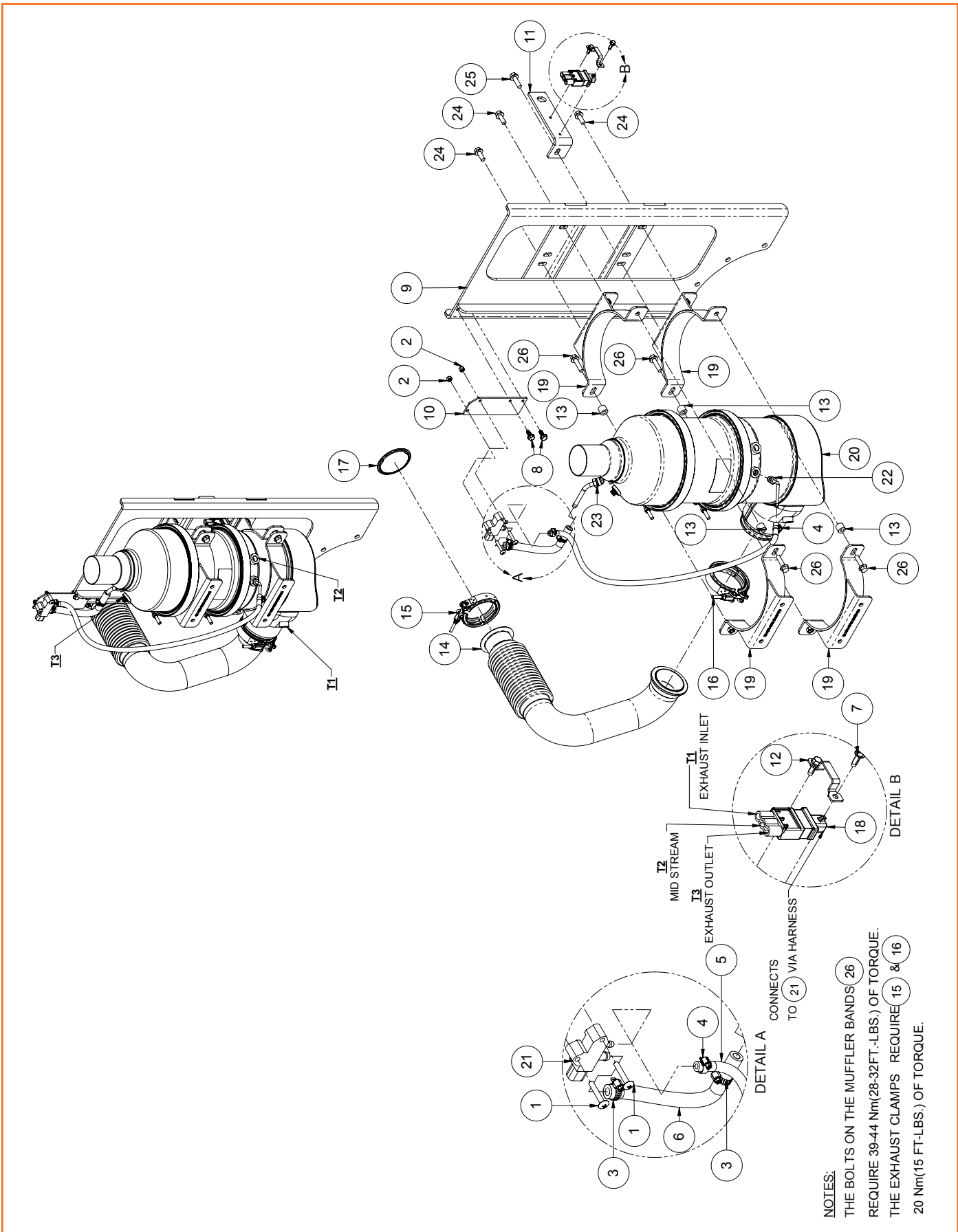


FIGURE 8-5. 00717796 0161 (REV 01)

00717796 0161 EXHAUST ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00900389 0026	BOLT, BUTTON HEAD PHILLIPS 1/4-20 X 1.50	2
2	00900490 0071	NUT, NYLOC .250-20 ZINC PLATED	2
3	00902319 0002	CLAMP, HOSE 0.50 - 0.91	2
4	00902319 0027	CLAMP, HOSE .4375 X .78125	2
5	00906814 0015	HOSE 0.25 ID HIGH TEMP BLK 28"	2.5FT.
6	00906814 0016	HOSE 0.38 ID HIGH TEMP BLK 9"	0.8 FT
7	00913792 0038	BOLT, THRD FORM 1/4-20 X 1/2	2
8	00913792 0055	BOLT, THREAD FORM .31-18 X .75 S5	2
9	01900216 0656	BRACKET, DOC JD4045TFC03 T4	1
10	01900216 0686	BRACKET, PRESSURE SWITCH	1
11	01900216 0702	BRACKET, DOC SUPPORT	1
12	01900216 0712	BRACKET, DOC WIRING D210UJD4	1
13	01901416 0131	SPACER, 0.75 OD, 0.375 ID X 0.625 LG	4
14	03903087 0019	CONNECTION, EXHAUST D210UJD4	1
15	05017555 0032	CLAMP, V-BAND 3.0 JD	1
16	05017555 0033	CLAMP, V-BAND 3.0 JD	1
17	05017555 0034	CLAMP SEAL, EXHAUST JD 4045	1
18	05018395 0248	HARNESS, TEMPERATURE SENSOR	1
19	05018755 0020	BAND, MUFFLER	4
20	05018785 0062	DOC JD4045 T4 D210UJD4	1
21	05019430 0079	SWITCH, PRESSURE DOC JD	1
22	05019550 0172	TUBE ASSY, PRESS. JD DOC	1
23	05019550 0173	TUBE ASSY, PRESS. JD DOC	1
24	93115-013	BOLT, WHIZ 3/8-16 X 1.0	3
25	93115-023	BOLT, WHIZ 3/8-16 X 1 1/4"	1
26	93115-033	BOLT, WHIZ 3/8-16 X 1-1/2	4

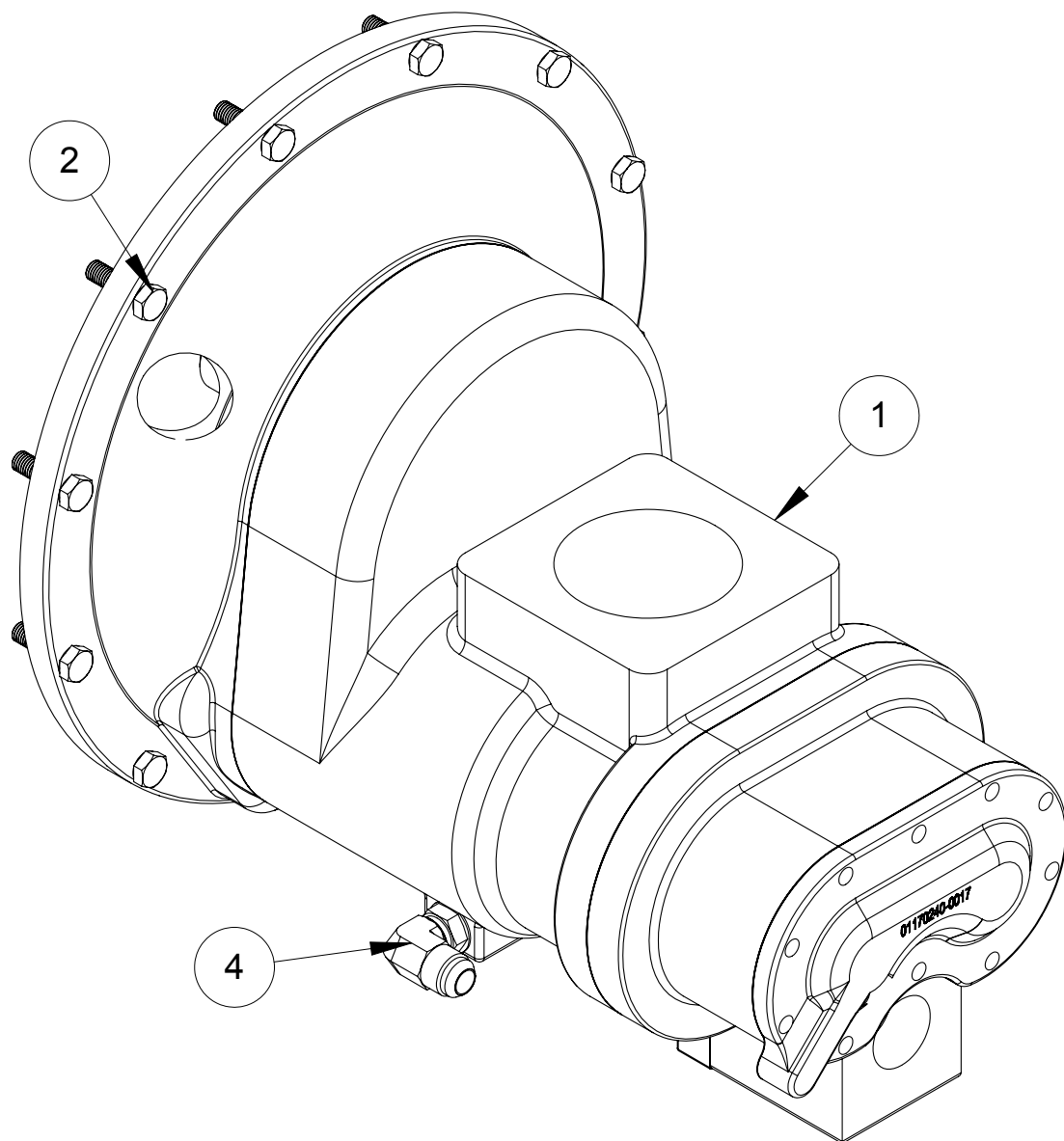


FIGURE 8-6. 00717488 0171 (REV 00)

00717488 0171 COMPRESSOR ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1*	00501170 1259	AIR END, 108MM 2.79GR	1
2	00925012 1021	SCREW, HEX HD M10-1.5 X 35MM GR 8.8 ZN PLT	10
NS	KB09147-362	SHAFT SEAL KIT, 3LIP, CW (NOT SHOWN)	1
4	00910751 0810	ADAPTER, ELBOW 90° 3/4MORBX5/8JIC	1

*When contacting Sullivan-Palatek about a replacement air end, please have compressor serial number and local Dealer information available.

7.10 INLET VALVE ASSEMBLY

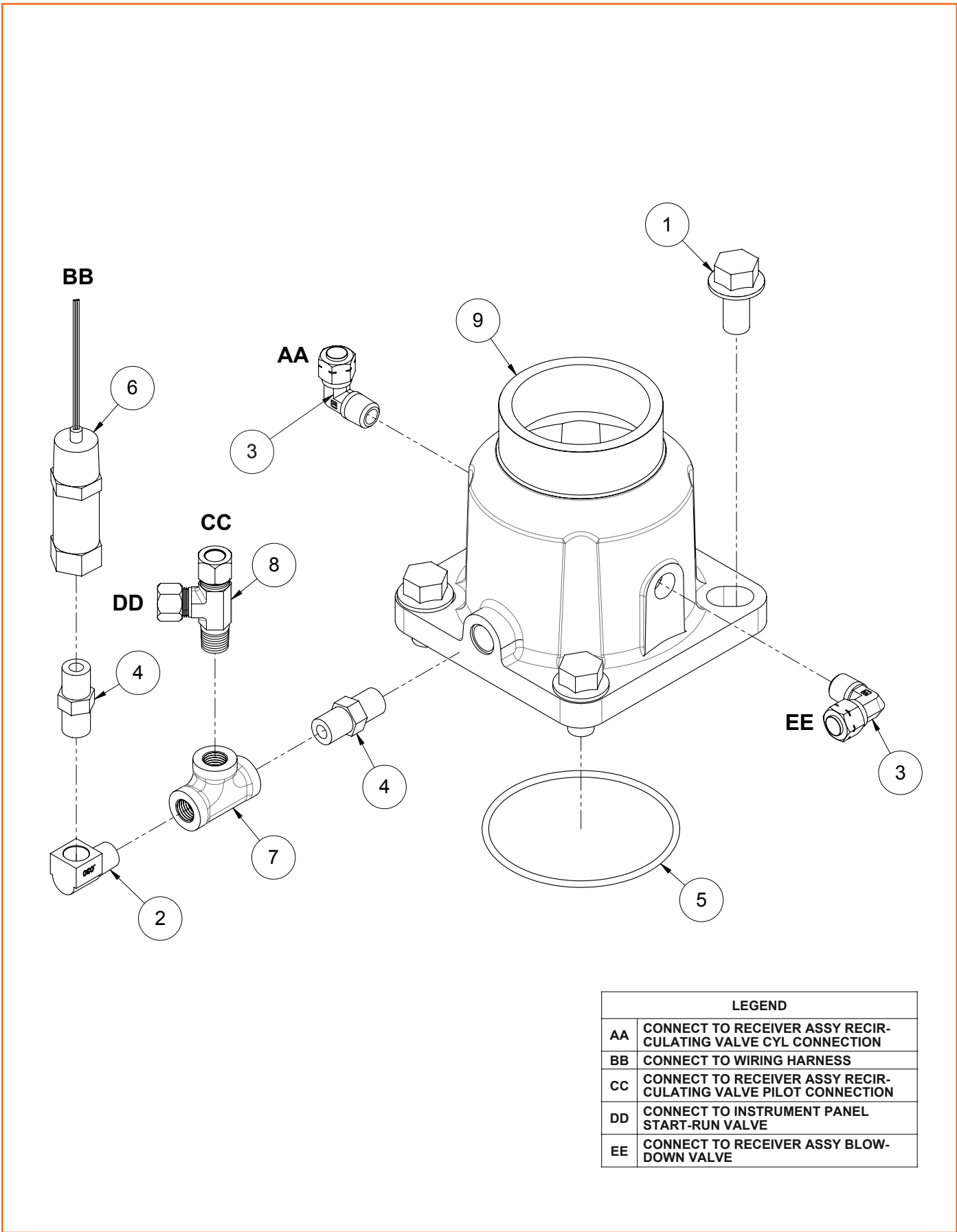


FIGURE 8-7. 00717985 0049 (REV 02)

00717985 0049 INLET VALVE ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	93115-014	BOLT, WHIZ GR5 1/2 -13 X 1	4
2	01900592 0042	ELBOW, ORIFICE .030 BRASS 1/4 STREET	1
3	00915557 0064	ELBOW, .38 TUBE X .25 MNPT BRASS	2
4	00906058 0004	NIPPLE, HEX PIPE 1/4 X 1/4	2
5	00907864 0238	O-RING, 3.5 ID X 3.75 OD	1
6	05019205 0007	SENDER, PRESSURE 0-200PSI	1
7	00901091 0002	TEE, PIPE .25NPT #150 GLV	1
8	00915564 0064	TEE, MALE RUN 1/4 MNPT X 3/8 TUBE BRASS	1
9	00501174 1202	VALVE, ASY INLET 2.5" 108MM	1

RECOMMENDED SPARE PARTS

PART NUMBER	DESCRIPTION	QTY
00717708 0004	KIT, SERVICE INLET VALVE 108MM	1

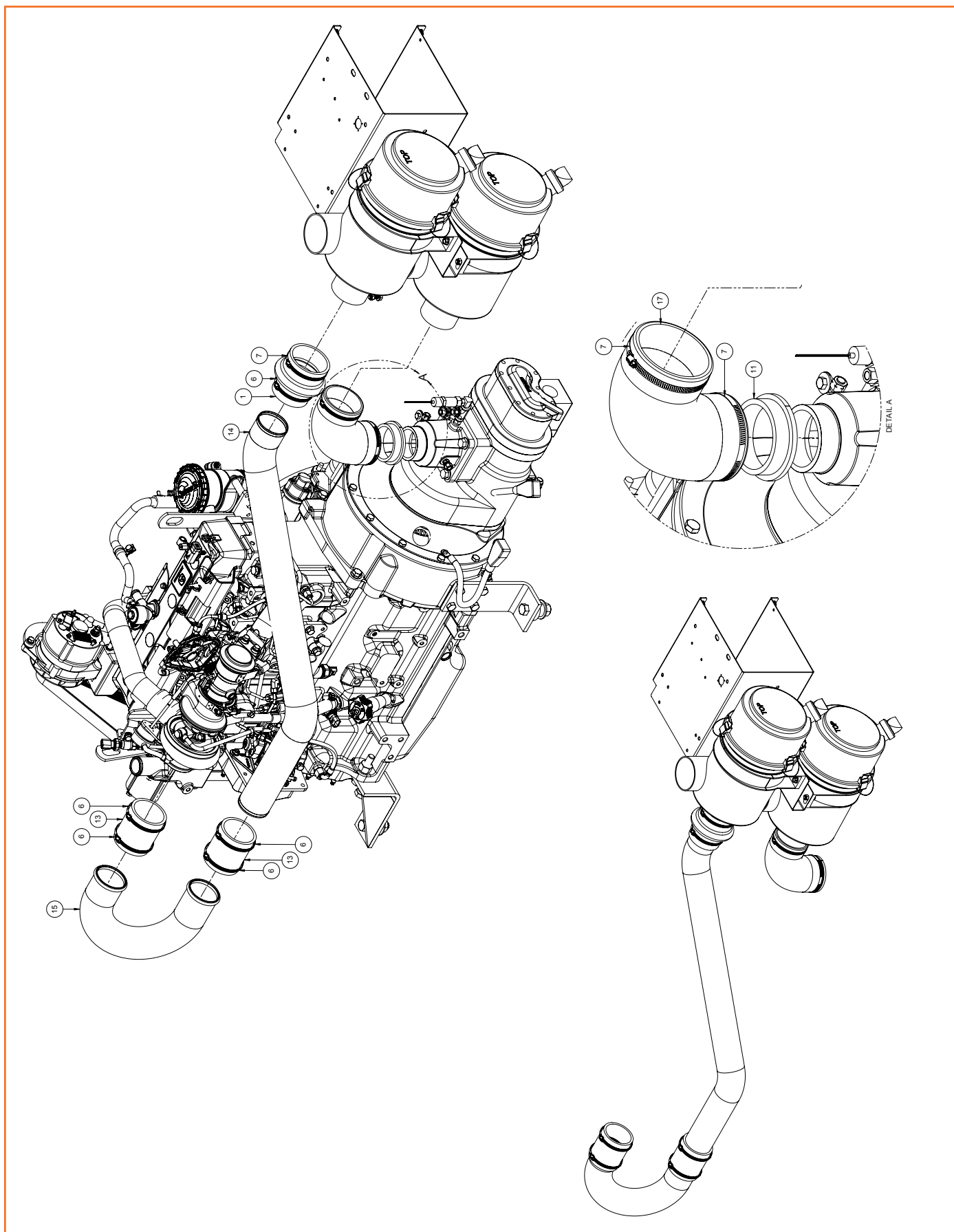


FIGURE 8-8. 00717642 0194 (REV 02)

00717642 0194 AIR FILTER ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00077-353	SLEEVE, HOSE HUMP 3.5 X 3.0	1
2	00131-082	BAND, MTG 8IN PLSTC	2
3	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	1
4	00900389 0002	BOLT, BUTTON HEAD .25-20 X .75 ZN PLT	8
5	00900490 0062	NUT, NYLOK 5/16-18 ZINC PLATED	4
6	00902319 0014	CLAMP, HOSE 2.9875 TO 3.750	5
7	00902319 0017	CLAMP, HOSE 3-9/16 X 4-1/2"	3
8	00913792 0039	SCREW, THRD FORM 5/16-18 X 1/2 SS	3
9	01900216 0677	BRACKET, AIR FILTER ASSY	1
10	01900216 0678	BRACKET, AIR FILTER ASSY	1
11	01901192 0010	INSERT, 3.00 X 3.50 RUBBER	1
12	01901288 0023	BOLT, HEX HEAD FLANGE .31-18 X 1.00	3
13	01901492 0012	SLEEVE, 3.0 ID X 3.5 OD X 4.0 LG	2
14	01901564 0139	TUBE, ENGINE AIR INTAKE	1
15	01901567 0163	TUBE, 3.00 OD	1
16	18174-088	FILTER, AIR 8.0 OD 3.0 INLET	2
17	91411-035	ELBOW, RUBBER 3.5 X 3.5 90°	1
18	93115-032	BOLT, WHIZ 5/16-18 X 1.50	1

