SULLAIR

INDUSTRIAL ROTARY SCREW AIR COMPRESSOR

TS-32S

400-600HP/ 298-447KW

AIR-COOLED & WATER-COOLED STANDARD AND 24KT

OPERATOR'S MANUAL AND PARTS LIST

KEEP FOR FUTURE REFERENCE

Part Number 02250138-002

AIR CARE
SEMINAR TRAINING

Sullair Air Care Seminars are 3-day courses that provide hands-on instruction in the proper operation, maintenance and service of Sullair equipment. Individual seminars on Industrial compressors and compressor electrical systems are presented at regular intervals throughout the year at a dedicated training facility at Sullair's corporate headquarters in Michigan City, Indiana.

Instruction includes discussion of the function and installation of Sullair service parts, troubleshooting of the most common problems, and actual equipment operation. The seminars are recommended for maintenance and service personnel.

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Sullair Corporation
3700 E. Michigan Blvd.
Michigan City, IN 46360
Attn: Service Training Department

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Section 1
SAFETY

1.1 GENERAL

Sullair Corporation and its subsidiaries design and manufacture all of their products so they can be operated safely. However, the responsibility for safe operation rests with those who use and maintain these products. The following safety precautions are offered as a guide which, if conscientiously followed, will minimize the possibility of accidents throughout the useful life of this equipment.

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

NEVER start the compressor unless it is safe to do so. **DO NOT** attempt to operate the compressor with a known unsafe condition. Tag the compressor and render it inoperative by disconnecting and locking out all power at source or otherwise disabling its prime mover, so others who may not know of the unsafe condition, cannot attempt to operate it until the condition is corrected.

Install, use and operate the compressor only in full compliance with all pertinent regulations and all applicable Federal, State, and Local codes, standards and regulations.

DO NOT modify the compressor and/or controls in any way except with written factory approval.

While not specifically applicable to all types of compressors with all types of prime movers, most of the precautionary statements contained herein are applicable to most compressors and the concepts behind these statements are generally applicable to all compressors.

1.2 PERSONAL PROTECTIVE EQUIPMENT

Prior to installing or operating the compressor, owners, employers and users should become familiar with, and comply with, all applicable regulations and any applicable Federal, State and Local codes, standards, and regulations relative to personal protective equipment, such as eye and face protective equipment, respiratory protective equipment, equipment intended to protect the extremities, protective clothing, protective shields and barriers and electrical protective equipment, as well as noise exposure administrative and/or engineering controls and/or personal hearing protective equipment.

1.3 PRESSURE RELEASE

A. Install an appropriate flow-limiting valve between the service air outlet and the shut-off (throttle) valve, either at the compressor or at any other point along the air line, when an air hose exceeding 1/2" (13mm) inside diameter is to be connected to the shut-off (throttle) valve, to reduce pressure in case of hose failure, per all applicable Federal, State and Local codes, standards and regulations.

B. When the hose is to be used to supply a manifold, install an additional appropriate flow-limiting valve between the manifold and each air hose exceeding 1/2" (13mm) inside diameter that is to be connected to the manifold to reduce pressure in case of hose failure.

C. Provide an appropriate flow-limiting valve at the beginning of each additional 75 feet (23m) of hose in runs of air hose exceeding 1/2" (13mm) inside diameter to reduce pressure in case of hose failure.

D. Flow-limiting valves are listed by pipe size and rated CFM. Select appropriate valves accordingly, in accordance with their manufacturer's recommendations.

E. DO NOT use air tools that are rated below the maximum rating of the compressor. Select air tools, air hoses, pipes, valves, filters, and other fittings accordingly. **DO NOT** exceed manufacturer's rated safe operating pressures for these items.

F. Secure all hose connections by wire, chain or other suitable retaining devices to prevent tools or hose ends from being accidentally disconnected and expelled.

G. Open fluid filler cap only when compressor is not running and is not pressurized. Shut down the compressor and bleed the sump (receiver) to zero internal pressure before removing the cap.

H. Vent all internal pressure prior to opening any line, fitting, hose, valve, drain plug, connection or other component, such as filters and line oilers, and before attempting to refill optional air line anti-icer systems with antifreeze compound.

I. Keep personnel out of line with and away from the discharge opening of hoses or tools or other points of compressed air discharge.

J. Use air at pressures less than 30 psig (2.1 bar) for cleaning purposes, and then only with effective chip guarding and personal protective equipment.

K. DO NOT engage in horseplay with air hoses as death or serious injury may result.

L. DO NOT tamper with sump and unit (if provided) relief valves. Check the relief valve as recommended in the Maintenance Section of this manual

or at a minimum of at least weekly to make sure it is not blocked, clogged, obstructed or otherwise disabled. **DO NOT** change the factory setting of the relief valve.

M. If the compressor is installed in an enclosed area, it is necessary to vent the relief valve to the outside of the structure or to an area of non-exposure.

1.4 FIRE AND EXPLOSION

⚠ WARNING

When installing a Base Load Transfer (BLT) System, remove jumpers between 16-17 & 18-19 (Dual Control Compressors) so the other compressor does not backfeed defeating the shutdown circuitry.

A. Clean up spills of lubricant or other combustible substances immediately, if such spills occur.

B. Shut off the compressor and allow it to cool. Then keep sparks, flames and other sources of ignition away and **DO NOT** permit smoking in the vicinity when checking or adding lubricant or when refilling air line anti-icer systems with antifreeze compound.

C. DO NOT permit fluids, including air line anti-icer system antifreeze compound or fluid film to accumulate on, under, or around acoustical material, or on any external surfaces of the air compressor or on internal surfaces of the enclosure. Wipe down using an aqueous industrial cleaner or steam-clean as required. If necessary, remove acoustical material, clean all surfaces and then replace acoustical material. Any acoustical material with a protective covering that has been torn or punctured should be replaced immediately to prevent accumulation of liquids or fluid film within the material. **DO NOT** use flammable solvents for cleaning purposes.

D. Disconnect and lock out all power at source prior to attempting any repairs or cleaning of the compressor or of the inside of the enclosure, if any.

E. Keep electrical wiring, including all terminals and pressure connectors in good condition. Replace any wiring that has cracked, cut abraded or otherwise degraded insulation, or terminals that are worn, discolored or corroded. Keep all terminals and pressure connectors clean and tight.

F. Keep grounded and/or conductive objects such as tools away from exposed live electrical parts such as terminals to avoid arcing which might serve as a source of ignition.

G. Remove any acoustical material or other material that may be damaged by heat or that may support combustion and is in close proximity, prior to attempting weld repairs.

H. Keep suitable fully charged fire extinguisher or extinguishers nearby when servicing and operating the compressor.

I. Keep oily rags, trash, leaves, litter or other combustibles out of and away from the compressor.

J. DO NOT operate the compressor without proper flow of cooling air or water or with inadequate flow of lubricant or with degraded lubricant.

K. DO NOT attempt to operate the compressor in any classification of hazardous environment unless the compressor has been specially designed and manufactured for that duty.

1.5 MOVING PARTS

A. Keep hands, arms and other parts of the body and also clothing away from couplings, fans and other moving parts.

B. DO NOT attempt to operate the compressor with the fan, coupling or other guards removed.

C. Wear snug-fitting clothing and confine long hair when working around this compressor, especially when exposed to hot or moving parts.

D. Keep access doors, if any, closed except when making repairs or adjustments.

E. Make sure all personnel are out of and/or clear of the compressor prior to attempting to start or operate it.

F. Disconnect and lock out all power at source and verify at the compressor that all circuits are de-energized to minimize the possibility of accidental start-up or operation, prior to attempting repairs or adjustments. This is especially important when compressors are remotely controlled.

G. Keep hands, feet, floors, controls and walking surfaces clean and free of fluid, water, or other liquids to minimize the possibility of slips and falls.

1.6 HOT SURFACES, SHARP EDGES AND SHARP CORNERS

A. Avoid bodily contact with hot fluid, hot coolant, hot surfaces and sharp edges and corners.

B. Keep all parts of the body away from all points of air discharge.

C. Wear personal protective equipment including gloves and head covering when working in, on or around the compressor.

D. Keep a first aid kit handy. Seek medical assistance promptly in case of injury. **DO NOT** ignore

small cuts and burns as they may lead to infection.

1.7 TOXIC AND IRRITATING SUBSTANCES

A. DO NOT use air from this compressor for respiration (breathing) except in full compliance with any Federal, State or Local Codes or regulations.

⚠ DANGER

Death or serious injury can result from inhaling compressed air without using proper safety equipment.

B. DO NOT use air line anti-icer systems in air lines supplying respirators or other breathing air utilization equipment and **DO NOT** discharge air from these systems in unventilated or other confined areas.

C. Operate the compressor only in open or adequately ventilated areas.

D. Locate the compressor or provide a remote inlet so that it is not likely to ingest exhaust fumes or other toxic, noxious or corrosive fumes or substances.

E. Coolants and lubricants used in this compressor are typical of the industry. Care should be taken to avoid accidental ingestion and/or skin contact. In the event of ingestion, seek medical treatment promptly. Wash with soap and water in the event of skin contact. Consult the compressor operator's manual lubrication section for information pertaining to compressor fluid fill.

F. Wear goggles or a full face shield when adding antifreeze compound to air line anti-icer systems.

G. If air line anti-icer system antifreeze compound enters the eyes or if fumes irritate the eyes, they should be washed with large quantities of clean water for 15 minutes. A physician, preferably an eye specialist, should be contacted immediately.

H. DO NOT store air line anti-icer system antifreeze compound in confined areas.

I. The antifreeze compound used in air line antifreeze systems contains methanol and is toxic, harmful, or fatal if swallowed. Avoid contact with the skin or eyes and avoid breathing the fumes. If swallowed, induce vomiting by administering a tablespoon of salt, in each glass of clean, warm water until vomit is clear, then administer two teaspoons of baking soda in a glass of clean water. Have patient lay down and cover eyes to exclude light. Call a physician immediately.

1.8 ELECTRICAL SHOCK

A. This compressor should be installed and maintained in full compliance with all applicable Federal, State and Local codes, standards and regulations, including those of the National Electrical Code, and also including those relative to equipment grounding conductors, and only by personnel that are trained, qualified and delegated to do so.

B. Keep all parts of the body and any hand-held tools or other conductive objects away from exposed live parts of electrical system. Maintain dry footing, stand on insulating surfaces and **DO NOT** contact any other portion of the compressor when making adjustments or repairs to exposed live parts of the electrical system. Make all such adjustments or repairs with one hand only, so as to minimize the possibility of creating a current path through the heart.

C. Attempt repairs in clean, dry and well lighted and ventilated areas only.

D. DO NOT leave the compressor unattended with open electrical enclosures. If necessary to do so, then disconnect, lock out and tag all power at source so others will not inadvertently restore power.

E. Disconnect, lock out, and tag all power at source prior to attempting repairs or adjustments to rotating machinery and prior to handling any ungrounded conductors.

F. Dry test all shutdown circuits prior to starting the compressor after installation.

1.9 LIFTING

A. If the compressor is provided with a lifting bail, then lift by the bail provided. If no bail is provided, then lift by sling. Compressors to be air lifted by helicopter must not be supported by the lifting bail but by slings instead. In any event, lift and/or handle only in full compliance with Federal, State and Local codes.

B. Inspect points of attachment for cracked welds and for cracked, bent, corroded or otherwise degraded members and for loose bolts or nuts prior to lifting.

C. Make sure entire lifting, rigging and supporting structure has been inspected, is in good condition and has a rated capacity of at least the weight of the compressor. If you are unsure of the weight, then weigh compressor before lifting.

D. Make sure lifting hook has a functional safety latch or equivalent, and is fully engaged and latched on the bail or slings.

E. Use guide ropes or equivalent to prevent twisting

or swinging of the compressor once it has been lifted clear of the ground.

F. DO NOT attempt to lift in high winds.

G. Keep all personnel out from under and away from the compressor whenever it is suspended.

H. Lift compressor no higher than necessary.

I. Keep lift operator in constant attendance whenever compressor is suspended.

J. Set compressor down only on a level surface capable of safely supporting at least its weight and its loading unit.

K. When moving compressors by forklift truck, utilize fork pockets if provided. Otherwise, utilize pallet if provided. If neither fork pockets or pallet are provided, then make sure compressor is secure and well balanced on forks before attempting to raise or transport it any significant distance.

L. Make sure forklift truck forks are fully engaged and tipped back prior to lifting or transporting the compressor.

M. Forklift no higher than necessary to clear obstacles at floor level and transport and corner at minimum practical speeds.

N. Make sure pallet-mounted compressors are firmly bolted or otherwise secured to the pallet prior to attempting to forklift or transport them. **NEVER** attempt to forklift a compressor that is not secured to its pallet, as uneven floors or sudden stops may cause the compressor to tumble off, possibly causing serious injury or property damage in the process.

O. DO NOT use the lifting eye bolt on the compressor motor, if supplied, to lift the entire compressor package.

1.10 ENTRAPMENT

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

B. Make sure all personnel are out of compressor before closing and latching enclosure doors.

2.1 INTRODUCTION

Refer to Figures 2-1A and 2-1B. Your new Sullair lubricated rotary screw air compressor provides you with a unique experience in improved reliability and greatly reduced maintenance.

Compared to other types of compressors, the Sullair rotary screw is unique in its mechanical reliability and lack of “wear”. The compressor requires absolutely no inspection of its internal parts.

By reading through Section 6, you will notice the easy process of caring and maintaining this Sullair manufactured product. Should any questions arise which cannot be answered in this text, call your nearest Sullair representative or the Sullair Corporation Service Department.

2.2 DESCRIPTION OF COMPONENTS

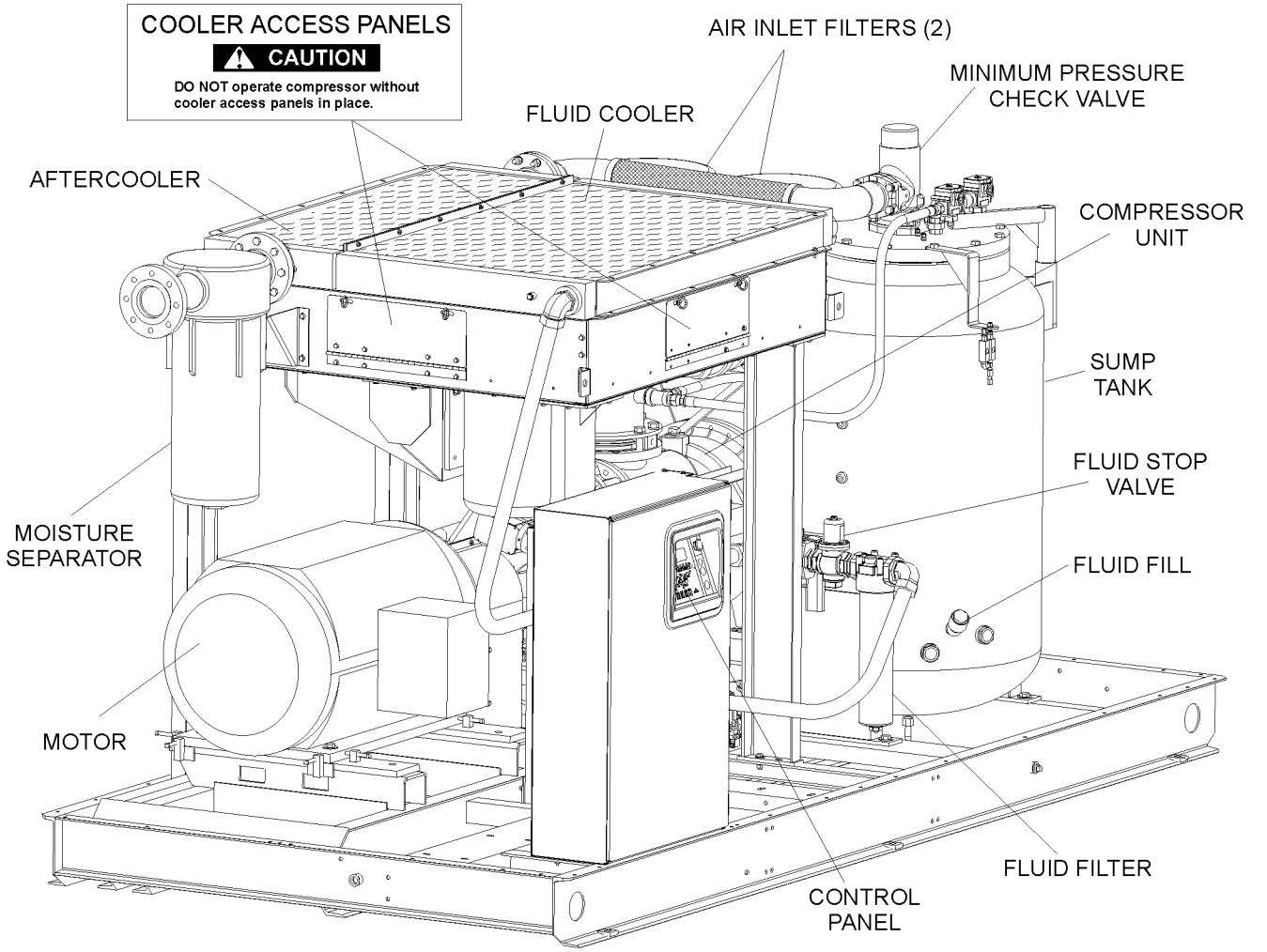
Refer to Figures 2-1A and 2-1B. The components and assemblies of the air compressors are clearly shown. The complete package includes **compressor, electric motor, compressor inlet system, compressor discharge system, compressor cooling and lubrication system, capacity control system** and **Supervisor Controller™, microprocessor system** and **starter** all mounted on a structural steel frame

On air-cooled models, a fan draws air over the fan motor and forces it through the combined 400HP aftercooler (oil cooler alone: 500-600HP) and fluid cooler, thereby removing the heat of compression from the cooling fluid.

On water-cooled models, fluid is piped into a water-cooled heat exchanger where the heat of compression is removed from the fluid. A fan is used to supply sufficient ventilating air to compressors equipped with an optional enclosure.

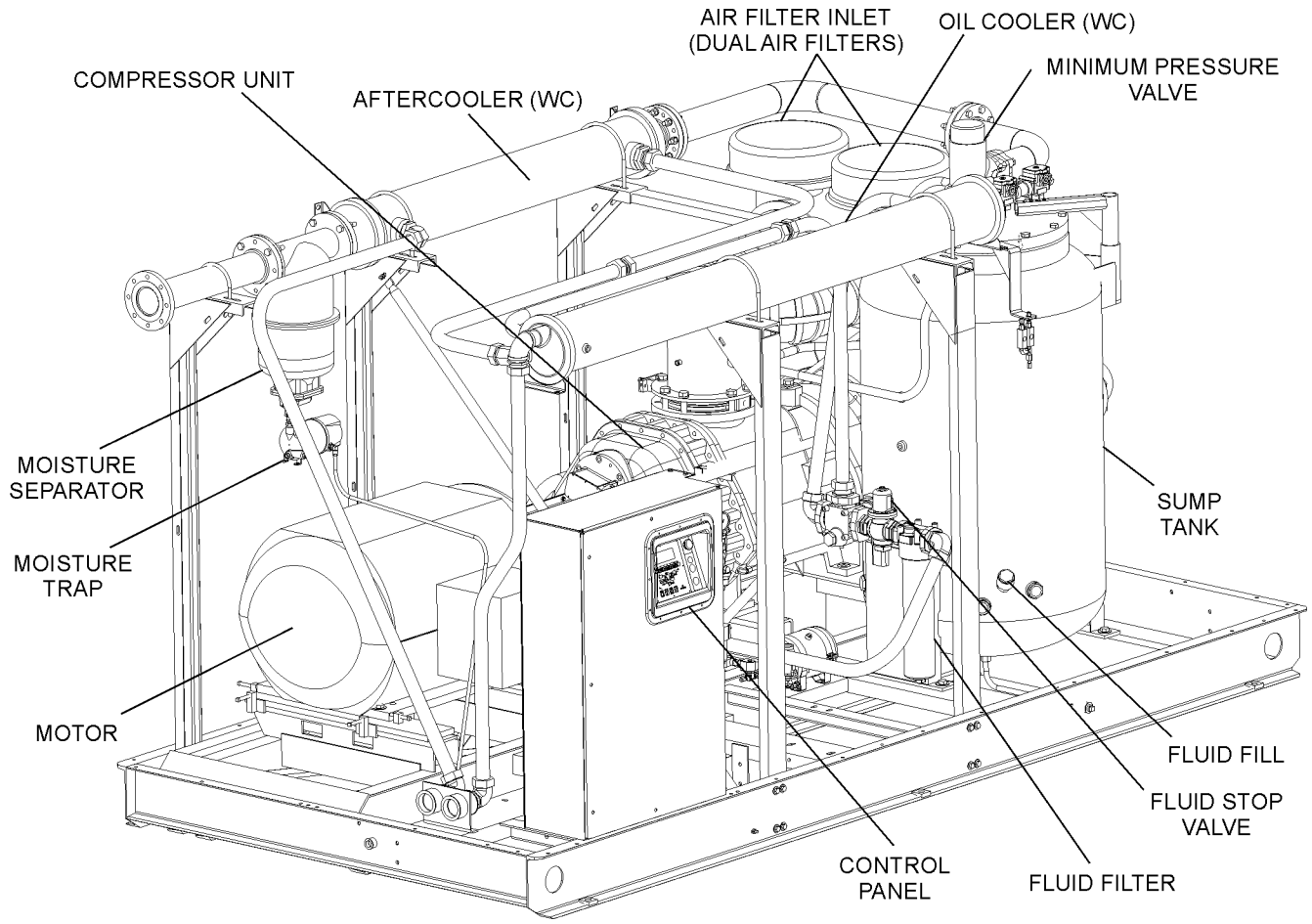
Both air-cooled and water-cooled versions have easily accessible items such as the fluid filters and control valves. The inlet air filters are also mounted

Figure 2-1A Sullair Series TS-32S Rotary Screw Compressor (Air-cooled Typical)



Section 2
DESCRIPTION

Figure 2-1B Sullair Series TS-32S Rotary Screw Compressor (Water-cooled Typical)



for easy access and servicing.

2.3 SULLAIR COMPRESSOR UNIT, FUNCTIONAL DESCRIPTION

Sullair tandem air compressors feature the Sullair compressor unit, a two-stage, positive displacement fluid lubricated-type compressor. This unit provides continuous air compression to meet your needs.

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

1. As coolant, it controls the rise of air temperature normally associated with the heat of compression.

2. Seals the leakage paths between the rotors and the stator and also between the rotors themselves.

3. Acts as a lubricating film between the rotors allowing one rotor to directly drive the other, which is an idler. After the air/fluid mixture is discharged from the compressor unit, the fluid is separated from the air. At this time, the air flows to the service line and the fluid is cooled in preparation for reinjection.

NOTE

With a Sullair compressor, there is no maintenance or inspection of the internal parts of the compressor unit permitted in accordance with the terms of the warranty.

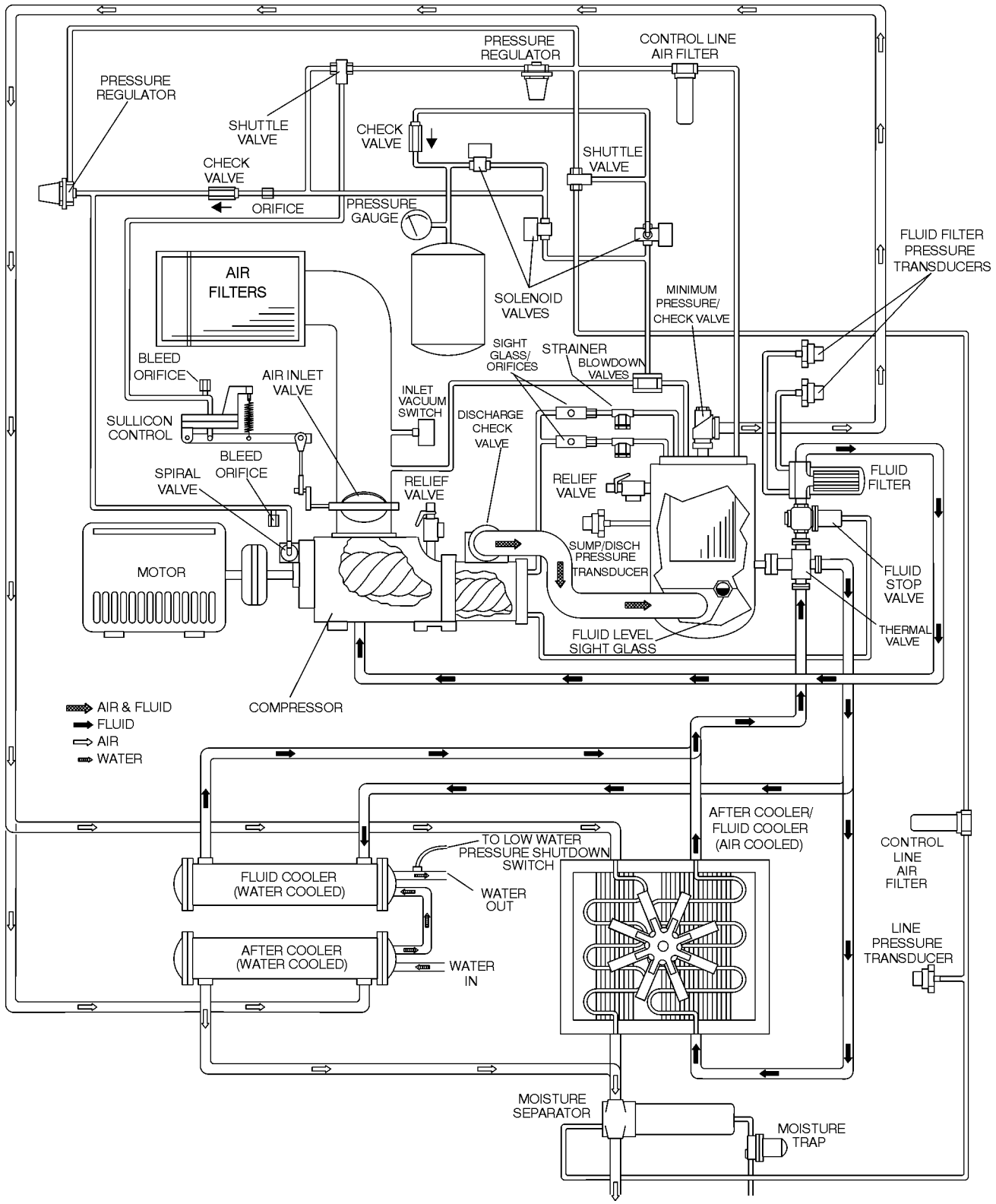
2.4 COMPRESSOR COOLING AND LUBRICATION SYSTEM, FUNCTIONAL DESCRIPTION

Refer to Figures 2-2, 2-3A, 2-3B, 2-4A, 2-4B, 2-5A, 2-5B, 2-5C and 2-5D. The cooling and lubrication system consists of a **fluid cooler, full flow fluid filter, fluid stop valve, thermal valve**.

The pressure in the receiver/sump causes fluid flow by forcing the fluid from the high pressure area of the sump to an area of lower pressure in the compressor unit.

Fluid flows from the receiver/sump to the thermal

Figure 2-2 Compressor Piping and Instrument Diagram (400, 500, 600HP/ 298, 373, 447KW)



valve. The thermal valve is fully open to the compressor unit when the discharge temperature is below 170°F (77°C) for all compressors, except water-cooled 24KT models and all models operating at 150 psig (10.3 bar) and higher, which is fully open up to 195°F (91°C). The fluid passes through the thermal valve, the fluid stop valve, the main fluid filter and directly to the compressor unit.

As the discharge temperature rises above 170°F (77°C) for all compressors (195°F [91°C] for water-cooled 24KT models and high pressure > 150 psig [10.3 bar]), due to the heat of compression, the thermal valve begins to close and a portion of the fluid then flows through the cooler. From the cooler, the fluid flows to the main filter, the fluid stop valve, and on to the compressor unit. The fluid filter has a replacement element and an integral pressure bypass valve.

The fluid stop valve prevents fluid from filling the compressor unit when the compressor is shut down. When the compressor is operating, the fluid stop valve is held open by air pressure from the compressor unit allowing a free flow of fluid from the receiver/sump back to the compressor unit. On shutdown, the compressor unit pressure is reduced, causing the fluid stop valve to close and isolate the compressor unit from the cooling system.

Water-cooled models have a water pressure switch to prevent operation with inadequate water pressure.

2.5 COMPRESSOR DISCHARGE SYSTEM, FUNCTIONAL DESCRIPTION

Refer to Figures 2-2, 2-4A and 2-4B. The compressor unit discharges the compressed air/fluid mixture through a discharge check valve into the combination receiver/sump. The discharge check valve prevents air/fluid in the receiver from returning to the compression chamber after the compressor has been shut down. The receiver has three functions:

1. It acts as a primary fluid separator.
2. It serves as the compressor fluid sump.
3. It houses the final fluid/air separator elements.

The compressed air/fluid mixture enters the receiver and is directed against an internal baffle. The direction of movement is changed and its velocity significantly reduced, thus causing the large droplets of fluid to fall to the bottom of the receiver/sump. The fractional percentage of fluid remaining in the compressed air collects on the surface of the nested separator elements (primary and secondary) as the compressed air flows through them. Two return lines (or scavenge tubes) lead from the bottom of each separator element to the low pressure inlet region of the compressor unit. Fluid collecting on the bottom of each separator is returned to the compressor by a pressure difference between the receiver and the compressor inlet. Sight glasses are located in the return lines to observe this fluid flow. dP1 on the Supervisor Controller™ microprocessor control monitors the condition of the separator elements by reading the differential pressure on the digital display. At a differential of 10 psig (0.7 bar), or greater, the operator will be told to service the separator elements. At this time, separator element replacement is necessary.

The receiver is an ASME pressure vessel. A combination minimum pressure/check valve, located downstream from the separator, assures a minimum receiver pressure of 50 psig (3.4 bar) during full load operation. This pressure is necessary for proper air/fluid separation and proper fluid circulation while supplying air to the system. This valve also acts as a check valve preventing compressed air in the service line from bleeding back into the receiver on shutdown and during operation of the compressor in an unloaded condition.

A pressure relief valve (located on the wet side of the separator) is set to open if the sump pressure exceeds the rated pressure of the tank.

All Sullair compressor models are equipped with high pressure shutdown protection to shut down the compressor at 30 psi above rated pressure. This prevents the pressure relief valve from opening under normal conditions, thereby preventing fluid loss through the pressure relief valve. A temperature switch will shut down the compressor if the discharge temperature reaches 235°F (113°C).

⚠ WARNING

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

Stop compressor and relieve all internal pressure before doing so.

Fluid is added to the sump via a capped fluid filler opening, placed low on the receiver tank to prevent over-filling of the sump. Two sight glasses enables the operator to visually monitor the sump fluid level.

2.6 CONTROL SYSTEM, FUNCTIONAL DESCRIPTION

Refer to Figures 2-5A, 2-5B, 2-5C and 2-5D. The

purpose of the compressor control system is to regulate the amount of air being compressed to match the amount of compressed air being used.

The capacity control system consists of a spiral valve and an inlet butterfly valve. The functional description of the control system is described below in 4 distinct phases of compressor operation. The following applies to TS-32S Series compressors ranging from 400 through 600hp (298-447kw). For explanatory purposes, this description applies to any compressor with an operating range of 100 to 110 psig (6.9 to 7.6 bar). A compressor with any other pressure range would operate in the same manner except for the stated pressures.

START MODE - 0 TO 50 PSIG (0 TO 3.4 BAR)

When the compressor ▮▮ (ON) pad is depressed, the sump pressure will quickly rise from 0 to 50 psig (0 to 3.4 bar). During this period, both of the pressure regulators and the solenoid valve are closed and the Sullicon Control and spiral valve are inoperative. The spring on the control holds the butterfly valve fully open while the spiral valve is fully closed (maximum) position and the compressor pumps at full rated capacity. The rising compressor air pressure is isolated from the service line in this phase by the minimum pressure valve set at approximately 50 psig (3.4 bar).

An optional closed inlet system is provided which uses air pressure to close the butterfly and opens the spiral valve to reduce motor torque for starting.

FULL LOAD MODE - 50 TO 100 PSIG (3.4 TO 6.9 BAR)

When the compressed air pressure in the sump rises above 50 psig (3.4 bar), the minimum pressure valve opens, allowing compressed air to flow into the service line. From this point on, the line air pressure is continually monitored by the Supervisor. The pressure regulators and the solenoid valve remain closed during this phase, keeping the Sullicon Control and spiral valve inactive. Both the spiral valve as well as the inlet butterfly valve remain in the full load position as long as the compressor is running at 100 psig (6.9 bar) or below.

MODULATION - 100 TO 110 PSIG (6.9 TO 7.6 BAR)

As air demand drops below the rated capacity of the compressor, the line pressure will rise above 100 psig (6.9 bar). As a result, the differential pressure regulator for the spiral valve gradually opens, applying air pressure to the spiral valve actuator. Air pressure at the actuator expands the diaphragm. The rack, in turn, engages with the pinion mounted on the spiral valve shaft assembly. This results in a rotary motion. As the spiral valve rotates, it starts opening the bypass ports gradually. Excess air is then being returned back internally to suction end of compressor unit. Now the compressor is fully compressing only that amount of air which is being used. As air demand keeps dropping further, the spiral valve keeps opening more and more until all the bypass ports are fully open. At this point, the spiral valve has moved into the minimum position.

The spiral valve provides a modulation range from 100 to approximately 50%. During this period, the pressure rises approximately from 100 to 108 psig (6.9 to 7.4 bar). As the air pressure exceeds 108 psig (7.4 bar), the differential pressure regulator controlling the Sullicon Control opens. This allows the air pressure to expand the diaphragm chamber of the Sullicon Control, which starts partially closing the inlet butterfly valve. The inlet butterfly valve provides modulation range from 50 to 40%. During this period, the pressure rises approximately from 108 to 110 psig (7.4 to 7.6 bar). During this range, the spiral valve remains in the full open position.

UNLOAD MODE - IN EXCESS OF 110 PSIG (7.6 BAR)

When a relatively small amount or no air is being used, the service line pressure continues to rise. When it exceeds 110 psig (7.6 bar), Supervisor de-energizes the solenoid valve allowing line pressure to be supplied directly to the Sullicon diaphragm keeping the inlet butterfly closed; the spiral valve is in the fully open (minimum) position. Simultaneously, the solenoid valve sends a pneumatic signal to the blowdown valve. The blowdown valve opens the sump to the atmosphere. This reduces the sump pressure to approximately 30 psig (2.1 bar) which results in low horsepower consumption. The check valve in the air service line prevents line pressure from returning to sump while the compressor is running in the unloaded mode. Both the spiral valve and the butterfly valve remain in the unload position.