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	18174-088C	FILTER HOUSING	1
R2	00521-082	ELEMENT, PRIMARY	1
R3	00521-082S	ELEMENT, SECONDARY	1
R4	00521-082V	VALVE, VACUATOR	1

AIR FILTER ASSEMBLY (CONTINUED)

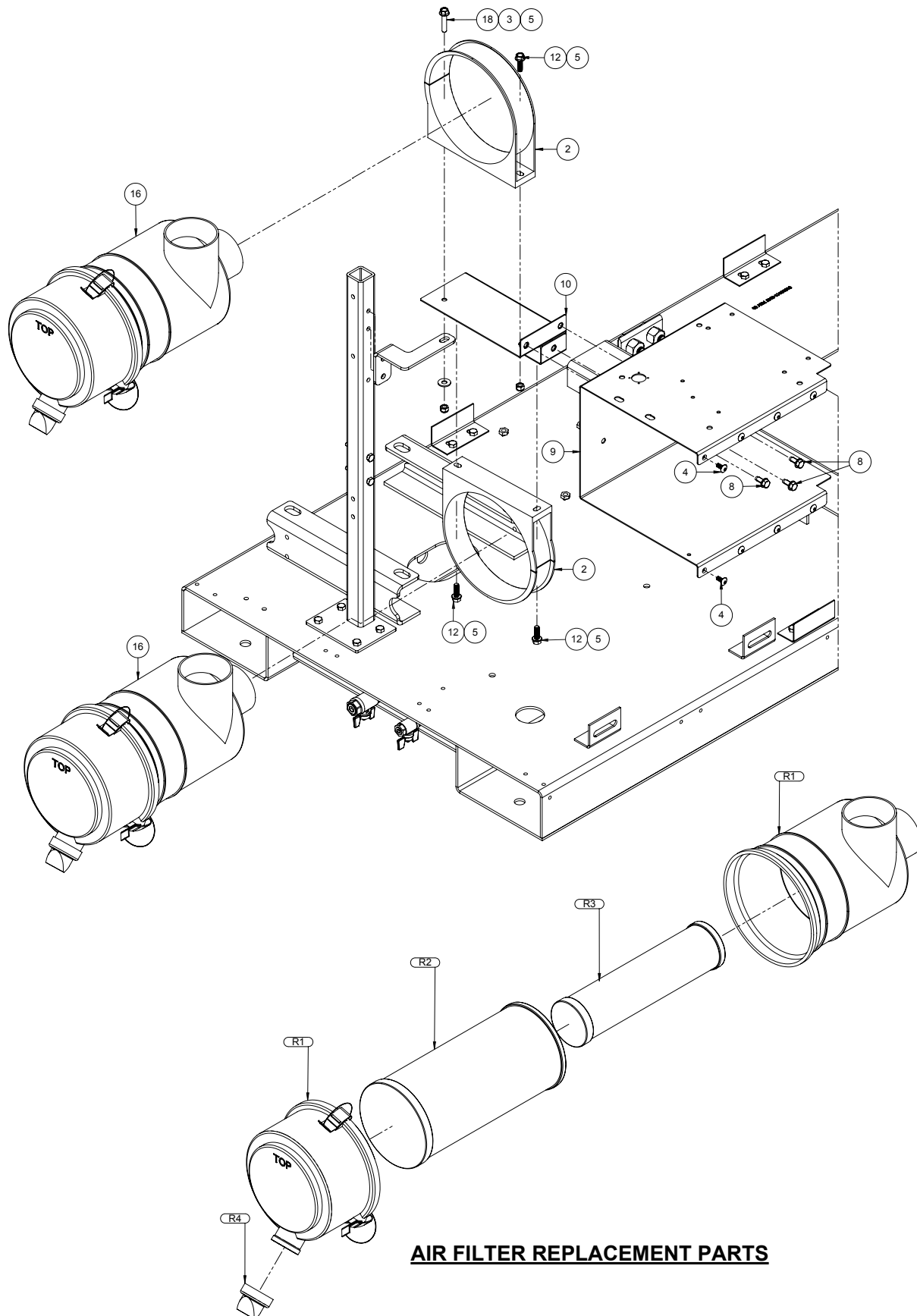


FIGURE 8-9. 00717642 0194 (REV 02)

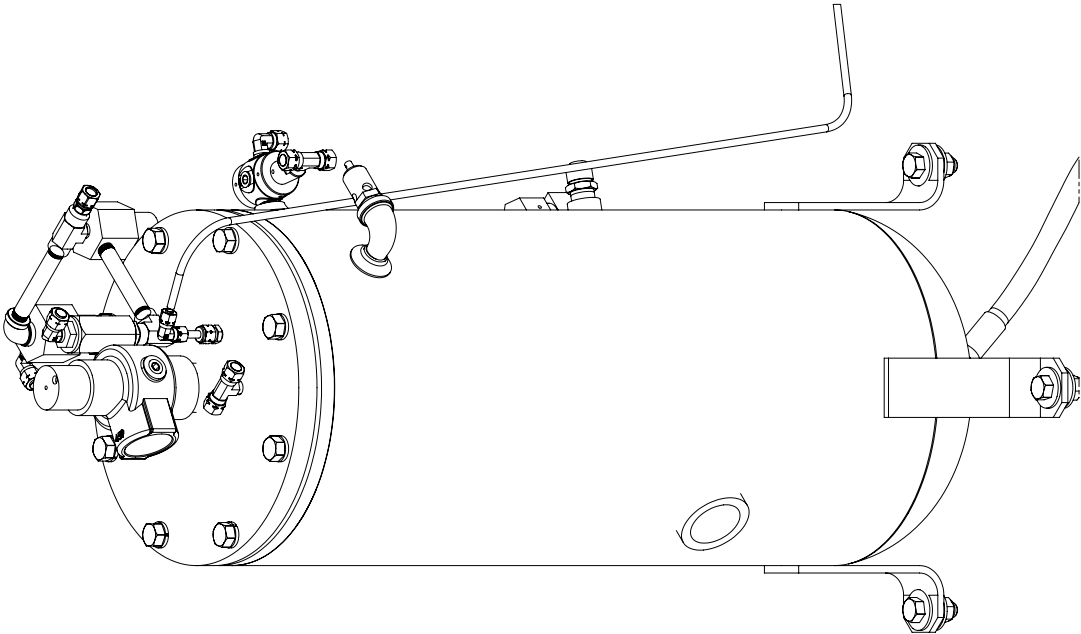
00717642 0194 AIR FILTER ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00077-353	SLEEVE, HOSE HUMP 3.5 X 3.0	1
2	00131-082	BAND, MTG 8IN PLSTC	2
3	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	1
4	00900389 0002	BOLT, BUTTON HEAD .25-20 X .75 ZN PLT	8
5	00900490 0062	NUT, NYLOK 5/16-18 ZINC PLATED	4
6	00902319 0014	CLAMP, HOSE 2.9875 TO 3.750	5
7	00902319 0017	CLAMP, HOSE 3-9/16 X 4-1/2"	3
8	00913792 0039	SCREW, THRD FORM 5/16-18 X 1/2 SS	3
9	01900216 0677	BRACKET, AIR FILTER ASSY	1
10	01900216 0678	BRACKET, AIR FILTER ASSY	1
11	01901192 0010	INSERT, 3.00 X 3.50 RUBBER	1
12	01901288 0023	BOLT, HEX HEAD FLANGE .31-18 X 1.00	3
13	01901492 0012	SLEEVE, 3.0 ID X 3.5 OD X 4.0 LG	2
14	01901564 0139	TUBE, ENGINE AIR INTAKE	1
15	01901567 0163	TUBE, 3.00 OD	1
16	18174-088	FILTER, AIR 8.0 OD 3.0 INLET	2
17	91411-035	ELBOW, RUBBER 3.5 X 3.5 90°	1
18	93115-032	BOLT, WHIZ 5/16-18 X 1.50	1

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	18174-088C	FILTER HOUSING	1
R2	00521-082	ELEMENT, PRIMARY	1
R3	00521-082S	ELEMENT, SECONDARY	1
R4	00521-082V	VALVE, VACUATOR	1

7.12 RECEIVER ASSEMBLY, DUAL PRESSURE



MOUNTING TO FRAME & DRAIN

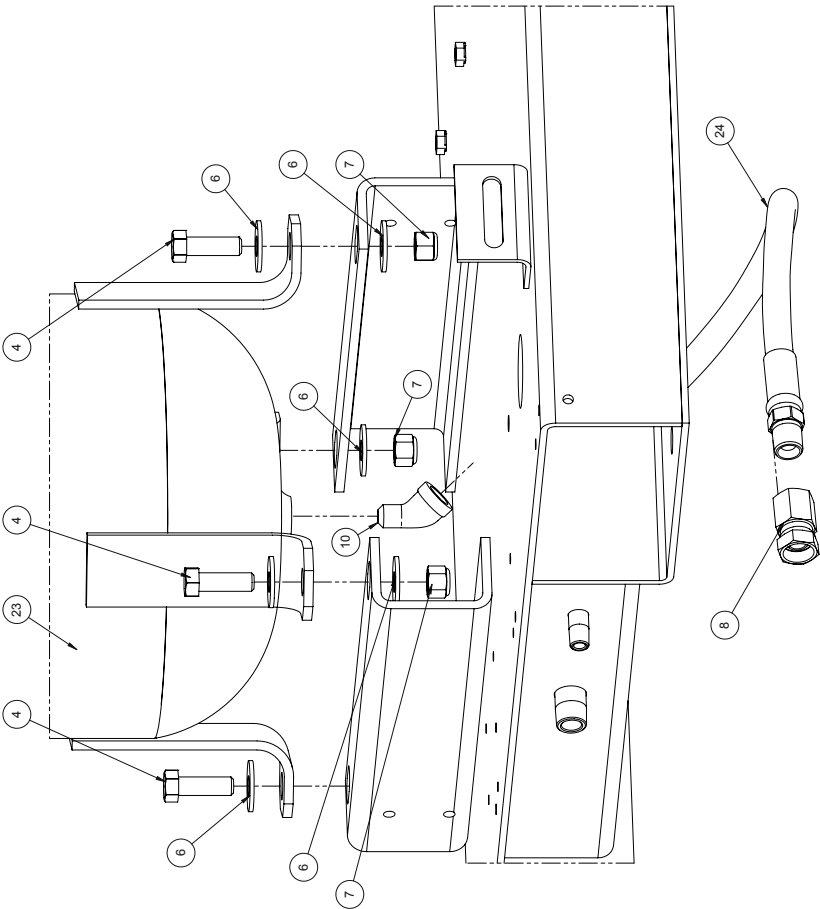


FIGURE 8-10. 00717884 0220 (REV 01)

00717884 0220 RECEIVER ASSEMBLY, DUAL PRESSURE

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00519456 0013	VALVE, RECIRCULATING	1
2	00543117 0026	SEPARATOR, ELEMENT	1
3	00543286 0002	CONNECTOR, .25 MNPT X .125 TUBE VIBRA LOK BRASS	1
4	00900112 0034	BOLT, HEX 1/2-13 X 1 1/2 GR8	12
5	00900305 0004	WASHER, LOCK .500 ZINC PLATED	8
6	00900321 0005	WASHER, FLAT .500 ZINC PLATED	8
7	00900490 0113	NUT, NYLOC .50-13	7
8	00900718 0004	UNION, FEMALE ADAPT 1/2NPT X 1/2NPT	1
9	00901027 0002	ELBOW, PIPE .25 150# GALV	1
10	00901046 0023	ELBOW, 3/8 NPT PIPE 45 DEG 150#	1
11	00901050 0004	ELBOW, PIPE 1/2" STREET GLV	1
12	00901093 0001	TEE, MXFXF .25NPT 3000#	1
13	00901161 0020	BUSHING, PIPE 1.0 X 1.5 150# GLV	1
14	00901177 0061	NIPPLE, PIPE 1.25 X 2.0 SCH80 GLV	1
15	00901921 0002	PLUG, PIPE 1/4"NPT HEX SOC HD	2
16	00902469 0128	NIPPLE, PIPE 0.25 X 4.0 SCH40 GLV	2
17	00907235 0108	ADAPTER, 1/2NPTX5/8JIC 6000# SS	1
18	00915534 0062	TEE, .375 TUBE X .125 MNPT MALE BRANCH BRASS	2
19	00915543 0064	CONNECTOR .375 TUBE	1
20	00915557 0064	ELBOW, 3/8 TUBE X 1/4 MNPT	3
21	01901551 0073	TUBE, SCAVENGER	1
22	03100-008	VALVE, RELIEF 1/2 NPT 200 PSIG	1
23	03903448 0015	RECEIVER, TANK D185-250	1
24	05018485 0275	HOSE ASSY, DRAIN 3/8NPT X 1/2NPT 18.50 OAL	1
25	05018805 0007	ORIFICE, .078 ID X 0.25 MPT HEX HD PLUG	1
26	05019550 0131	TUBE ASSY, SCAVENGER	1
27	05019610 0005	VALVE, MIN PRESS 1-1/4 FNPT	1
28	05019660 0012	VALVE, BLOWDOWN	1
29	07255-016	CAP, VENTED	1
30	09661-002	VALVE, REGULATOR	2
31	17254-016	SIGHT GLASS, 1" STR THD	1
32	96390-004	ELBOW, UNION .2500 TUBE STEEL CMS	1
33	96425-004	TEE, PIPE BRANCH 1/4"	1

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	00543117 0026	SEPARATOR, ELEMENT D185-D210	1

RECEIVER ASSEMBLY, DUAL PRESSURE (CONTINUED)

RECIRCULATING, BLOWDOWN, & SAFETY VALVE & OIL FILL ASSEMBLIES

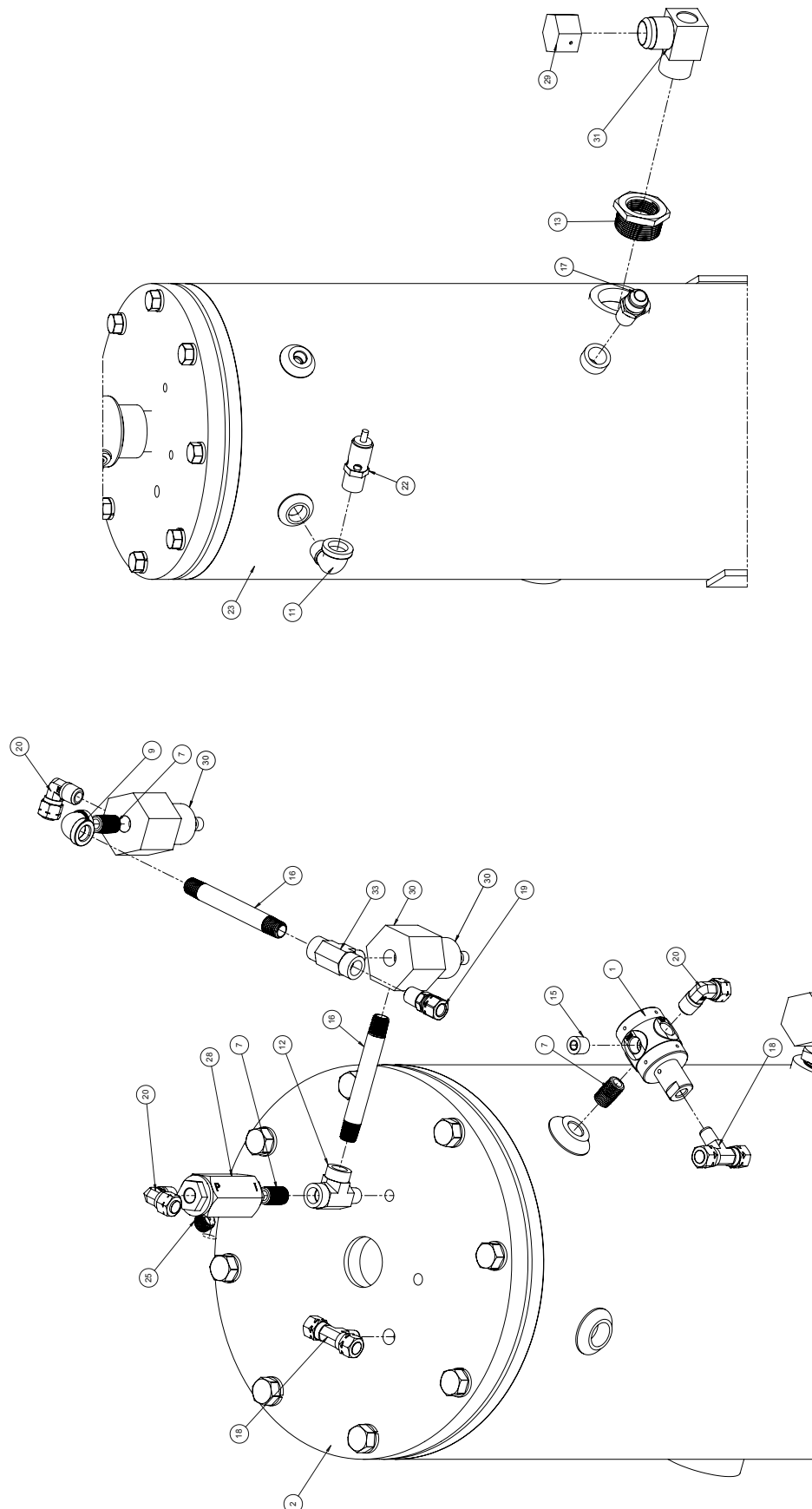


FIGURE 8-11. 00717884 0220 (REV 01)

00717884 0220 RECEIVER ASSEMBLY, DUAL PRESSURE

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00519456 0013	VALVE, RECIRCULATING	1
2	00543117 0026	SEPARATOR, ELEMENT	1
3	00543286 0002	CONNECTOR, .25 MNPT X .125 TUBE VIBRA LOK BRASS	1
4	00900112 0034	BOLT, HEX 1/2-13 X 1 1/2 GR8	12
5	00900305 0004	WASHER, LOCK .500 ZINC PLATED	8
6	00900321 0005	WASHER, FLAT .500 ZINC PLATED	8
7	00900490 0113	NUT, NYLOC .50-13	7
8	00900718 0004	UNION, FEMALE ADAPT 1/2NPT X 1/2NPT	1
9	00901027 0002	ELBOW, PIPE .25 150# GALV	1
10	00901046 0023	ELBOW, 3/8 NPT PIPE 45 DEG 150#	1
11	00901050 0004	ELBOW, PIPE 1/2" STREET GLV	1
12	00901093 0001	TEE, MXFXF .25NPT 3000#	1
13	00901161 0020	BUSHING, PIPE 1.0 X 1.5 150# GLV	1
14	00901177 0061	NIPPLE, PIPE 1.25 X 2.0 SCH80 GLV	1
15	00901921 0002	PLUG, PIPE 1/4"NPT HEX SOC HD	2
16	00902469 0128	NIPPLE, PIPE 0.25 X 4.0 SCH40 GLV	2
17	00907235 0108	ADAPTER, 1/2NPTX5/8JIC 6000# SS	1
18	00915534 0062	TEE, .375 TUBE X .125 MNPT MALE BRANCH BRASS	2
19	00915543 0064	CONNECTOR .375 TUBE	1
20	00915557 0064	ELBOW, 3/8 TUBE X 1/4 MNPT	3
21	01901551 0073	TUBE, SCAVENGER	1
22	03100-008	VALVE, RELIEF 1/2 NPT 200 PSIG	1
23	03903448 0015	RECEIVER, TANK D185-250	1
24	05018485 0275	HOSE ASSY, DRAIN 3/8NPT X 1/2NPT 18.50 OAL	1
25	05018805 0007	ORIFICE, .078 ID X 0.25 MPT HEX HD PLUG	1
26	05019550 0131	TUBE ASSY, SCAVENGER	1
27	05019610 0005	VALVE, MIN PRESS 1-1/4 FNPT	1
28	05019660 0012	VALVE, BLOWDOWN	1
29	07255-016	CAP, VENTED	1
30	09661-002	VALVE, REGULATOR	2
31	17254-016	SIGHT GLASS, 1" STR THD	1
32	96390-004	ELBOW, UNION .2500 TUBE STEEL CMS	1
33	96425-004	TEE, PIPE BRANCH 1/4"	1