When the line pressure drops back to 100 psig (6.9 bar) due to an increase in the air demand, Supervisor energizes the solenoid valve allowing the air pressure behind the Sullicon Control to be vented through the solenoid valve exhaust port. The blowdown valve closes, and the inlet butterfly valve opens. Also the air pressure at the spiral valve actuator diaphragm is reduced through a vent hole at the spiral valve differential pressure regulator, and a spring in the actuator causes the spiral valve

Figure 2-3A Compressor Cooling and Lubrication System- Air-cooled

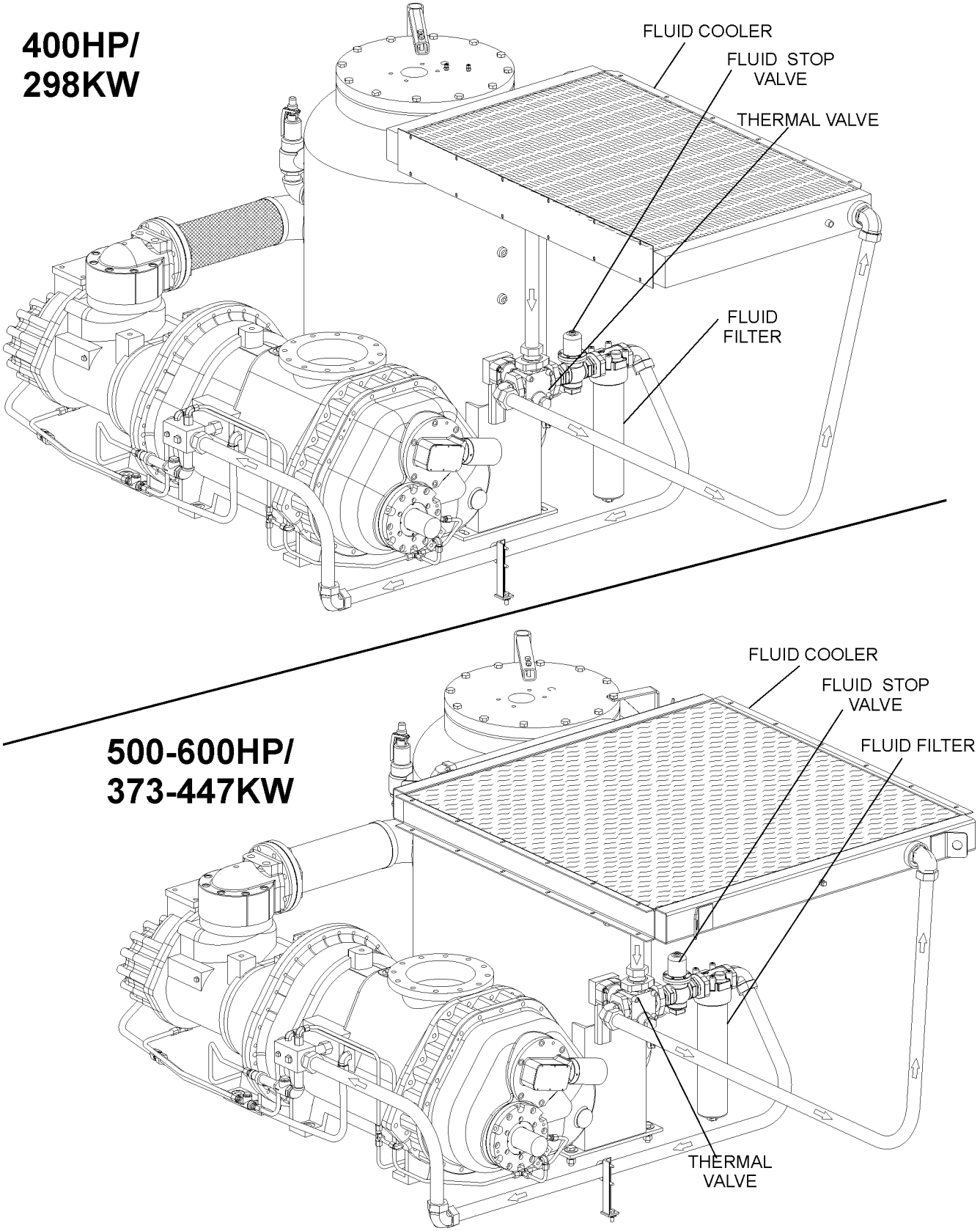


Figure 2-3B Compressor Cooling and Lubrication System- Water-cooled

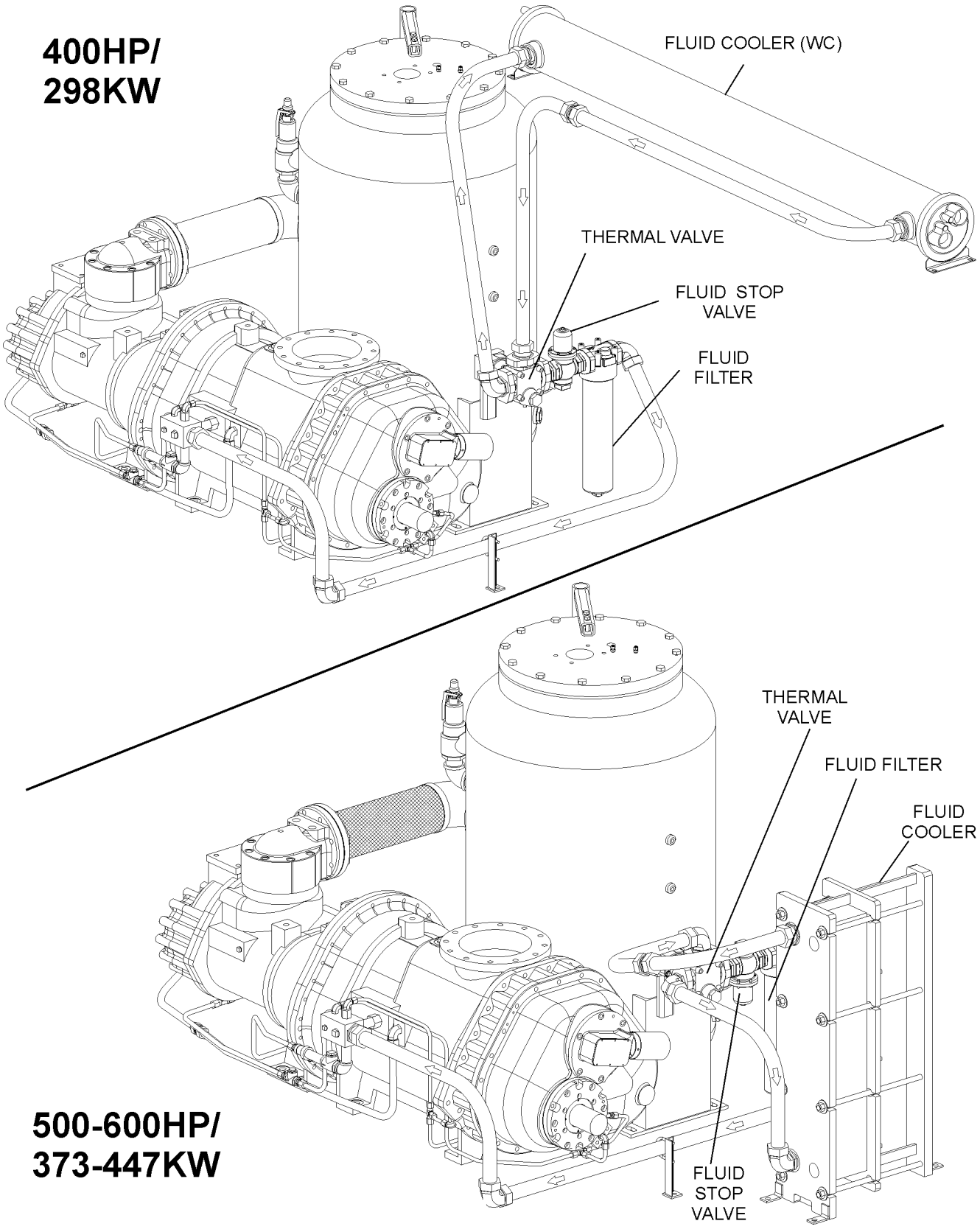


Figure 2-4A Compressor Discharge System- Air-cooled

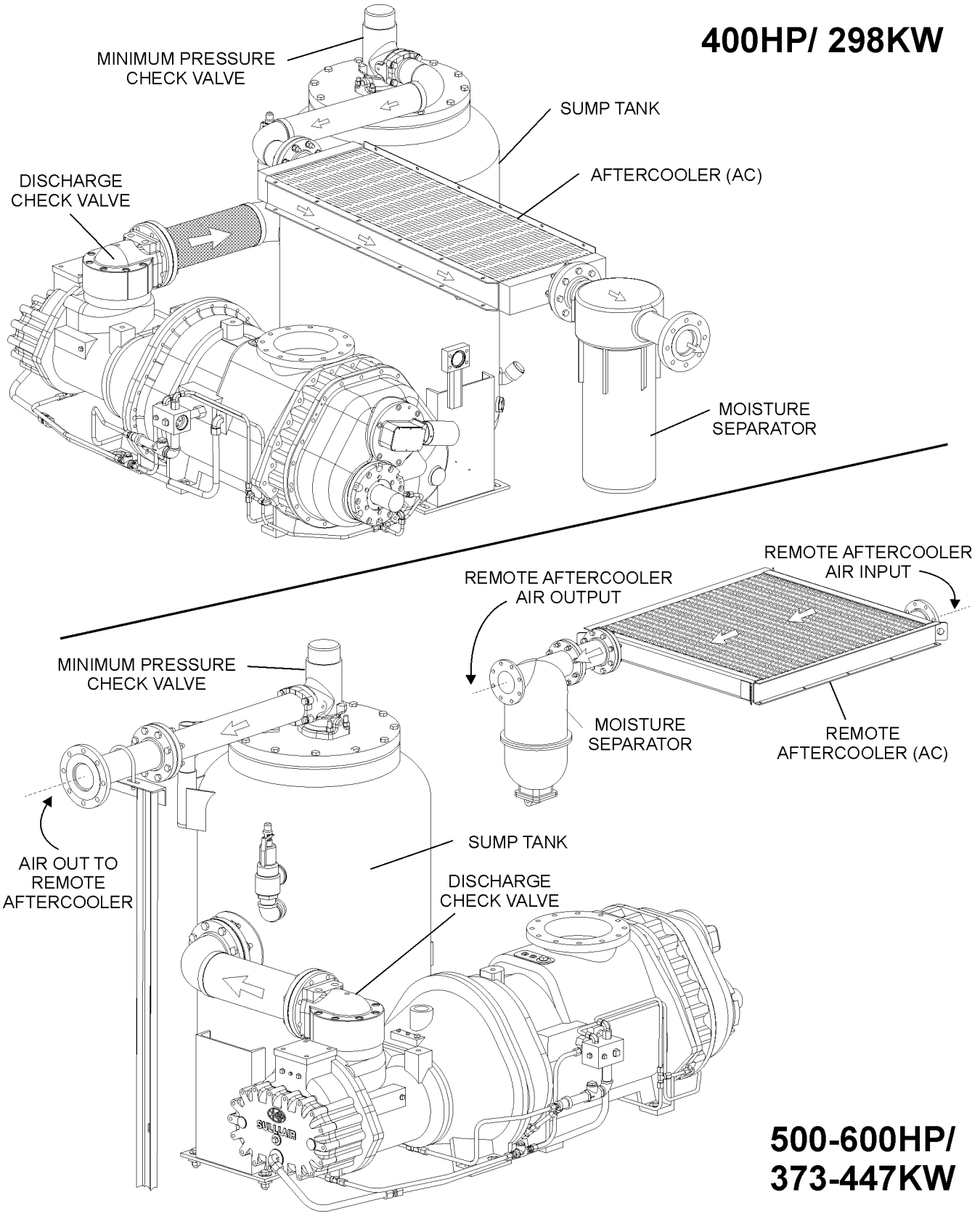


Figure 2-4B Compressor Discharge System- Water-cooled

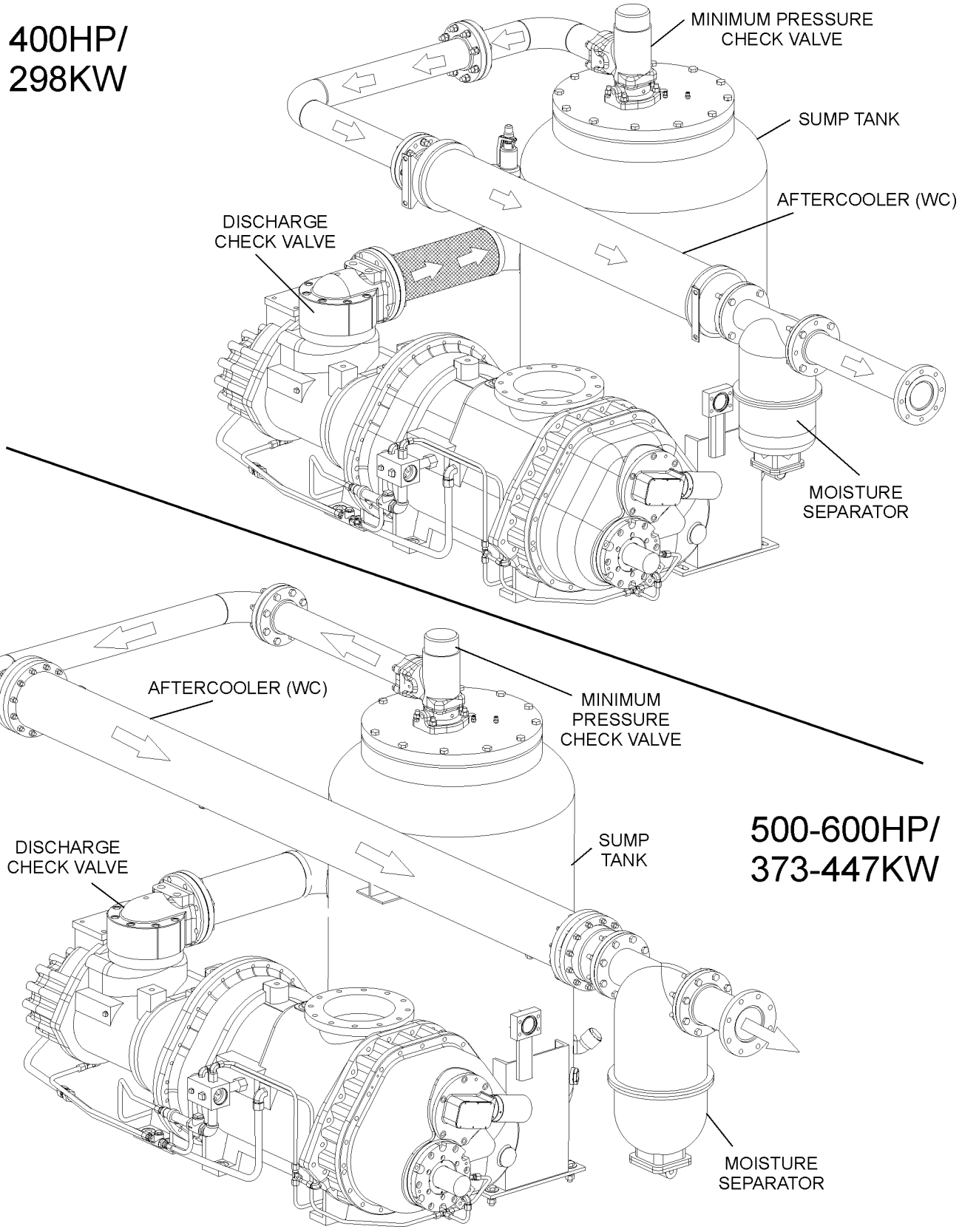


Figure 2-5A Control System- START (Typical)

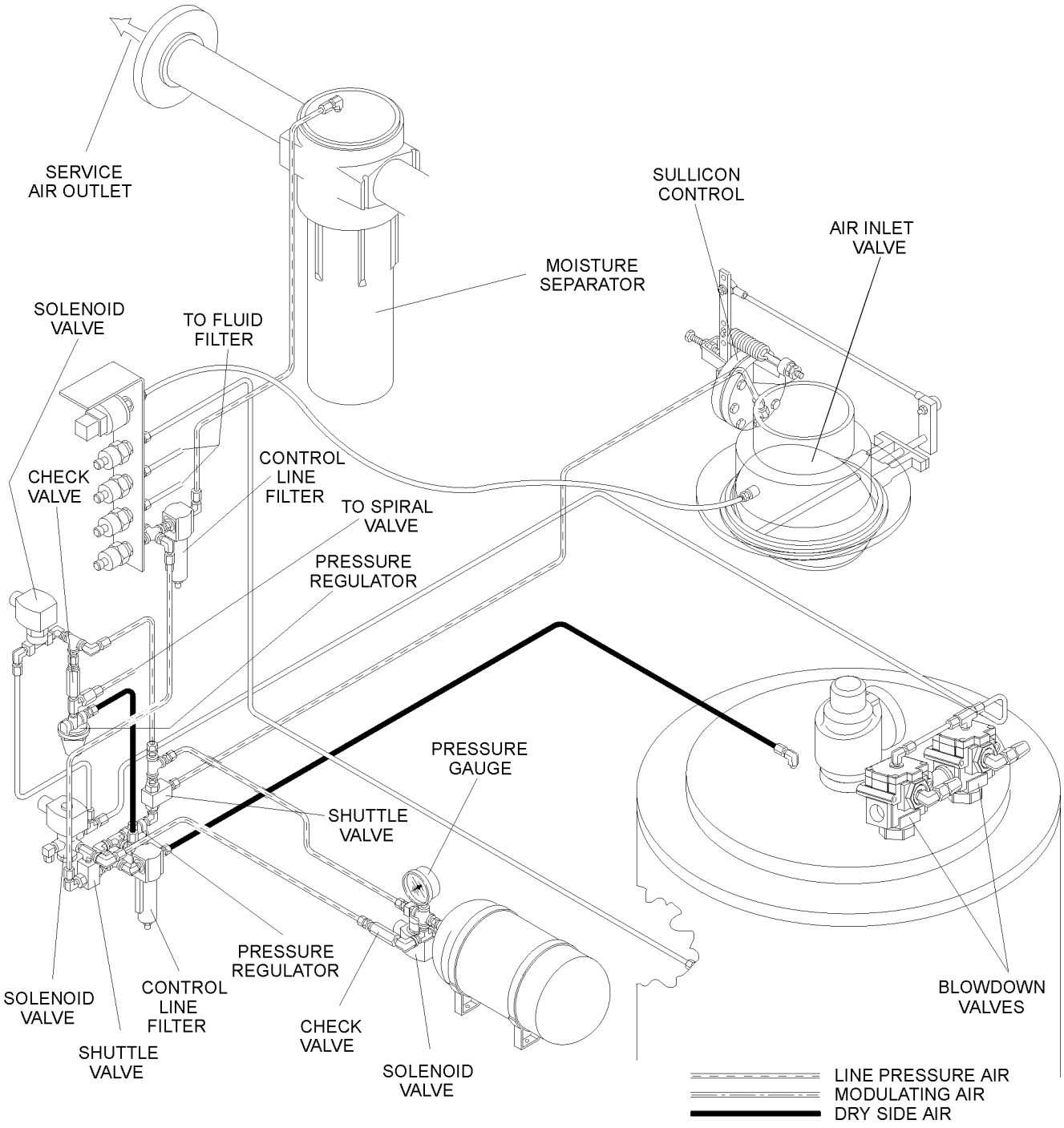


Figure 2-5B Control System MODULATION (Typical)

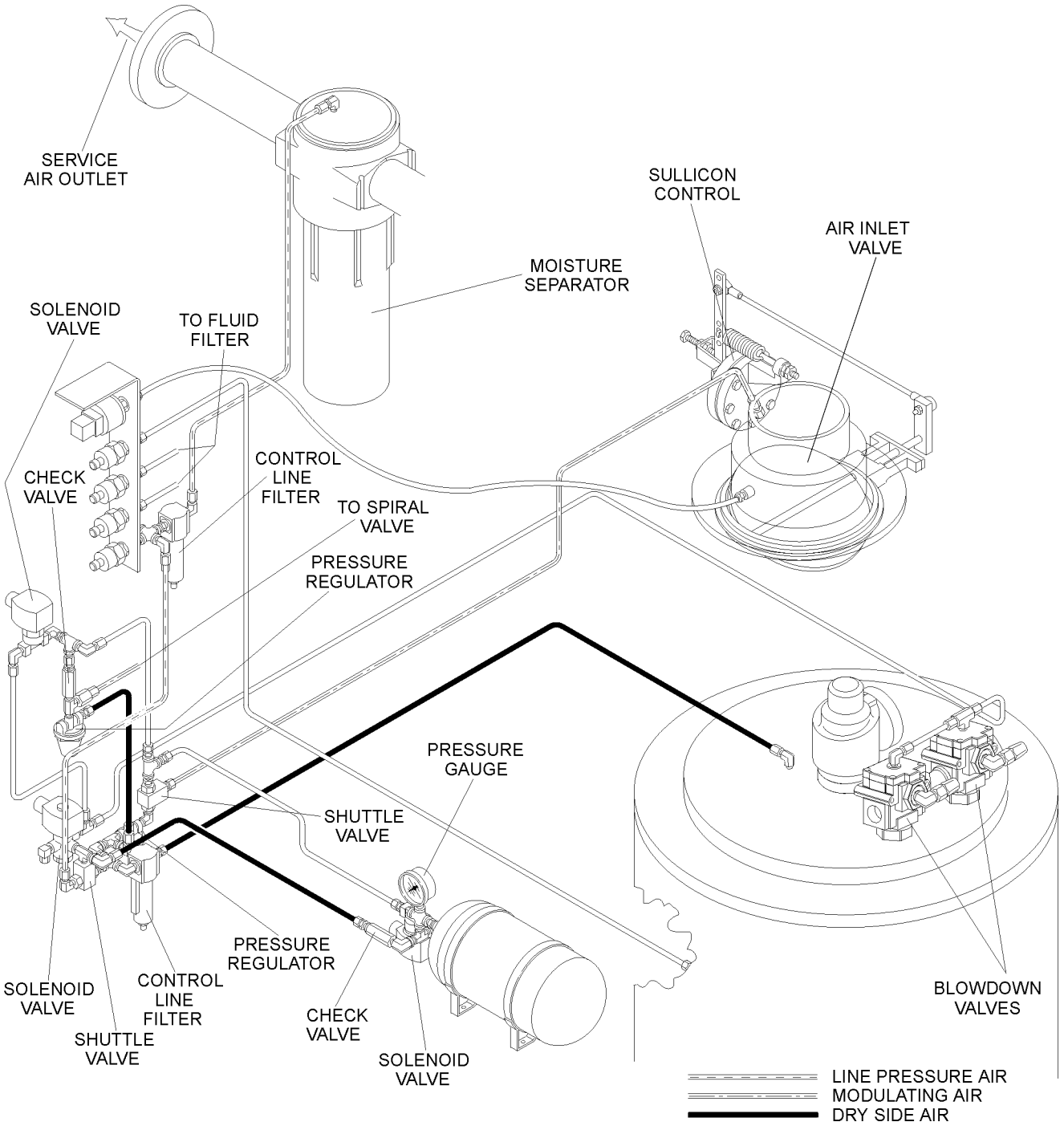


Figure 2-5C Control System- UNLOAD (Typical)

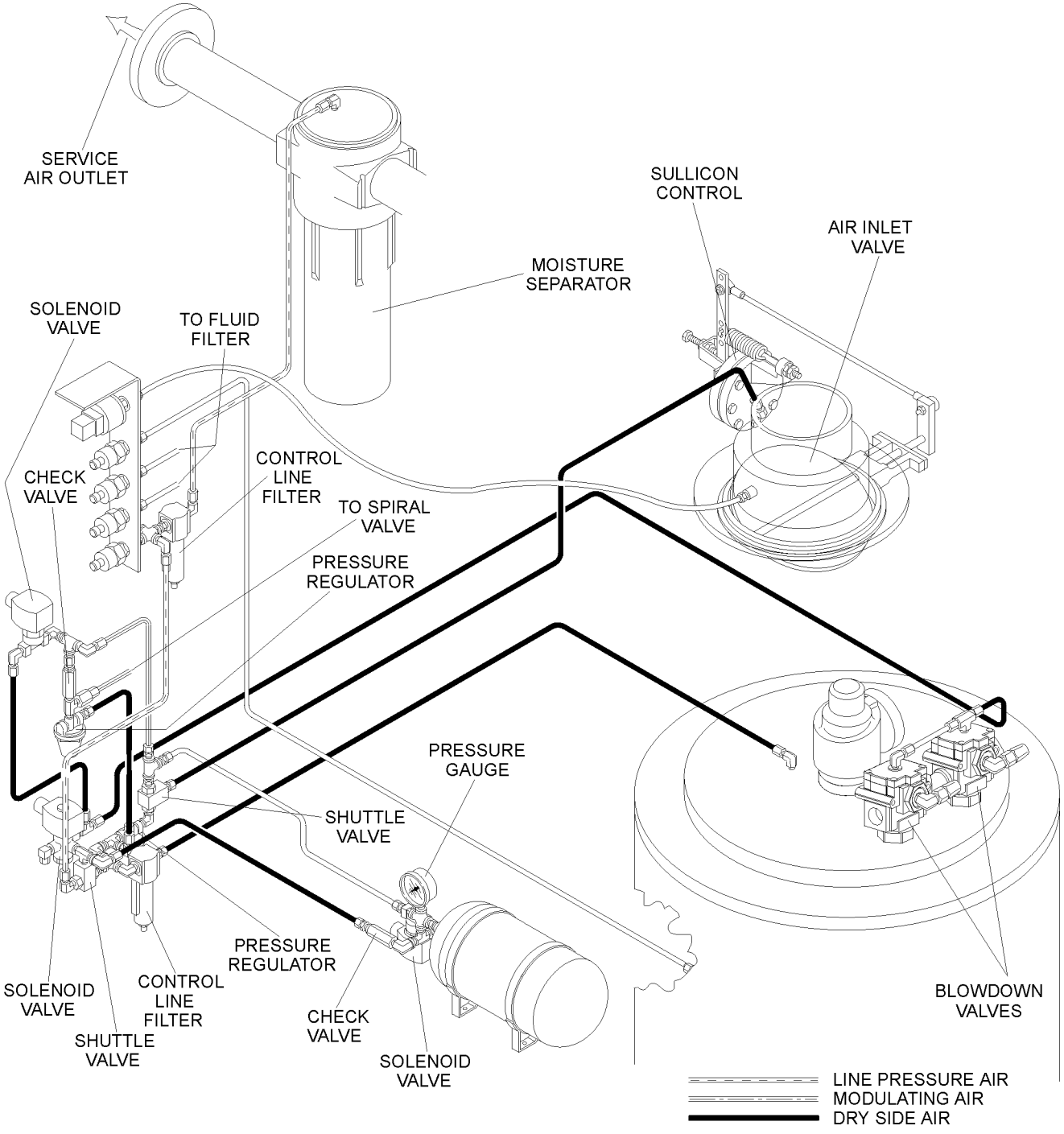


Figure 2-5D Control System- FULL LOAD (Typical)

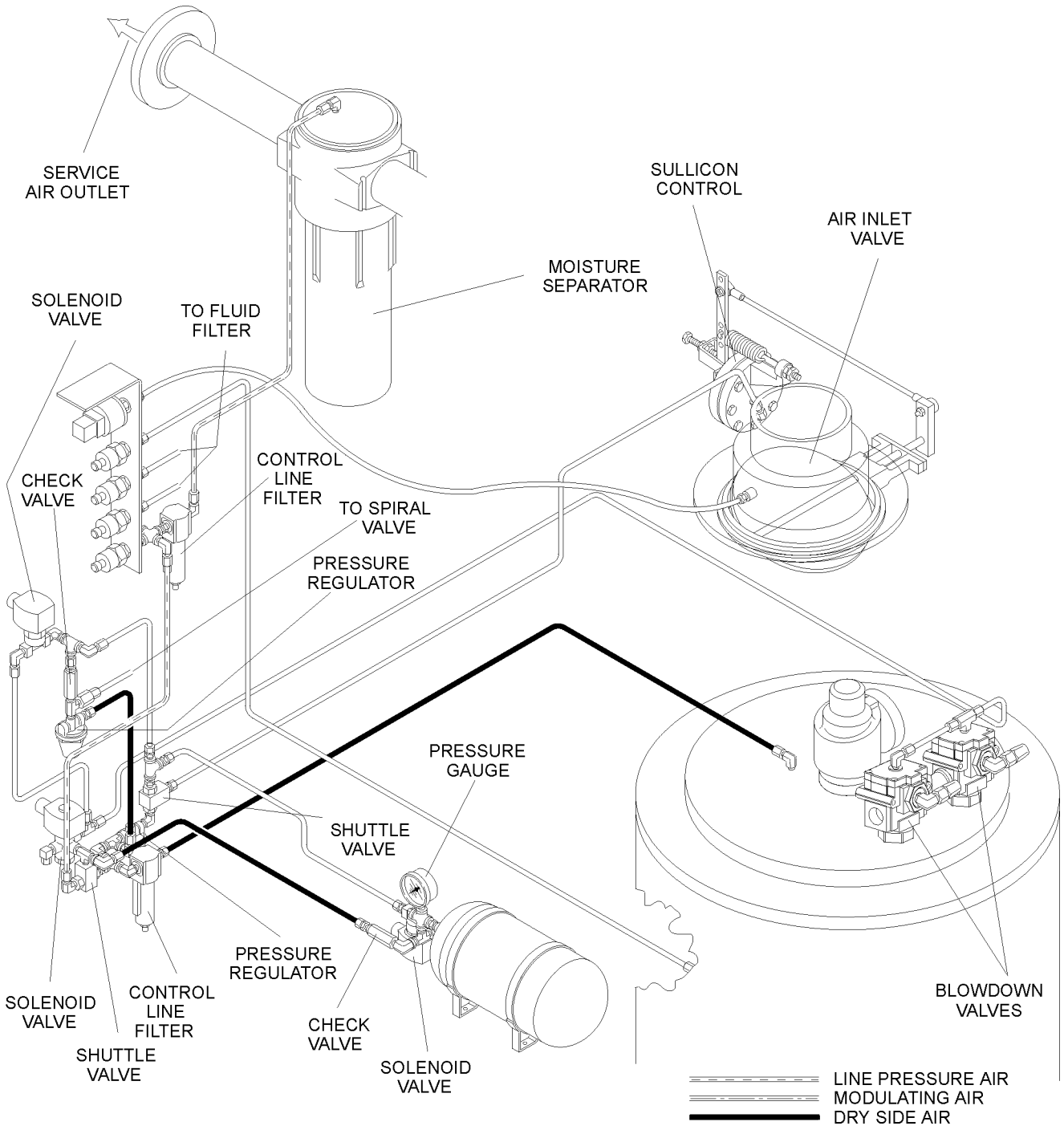
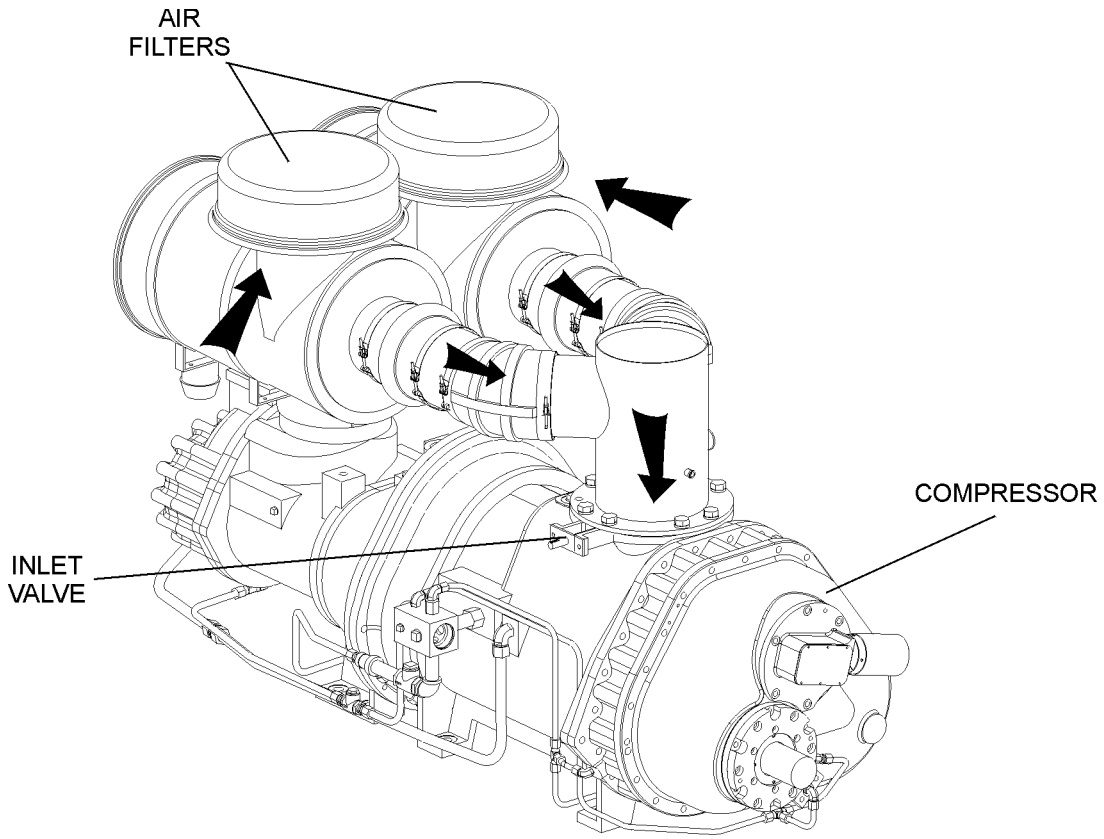


Figure 2-6 Compressor Air Inlet System



to return to the full load (maximum) position.

AUTOMATIC OPERATION

For applications with varied periods of time when there are no air requirements, Supervisor's Auto mode allows the compressor to shut down (time delayed) when no compressed air requirement is present and restart as compressed air is needed.

LOAD/ NO LOAD OPERATION

If applications call for load/no load operation, modulation can be disabled in the Supervisor Controller™ in the "Control Parameters" menu. If modulation is disabled, the unload pressure must be reset to the rated load pressure of the machine. For example, an L model rated for 100 psig full load operation and 110 psig unload must have the unload pressure reset to 100 psig. This ensures that the motor will not run in an overload condition.

2.7 AIR INLET SYSTEM, FUNCTIONAL DESCRIPTION

Refer to Figure 2-6. The compressor inlet system consists of one or two dry-type air filters, a vacuum switch and an air inlet valve.

The vacuum switch, located in the compressor Supervisor control system, indicates the condition of the air filter. When the message "AIR FILTER MAINT RQD" is displayed,maintenance is required.

The butterfly-type air inlet valve directly controls the amount of air intake to the compressor in response to the operation of the Sullicon Control (Section 2.6).

Section 3
SPECIFICATIONS

3.1 SULLAIR SERIES TS-32S SPECIFICATIONS

60 Hz MODEL	LENGTH (IN)	WIDTH (IN)	HEIGHT (I) (IN)	WEIGHT (LB)
(AC)	175	84	93	(II)
(WC)	175	84	93	(II)

50Hz MODEL	LENGTH (CM)	WIDTH (CM)	HEIGHT (I) (CM)	WEIGHT (KG)
(AC)	444.5	213	218	(III)
(WC)	444.5	213	218	(III)

(I) Add 1 in./2.5 cm for enclosure. Add 37 in./94 cm (200-350hp/149-261kw) for servicing the separator.

(II) Add 1,040 lbs./ 472 kg for air-cooled enclosure package.

(III) Add 1,800 lbs./ 816 kg for water-cooled enclosure package.

NOTE

For noise level information, please contact the Sullair Factory Service Department.

COMPRESSOR:

Type:	Positive displacement, fluid-lubricated, twin rotary screws
Standard Operating Pressure:	400, 500 and 600hp/ 298, 373 and 447kw
Bearing Type:	Anti-friction
Ambient Temperature (Max.):	104ºF/40ºC; consult factory for higher ambient temperatures
Lubricant:	See Sections 3.2 and 3.3 on Lubricant
Coolant:	Pressurized Sullube
Fluid Capacity:	48 gallons/ 181.7 liters
Control Type:	Electro-pneumatic
Options:	Cold Weather Package, EES Remote Heat Recovery, Enclosure, Phase Monitor Relay, Remote Cooler Pack- Air-cooled, Water Solenoid Valve, Water Regulator Valve

MOTOR:

Size:	400-600hp/ 298-447kw- Consult factory for specific voltages
Type:	Open Dripproof enclosure, 3-phase, 60 Cycles 104ºF / 40ºC Maximum Ambient Temperature
Options:	Various voltages, TEFC enclosure: CE approved, Motor-OPD Premium Efficient, Motor- ODP Standard Efficient -3300V
Speed:	1780 RPM (60Hz), 1475 RPM (50Hz)
Starter:	Full-voltage, Wye-delta, or Solid State; various voltages

3.2 LUBRICATION GUIDE- STANDARD COMPRESSORS

Refer to Figure 3-1. Sullair TS-32S Series standard compressors are filled with Sullube fluid as factory fill.

⚠ WARNING

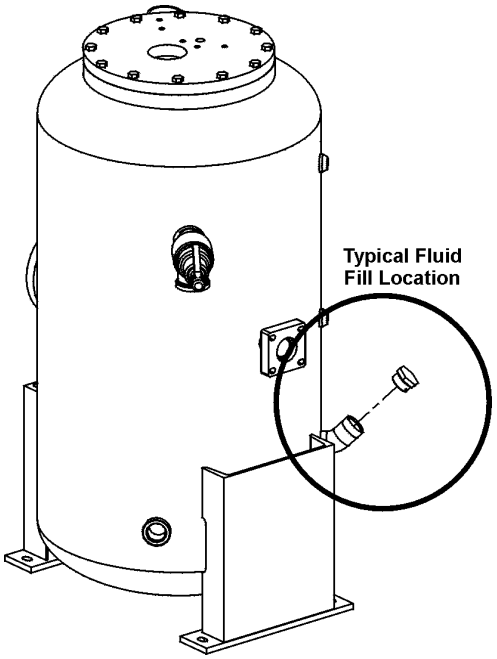
Mixing of other lubricants within the compressor unit will void all warranties.

Sullube fluid should be changed every 8000 hours or once a year, whichever comes first. The fluid should be changed more frequently under severe operating conditions, such as high ambient temperatures coupled with high humidity, or when high particulate level, corrosive gases or strong oxidizing gases are present in the air.

Maintenance of all other components is still recommended as indicated in the Maintenance section of this manual.

Section 3
SPECIFICATIONS

Figure 3-1 Fluid Fill Location



3.3 LUBRICATION GUIDE- 24KT COMPRESSORS

See Figure 3-1. Sullair 24KT compressors are filled with a lubricant which rarely ever needs to be changed. In the event a change of fluid or make-up fluid is required, use only Sullair 24KT fluid.

⚠ WARNING

Mixing of other lubricants within the compressor unit will void all warranties.

Sullair recommends that 24KT sample be taken at the first filter change and sent to the factory for analysis. This is a free service. A sample kit with instructions and self addressed container is to be supplied by your Sullair representative at start-up. The user will receive an analysis report with recommendations.

NOTE

A 24KT sample should be sent in annually, after the first year.

3.4 APPLICATION GUIDE

Sullair encourages the user to participate in a fluid analysis program with the fluid suppliers. This could result in a fluid change interval differing from that stated in the manual. Contact your Sullair dealer for details.

3.5 LUBRICATION CHANGE RECOMMENDATIONS AND MAINTENANCE

LUBRICANT	FLUID CHANGE	FLUID FILTER CHANGE	SEPARATOR CHANGE
Sullube	A, D	F, B	A, C
24KT	E, D	F, B	A, C

A - 8,000 Hours or once a year
B - When measured pressure loss exceeds 20 psig (1.3 bar).
C - When measured pressure loss exceeds 10 psig (0.7 bar).
D - When required by fluid analysis or known contamination.
E - Does not require replacement during normal service conditions.
F- Every 1000 hours.