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	00543117 0026	SEPARATOR, ELEMENT D185-D210	1

MINIMUM PRESSURE VALVE & OIL SCAVENGER LINE

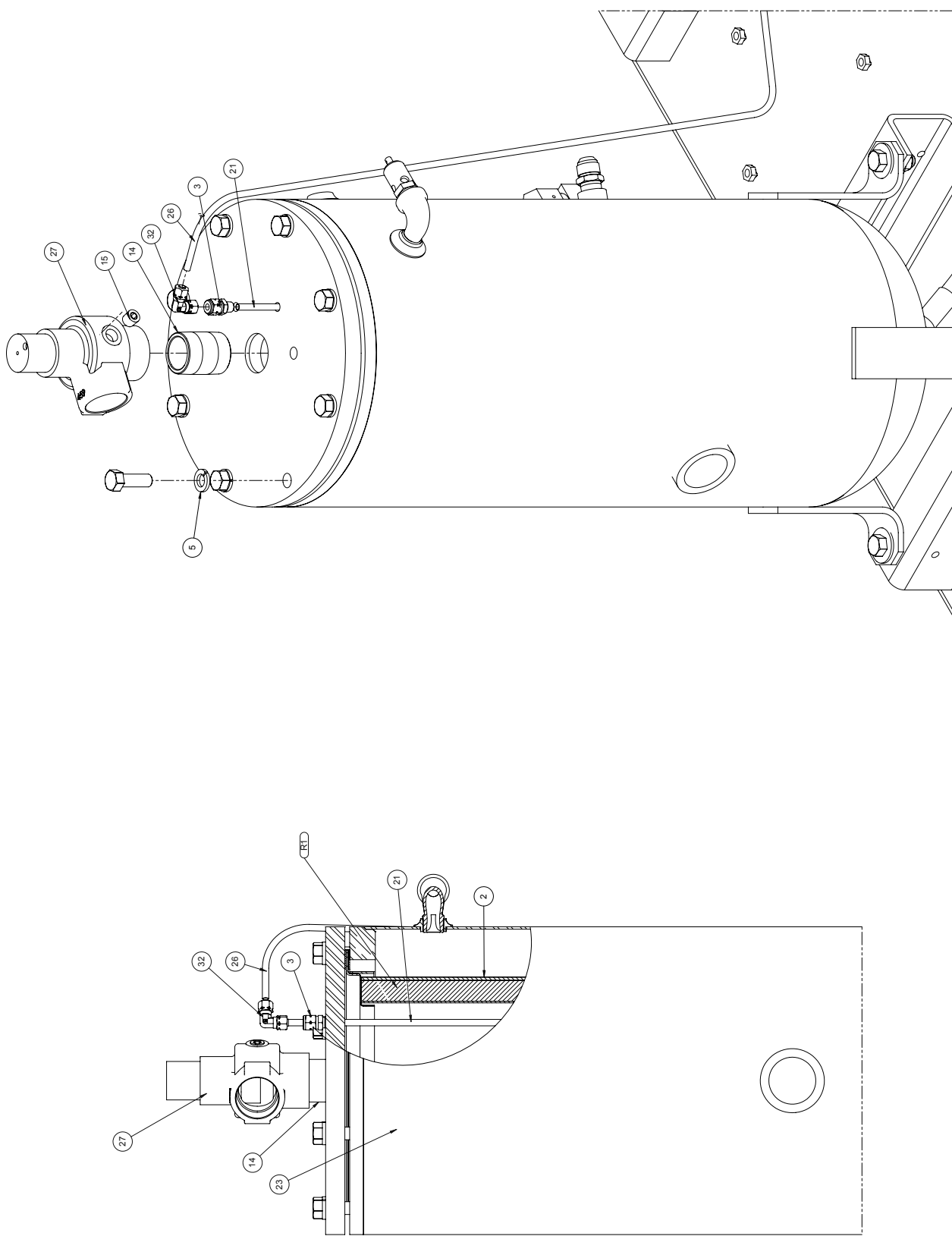


FIGURE 8-12. 00717884 0220 (REV 01)

00717884 0220 RECEIVER ASSEMBLY, DUAL PRESSURE

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00519456 0013	VALVE, RECIRCULATING	1
2	00543117 0026	SEPARATOR, ELEMENT	1
3	00543286 0002	CONNECTOR, .25 MNPT X .125 TUBE VIBRA LOK BRASS	1
4	00900112 0034	BOLT, HEX 1/2-13 X 1 1/2 GR8	12
5	00900305 0004	WASHER, LOCK .500 ZINC PLATED	8
6	00900321 0005	WASHER, FLAT .500 ZINC PLATED	8
7	00900490 0113	NUT, NYLOC .50-13	7
8	00900718 0004	UNION, FEMALE ADAPT 1/2NPT X 1/2NPT	1
9	00901027 0002	ELBOW, PIPE .25 150# GALV	1
10	00901046 0023	ELBOW, 3/8 NPT PIPE 45 DEG 150#	1
11	00901050 0004	ELBOW, PIPE 1/2" STREET GLV	1
12	00901093 0001	TEE, MXFXF .25NPT 3000#	1
13	00901161 0020	BUSHING, PIPE 1.0 X 1.5 150# GLV	1
14	00901177 0061	NIPPLE, PIPE 1.25 X 2.0 SCH80 GLV	1
15	00901921 0002	PLUG, PIPE 1/4"NPT HEX SOC HD	2
16	00902469 0128	NIPPLE, PIPE 0.25 X 4.0 SCH40 GLV	2
17	00907235 0108	ADAPTER, 1/2NPTX5/8JIC 6000# SS	1
18	00915534 0062	TEE, .375 TUBE X .125 MNPT MALE BRANCH BRASS	2
19	00915543 0064	CONNECTOR .375 TUBE	1
20	00915557 0064	ELBOW, 3/8 TUBE X 1/4 MNPT	3
21	01901551 0073	TUBE, SCAVENGER	1
22	03100-008	VALVE, RELIEF 1/2 NPT 200 PSIG	1
23	03903448 0015	RECEIVER, TANK D185-250	1
24	05018485 0275	HOSE ASSY, DRAIN 3/8NPT X 1/2NPT 18.50 OAL	1
25	05018805 0007	ORIFICE, .078 ID X 0.25 MPT HEX HD PLUG	1
26	05019550 0131	TUBE ASSY, SCAVENGER	1
27	05019610 0005	VALVE, MIN PRESS 1-1/4 FNPT	1
28	05019660 0012	VALVE, BLOWDOWN	1
29	07255-016	CAP, VENTED	1
30	09661-002	VALVE, REGULATOR	2
31	17254-016	SIGHT GLASS, 1" STR THD	1
32	96390-004	ELBOW, UNION .2500 TUBE STEEL CMS	1
33	96425-004	TEE, PIPE BRANCH 1/4"	1

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	00543117 0026	SEPARATOR, ELEMENT D185-D210	1

7.13 AIR OUT RECEIVER ASSEMBLY

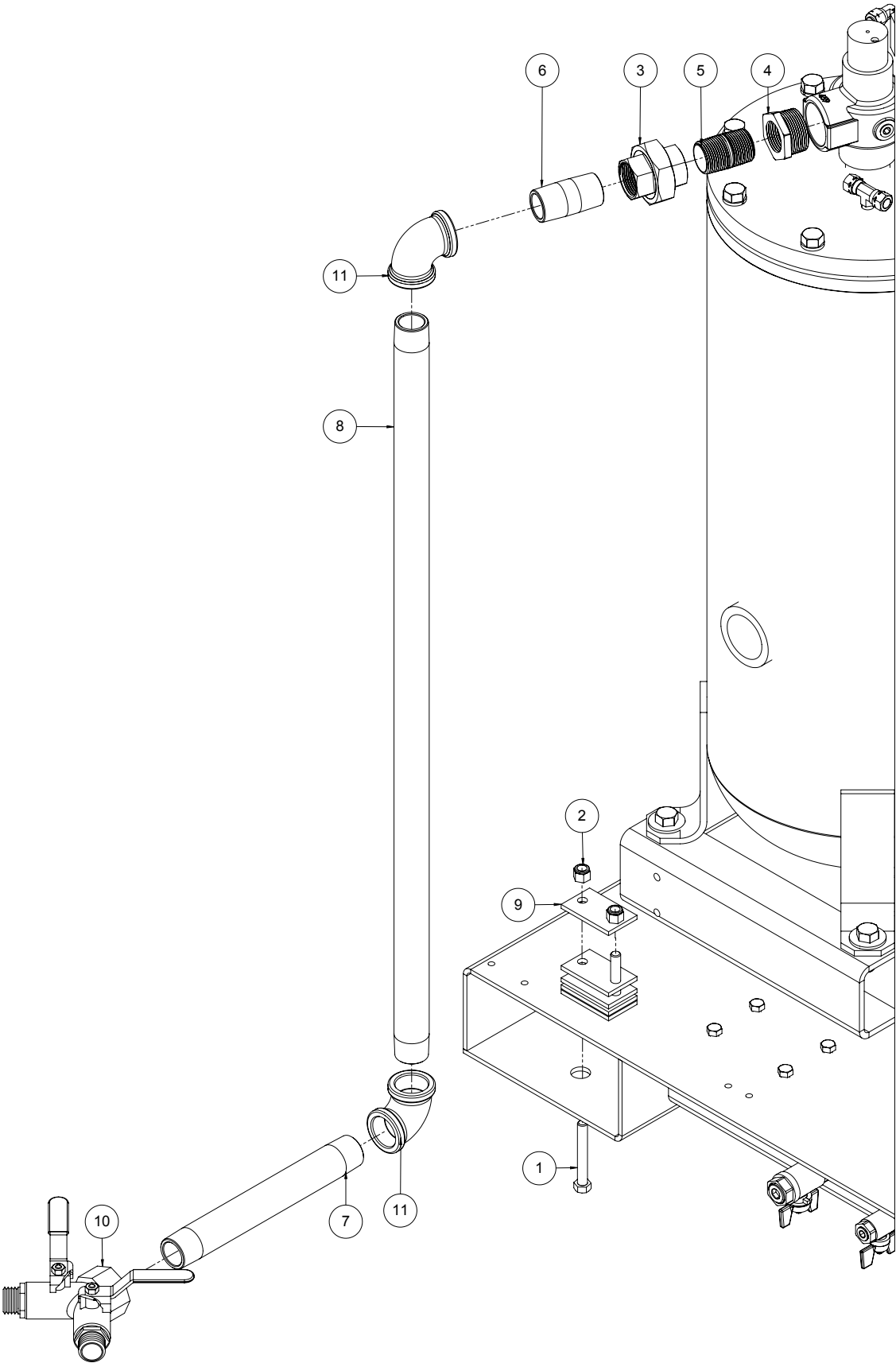


FIGURE 8-13. 00717885 0009 (REV 01)

00717885 0009 AIR OUT RECEIVER ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00900115 0083	BOLT, 3/8-16 X 2-3/4 HHCS GR5	2
2	00900490 0081	NUT, NYLOC 3/8-16 ZINC PLATED	2
3	00901135 0005	UNION, PIPE 1.0 FNPT 150# GLV	1
4	00901161 0017	BUSHING, PIPE 1-1/4 NPT X 1.0NPT 150# GLV	1
5	00901177 0060	NIPPLE, PIPE 1.00 X 2.00 SCH 80 GALV	1
6	00901177 0066	NIPPLE, PIPE 1.00 X 2.50 SCH80 GLV	1
7	00901177 0260	NIPPLE, PIPE 1.0 NPT X 9.5 SCH80 GLV	1
8	00901177 0660	NIPPLE, PIPE 1.0 X 33.5 SCH80 GLV	1
9	01900216 0287	DISCHARGE PIPE SUPPORT	5
10	05019835 0037	VALVE, SVC 1.00 FNPT INLET X (2) .75 OUTLETS	1
11	91027-016	ELBOW, PIPE 1.0FNPT 90° GLV	2

7.14 DISCHARGE HOSE ASSEMBLY

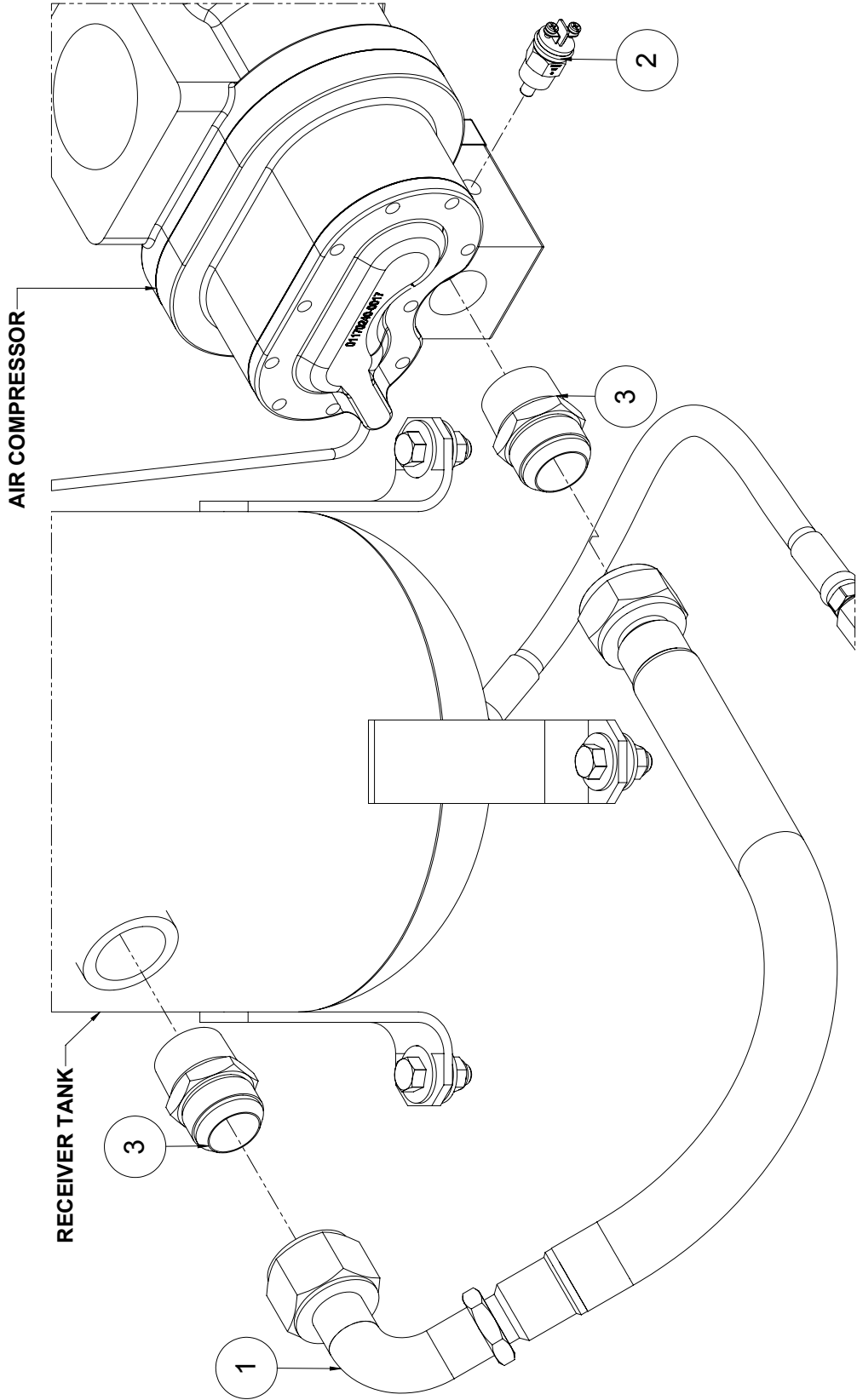


FIGURE 8-14. 00717886 0008 (REV 02)

00717886 0008 DISCHARGE HOSE ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	05018485 0406	HOSE, ASSY DISCHARGE HOSE	1
2	05019415 0053	SWITCH, TEMPERATURE SENDER	1
3	94035-024	CONNECTOR, 1 1/2" MNPT X 1 1/2" MJIC	2

7.15 CONTROL TUBING

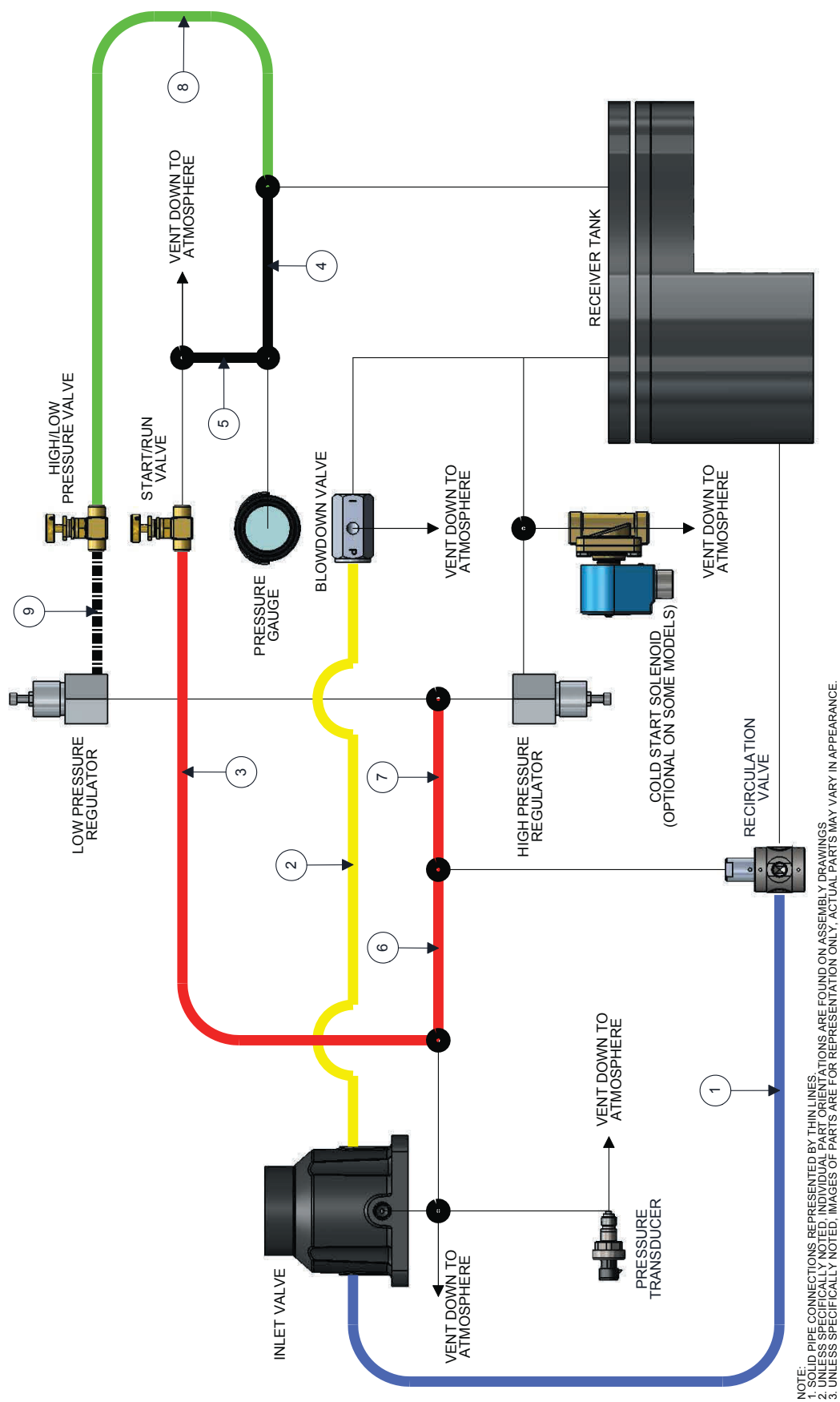


FIGURE 8-15. CD 00026 (REV 00)

CD 00026 CONTROL TUBING

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00910084 0002	TUBING, NYLON 3/8" BLUE	14"
2	00910084 0005	TUBING, NYLON 3/8" YELLOW	45.5"
3	00910084 0004	TUBING, NYLON 3/8" RED	8"
4	00910084	TUBING, NYLON 3/8" BLACK	29"
5	00910084	TUBING, NYLON 3/8" BLACK	36.5"
6	00910084 0004	TUBING, NYLON 3/8" RED	14.5"
7	00910084 0004	TUBING, NYLON 3/8" RED	9.5"
8	00910084 0003	TUBING, NYLON 3/8" GREEN	23"
9	00910084 0001	TUBING, NYLON 3/8" NATURAL	23"

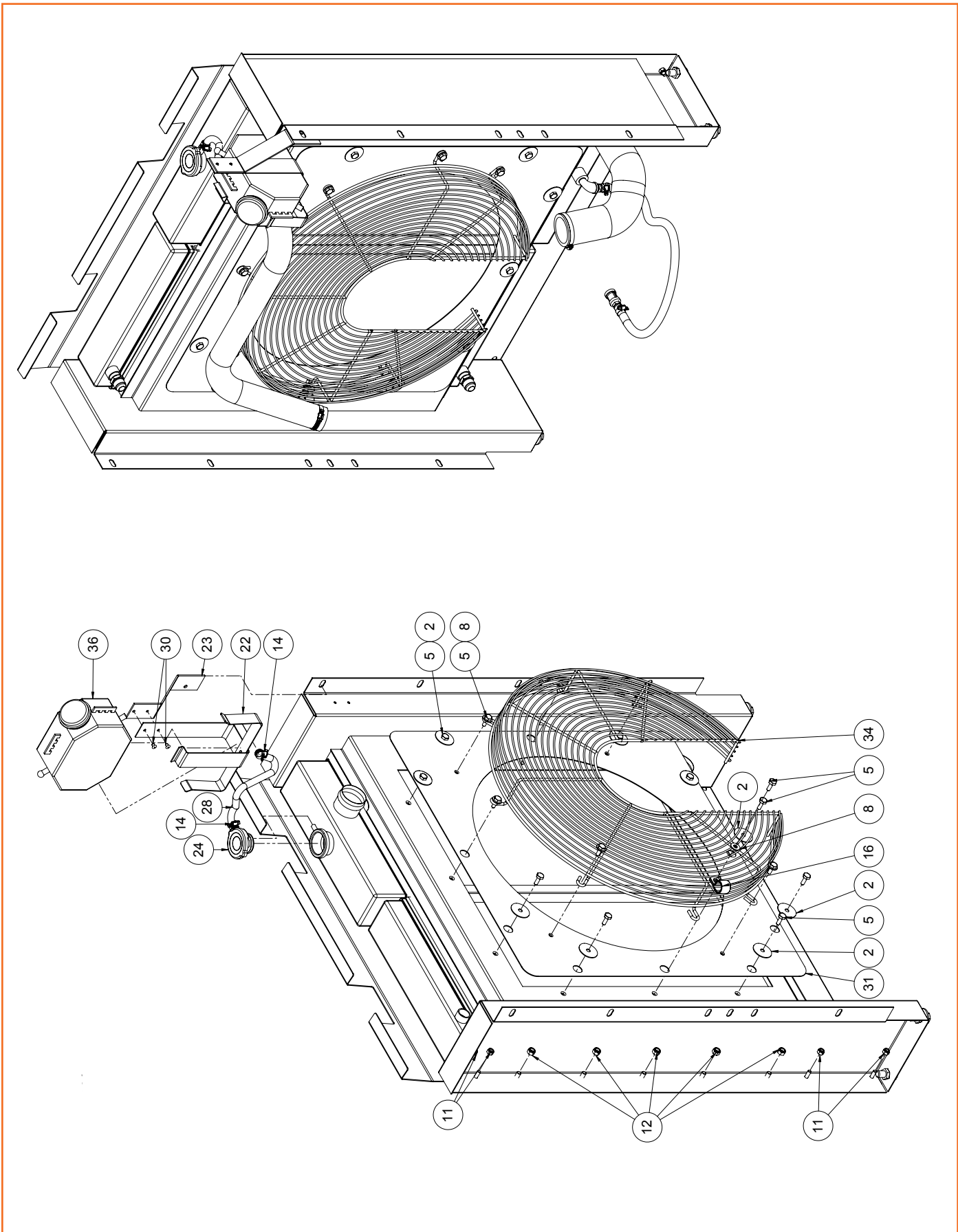


FIGURE 8-16. 00717532 0224 (REV 01)

00717532 0224 COOLING ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00902319 0008	CLAMP, HOSE 1-5/16 X 2-1/4"	1
2	00917850 0006	WASHER, BODY 1/4 X 1-1/2 OD	9
3	00800736	TAPE, FOAM 1/2" X 3/4" X 2.5 FT	2
4	00816666	TAPE, FOAM 1.0" X 1.0" X 2.5 FT	2
5	00900112 0001	BOLT, HEX .250-20 X .750 GR8	24
6	00900112 0002	BOLT, HEX 5/16-18 X 3/4 GR8	15
7	00900112 0024	BOLT, HEX 1/2-13 X 1 1/4 GR8	4
8	00900321 0002	WASHER, FLAT 1/4 ZINC PLATED	15
9	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	15
10	00900321 0005	WASHER, FLAT .500 ZINC PLATED	4
11	00900490 0130	NUT, NYLON .250-20 STAINLESS STEEL	8
12	00900490 0131	NUT, NYLON 5/16-18 STAINLESS STEEL	10
13	00901288 0002	COUPLING, PIPE .25 FNPT 150# GLV	1
14	00902319 0027	CLAMP, HOSE .22 TO .63 WORM DRIVE	4
15	00902319 0009	CLAMP, HOSE 1-9/16 X 2-1/2	3
16	00902905 0004	CLAMP, SUPPORT .75 ID	1
17	00906647 0001	ELBOW, STREET 0.25 GALV SCH40	1
18	00906814 0005	HOSE, .3125ID COOLANT DRAIN	1
19	00906843 0005	FITTING, HOSE BARB .31 HOSE X .25 MNPT	2
20	00907235 0108	ADAPTER, 1/2NPTX5/8JIC 6000# SS	2
21	01900007 0261	ACOUSTIC, IN SHROUD	2
22	01900216 0470	BRACKET, OVERFLOW BOTTLE	1
23	01900216 0601	BRACKET, POSITIONING	1
24	01900248 0005	CAP, RADIATOR PRESSURE	1
25	01900416 0058	COVER, LOWER BAFFLE RADIATOR D185-210	1
26	01900800 0022	HOSE, RADIATOR, LOWER 2" ID	1
27	01900800 0023	HOSE, RADIATOR, UPPER	1
28	01900800 0030	HOSE, OVERFLOW, 5/16 ID	1
29	01901000 1047	PANEL, TOP, RADIATOR & COOLER	1
30	01901256 0004	RIVET, BLIND .19 X .063 - .125 SS	2
31	01901378 0018	ORIFICE, FAN SHROUD GALV	1
32	03903400 0055	SHROUD, COOLING ASSY	1
33	05017705 0005HA	COOLER, OIL D210-D250	1
34	05018385 0020	GUARD, FAN 20.0 OD	1
35	05019010 0036	RADIATOR, ENGINE D210UHJD	1
36	05019492	TANK, RADIATOR RECOVERY	1

COOLING ASSEMBLY (CONTINUED)

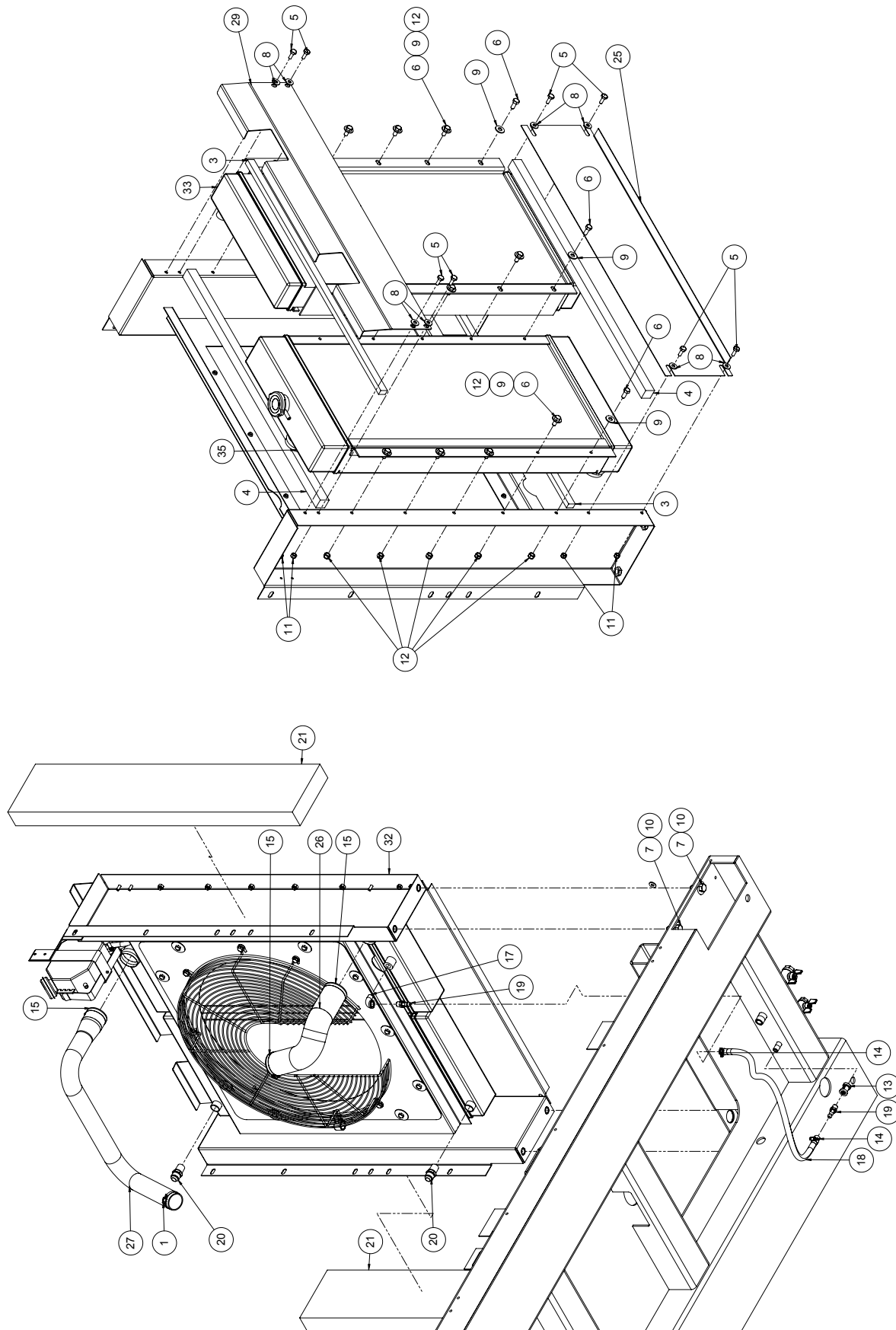


FIGURE 8-17. 00717532 0224 (REV 01)

00717532 0224 COOLING ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00902319 0008	CLAMP, HOSE 1-5/16 X 2-1/4"	1
2	00917850 0006	WASHER, BODY 1/4 X 1-1/2 OD	9
3	00800736	TAPE, FOAM 1/2" X 3/4" X 2.5 FT	2
4	00816666	TAPE, FOAM 1.0" X 1.0" X 2.5 FT	2
5	00900112 0001	BOLT, HEX .250-20 X .750 GR8	24
6	00900112 0002	BOLT, HEX 5/16-18 X 3/4 GR8	15
7	00900112 0024	BOLT, HEX 1/2-13 X 1 1/4 GR8	4
8	00900321 0002	WASHER, FLAT 1/4 ZINC PLATED	15
9	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	15
10	00900321 0005	WASHER, FLAT .500 ZINC PLATED	4
11	00900490 0130	NUT, NYLON .250-20 STAINLESS STEEL	8
12	00900490 0131	NUT, NYLON 5/16-18 STAINLESS STEEL	10
13	00901288 0002	COUPLING, PIPE .25 FNPT 150# GLV	1
14	00902319 0027	CLAMP, HOSE .22 TO .63 WORM DRIVE	4
15	00902319 0009	CLAMP, HOSE 1-9/16 X 2-1/2	3
16	00902905 0004	CLAMP, SUPPORT .75 ID	1
17	00906647 0001	ELBOW, STREET 0.25 GALV SCH40	1
18	00906814 0005	HOSE, .3125ID COOLANT DRAIN	1
19	00906843 0005	FITTING, HOSE BARB .31 HOSE X .25 MNPT	2
20	00907235 0108	ADAPTER, 1/2NPTX5/8JIC 6000# SS	2
21	01900007 0261	ACOUSTIC, IN SHROUD	2
22	01900216 0470	BRACKET, OVERFLOW BOTTLE	1
23	01900216 0601	BRACKET, POSITIONING	1
24	01900248 0005	CAP, RADIATOR PRESSURE	1
25	01900416 0058	COVER, LOWER BAFFLE RADIATOR D185-210	1
26	01900800 0022	HOSE, RADIATOR, LOWER 2" ID	1
27	01900800 0023	HOSE, RADIATOR, UPPER	1
28	01900800 0030	HOSE, OVERFLOW, 5/16 ID	1
29	01901000 1047	PANEL, TOP, RADIATOR & COOLER	1
30	01901256 0004	RIVET, BLIND .19 X .063 - .125 SS	2
31	01901378 0018	ORIFICE, FAN SHROUD GALV	1
32	03903400 0055	SHROUD, COOLING ASSY	1
33	05017705 0005HA	COOLER, OIL D210-D250	1
34	05018385 0020	GUARD, FAN 20.0 OD	1
35	05019010 0036	RADIATOR, ENGINE D210UHJD	1
36	05019492	TANK, RADIATOR RECOVERY	1

7.17 OIL FILTER AND PIPING

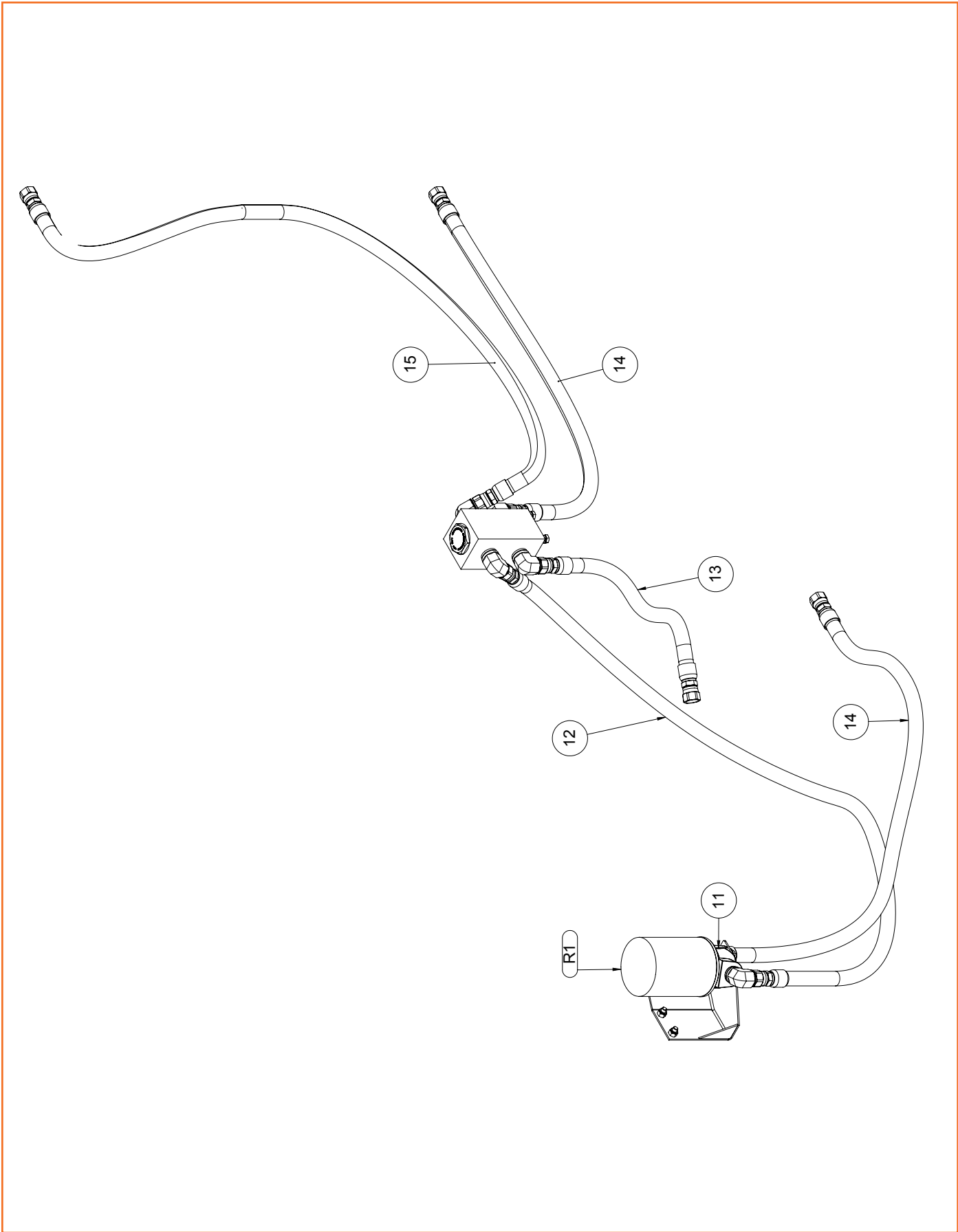


FIGURE 8-18. 00717620 0100 (REV 01)

00717620 0100 OIL FILTER AND PIPING

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00900115 0001	BOLT .250-20 X 0.75 HEX HD GR5	2
2	00900305 0001	WASHER, LOCK .250 ZINC PLATED	2
3	00900321 0002	WASHER, FLAT 1/4 ZN PLT	2
4	05018215 0011	OIL FILTER ASSY	1
5	05018485 0155	HOSE ASSY 1/2" X 34.0" LG	1
6	05018485 0156	HOSE ASSY 1/2" X 27.0" LG	1
7	05018485 0158	HOSE ASSY 1/2" X 42.5" LG	2

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	01900520 0012	ELEMENT, OIL FILTER	1
R2	01228207 0025	GASKET, THERMOSTAT 1-1/2"	1

OIL FILTER AND PIPING (CONTINUED)