NOTES

Section 3
SPECIFICATIONS

Figure 3-2A Identification- TS-32S 400HP/ 298KW (Typical)

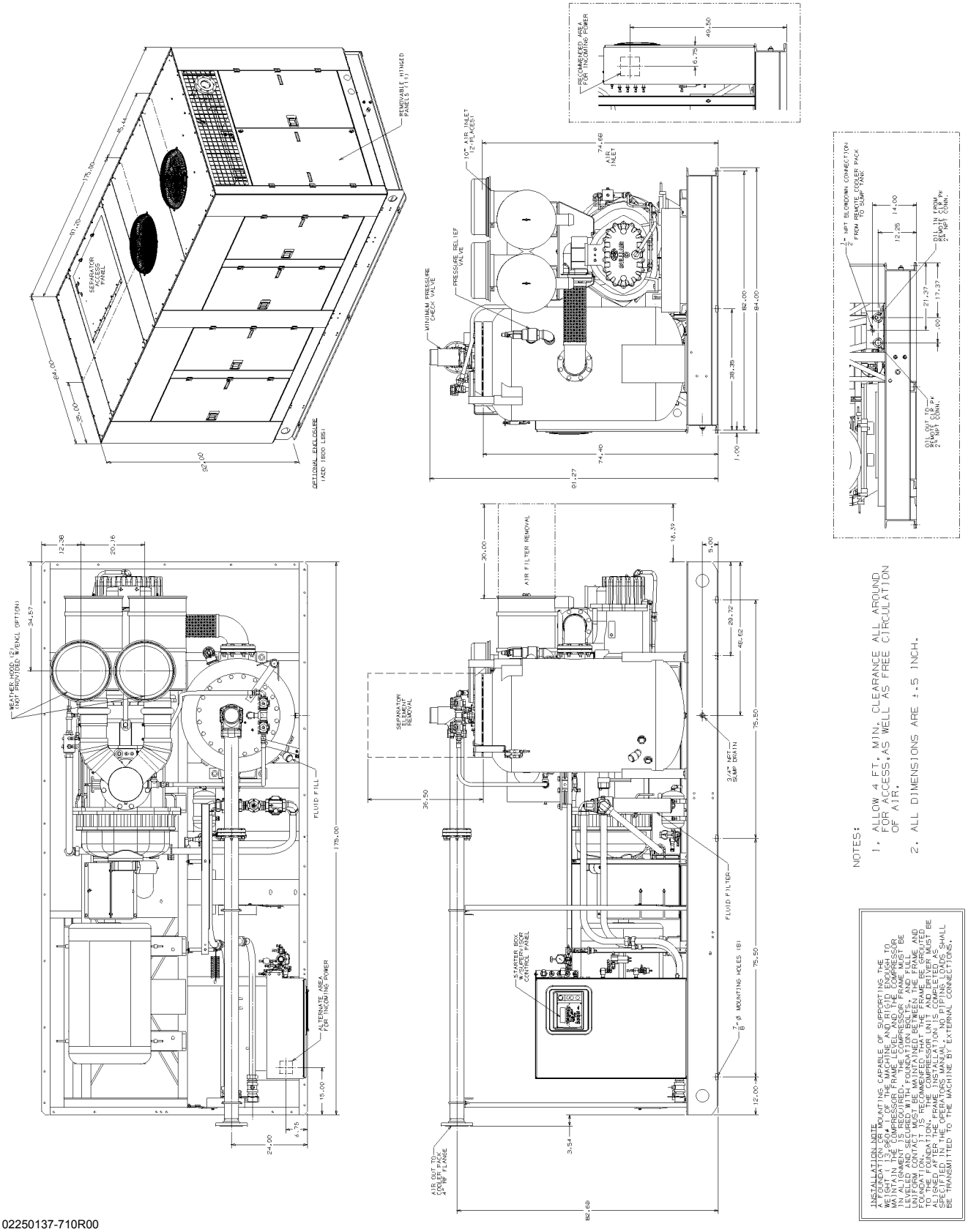


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Figure 3-2B Identification- TS-32S 500-600HP/ 373-447KW (Typical)

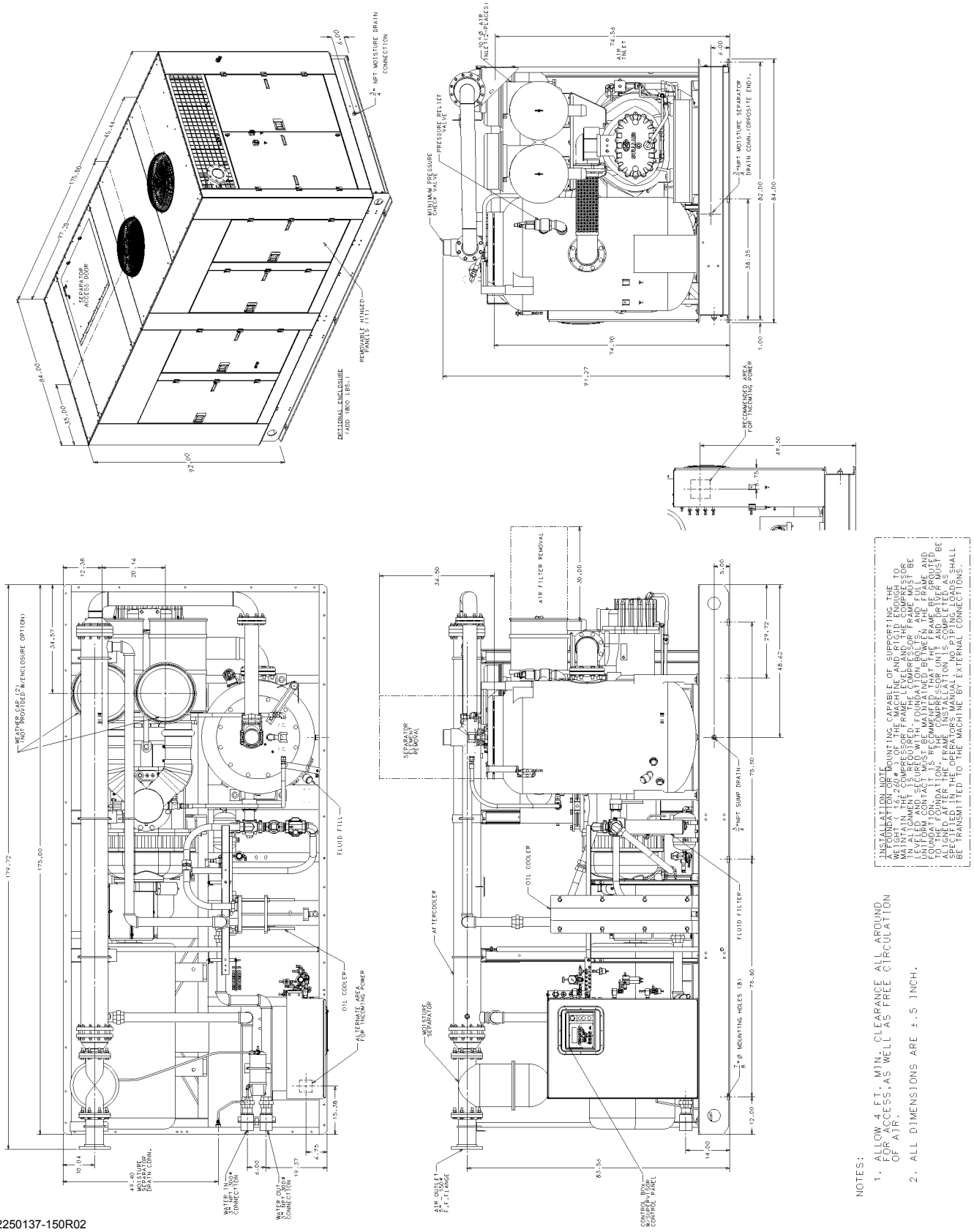

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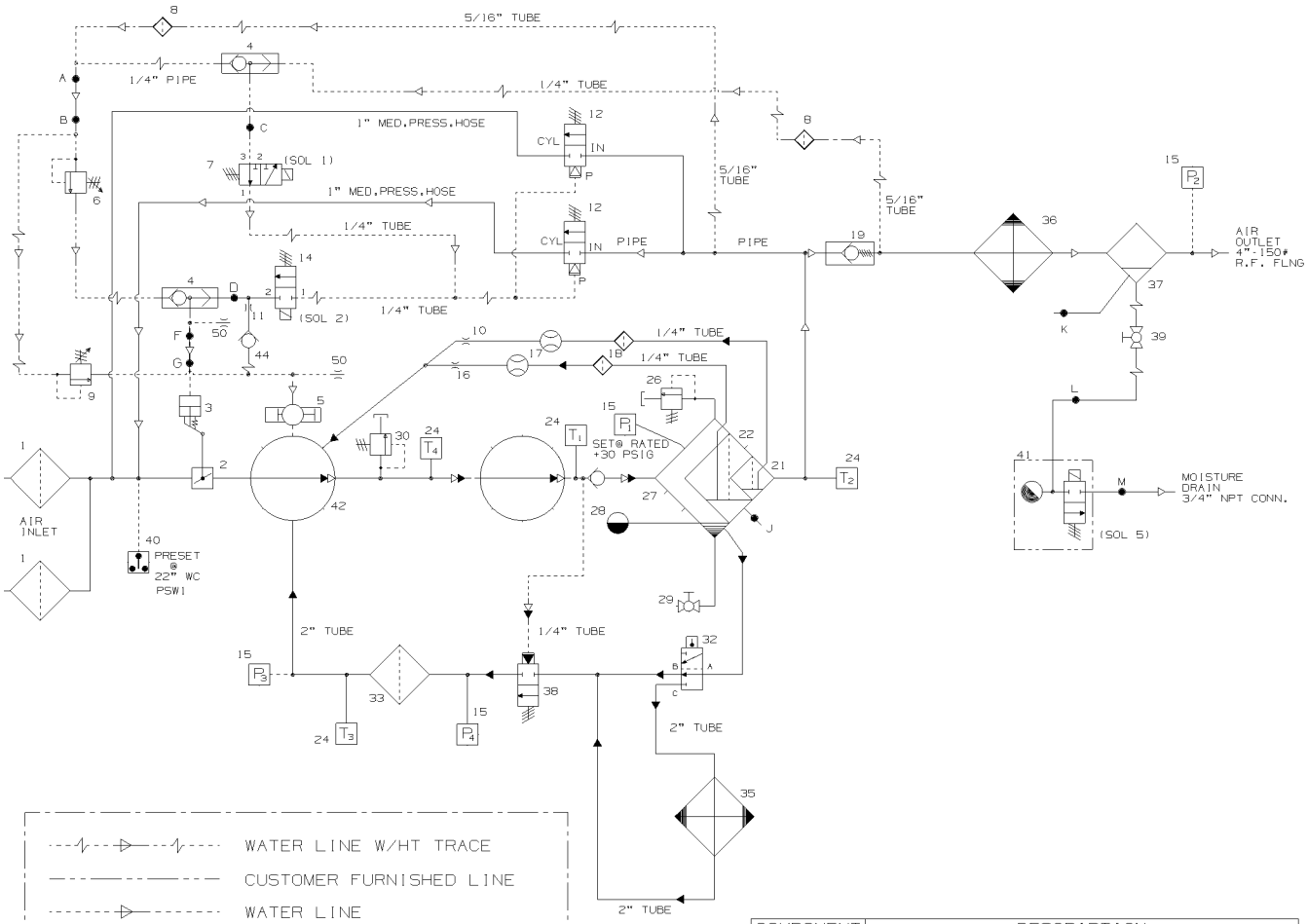
Figure 3-3A Piping and Instrumentation- Air-cooled 400HP/ 298KW (Typical)



COMPONENT	DESCRIPTION
P1	WET SUMP PRESSURE SENSOR
P2	PACKAGE DISCHARGE PRESSURE SENSOR
P3	OIL FILTER DISCHARGE PRESSURE SENSOR
P4	OIL FILTER UPSTREAM PRESSURE SENSOR
PSWI	INLET FILTER SWITCH 22" WC
SOL1	LOAD CONTROL SOLENOID VALVE
SOL2	SPIRAL CONTROL
SOL3	START CONTROL (OPTIONAL)
SOL4	SEQUENCE SOLENOID VALVE (OPTIONAL)
SOL5	ELECTRIC DRAIN VALVE (OPTIONAL)
HTR1	SUMP HEATER (OPTIONAL)
HTR3	TRAP HEATER (OPTIONAL)

NOTE:
1. PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO BILL OF MATERIAL AND OR FACE OF ORDER FOR ACUTAL PARTS.
2. SECTION BETWEEN LETTERED POINTS ARE TO BE REPLACED WITH CORRESPONDING OPTION PICTURED BELOW, AS REQUIRED BY FACE OF ORDER.
3. HEAT TRACE SHOWN AS OPTIONAL. CHECK FACE OF ORDER FOR HEAT TRACE REQUIREMENTS.

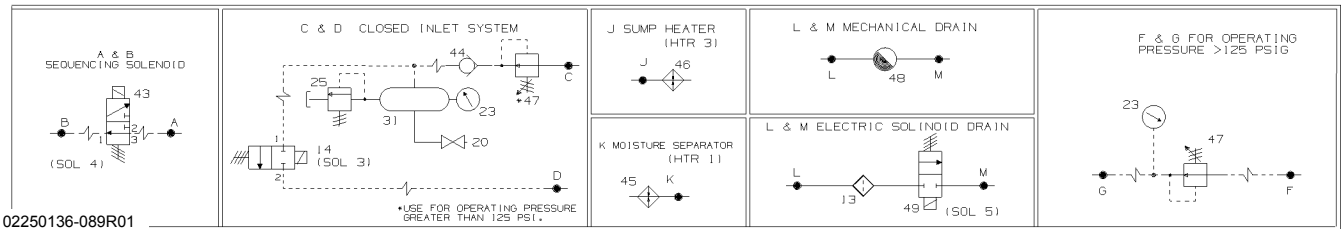


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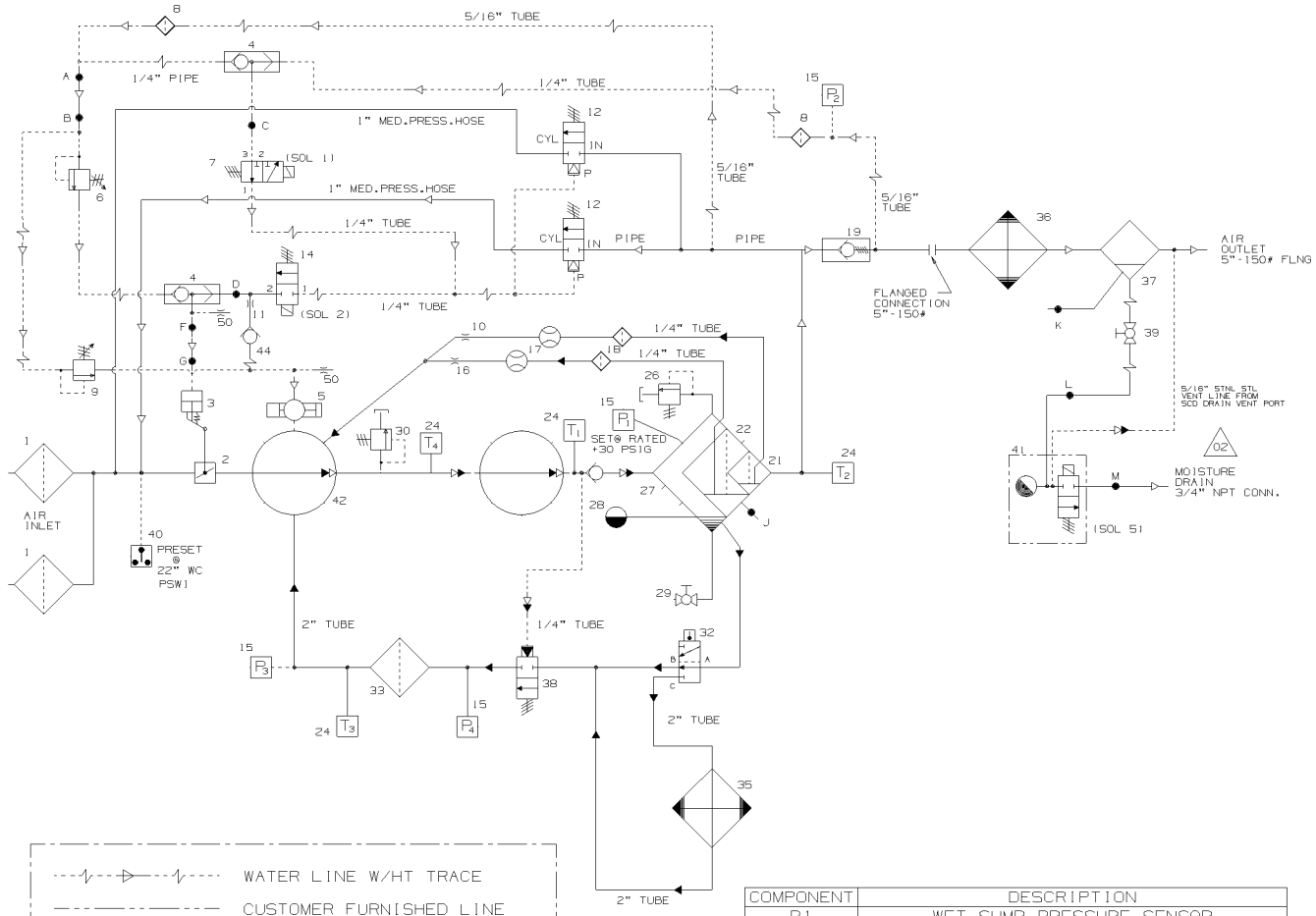
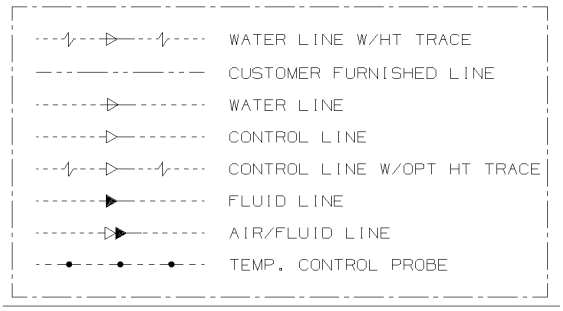
Figure 3-3A Piping and Instrumentation- Air-cooled 400HP/ 298KW (Typical)

key number	description	part number	quantity
1	filter, assy air inlet (heavy duty)	250006-718	2
2	vlv, inlet butterfly 8"	02250126 -220	1
3	control, Sullicon LS25S	011682-003	1
4	vlv, shuttle 1/4"	408893	2
5	vlv, spiral	-	1
6	vlv, diff. press. reg.- 1 /4" npt	406929	1
7	vlv, sol 3wno 1 /4" 1 15v ac	02250125 -657	1
8	filter, control 1/4" npt	02250112-032	2
9	vlv, press. reg.	408275	1
10	orifice, .032"	02250125-774	1
11	orifice. .03"	02250101-191	1
12	vlv, blowdown 1" nc 2-way	409783	2
13	strainer, y 1/2"	406480	1
14	vlv, solenoid 1 /4" 2-way	02250125 -679	2
15	pressure transducer n4	02250078-933	4
16	orifice, .094	02250125-776	1
17	glass, sight 1/4"	02250126-129	2
18	strainer, inline sae	02250117-782	2
19	vlv, m in. press. check 4" npt	02250050 -630	1
20	vlv, moisture bleed	41111	1
21	element, secondary separator	02250126-331	1
22	element, primary separator	02250126-325	1
23	gauge, pressure	02250117-009	2
24	probe, 100 ohm rtd 20'	02250044-985	4
25	vlv, relief 1/2" 150psi	02250092- 138	1
26	vlv, relief 2" 160#	02250132- 162	1
27	tank, fluid sep.	02250129-137	1
28	glass. fluid level sight	02250097-611	2
29	vlv, ball 3/4"	02250125-221	1
30	vlv, relief 60# 2" x 2- 1/2"	250029-330	2
31	tank, accumulator 415 cu. in.	242221	1
32	vlv. thermal assy w/sae ports	02250120-955	1
33	filter, fluid	02250121-638	1
34	vlv, sol EES 1/4" 4-way	02250056-983	1
35	cooler, fluid w/1-7/8"-12 sae oil ports	02250122-217	1
36	aftercooler, air to air	02250122-215	1
37	separator, combo trap	02250111-106	1
38	vlv, oil stop w/sae ports	02250122-004	1
39	vl v, ball 1/2" npt	47117	1
40	switch, vac. 22" w. c. n4	02250078-249	1
41	drain,elec.conds. scd2400 115 vac	02250131-113	1
42	unit, compressor	-	1
43	vlv, sol 3w no 1/4" sequencing	02250125-657	1
44	vlv, check 1/4"	02250110-557	2
45	heater, moisture separator	02250087-631	1
46	heater, sump	02250136 -079	1
47	regulator, press -1/4 npt 2-150#	46556	2
48	trap, condensate 3/4"	42034	1
49	vlv, sol 2way nc '1/4"	02250125-674	1
50	orf, cap .031 x 1/4" npt	02250132-934	2