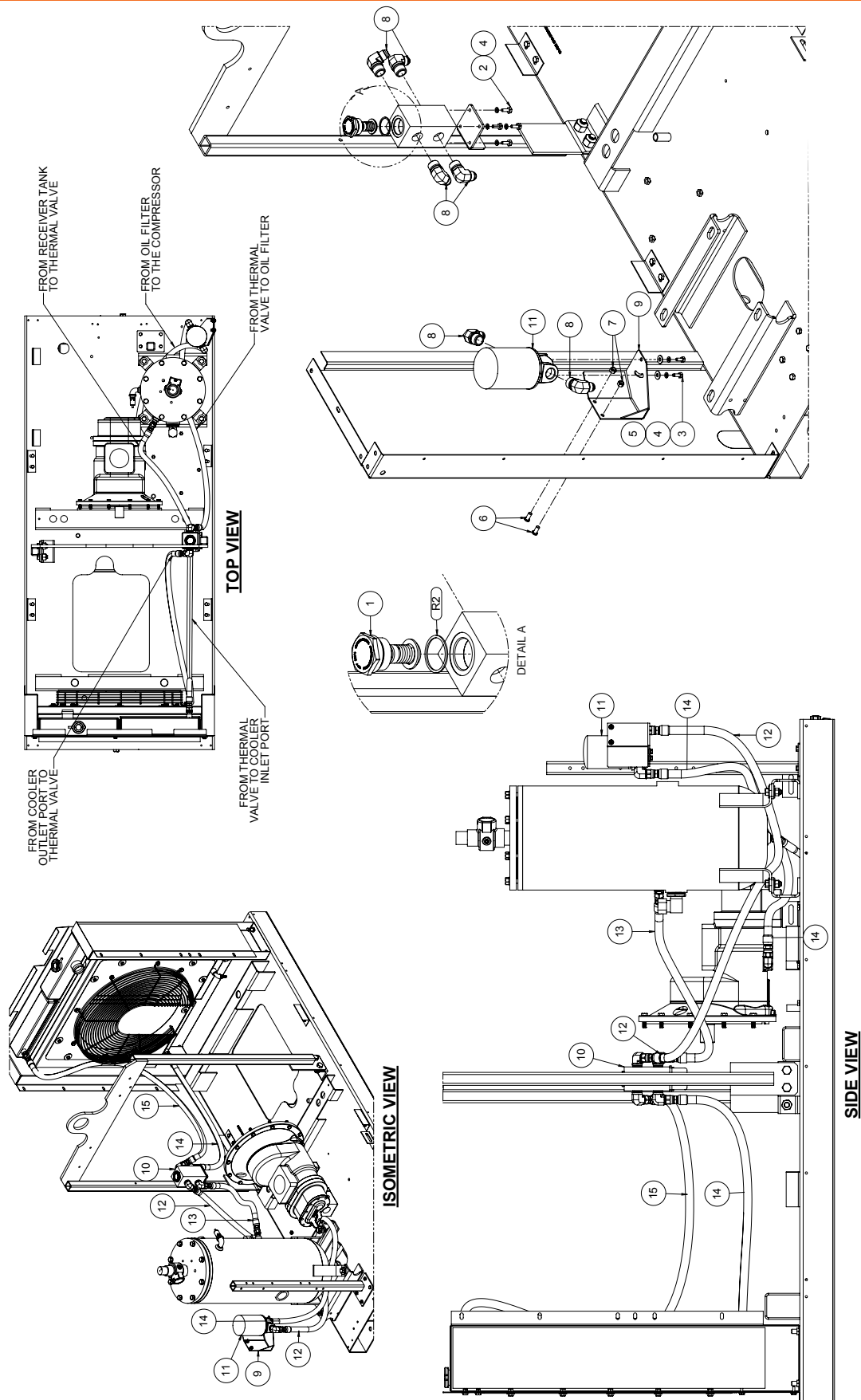


FIGURE 8-19. 00717620 0100 (REV 01)

00717620 0100 OIL FILTER AND PIPING

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00900115 0001	BOLT .250-20 X 0.75 HEX HD GR5	2
2	00900305 0001	WASHER, LOCK .250 ZINC PLATED	2
3	00900321 0002	WASHER, FLAT 1/4 ZN PLT	2
4	05018215 0011	OIL FILTER ASSY	1
5	05018485 0155	HOSE ASSY 1/2" X 34.0" LG	1
6	05018485 0156	HOSE ASSY 1/2" X 27.0" LG	1
7	05018485 0158	HOSE ASSY 1/2" X 42.5" LG	2

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	01900520 0012	ELEMENT, OIL FILTER	1
R2	01228207 0025	GASKET, THERMOSTAT 1-1/2"	1

7.18 FUEL TANK ASSEMBLY

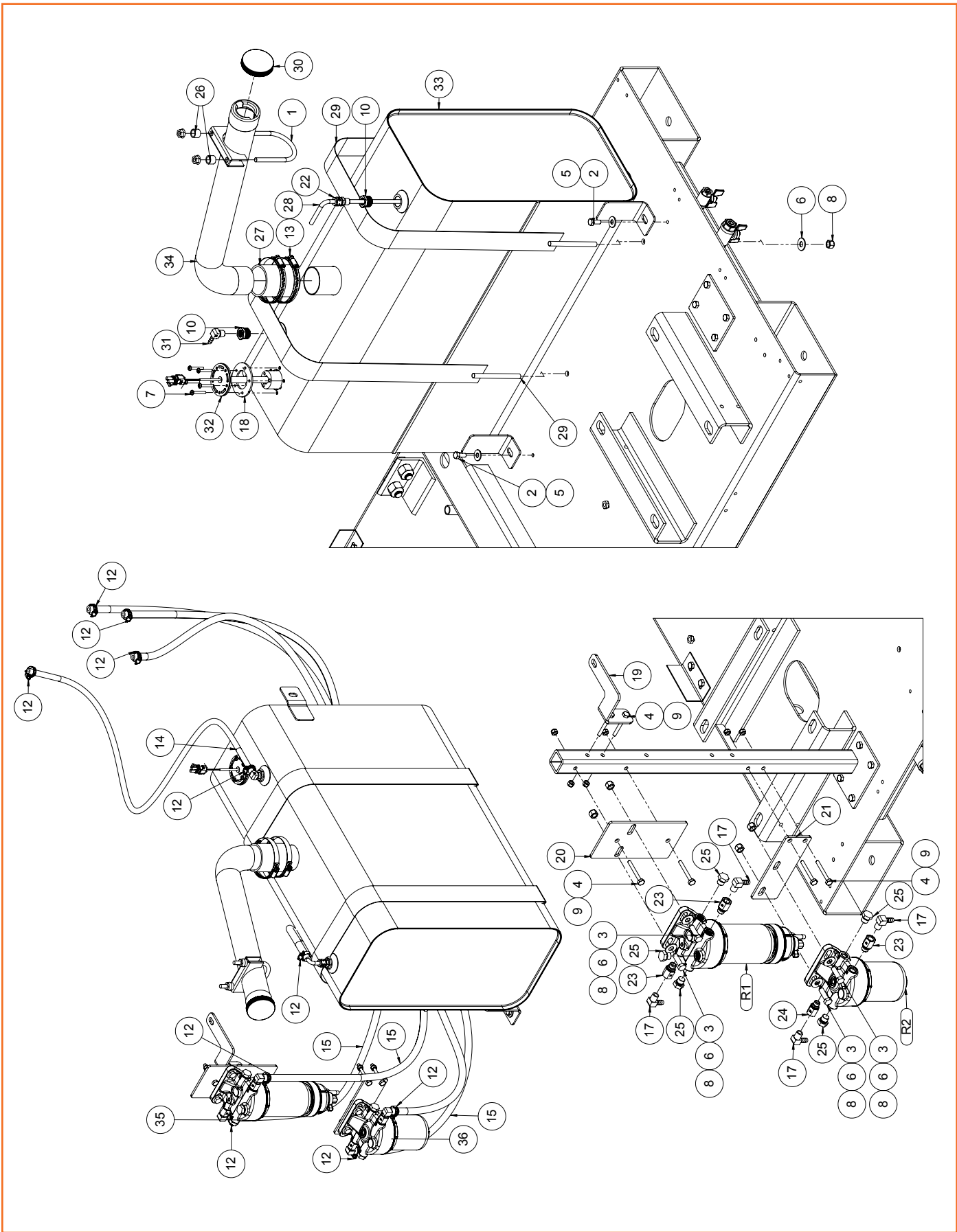


FIGURE 8-20. 00717972 0133 (REV 01)

00717972 0133 FUEL TANK ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00519470 0001	CLAMP, EXHAUST 2.5 GM STYLE	1
2	00900112 0002	BOLT, HEX 5/16-18 X 3/4 GR8	2
3	00900112 0023	BOLT, HEX .3750-16 X 1.250 GR8	4
4	00900112 0061	BOLT, HEX .250-20 X 2.250 GR8	6
5	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	2
6	00900321 0004	WASHER, FLAT .375 ZINC PLATED	6
7	00900336 0238	SCREW, #10-24 X 1.25" O-RING	5
8	00900490 0112	NUT, NYLOK 3/8-16 SS	6
9	00900490 0130	NUT, NYLOK .250-20 STAINLESS STEEL	6
10	00901161 0005	BUSHING, PIPE 1/2 X 1/4 150# GALV	3
11	00901288 0002	COUPLING, PIPE .25 FNPT 150# GLV	1
12	00902319 0002	CLAMP, HOSE .500 X .906	12
13	00902319 0011	CLAMP, HOSE 2.06 - 3.0	2
14	00906814 0004	HOSE, 0.25 ID 250 PSI	5 FT
15	00906814 0005	HOSE, 0.31 ID X 31.0 LG 250 PSI	24 FT
16	00906843 0044	FITTING, HOSE BARB .25 HOSE X .25 MNPT	1
17	00908397 0034	BARB, ELB 5/16 HOSE X 1/4 MNPT	4
18	01225508	GASKET, FUEL SENDER	1
19	01900208 0055	BRACE, FILTER MOUNT TIE	1
20	01900216 0820	BRACKET, FUEL-WATER SEPARATOR	1
21	01900216 0821	BRACKET, FUEL FILTER	1
22	01900592 0022	FITTING, .25 MNPT X .31 TUBE	1
23	01900592 0070	ADAPTER, M14-1.5 X 1/4FPT	3
24	01900592 0073	ADAPTER, M12-1.5 X .25FNPT	1
25	01901166 0034	PLUG, M14-1.5 OMN HEX HD	5
26	01901416 0102	SPACER, 1/2" STD PIPE	2
27	01901492 0021	FUEL HOSE 2.25 ID X 3.0 LG	1
28	01901551 0066	TUBE, FUEL FEED .31 OD	1
29	03903440 0027	STRAP, FUEL TANK	2
30	05017457 0015	CAP, FUEL VENTED	1
31	05018231 0807	BARB, ELBOW 0.25 HOSE X 0.25 NPT	2
32	05019189 0012	SENDER, FUEL LEVEL D210UHD4	1
33	05019475 0080	TANK, FUEL 25 GAL	1
34	05019535 0019	FUEL FILL TUBE	1
35	05018155 0034	FILTER ASSY, FUEL/WATER	1
36	05018155 0035	FILTER ASSY, FUEL FILTER	1

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	01900522 0118	ELEMENT, FUEL-WATER SEPARATOR	1
R2	01900522 0119	ELEMENT, FUEL-FILTER	1

FUEL DIAGRAM

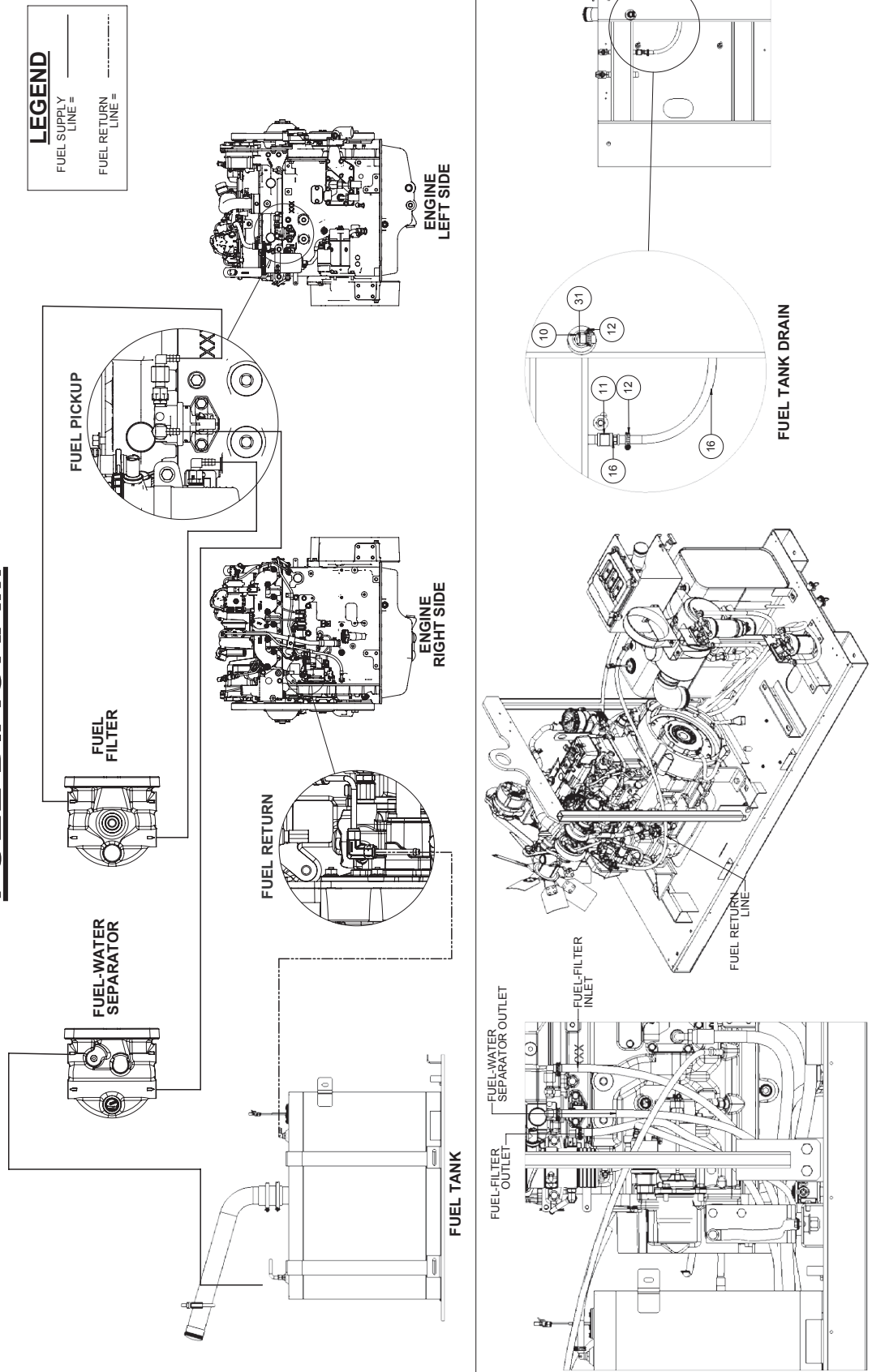


FIGURE 8-21. 00717972 0133 (REV 01)

00717972 0133 FUEL TANK ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00519470 0001	CLAMP, EXHAUST 2.5 GM STYLE	1
2	00900112 0002	BOLT, HEX 5/16-18 X 3/4 GR8	2
3	00900112 0023	BOLT, HEX .3750-16 X 1.250 GR8	4
4	00900112 0061	BOLT, HEX .250-20 X 2.250 GR8	6
5	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	2
6	00900321 0004	WASHER, FLAT .375 ZINC PLATED	6
7	00900336 0238	SCREW, #10-24 X 1.25" O-RING	5
8	00900490 0112	NUT, NYLOK 3/8-16 SS	6
9	00900490 0130	NUT, NYLOK .250-20 STAINLESS STEEL	6
10	00901161 0005	BUSHING, PIPE 1/2 X 1/4 150# GALV	3
11	00901288 0002	COUPLING, PIPE .25 FNPT 150# GLV	1
12	00902319 0002	CLAMP, HOSE .500 X .906	12
13	00902319 0011	CLAMP, HOSE 2.06 - 3.0	2
14	00906814 0004	HOSE, 0.25 ID 250 PSI	5 FT
15	00906814 0005	HOSE, 0.31 ID X 31.0 LG 250 PSI	24 FT
16	00906843 0044	FITTING, HOSE BARB .25 HOSE X .25 MNPT	1
17	00908397 0034	BARB, ELB 5/16 HOSE X 1/4 MNPT	4
18	01225508	GASKET, FUEL SENDER	1
19	01900208 0055	BRACE, FILTER MOUNT TIE	1
20	01900216 0820	BRACKET, FUEL-WATER SEPARATOR	1
21	01900216 0821	BRACKET, FUEL FILTER	1
22	01900592 0022	FITTING, .25 MNPT X .31 TUBE	1
23	01900592 0070	ADAPTER, M14-1.5 X 1/4FPT	3
24	01900592 0073	ADAPTER, M12-1.5 X .25FNPT	1
25	01901166 0034	PLUG, M14-1.5 OMN HEX HD	5
26	01901416 0102	SPACER, 1/2" STD PIPE	2
27	01901492 0021	FUEL HOSE 2.25 ID X 3.0 LG	1
28	01901551 0066	TUBE, FUEL FEED .31 OD	1
29	03903440 0027	STRAP, FUEL TANK	2
30	05017457 0015	CAP, FUEL VENTED	1
31	05018231 0807	BARB, ELBOW 0.25 HOSE X 0.25 NPT	2
32	05019189 0012	SENDER, FUEL LEVEL D210UHD4	1
33	05019475 0080	TANK, FUEL 25 GAL	1
34	05019535 0019	FUEL FILL TUBE	1
35	05018155 0034	FILTER ASSY, FUEL/WATER	1
36	05018155 0035	FILTER ASSY, FUEL FILTER	1

RECOMMENDED SPARE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
R1	01900522 0118	ELEMENT, FUEL-WATER SEPARATOR	1
R2	01900522 0119	ELEMENT, FUEL-FILTER	1