Figure 3-3B Piping and Instrumentation- Air-cooled 500-600HP/ 373-447KW (Typical)





COMPONENT	DESCRIPTION
P1	WET SUMP PRESSURE SENSOR
P2	PACKAGE DISCHARGE PRESSURE SENSOR
P3	OIL FILTER DISCHARGE PRESSURE SENSOR
P4	OIL FILTER UPSTREAM PRESSURE SENSOR
PSW1	INLET FILTER SWITCH 22" WC
SOL1	LOAD CONTROL SOLENOID VALVE
SOL2	SPIRAL CONTROL
SOL3	START CONTROL (OPTIONAL)
SOL4	SEQUENCE SOLENOID VALVE (OPTIONAL)
SOL5	ELECTRIC DRAIN VALVE (OPTIONAL)
HTR1	SUMP HEATER (OPTIONAL)
HTR3	TRAP HEATER (OPTIONAL)

NOTE:
1. PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO BILL OF MATERIAL AND OR FACE OF ORDER FOR ACUTAL PARTS.
2. SECTION BETWEEN LETTERED POINTS ARE TO BE REPLACED WITH CORRESPONDING OPTION PICTURED BELOW, AS REQUIRED BY FACE OF ORDER.
3. HEAT TRACE SHOWN AS OPTIONAL. CHECK FACE OF ORDER FOR HEAT TRACE REQUIREMENTS.

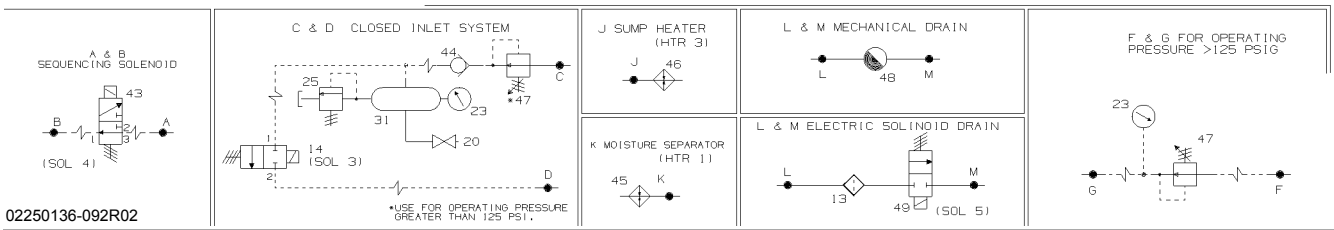


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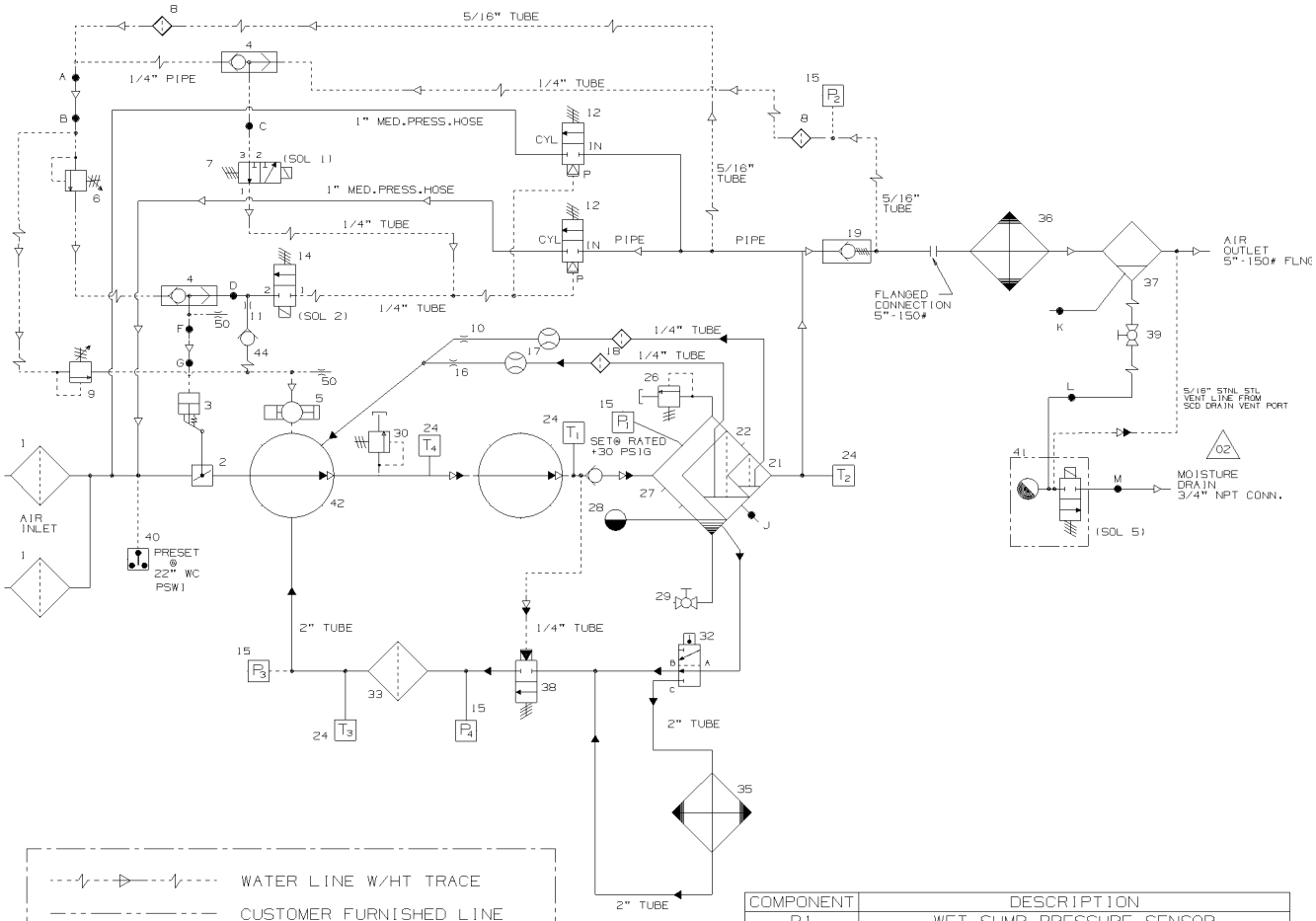
Figure 3-3B Piping and Instrumentation- Air-cooled 500-600HP/ 373-447KW (Typical)

key number	description	part number	quantity
1	filter, assy air inlet (heavy duty)	250006-718	2
2	vlv , inlet butterfly 8"	02250126 -220	1
3	control, Sullicon LS25S	011682-003	1
4	vlv, shuttle 1/4"	408893	2
5	vlv, spiral	-	1
6	vlv, diff. press. reg. 1/4.” npt	406929	1
7	vlv, sol 3wno 1 /4" 115v ac	02250125 -657	1
8	filter, control 1/4" npt	02250112-032	2
9	vlv, press. reg.	408275	1
10	orifice, .032"	02250125-774	1
11	orifice, .03"	02250101-191	1
12	vlv, blowdown 1" nc 2-way	409783	2
13	strainer, y 1/2"	406480	1
14	vlv, solenoid 1/4" 2-way	02250125-679	2
15	pressure transducer n4	02250078-933	4
16	orifice, .094	02250125-776	1
17	glass, sight 1/4"	02250126-129	2
18	strainer, in line sae	02250117-782	2
19	vlv, min. press. check 4 " npt	02250050 -630	1
20	vlv, moisture bleed	41111	1
21	element, secondary separator	02250126-331	1
22	element, primary separator	02250126-325	1
23	gauge, pressure	02250117-009	2
24	probe, 100 ohm rtd 20'	02250044-985	4
25	vlv, relief 1 /2" 150 psi	02250092 -138	1
26	vlv, relief 2" 160#	02250132-162	1
27	tank, fluid sep.	02250129-137	1
28	glass, fluid level sight	02250097-611	2
29	vlv, ball 3/4"	02250125-221	1
30	vlv, relief 60# 2" x 2 -1/2"	250029-330	2
31	tank, accumulator 415 cu. in.	242221	1
32	vlv, thermal assy w/sae ports	02250120-955	1
33	filter, fluid	02250121-638	1
34	vlv, sol EES 1/4" 4-way	02250056-983	1
35	cooler, fluid w/1-7/8"-12 sae oil ports	02250127-107	1
36	aftercooler, air to air	02250127-710	1

(Continued on page 29)

Figure 3-3B Piping and Instrumentation- Air-cooled 500-600HP/ 373-447KW (Typical)



WATER LINE W/HT TRACE	
CUSTOMER FURNISHED LINE	
WATER LINE	
CONTROL LINE	
CONTROL LINE W/OPT HT TRACE	
FLUID LINE	
AIR/FLUID LINE	
TEMP. CONTROL PROBE	

COMPONENT	DESCRIPTION
P1	WET SUMP PRESSURE SENSOR
P2	PACKAGE DISCHARGE PRESSURE SENSOR
P3	OIL FILTER DISCHARGE PRESSURE SENSOR
P4	OIL FILTER UPSTREAM PRESSURE SENSOR
PSWI	INLET FILTER SWITCH 22" WC
SOLI	LOAD CONTROL SOLENOID VALVE
SOL2	SPIRAL CONTROL
SOL3	START CONTROL (OPTIONAL)
SOL4	SEQUENCE SOLENOID VALVE (OPTIONAL)
SOL5	ELECTRIC DRAIN VALVE (OPTIONAL)
HTRI	SUMP HEATER (OPTIONAL)
HTR3	TRAP HEATER (OPTIONAL)

NOTE:
1. PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO BILL OF MATERIAL AND OR FACE OF ORDER FOR ACUTAL PARTS.
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3. HEAT TRACE SHOWN AS OPTIONAL. CHECK FACE OF ORDER FOR HEAT TRACE REQUIREMENTS.

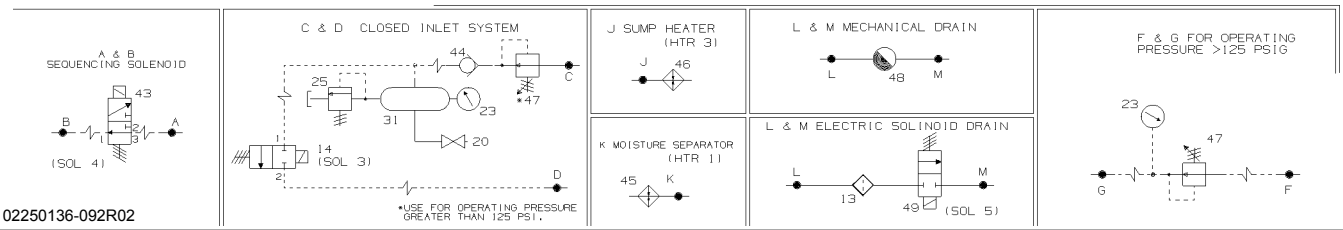

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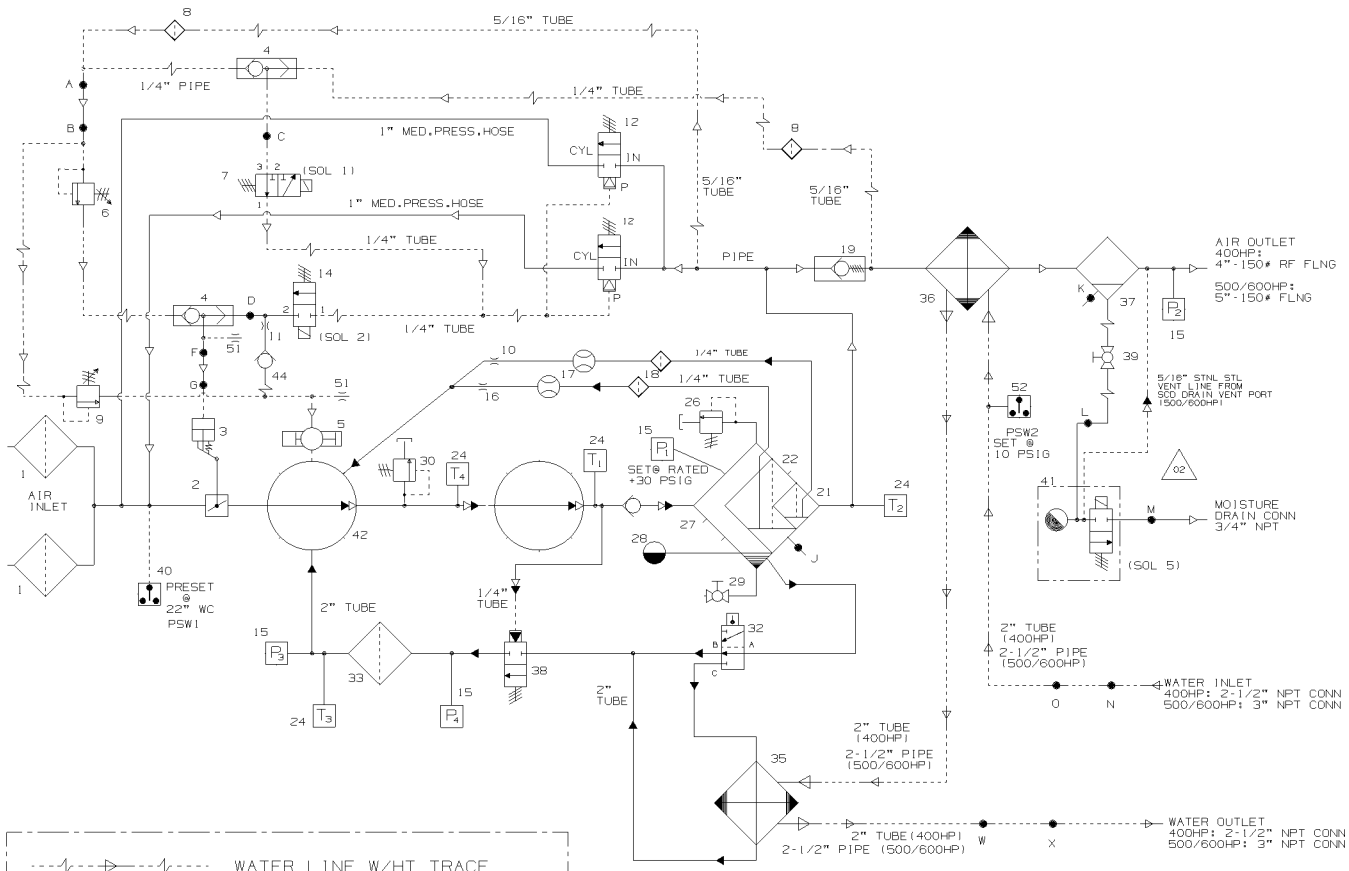
Figure 3-3B Piping and Instrumentation- Air-cooled 500-600HP/ 373-447KW (Typical) (continued)

key number	*description*	*part number*	*quantity*
37	separator, combo trap	250007-799	1
38	vlv, oil stop w/sae ports	02250122-004	1
39	vlv, ball 1 /2" npt	47117	1
40	switch, vac. 22" w. c. n4	02250078-249	1
41	drain, elec. conds. scd2400 115 vac	02250131-113	1
42	unit, compressor	-	1
43	vlv, sol 3w no 1/4" sequencing	02250125 -657	1
44	vlv, check 1 /4"	022501 10 -557	2
45	heater, moisture separator	02250087-631	1
46	heater, sump	02250136-079	1
47	regulator, press -1/4 npt 2-150#	46556	2
48	trap, condensate 3/4"	42034	1
49	vlv, sol 2way no 1/4 200# n4	02250125-674	1
50	orf, cap. 031 x 1/4" npt	02250132-934	2

Figure 3-3C Piping and Instrumentation- Water-cooled 400-600HP/ 298-447KW (Typical)



WATER LINE W/HT TRACE	
CUSTOMER FURNISHED LINE	
WATER LINE	
CONTROL LINE	
CONTROL LINE W/OPT HT TRACE	
FLUID LINE	
AIR/FLUID LINE	
TEMP. CONTROL PROBE	

COMPONENT	DESCRIPTION
P1	WET SUMP PRESSURE SENSOR
P2	PACKAGE DISCHARGE PRESSURE SENSOR
P3	OIL FILTER DISCHARGE PRESSURE SENSOR
P4	OIL FILTER UPSTREAM PRESSURE SENSOR
SOL1	LOAD CONTROL SOLENOID VALVE
SOL2	SPIRAL CONTROL
SOL3	START CONTROL (OPTIONAL)
SOL4	SEQUENCE SOLENOID VALVE (OPTIONAL)
SOL5	ELECTRIC DRAIN VALVE (OPTIONAL)
SOL6	WATER SHUTOFF SOLENOID VALVE (OPTIONAL)
HTR1	SUMP HEATER (OPTIONAL)
HTR3	TRAP HEATER (OPTIONAL)
PSW1	INLET AIR FILTER SWITCH 22" WC
PSW2	WATER PRESS SW ITCH 10PSI

NOTE:
1. PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO BILL OF MATERIAL AND OR FACE OF ORDER FOR ACUTAL PARTS.
2. SECTION BETWEEN LETTERED POINTS ARE TO BE REPLACED WITH CORRESPONDING OPTION PICTURED BELOW, AS REQUIRED BY FACE OF ORDER.
3. HEAT TRACE SHOWN AS OPTIONAL. CHECK FACE OF ORDER FOR HEAT TRACE REQUIREMENTS.