7.19 INSTRUMENT PANEL ASSEMBLY

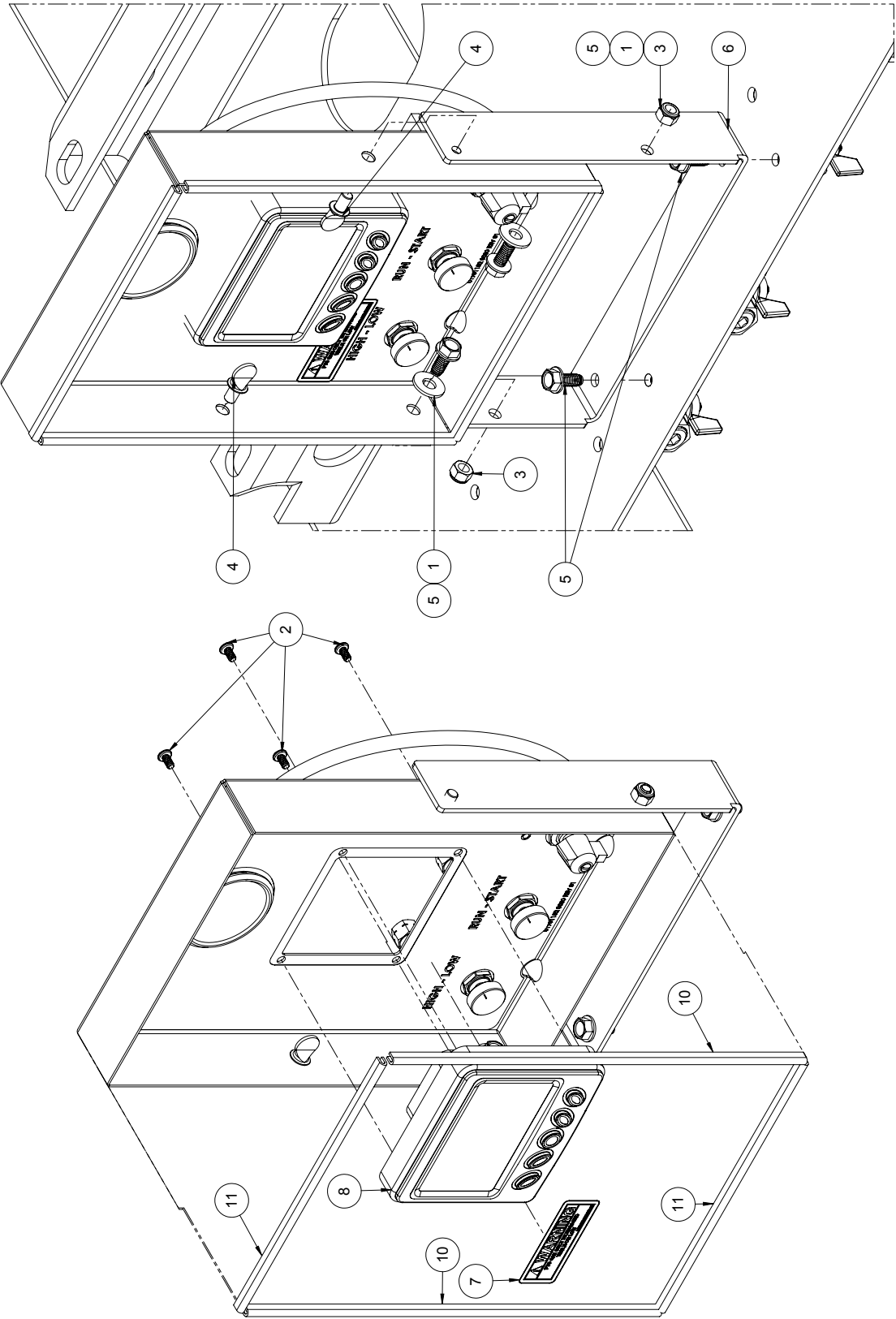


FIGURE 8-22. 00717680 0179 (REV 00)

00717680 0179 INSTRUMENT PANEL ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	2
2	00900335 0375	SCREW, 8-32 X .31 PHILLIPS	4
3	00900490 0062	NUT, NYLOK 5/16-18 ZINC PLATED	2
4	00906771 0112	BOLT, THUMBSCREW 5/16-18 X 1/2	2
5	00913792 0055	SCREW, 5/16-18 X 3/4 THD FORMING	4
6	01900216 0689	BRACKET, INSTR PANEL	1
7	01900464 0558	DECAL, WARNING PTO	1
8	05018366 0014	GAUGE, MURPHY PV480 JD4045T4	1
9	05018845 0174	INST PANEL, D210UHJD4	1
10	08753-001	MOLDING, EDGE VINYL (FT)	2
11	08753-001	MOLDING, EDGE VINYL 9.00 LG	2

INSTRUMENT PANEL ASSEMBLY (CONTINUED)

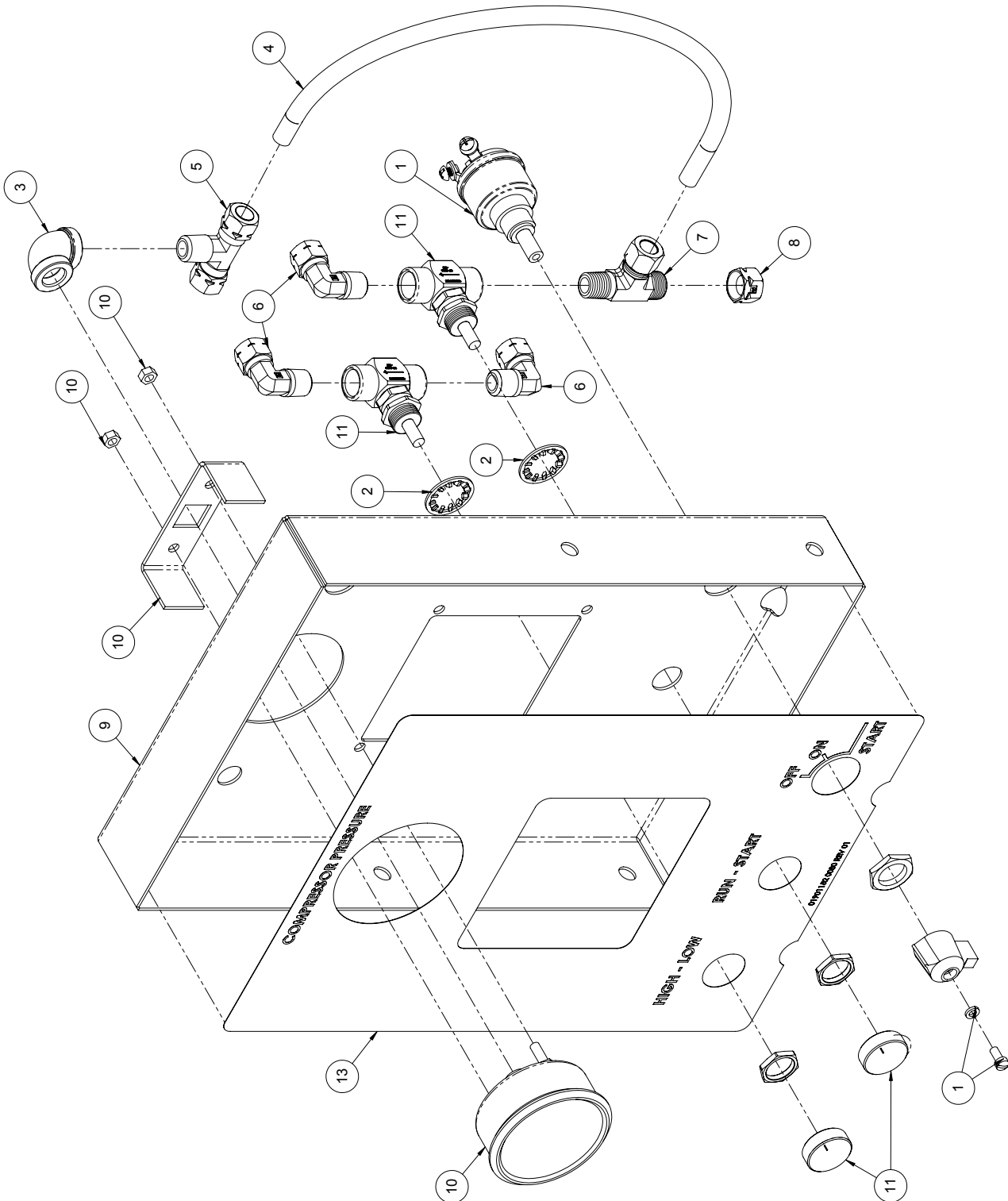


FIGURE 8-23. 05018845 0174 (REV 00)

05018845 0174 INSTRUMENT PANEL, D210UHJD4

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00600701 0406	SWITCH, IGNITION 3-WAY	1
2	00900609 0011	WASHER, LOCK 5/8" INTERNALLY SERRATED ZINC	2
3	00901027 0002	ELBOW, PIPE 1/4"NPT 150# GALV	1
4	00910084	TUBING, .38 O.D. NYLON BLACK	1 FT
5	00915534 0064	TEE, .375 TUBE X .250 MNPT MALE BRANCH BRASS	1
6	00915557 0064	ELBOW, .375 TUBE X .250 MNPT BRASS	3
7	00915564 0064	TEE, MALE RUN 1/4 MNPT X 3/8 TUBE BRASS	1
8	01900930 0024	ORIFICE, .020 PUSH LOK CAP .375 TUBE	1
9	01901000 1024	PANEL, INSTRUMENT D185UDZ	1
10	05018310 0019	GAUGE, PSI 2.50 DIA DRY FILL	1
11	05019820 0002	VALVE 2-WAY 1/4" FNPT BRASS	2
NS	00800125	TAPE, NEOPRENE 1/8" THK X 1/2" (NOT SHOWN)	1.5 FT
13	01901152 0030	DECAL, INSTRUMENT PANEL D375PDCU	1

7.20 ENCLOSURE ASSEMBLY

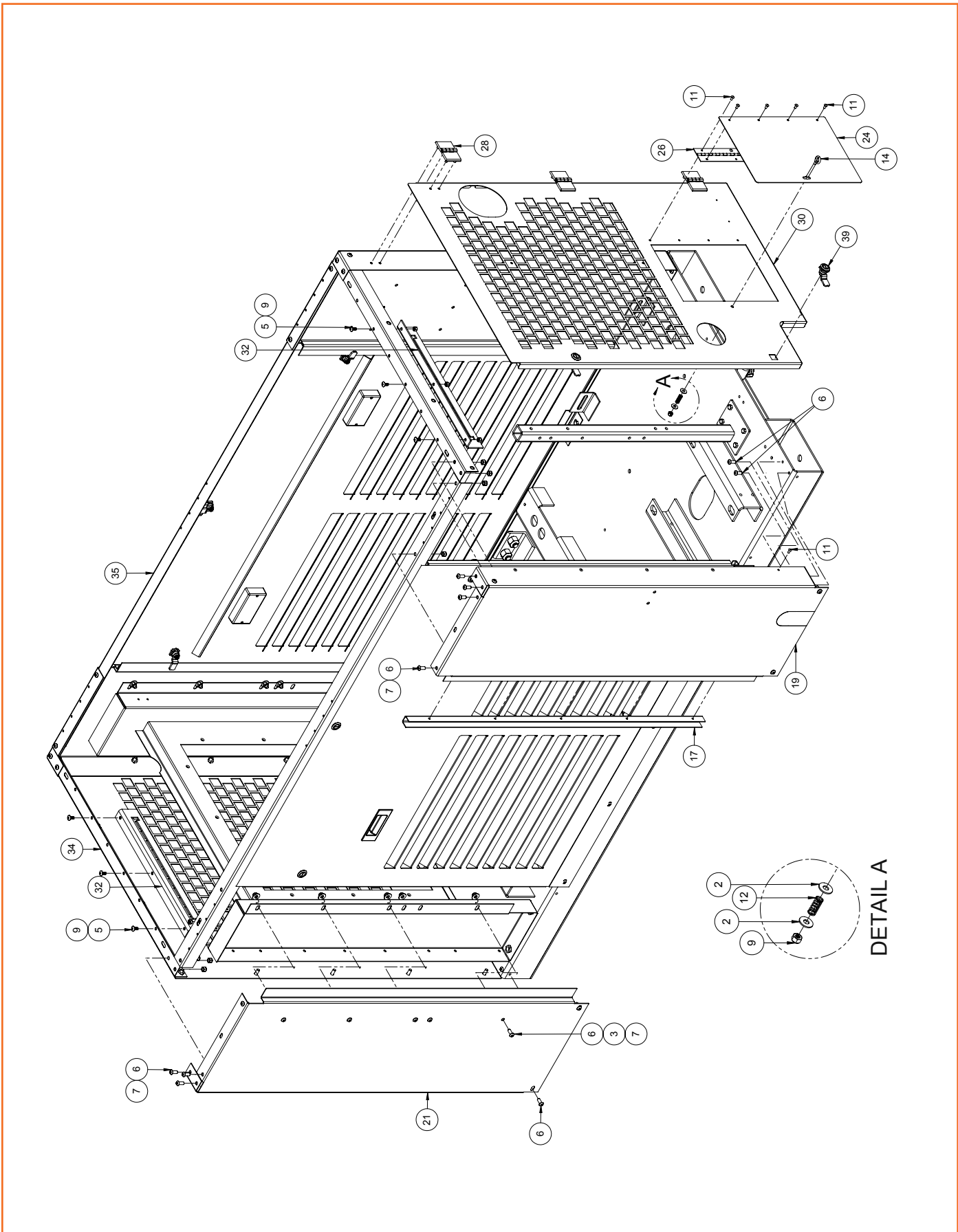


FIGURE 8-24. 00717598 0138W (REV 02)

00717598 0138W ENCLOSURE ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00519136 0009	CAP, RAIN 5.00	1
2	00900321 0002	WASHER, FLAT 1/4 ZINC PLATED	2
3	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	20
4	00900335 0238	SCREW, 10-24 X 1.50 LG RD HD	2
5	00900389 0002	BOLT, BUTTON HEAD .25-20 X .75 ZN PLT	16
6	00900389 0003	SCREW, 5/16 X 3/4 LG BUTTON HD	66
7	00900490 0062	NUT, NYLOK 5/16-18 ZINC PLATED	30
8	00900490 0064	NUT, NYLOK 10-24 ZN PLT	2
9	00900490 0071	NUT, NYLOC .250-20 ZINC PLATED	17
10	00901871 0047	BOLT, CARRIAGE 0.31-18 X 1.25	4
11	00916867 0421	RIVET, 3/16" X .126 -.250 RANGE	49
12	01228269 0020	SPRING, INST PANEL EYE BOLT RETURN	1
13	01900104 0289	ANGLE, ROOF BRACE D250U	2
14	01900168 0005	BOLT, EYE .25-20 ZN PLT	1
15	01900208 0017	BRACE, ROOF D185U	2
16	01900216 0383W	BRACKET, DOOR D185U	2
17	01900264 0039W	CHANNEL, DOOR LATCH	1
18	01900384 0037W	CORNER POST RF D210UHJD	1
19	01900384 0038W	CORNER POST LF D210UHJD	1
20	01900384 0039W	CORNER POST, RIGHT REAR, D210UHJD	1
21	01900384 0040W	CORNER POST, LEFT REAR, D210UHJD	1
22	01900416 0165W	COVER, DOC SWITCH D210UHJD4	1
23	01900480 0038W	DOOR, LOUVERED, UTILITY	2
24	01900485 0063W	DOOR, INSTRUMENT PANEL D250U	1
25	01900728 0007	HANDLE, DOOR RECESSED	4
26	01900752 0034	HINGE, PANEL 2" CONT. ALUMINIUM	1
27	01900752 0073	HINGE, TOP UTILITY	3
28	01900752 0105	HINGE, BLACK ZINC, 950+	3
29	01901000 1044W	PANEL, REAR D250U	1
30	01901000 1045W	PANEL, FRONT DOOR D250U	1
31	01901368 0003	SHIM, ROOF HINGE	1
32	01901408 0001	SLIDE, ROOF BRACE D185U	2
33	01901416 0057	SPACER, .50 OD X .325 ID X .50 LG	2
34	01901548 0016W	TIE, UPPER END D185-210U	2
35	01901548 0017W	TIE, UPPER SIDE D185U	2
36	03903184 0034	FLANGE ASSY, EXHAUST UTILITY Ø5.0	1
37	03903336 0255W	PANEL, ROOF D210UHJD4	1
38	05018460 0003	HOLDER, DOOR, (FEMALE & MALE)	2
39	05018650 0031	LATCH, QUARTER TURN	8

COLOR CHART

PART NUMBER	COLOR
00717598 0138W	SIGNAL WHITE
00717598 0132MG	MEDIUM GREY
00717598 0132KB	BLUE GLOSS

ENCLOSURE ASSEMBLY (CONTINUED)

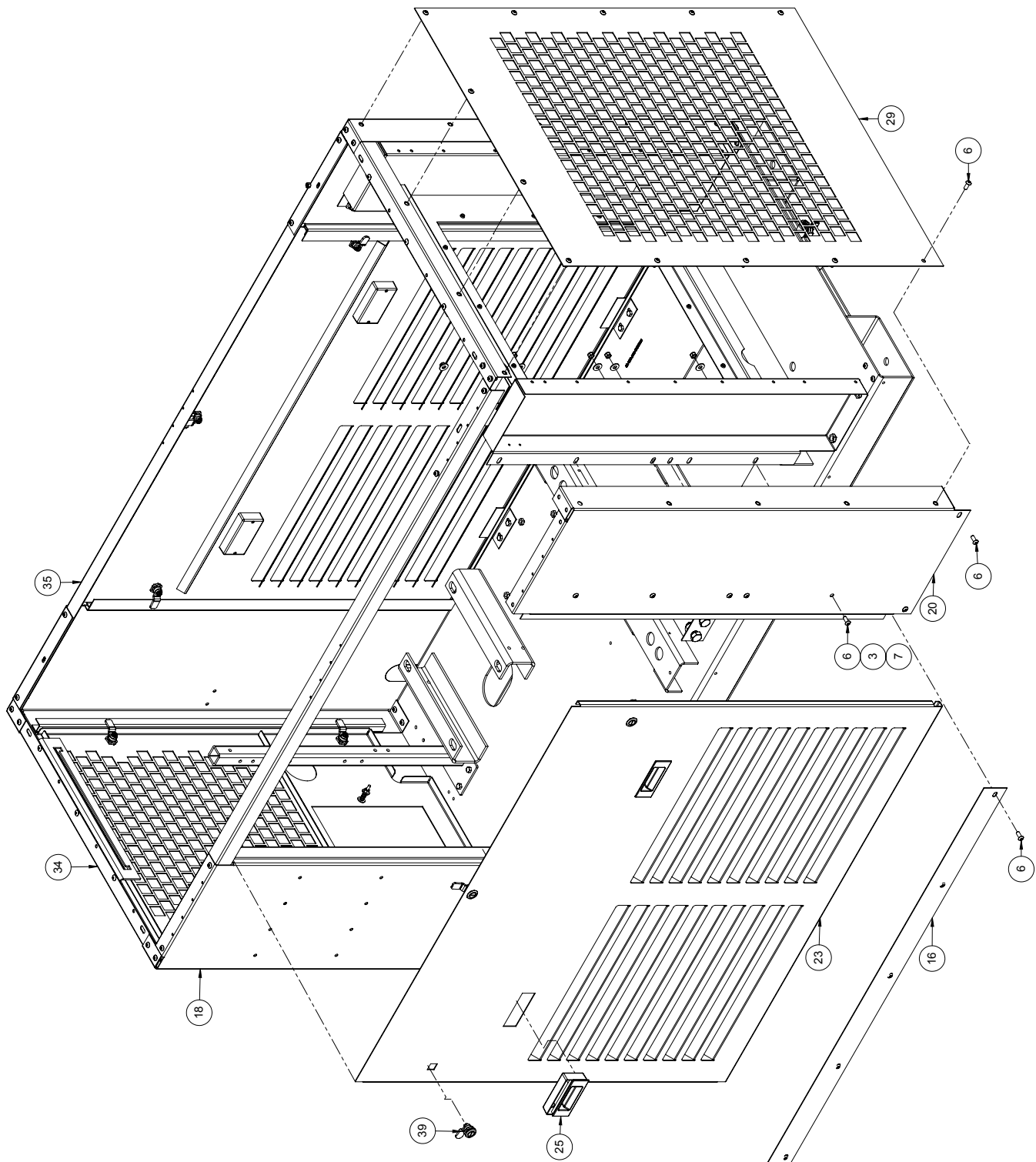


FIGURE 8-25. 00717598 0138W (REV 02)