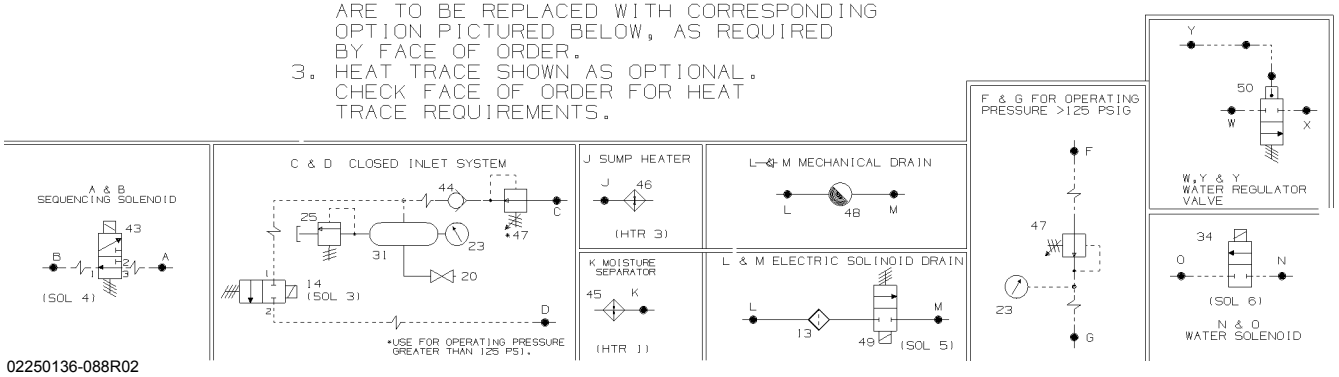


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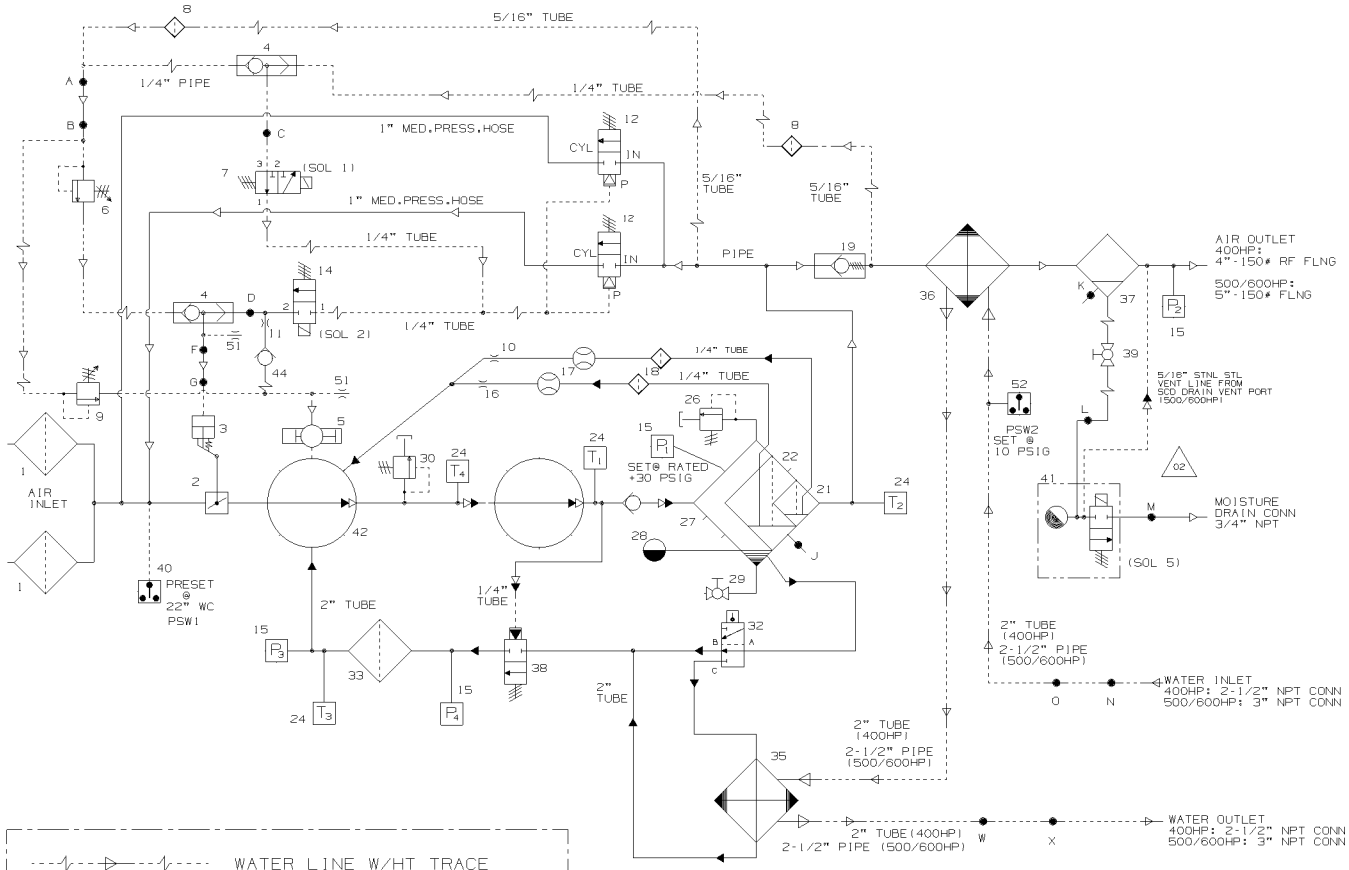
Figure 3-3C Piping and Instrumentation- Water-cooled 400-600HP/ 298-447KW (Typical)

key number	*description*	*part number 400HP*	*part number 500-600HP*	*quantity*
1	filter, assy air inlet (heavy duty)	250006-718	250006-718	2
2	vlv, inlet butterfly 8"	02250126-220	02250126-220	1
3	control, Sullicon LS25S	011682-003	011682-003	1
4	vlv, shuttle 1 /4"	408893	408893	2
5	vlv, spiral	-	-	1
6	vlv, diff. press. reg. 1/4 npt	406929	406929	1
7	vlv, sol 3wno 1/4" 115vac	02250125-657	02250125-657	1
8	filter, control 1/4" npt	02250112-032	02250112-032	2
9	vlv, press reg	408275	408275	1
10	orifice, .032"	02250125-774	02250125-774	1
11	orifice, .03"	02250101-191	02250101-191	1
12	vlv. blowdown nc 2-way	409783	409783	2
13	strainer, y 1/2"	406480	406480	1
14	vlv, solenoid 1/4" 2-way	02250125-679	02250125-679	2
15	transducer, pressure n4	02250078-933	02250078-933	4
16	orifice, .094	02250125-776	02250125-776	1
17	glass, sight 1/4"	02250126-129	02250126-129	2
18	strainer, in line sae	02250117-7~2	02250117-782	2
19	vlv, min press check 4" npt	02250050-630	02250050 -630	1
20	vlv, moisture bleed	41111	41111	1
21	element, secondary separator	02250126-331	02250126-331	1
22	element, primary separator	02250126-325	02250126-325	1
23	gauge, pressure	02250117-009	02250117-009	2
24	probe, 100 ohm rtd 20'	02250044-985	02250044-985	4
25	vlv, relief 1 /2" 1 50 psi	02250092 -138	02250092 -138	1
26	vlv, relief 2" 160#	02250132-162	02250132-162	1
27	tank, fluid sep	02250129-137	02250129-137	1
28	glass, fluid level sight	02250097-611	02250097-611	2
29	vlv, ball 3/4"	02250125-221	02250125-221	1
30	vlv, relief 60# 2" x 2-1/2"	250029-330	250029-330	2
31	tank, accumulator 415 cu. in.	242221	242221	1
32	vlv, thermal assy w/sae ports	02250120-955	02250120-955	1
33	filter, fluid	02250121-638	02250121-638	1
34	valve, solenoid 2wnc 1-1/2"	02250125-653	02250125-653	1
35	cooler, fluid w/sae oil ports	02250132-197	02250130-619	1

(Continued on page 33)

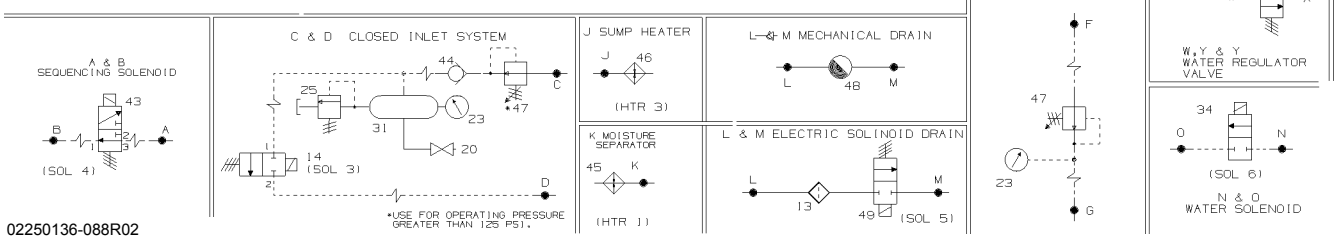
Figure 3-3C Piping and Instrumentation- Water-cooled 400-600HP/ 298-447KW (Typical)



WATER LINE W/HT TRACE
CUSTOMER FURNISHED LINE
WATER LINE
CONTROL LINE
CONTROL LINE W/OPT HT TRACE
FLUID LINE
AIR/FLUID LINE
TEMP. CONTROL PROBE

COMPONENT	DESCRIPTION
P1	WET SUMP PRESSURE SENSOR
P2	PACKAGE DISCHARGE PRESSURE SENSOR
P3	OIL FILTER DISCHARGE PRESSURE SENSOR
P4	OIL FILTER UPSTREAM PRESSURE SENSOR
SOL1	LOAD CONTROL SOLENOID VALVE
SOL2	SPIRAL CONTROL
SOL3	START CONTROL (OPTIONAL)
SOL4	SEQUENCE SOLENOID VALVE (OPTIONAL)
SOL5	ELECTRIC DRAIN VALVE (OPTIONAL)
SOL6	WATER SHUTOFF SOLENOID VALVE (OPTIONAL)
HTR1	SUMP HEATER (OPTIONAL)
HTR3	TRAP HEATER (OPTIONAL)
PSW1	INLET AIR FILTER SWITCH 22" WC
PSW2	WATER PRESS SW ITCH 10PSI

NOTE:
1. PART NUMBERS ARE FOR REFERENCE ONLY. REFER TO BILL OF MATERIAL AND OR FACE OF ORDER FOR ACUTAL PARTS.
2. SECTION BETWEEN LETTERED POINTS ARE TO BE REPLACED WITH CORRESPONDING OPTION PICTURED BELOW, AS REQUIRED BY FACE OF ORDER.
3. HEAT TRACE SHOWN AS OPTIONAL. CHECK FACE OF ORDER FOR HEAT TRACE REQUIREMENTS.



02250136-088R02

Figure 3-3C Piping and Instrumentation- Water-cooled 400-600HP/ 298-447KW (Typical)(continued)

key number	*description*	*part number 400HP*	*part number 500-600HP*	*quantity*
36	aftercooler, > 150#	02250053-383	-	1
36	aftercooler, <= 150#	409878-008	02250133-658	1
37	separator	250000-511	250007-799	1
38	vlv, oil stop w/sae ports	02250122-004	02250122-004	1
39	vlv, ball 1/2" npt	47117	47117	1
40	switch. vac .22" w, c, n4	02250078- 249	02250078 -249	1
41	drain, elec conds scd2400 115 vac	02250130-866	02250131-113	1
42	unit, compressor	-	-	1
43	vlv, sol 3w no 1/4" seouencing	02250125-657	02250125-657	1
44	vlv, check 1/4"	02250110-557	02250110-557	2
45	heater, moisture separator	02250087-631	02250087-631	1
46	heater, sump	02250136-079	02250136-079	1
47	regulator, press -1/4 npt 2-150#	46556	46556	2
48	trap, condensate 3/4"	42034	42034	1
49	vlv, sol 2way no 1/4"	02250125-674	02250125-674	1
50	vlv, water reg 2"	249970	249970	1
51	orf, cap .031 x 1/4" npt	02250132-934	02250132-934	2
52	switch. press n.o. 10 psi	250017-992	250017-992	1

NOTES

4.1 MOUNTING OF COMPRESSOR

A foundation or mounting capable of supporting the weight of the compressor, and rigid enough to maintain the compressor frame level and the compressor in alignment is required. The compressor frame must be leveled and secured with foundation bolts, and full uniform contact must be maintained between the frame and foundation. It is recommended that the frame be grouted to the foundation. The compressor unit and driver must be aligned after installation as specified in the Operator's Manual. No piping loads shall be transmitted to the compressor or the cooling package at the external connections.

4.2 VENTILATION AND COOLING

For air-cooled compressors, select a location to permit sufficient unobstructed air to flow in and out of the compressor cooling package to keep the operating temperature stable. The minimum distance that the compressor should be from surrounding walls is three (3) feet (914mm). To prevent excessive ambient temperature rise, it is imperative to provide adequate ventilation.

For water-cooled compressors, it is necessary to check the cooling water supply. The water system must be capable of supplying the following flows:

MODEL-HP/KW	WATER FLOW (GPM)
TS-32S 400/ 298KW	87
TS-32S 450/ 336KW	87
TS-32S 500HP/ 373KW	106
TS-32S 600HP/ 447KW	129

NOTE

Water flow requirements are based on 80°F (29°C) water inlet temperature.

Recommended water pressure range is 40 to 75 psig (2.8 to 5.2 bar). For water flow rates based on criteria other than that listed, consult your local Sullair representative.

Table 4-1 Ventilation Requirements below indicates the ventilation requirements necessary to keep the compressor running at a normal operating temperature. The fan air requirement is the volume of air which must flow through the compressor and/or cooling package for proper ventilation. The specified heat rejection requirement is the amount of heat that is radiated by the compressor. This heat must be removed to assure a normal operating temperature. With air-cooled compressors it is possible to use this heat for space heating, providing excessive pressure drop is not created across the fan. Consult a Sullair office for assistance in utilizing this heat.

DO NOT install a water-cooled or an air-cooled/aftercooled compressor without adequate freeze protection where it will be exposed to temperature less than 32°F(0°C).

4.3 SERVICE AIR PIPING

Service air piping should be installed as shown in Figure 4-1. A shut-off valve should be installed to isolate a compressor from the service line if required. Also notice that the service line should be equipped with water legs and condensate drains throughout the system.

4.4 COUPLING ALIGNMENT CHECK

In preparation for the factory test, the coupling supplied with your compressor is properly aligned for operation. After the compressor package has been mounted to a foundation, it is necessary to recheck the coupling alignment. Refer to Coupling Alignment procedure explained in the Maintenance section of this manual.

4.5 FLUID LEVEL CHECK

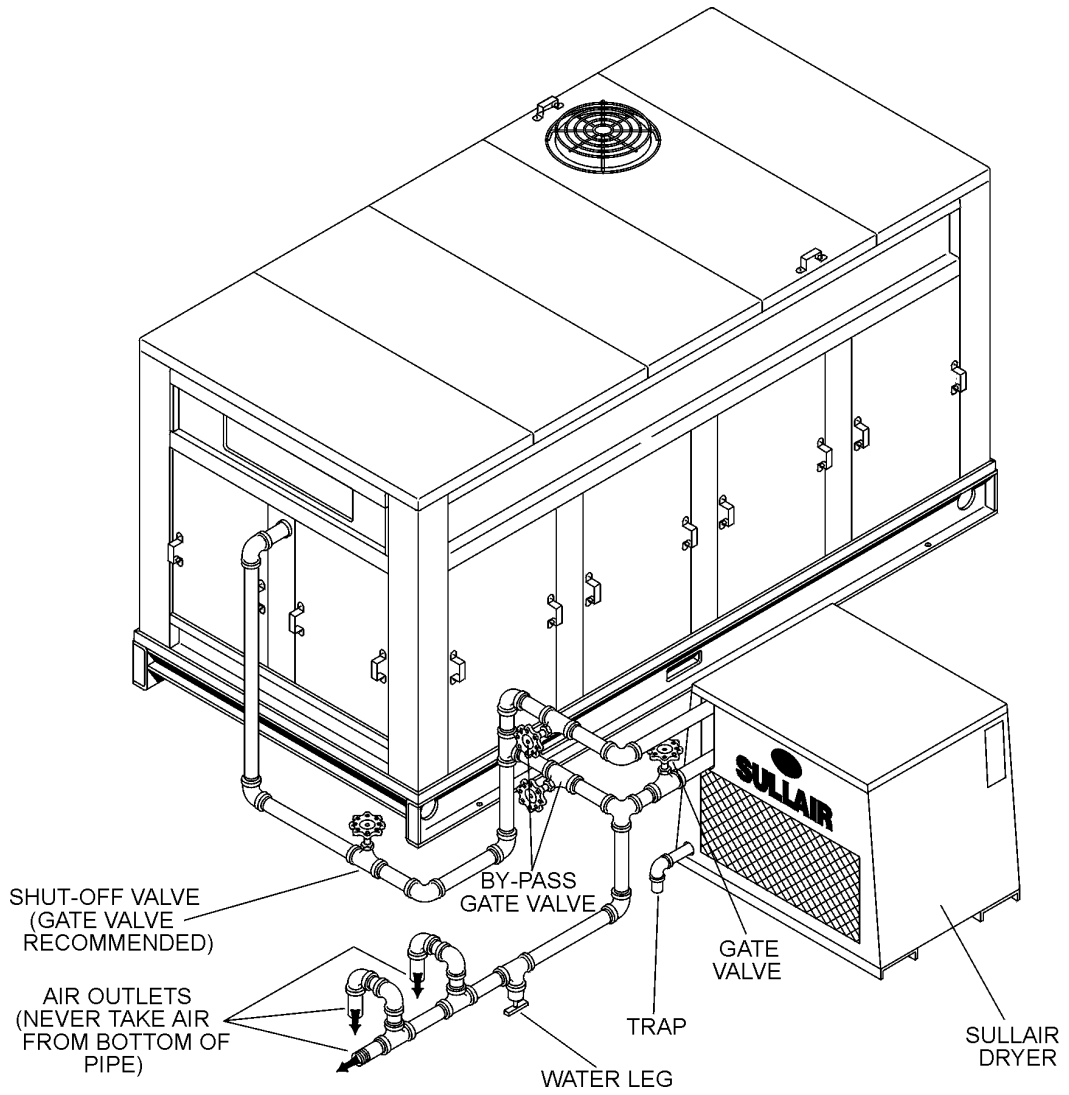
Your air compressor is also supplied with the proper amount of fluid. However, it is necessary to check the fluid level at installation. The level is checked by looking at the sight glass located on the sump. If the sump is properly filled, the coolant level

Table 4-1 Ventilation Requirements

		WATER COOLED OR REMOTE COOLED COMPRESSOR PACKAGE		AIR-COOLED (I) COOLING PACKAGE			
MODEL	MOTOR HP/KW	VENTILATION AIR HEAT REJECTION BTU/HR	VENT FAN FLOW (II) CFM	HEAT REJECTION BTU/HR		AIR FLOW CFM	
				OIL COOLER	*AFTER COOLER*	*OIL COOLER*	*AFTER COOLER*
TS-32S-400	400/298	91,000	8300	1,137,000		28,500	
TS-32S-450	450/336	97,000	8300	1,214,000		30,000	
TS-32S-500	500/373	115,000	8300	1,092,000	239,000	28,500	16,000
TS-32S-600	600/447	130,000	8300	1,293,000	328,000	28,500	16,000

(I) Applicable to air-cooled models only.
(II) Applicable to compressors with enclosure.