00717598 0138W ENCLOSURE ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00519136 0009	CAP, RAIN 5.00	1
2	00900321 0002	WASHER, FLAT 1/4 ZINC PLATED	2
3	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	20
4	00900335 0238	SCREW, 10-24 X 1.50 LG RD HD	2
5	00900389 0002	BOLT, BUTTON HEAD .25-20 X .75 ZN PLT	16
6	00900389 0003	SCREW, 5/16 X 3/4 LG BUTTON HD	66
7	00900490 0062	NUT, NYLOK 5/16-18 ZINC PLATED	30
8	00900490 0064	NUT, NYLOK 10-24 ZN PLT	2
9	00900490 0071	NUT, NYLOC .250-20 ZINC PLATED	17
10	00901871 0047	BOLT, CARRIAGE 0.31-18 X 1.25	4
11	00916867 0421	RIVET, 3/16" X .126 -.250 RANGE	49
12	01228269 0020	SPRING, INST PANEL EYE BOLT RETURN	1
13	01900104 0289	ANGLE, ROOF BRACE D250U	2
14	01900168 0005	BOLT, EYE .25-20 ZN PLT	1
15	01900208 0017	BRACE, ROOF D185U	2
16	01900216 0383W	BRACKET, DOOR D185U	2
17	01900264 0039W	CHANNEL, DOOR LATCH	1
18	01900384 0037W	CORNER POST RF D210UHJD	1
19	01900384 0038W	CORNER POST LF D210UHJD	1
20	01900384 0039W	CORNER POST, RIGHT REAR, D210UHJD	1
21	01900384 0040W	CORNER POST, LEFT REAR, D210UHJD	1
22	01900416 0165W	COVER, DOC SWITCH D210UHJD4	1
23	01900480 0038W	DOOR, LOUVERED, UTILITY	2
24	01900485 0063W	DOOR, INSTRUMENT PANEL D250U	1
25	01900728 0007	HANDLE, DOOR RECESSED	4
26	01900752 0034	HINGE, PANEL 2" CONT. ALUMINIUM	1
27	01900752 0073	HINGE, TOP UTILITY	3
28	01900752 0105	HINGE, BLACK ZINC, 950+	3
29	01901000 1044W	PANEL, REAR D250U	1
30	01901000 1045W	PANEL, FRONT DOOR D250U	1
31	01901368 0003	SHIM, ROOF HINGE	1
32	01901408 0001	SLIDE, ROOF BRACE D185U	2
33	01901416 0057	SPACER, .50 OD X .325 ID X .50 LG	2
34	01901548 0016W	TIE, UPPER END D185-210U	2
35	01901548 0017W	TIE, UPPER SIDE D185U	2
36	03903184 0034	FLANGE ASSY, EXHAUST UTILITY Ø5.0	1
37	03903336 0255W	PANEL, ROOF D210UHJD4	1
38	05018460 0003	HOLDER, DOOR, (FEMALE & MALE)	2
39	05018650 0031	LATCH, QUARTER TURN	8

COLOR CHART

PART NUMBER	COLOR
00717598 0138W	SIGNAL WHITE
00717598 0132MG	MEDIUM GREY
00717598 0132KB	BLUE GLOSS

ENCLOSURE ASSEMBLY (CONTINUED)

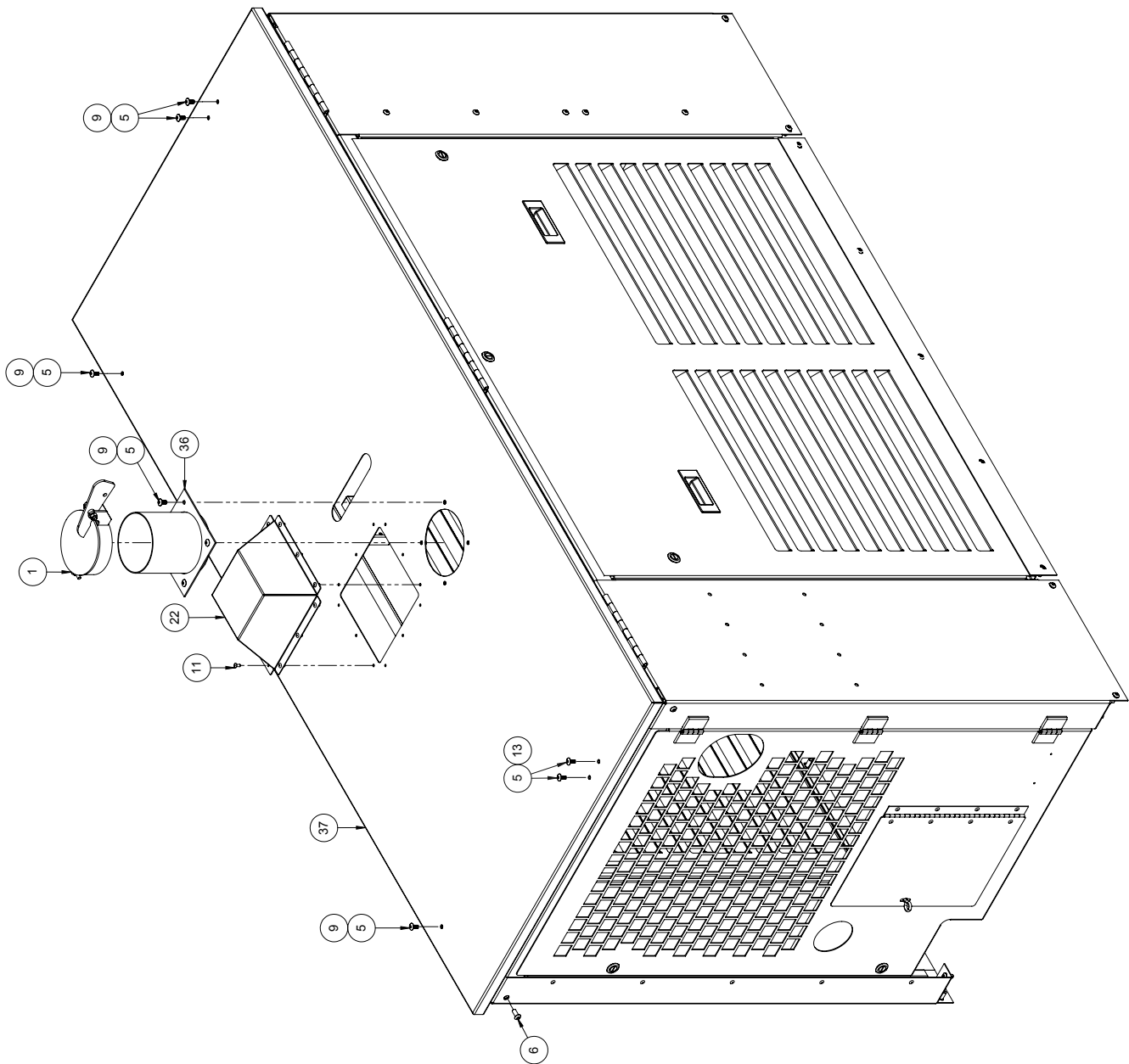


FIGURE 8-26. 00717598 0138W (REV 02)

00717598 0138W ENCLOSURE ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00519136 0009	CAP, RAIN 5.00	1
2	00900321 0002	WASHER, FLAT 1/4 ZINC PLATED	2
3	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	20
4	00900335 0238	SCREW, 10-24 X 1.50 LG RD HD	2
5	00900389 0002	BOLT, BUTTON HEAD .25-20 X .75 ZN PLT	16
6	00900389 0003	SCREW, 5/16 X 3/4 LG BUTTON HD	66
7	00900490 0062	NUT, NYLOK 5/16-18 ZINC PLATED	30
8	00900490 0064	NUT, NYLOK 10-24 ZN PLT	2
9	00900490 0071	NUT, NYLOC .250-20 ZINC PLATED	17
10	00901871 0047	BOLT, CARRIAGE 0.31-18 X 1.25	4
11	00916867 0421	RIVET, 3/16" X .126 -.250 RANGE	49
12	01228269 0020	SPRING, INST PANEL EYE BOLT RETURN	1
13	01900104 0289	ANGLE, ROOF BRACE D250U	2
14	01900168 0005	BOLT, EYE .25-20 ZN PLT	1
15	01900208 0017	BRACE, ROOF D185U	2
16	01900216 0383W	BRACKET, DOOR D185U	2
17	01900264 0039W	CHANNEL, DOOR LATCH	1
18	01900384 0037W	CORNER POST RF D210UHJD	1
19	01900384 0038W	CORNER POST LF D210UHJD	1
20	01900384 0039W	CORNER POST, RIGHT REAR, D210UHJD	1
21	01900384 0040W	CORNER POST, LEFT REAR, D210UHJD	1
22	01900416 0165W	COVER, DOC SWITCH D210UHJD4	1
23	01900480 0038W	DOOR, LOUVERED, UTILITY	2
24	01900485 0063W	DOOR, INSTRUMENT PANEL D250U	1
25	01900728 0007	HANDLE, DOOR RECESSED	4
26	01900752 0034	HINGE, PANEL 2" CONT. ALUMINIUM	1
27	01900752 0073	HINGE, TOP UTILITY	3
28	01900752 0105	HINGE, BLACK ZINC, 950+	3
29	01901000 1044W	PANEL, REAR D250U	1
30	01901000 1045W	PANEL, FRONT DOOR D250U	1
31	01901368 0003	SHIM, ROOF HINGE	1
32	01901408 0001	SLIDE, ROOF BRACE D185U	2
33	01901416 0057	SPACER, .50 OD X .325 ID X .50 LG	2
34	01901548 0016W	TIE, UPPER END D185-210U	2
35	01901548 0017W	TIE, UPPER SIDE D185U	2
36	03903184 0034	FLANGE ASSY, EXHAUST UTILITY Ø5.0	1
37	03903336 0255W	PANEL, ROOF D210UHJD4	1
38	05018460 0003	HOLDER, DOOR, (FEMALE & MALE)	2
39	05018650 0031	LATCH, QUARTER TURN	8

COLOR CHART

PART NUMBER	COLOR
00717598 0138W	SIGNAL WHITE
00717598 0132MG	MEDIUM GREY
00717598 0132KB	BLUE GLOSS

ENCLOSURE ASSEMBLY (CONTINUED)

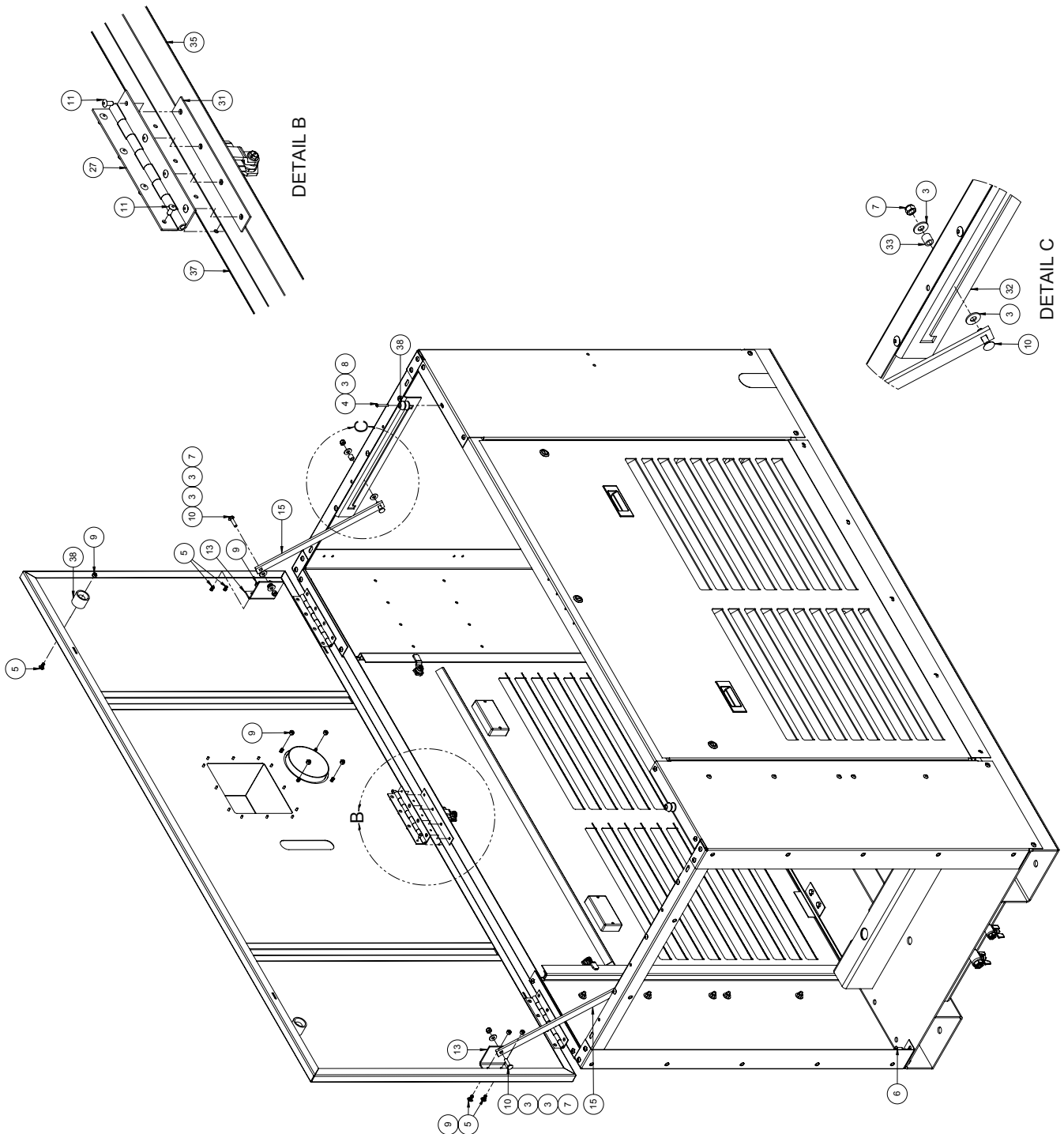


FIGURE 8-27. 00717598 0138W (REV 02)

00717598 0138W ENCLOSURE ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00519136 0009	CAP, RAIN 5.00	1
2	00900321 0002	WASHER, FLAT 1/4 ZINC PLATED	2
3	00900321 0003	WASHER, FLAT .3125 ZINC PLATED	20
4	00900335 0238	SCREW, 10-24 X 1.50 LG RD HD	2
5	00900389 0002	BOLT, BUTTON HEAD .25-20 X .75 ZN PLT	16
6	00900389 0003	SCREW, 5/16 X 3/4 LG BUTTON HD	66
7	00900490 0062	NUT, NYLOK 5/16-18 ZINC PLATED	30
8	00900490 0064	NUT, NYLOK 10-24 ZN PLT	2
9	00900490 0071	NUT, NYLOC .250-20 ZINC PLATED	17
10	00901871 0047	BOLT, CARRIAGE 0.31-18 X 1.25	4
11	00916867 0421	RIVET, 3/16" X .126 -.250 RANGE	49
12	01228269 0020	SPRING, INST PANEL EYE BOLT RETURN	1
13	01900104 0289	ANGLE, ROOF BRACE D250U	2
14	01900168 0005	BOLT, EYE .25-20 ZN PLT	1
15	01900208 0017	BRACE, ROOF D185U	2
16	01900216 0383W	BRACKET, DOOR D185U	2
17	01900264 0039W	CHANNEL, DOOR LATCH	1
18	01900384 0037W	CORNER POST RF D210UHJD	1
19	01900384 0038W	CORNER POST LF D210UHJD	1
20	01900384 0039W	CORNER POST, RIGHT REAR, D210UHJD	1
21	01900384 0040W	CORNER POST, LEFT REAR, D210UHJD	1
22	01900416 0165W	COVER, DOC SWITCH D210UHJD4	1
23	01900480 0038W	DOOR, LOUVERED, UTILITY	2
24	01900485 0063W	DOOR, INSTRUMENT PANEL D250U	1
25	01900728 0007	HANDLE, DOOR RECESSED	4
26	01900752 0034	HINGE, PANEL 2" CONT. ALUMINIUM	1
27	01900752 0073	HINGE, TOP UTILITY	3
28	01900752 0105	HINGE, BLACK ZINC, 950+	3
29	01901000 1044W	PANEL, REAR D250U	1
30	01901000 1045W	PANEL, FRONT DOOR D250U	1
31	01901368 0003	SHIM, ROOF HINGE	1
32	01901408 0001	SLIDE, ROOF BRACE D185U	2
33	01901416 0057	SPACER, .50 OD X .325 ID X .50 LG	2
34	01901548 0016W	TIE, UPPER END D185-210U	2
35	01901548 0017W	TIE, UPPER SIDE D185U	2
36	03903184 0034	FLANGE ASSY, EXHAUST UTILITY Ø5.0	1
37	03903336 0255W	PANEL, ROOF D210UHJD4	1
38	05018460 0003	HOLDER, DOOR, (FEMALE & MALE)	2
39	05018650 0031	LATCH, QUARTER TURN	8

COLOR CHART

PART NUMBER	COLOR
00717598 0138W	SIGNAL WHITE
00717598 0132MG	MEDIUM GREY
00717598 0132KB	BLUE GLOSS

ENCLOSURE ASSEMBLY (CONTINUED)

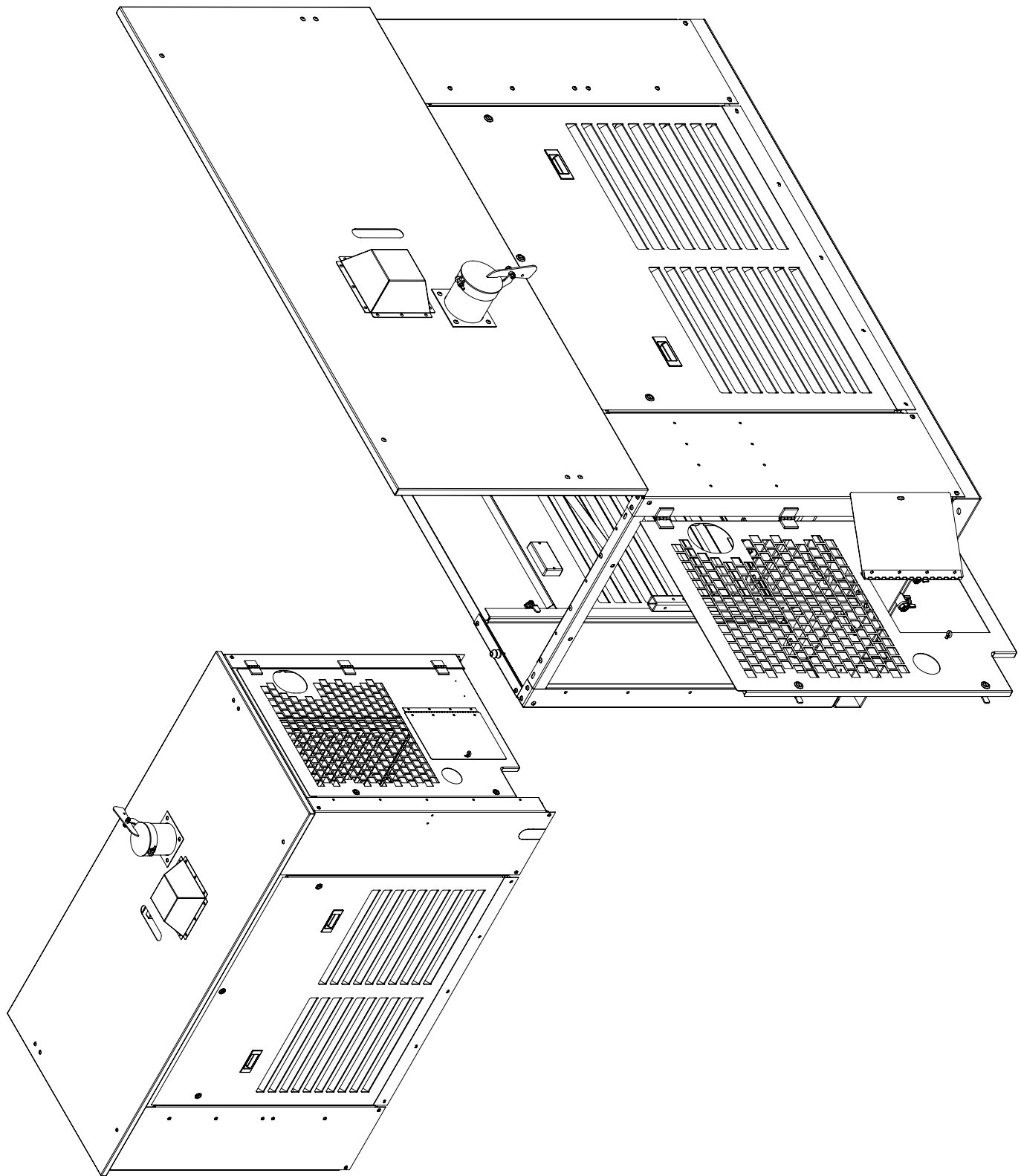


FIGURE 8-28. 00717598 0138W (REV 02)

MACHINE DRESS



00717752 0336 MACHINE DRESS

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00816666	TAPE, FOAM 1.0 X 1.0 X 6.5 FT	1
2	00816666	TAPE, FOAM 1.0 X 1.0 X 5.25 FT	1
3	00816666	TAPE, FOAM 1.0 X 1.0 X 3.0 FT	2
4	00816666	TAPE, FOAM 1.0 X 1.0 X 0.5 FT	2
5	09870-002	WEATHERSTRIP 0.06 X 1.0 X 12.0	1
6	09870-002	WEATHERSTRIP 0.06 X 1.0 X 12.0	2
7	00910270 0001	RIVET, .125 DIA. X .232 LG SS	2
8	01900190 0010	BOX, MANUAL HOLDER 8.5X11.0	1
9	01900216 0509	BRACKET, LID HOLD DOWN	2
10	01900224 0012	BUMPER, DOOR, RUBBER	4
11	01901136 0003	PLATE, IDENTIFICATION	1
12	01901295 0003	SEAL, D-SHAPE 42.0" LG	4
13	01901531 0001	TAG, SERVICE VALVE INSTALLATION	1
14	05017057 0044	DECAL KIT, D210UHD4PTO	1
14.1	01228378 0005	DECAL, WARNING- HOT OIL	1
14.2	01228378 0052	DECAL, WARNING	1
14.3	01900464 0338	DECAL, WEATHER-ALL COMPR. FLUID	1
14.4	01900464 0425	DECAL, ULTRA LOW	1
14.5	01900464 0426	DECAL, EXPLOSION HAZARD ULSD	1
14.6	01900464 0430	DECAL, OPERATING INSTR	1
14.7	01900464 0434	DECAL, EMISSION CONTROL T4	1
14.8	01900464 0507	DECAL, FINAL TIER 4 LOGO	2
14.9	01900464 0489	DECAL, OEM SPARE PARTS D210UHD4	1
14.10	01900464 0007	DECAL, ROTATING PARTS	2
14.11	01900465 0059	DECAL, PROP 65 WARNING CALIFOR	1
14.12	01900464 0094	DECAL, QUALITY ACCEPTED	1
14.13	01900464 0104	DECAL, AMERICAN FLAG	2
14.14	01900464 0148	DECAL, FUEL WARNING	1
14.15	01900464 0203	DECAL, ENGINE OIL DRAIN	1
14.16	01900464 0282	DECAL, FUEL DRAIN	1
14.17	01900464 0411	DECAL, OIL LEVEL FILL	1
14.18	08376-088	DECAL, AIR FILTER REPLACEMENT PARTS	1
14.19	08382-001	DECAL, SUMP DRAIN FLEX-AIR	1
14.20	08382-003	DECAL, COOLER DRAIN FLEX-AIR	1
14.21	01900464 0561	DECAL, FILTER ACCESS	1
15	05017057 0050	DECAL KIT, MODEL D210H	1
15.1	01900456 0070	DECAL, MACHINE	2
16	05017057 0052	DECAL KIT, SUL-PAL 185-260	1
16.1	01900464 0318	DECAL, SULLIVAN PALATEK	2
16.2	01900464 0314	DECAL, SULLIVAN PALATEK	1

MACHINE DRESS (CONTINUED)

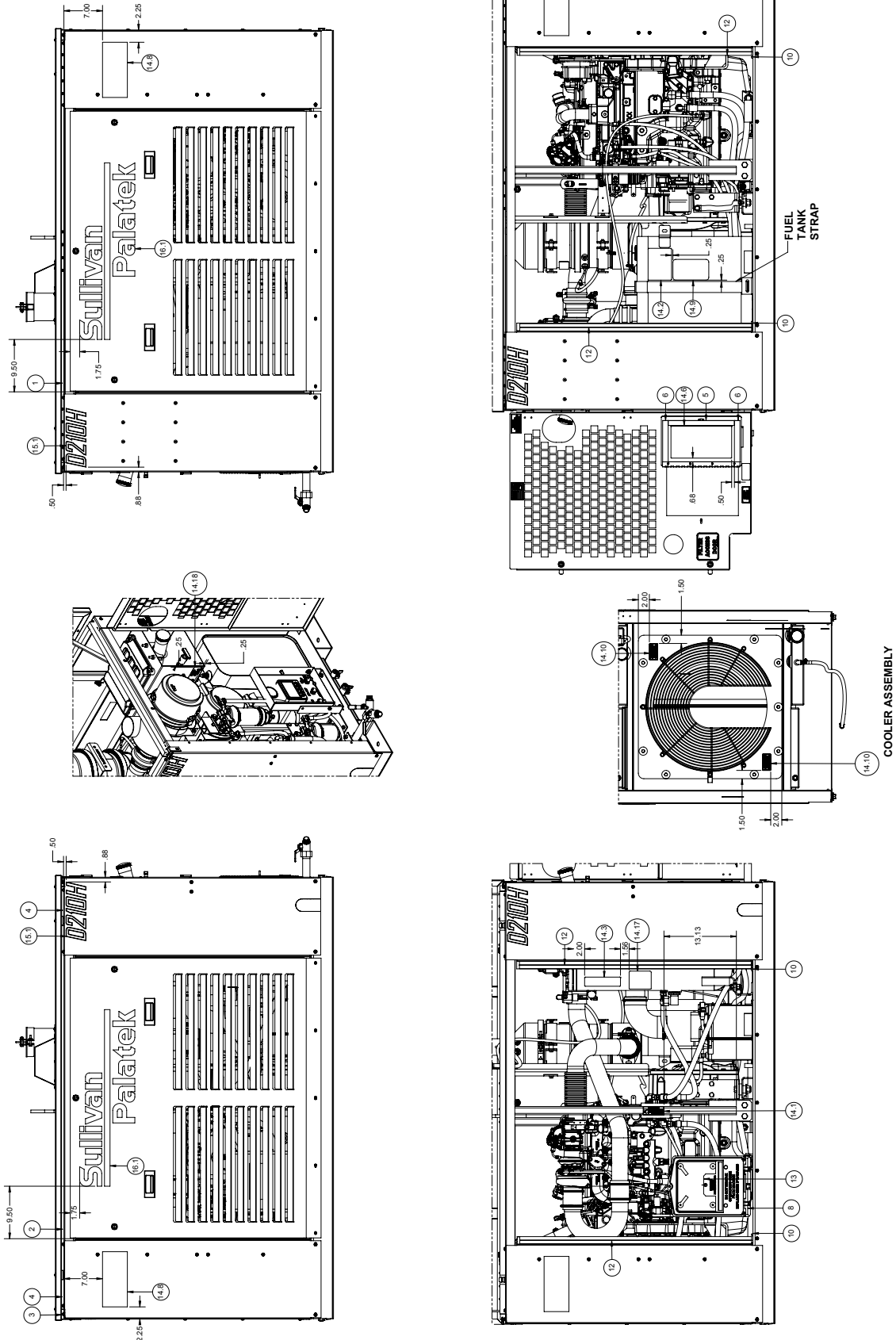


FIGURE 8-30. 00717752 0336 (REV 01)

00717752 0336 MACHINE DRESS

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00816666	TAPE, FOAM 1.0 X 1.0 X 6.5 FT	1
2	00816666	TAPE, FOAM 1.0 X 1.0 X 5.25 FT	1
3	00816666	TAPE, FOAM 1.0 X 1.0 X 3.0 FT	2
4	00816666	TAPE, FOAM 1.0 X 1.0 X 0.5 FT	2
5	09870-002	WEATHERSTRIP 0.06 X 1.0 X 12.0	1
6	09870-002	WEATHERSTRIP 0.06 X 1.0 X 12.0	2
7	00910270 0001	RIVET, .125 DIA. X .232 LG 55	2
8	01900190 0010	BOX, MANUAL HOLDER 8.5X11.0	1
9	01900216 0509	BRACKET, LID HOLD DOWN	2
10	01900224 0012	BUMPER, DOOR, RUBBER	4
11	01901136 0003	PLATE, IDENTIFICATION	1
12	01901295 0003	SEAL, D-SHAPE 42.0" LG	4
13	01901531 0001	TAG, SERVICE VALVE INSTALLATION	1
14	05017057 0044	DECAL KIT, D210UHD4PTO	1
14.1	01228378 0005	DECAL, WARNING- HOT OIL	1
14.2	01228378 0052	DECAL, WARNING	1
14.3	01900464 0338	DECAL, WEATHER-ALL COMPR. FLUID	1
14.4	01900464 0425	DECAL, ULTRA LOW	1
14.5	01900464 0426	DECAL, EXPLOSION HAZARD ULSD	1
14.6	01900464 0430	DECAL, OPERATING INSTR	1
14.7	01900464 0434	DECAL, EMISSION CONTROL T4	1
14.8	01900464 0507	DECAL, FINAL TIER 4 LOGO	2
14.9	01900464 0489	DECAL, OEM SPARE PARTS D210UHD4	1
14.10	01900464 0007	DECAL, ROTATING PARTS	2
14.11	01900465 0059	DECAL, PROP 65 WARNING CALIFOR	1
14.12	01900464 0094	DECAL, QUALITY ACCEPTED	1
14.13	01900464 0104	DECAL, AMERICAN FLAG	2
14.14	01900464 0148	DECAL, FUEL WARNING	1
14.15	01900464 0203	DECAL, ENGINE OIL DRAIN	1
14.16	01900464 0282	DECAL, FUEL DRAIN	1
14.17	01900464 0411	DECAL, OIL LEVEL FILL	1
14.18	08376-088	DECAL, AIR FILTER REPLACEMENT PARTS	1
14.19	08382-001	DECAL, SUMP DRAIN FLEX-AIR	1
14.20	08382-003	DECAL, COOLER DRAIN FLEX-AIR	1
14.21	01900464 0561	DECAL, FILTER ACCESS	1
15	05017057 0050	DECAL KIT, MODEL D210H	1
15.1	01900456 0070	DECAL, MACHINE	2
16	05017057 0052	DECAL KIT, SUL-PAL 185-260	1
16.1	01900464 0318	DECAL, SULLIVAN PALATEK	2
16.2	01900464 0314	DECAL, SULLIVAN PALATEK	1

7.22

ACOUSTICS ASSEMBLY

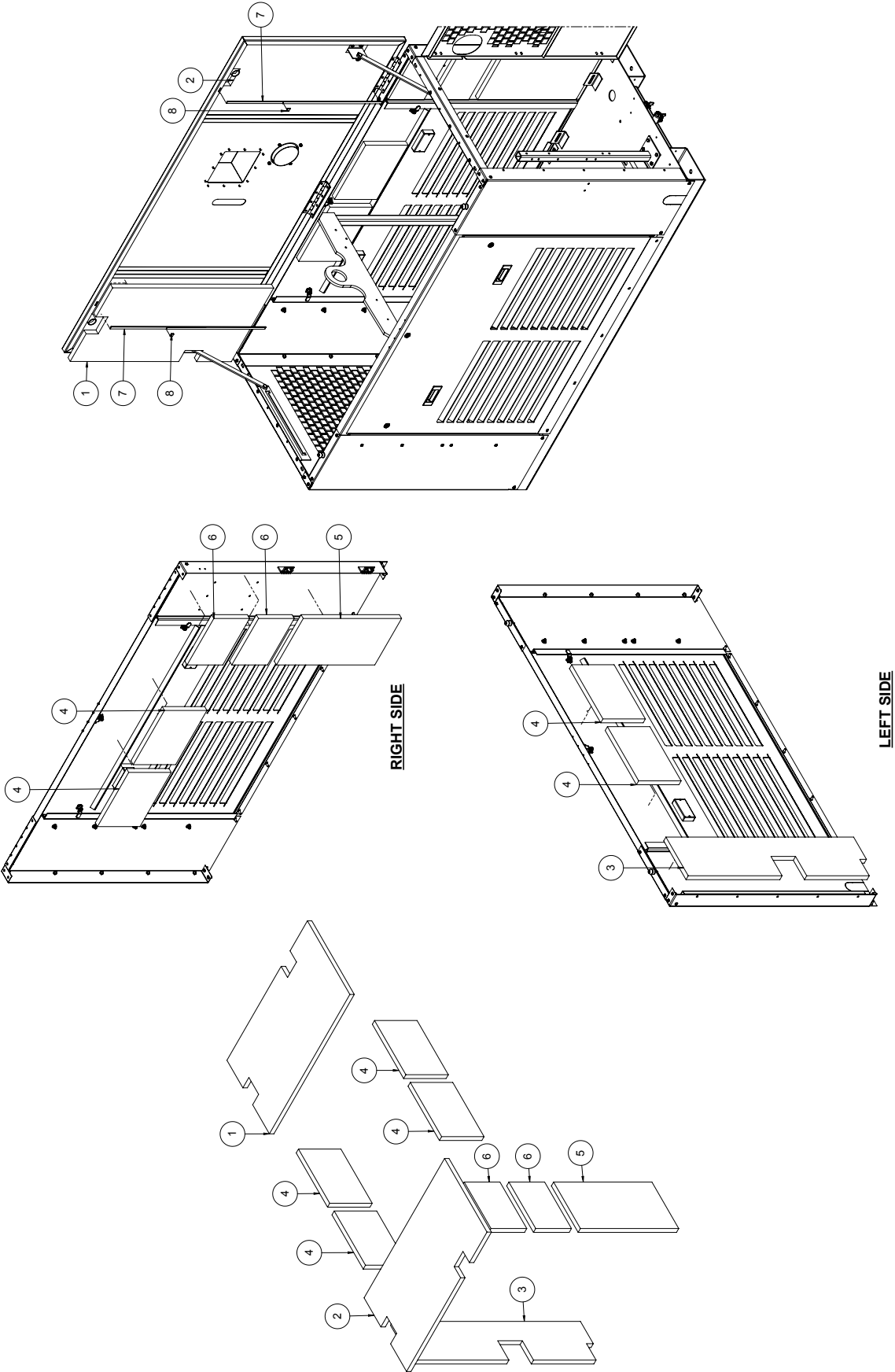


FIGURE 8-31. 00717100 0023 (REV 00)

00717100 0023 ACOUSTICS ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	01900007 0251	ACOUSTIC, ROOF RADIATOR SIDE	1
2	01900007 0252	ACOUSTIC, ROOF RECEIVER SIDE	1
3	01900007 0253	ACOUSTIC, LEFT FRONT	1
4	01900007 0304	ACOUSTIC, HEAT RIGHT CENTER	4
5	01900007 0367	ACOUSTIC, FR BTM D210UHJD4	1
6	01900007 0368	ACOUSTIC, FR TOP D210UHJD4	2
7	00815424	STRAP,PLASTIC .025 X 1/2"	2
8	01901295 0004	SEAL, PLASTIC STRAPPING	2

7.23 **FRAME ASSEMBLY**

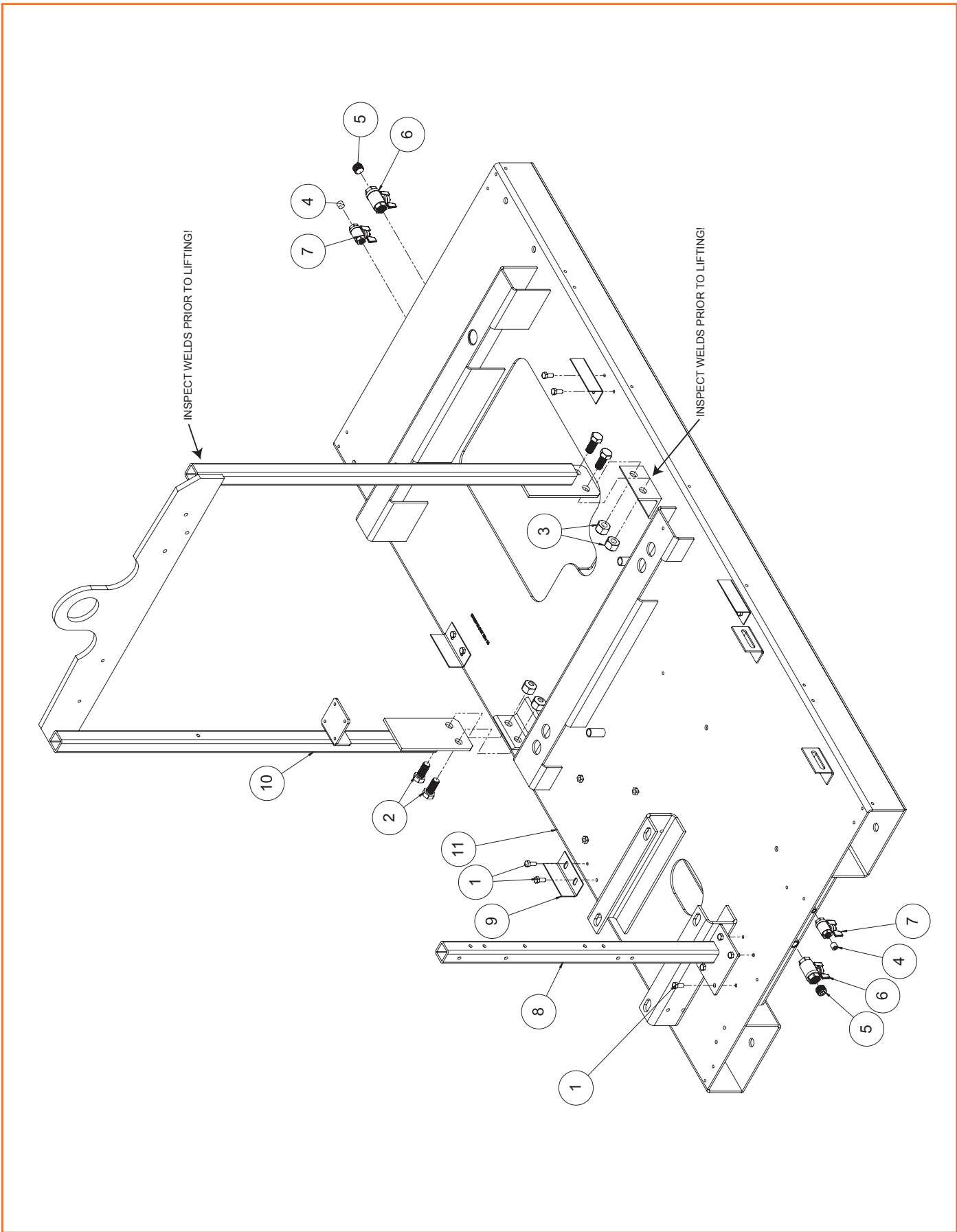


FIGURE 8-32. 00717464 0120 (REV 00)

00717464 0120 FRAME ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	00900112 0002	BOLT, HEX 5/16-18 X 3/4 GR8	12
2	00900112 0035	BOLT, HEX 5/8-11 X 1 1/2 GR8	4
3	00900490 0098	NUT, NYLOK 5/8-11, S.S.	4
4	00901921 0002	PLUG, PIPE 1/4" HEX SOCKET	2
5	00901921 0004	PLUG, PIPE 1/2" HEX SOCKET	2
6	00915786 0017	VALVE, 1/2" FNPT BALL T-HANDLE	2
7	00915786 0018	VALVE, 1/4" FNPT BALL T-HANDLE	2
8	01900216 0665	BRACKET, FILTER MOUNT D185UDZ	1
9	01901472 0008	STOP, DOOR	4
10	03903009 0074GYT	LIFTING BAIL ASSY	1
11	03903313 0097	FRAME, 210 UTILITY	1

WARNING! *Inspect all welds and lifting hardware prior to lifting. See 4.2 Lifting on page 26.*

NOTES

[illegible]

[illegible]

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