Figure 4-1 Service Air Piping (Typical Installation)



should fill 1/2 of the upper sight glass when the compressor is shutdown. When the oil level falls below the center of the lower sight glass, fluid must be added.

4.6 FLUID PIPING (REMOTE AIR-COOLED OPTION ONLY)

To allow de-pressurization of the cooling package and connecting piping between the compressor and the cooling package upon shutdown of the compressor, a 1/2”(13 mm) de-pressurization line must be installed between the top of the fluid cooler and the sump tank connection which is located on the fluid supply and return line connection bracket. This line must be maintained at a higher level than the supply and return piping for the fluid cooler.

The supply and return piping for the fluid cooler must be adequately sized to prevent excessive pressure drop. The total pressure drop in the supply and return piping and associated fittings and valves shall not exceed 10 psig (0.7 bar)at the worst case operating condition (usually lowest ambient). If the pressure drop is in excess of 10 psig (0.7 bar), a pump should be installed. Consult the Sullair Service Department for recommendations.

It is recommended that shutoff valves be installed in the supply and return piping to facilitate compressor component’s maintenance.

Because of the variability in installations, the fluid necessary to fill the supply and return piping for the fluid cooler is not part of the standard scope of supply for the compressor. The fluid necessary to fill this piping may be ordered from the nearest Sullair

representative or the representative from whom the compressor was purchased. To assist in determining the amount of fluid necessary to fill the piping, the following chart may be used.

PIPE SIZE	GALLONS/LITERS OF FLUID PER 12 INCHES/304.8MM OF PIPE
2	.1635/.62
2 1/2	.2555/.97
3	.368/1.39
4	.6542/2.48
6	1.4719/5.57

4.7 ELECTRICAL PREPARATION

Interior electrical wiring is performed at the factory. Required customer wiring is minimal, but should be by a qualified electrician in compliance with OSHA, National Electrical Code, and any other applicable state or local electrical code concerning isolation switches, fuse disconnects, etc. Sullair provides a wiring diagram for use by the installer.

A few electrical checks should be made to help assure that the first start-up will be trouble free.

⚠ WARNING

Lethal shock hazard inside.

Disconnect all power at source, before opening or servicing starter or control panel.

1. Check incoming voltage. Be sure that the incoming voltage is the same voltage that the compressor was wired for.
2. Check starter and overload heater sizes (see Electrical Parts in Parts Manual).
3. Check all electrical connections for tightness.
4. “DRY RUN” the electrical controls by disconnecting the three (3) motor leads from the starter. Pull out the EMERGENCY STOP button on the control panel and press I.

NOTE

Since some solid state starters have built-in power monitoring, a dry run will only indicate compressor overload when machine has this type of starter.

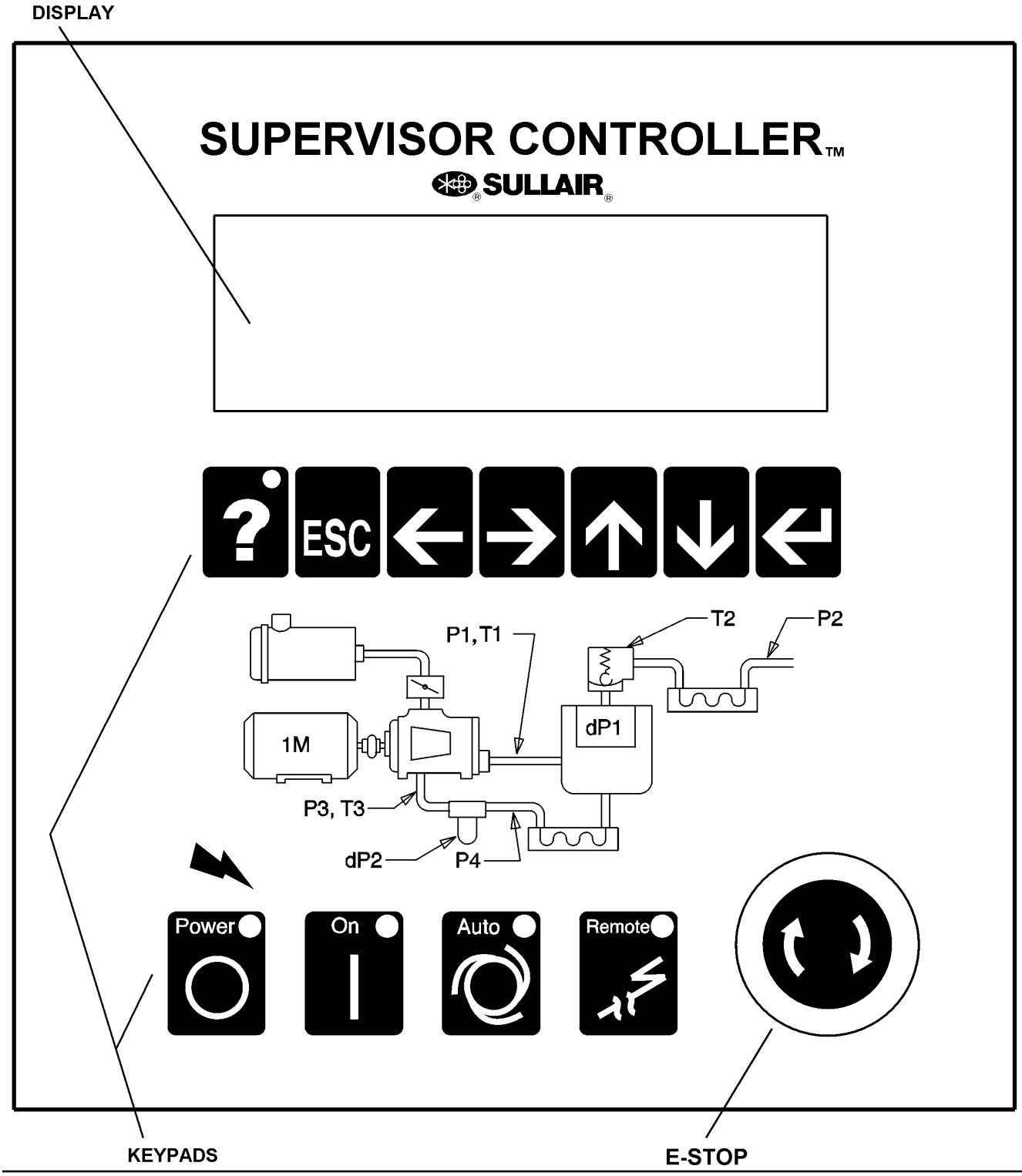
5. Reconnect the three (3) motor leads and jog the motor for a direction of rotation check, as explained in Section 4.8.

4.8 MOTOR ROTATION DIRECTION CHECK

After the electrical wiring has been done, it is necessary to check the direction of the motor rotation. With the control system in MANUAL mode, press the I and ○ pads in succession to bump start the compressor. When looking at the motor from the end opposite the compressor unit, the shaft should be turning clockwise on all gear driven models, and counterclockwise on direct drive models. If the motor shaft is not turning in the proper direction, disconnect the power to the starter and exchange any two of the three power input leads, then recheck rotation. A “Direction of Rotation” decal is located on the coupling guard between the motor and compressor to show proper motor/compressor rotation.

Section 5
SUPERVISOR CONTROLLER

Figure 5-1 Supervisor Control Panel



NOTE

For information concerning all aspects of the Supervisor Controller, consult the Supervisor Controller manual no. 02250133-517.

Section 6
COMPRESSOR OPERATION

6.1 INTRODUCTION

While Sullair has built into the TS-32S Series package a comprehensive array of controls and indicators to assure its proper operation, the user should recognize and interpret readings which call for service or indicate the onset of a malfunction. Before starting the unit, the user should become familiar with the controls and indicators-their purpose, location, and use.

6.2 PURPOSE OF CONTROLS

All Supervisor Controller related functions and indicators are presented in the Supervisor Controller Manual, so please refer to that manual for further information. Additional indicators and functions included in the package are as follows:

6.2 PURPOSE OF CONTROLS (CONTINUED)

CONTROL OR INDICATOR	PURPOSE
EMERGENCY STOP SWITCH	Pushing in this switch, found adjacent to the Supervisor, cuts all AC outputs from the Supervisor and de-energizes the starter. A fault message (E STOP) is displayed by the Supervisor until the button is pulled out and the “O” pad is depressed.
THERMAL O/L RESET	Momentarily pushing this button, found on the starter’s thermal overload element housing, re-closes the starter’s contacts after a current overload takes place. Please be aware that the elements must be allowed to cool sufficiently before resetting.
SULLICON ACTUATOR	Actuates the inlet butterfly valve which throttles the air flow to the compressor inlet, in order to match air supply to the demand.
SPIRAL VALVE	Internally bypasses and controls the air flow capacity of the compressor, in order to match air supply to the demand.
PRESSURE REGULATOR (SULLICON)	Opens a pressure line between the sump and Sullicon Control allowing the Sullicon Control to regulate air delivery according to the air demand.
PRESSURE REGULATOR (WITH SPIRAL VALVE)	Opens a pressure line between the service line and the spiral valve actuator allowing the spiral valve to regulate air delivery according to air demand.
SOLENOID VALVE #1	Electrically actuated, 3-way valve which controls the flow of pneumatic logic signals. Used throughout package to: ·Open the blowdown valve. ·Load the Sullicon device/close the inlet butterfly valve during shutdown operation. ·Open the spiral valve.
SOLENOID VALVE #2	Opens when the compressor starts; closes when the compressor is shut off. This prevents any air system loss and depressurizes the controls when the compressor is shut off.
DISCHARGE CHECK VALVE	Blocks the reverse flow of air/fluid through the compressor unit during shutdown.

6.2 PURPOSE OF CONTROLS (CONTINUED)

CONTROL OR INDICATOR	PURPOSE
MINIMUM PRESSURE VALVE	Maintains 50 psig (3.5 bar) in the receiver tank when the compressor is running loaded. Also incorporates a check valve, which prevents compressed air backflow from the system when unloaded or shutdown.
PRESSURE RELIEF VALVE	Vents the sump vessel to atmosphere before the compressed air pressure exceeds rated tank pressure. Its operation indicates fault with the Supervisor operation unload pressure set too high or failure of solenoid valve #1.
BLOWDOWN VALVE ASSEMBLY	Vents the sump vessel to atmosphere during unloading and shutdown.
THERMAL MIXING VALVE	Bypasses fluid flow around the cooler until the fluid reaches a temperature of 170°F, 77°C (195°F for water cooled KT and ≥ 150 psi/ 10.3 bar). Useful for fast warm-up during start. Maintains a minimum temperature during periods of low load or low ambient temperatures.
FLUID STOP VALVE	Blocks the flow of fluid to the compressor during shutdown, thus preventing the discharge of fluid through the compressor inlet pipework.
SUMP SIGHT GLASSES	Indicates level of lubricant in the sump. Located on the sump side, fluid level should be maintained at a level between the high and low sight glass.
SEPARATOR RETURN LINE SIGHT GLASSES	Indicate fluid flow in the separator return lines. Large flow should be visible during full load operation; little to no flow during unloaded operation. Sluggish flow during full load operation indicates the need to clean the strainers fitted to the return lines.
WATER PRESSURE SWITCH	De-energizes the starter, via the Supervisor, if the water pressure falls below 10 psig (0.7 bar). This switch is not adjustable. Used on water-cooled packages only.
DRAIN VALVES	Lubricant sump drain valve.

6.3 INITIAL START-UP PROCEDURE

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

1. Read the preceding pages of this manual thoroughly.
2. Jog motor to check for correct rotation of main motor and fan motor (refer to Section 4.8).
3. Be sure that all preparations and checks described in the Installation Section have been made.
4. Open the shut-off valve to the service line.
5. Check for possible leaks in piping.
6. Slowly close the shut-off valve to assure proper nameplate pressure unload setting is correct. The compressor will unload at nameplate pressure. If adjustments are necessary, see Control System Adjustments.
7. Observe the operating temperature. If the operating temperature exceeds 200°F (93°C) [215°F (102°C) for water-cooled 24KT and ≥ 150 psi],

the cooling system and installation environment should be checked.

8. Open shut-off valve to the service line.
9. Reinspect the compressor for temperature and leaks the following day.

6.4 SUBSEQUENT START-UP PROCEDURE

On subsequent start-ups, check that the proper level is visible in the fluid sight glass and simply press the START  or AUTO MODE  button. When the compressor is running, observe the instrument panel and maintenance indicators.

6.5 SHUTDOWN PROCEDURE

To shut the compressor down, simply press the STOP  button.

NOTES

7.1 GENERAL

As you proceed in reading this section, it will be easy to see that the Maintenance Program for the air compressor is quite minimal yet important. The use of the service indicators provided for the fluid filter, air filter and fluid separator, will alert you when service maintenance is required. When the maintenance message is displayed by the Supervisor Controller™, maintenance for that specific item is required. See instructions for each item in Section 7.7, Parts Replacement and Adjustment procedures.

7.2 DAILY OPERATION

Prior to starting the compressor, it is necessary to check the fluid level in the sump. Should the level be low, simply add the necessary amount. If the addition of fluid becomes too frequent, a simple problem has developed which is causing this excessive loss. See the Troubleshooting Section (7.8) under Excessive Fluid Consumption for a probable cause and remedy.

After a routine start has been made, observe the Supervisor control panel and be sure it monitors the correct readings for that particular phase of operation. After the compressor has warmed up, it is recommended that a general check of the overall compressor and Supervisor be made to assure that the compressor is running properly.

⚠ WARNING

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

Stop compressor and relieve all internal pressure before doing so.

7.3 MAINTENANCE AFTER INITIAL 50 HOURS OF OPERATION

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

1. Clean the return line strainers.
2. Clean the return line orifices.
3. Change the fluid filter element.
4. Clean the control line filters.

7.4 MAINTENANCE AFTER 1000 HOURS

After 1000 hours of operation, it will be necessary to perform the following:

1. Clean the return line strainers.
2. Lubricate the Sullicon Control linkage.
3. Replace the fluid filter element.

7.5 FLUID CHANGE

Standard models are filled with the long life lubricant Sullube.

Sullube should be changed under the following conditions, whichever occurs first:

1. Every 8000 hours.
2. Once a year.
3. As indicated by fluid analysis.

A fluid sample at every 1000 hours is recommended. For a free Sullube analysis, send fluid to:

Dow Chemical
Lubricant Technology Center
Building B-1605
Freeport, TX 77541

To facilitate this, a sample bottle is included with the compressor.

7.6 SEPARATOR MAINTENANCE

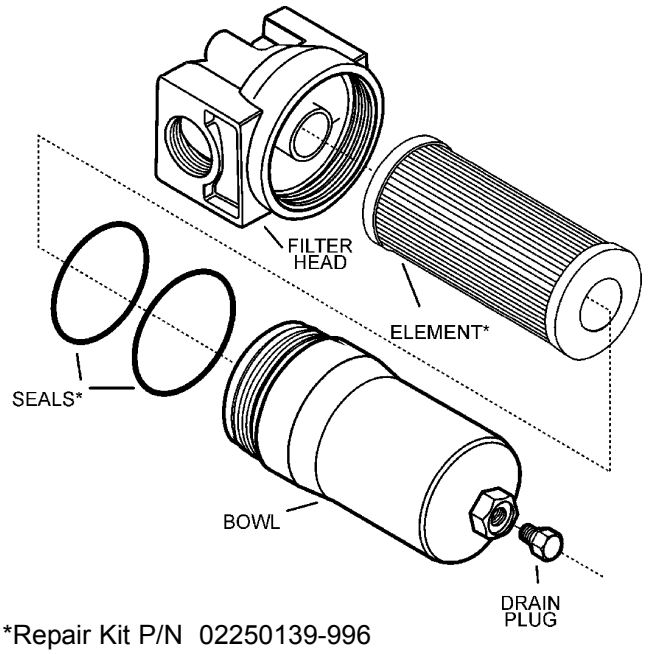
Replace the separator elements when a message is displayed or after one (1) year, whichever comes first. The separator elements must be replaced. **DO NOT** clean the separator elements.

7.7 PARTS REPLACEMENT AND ADJUSTMENT PROCEDURES

MAIN FILTER MAINTENANCE

Refer to Figure 7-1. The main filter (P/N 02250121-638) is located schematically between the compressor and the fluid stop valve. When servicing the main filter, shut the compressor down, be sure all pressure has been released, then follow the instruc-

Figure 7-1 Main Filter (P/N 02250121-638)



*Repair Kit P/N 02250139-996

tions below. For element replacement order kit number 02250139-996.

1. Drain the fluid from the canister by removing the bottom drain plug
2. Loosen the spin-on canister using a wrench on the bottom canister hex.
3. Pull the canister away from the filter head. The filter element will be attached to the head.
4. Separate the element from the head.
5. Remove the canister seals.
6. Thoroughly clean the filter head and canister in solvent.
7. Lubricate the new seals with the same type of fluid used in the compressor and position each seal in its appropriate place.
8. Slide the element into the canister.
9. Thread the canister and element back on the filter head.

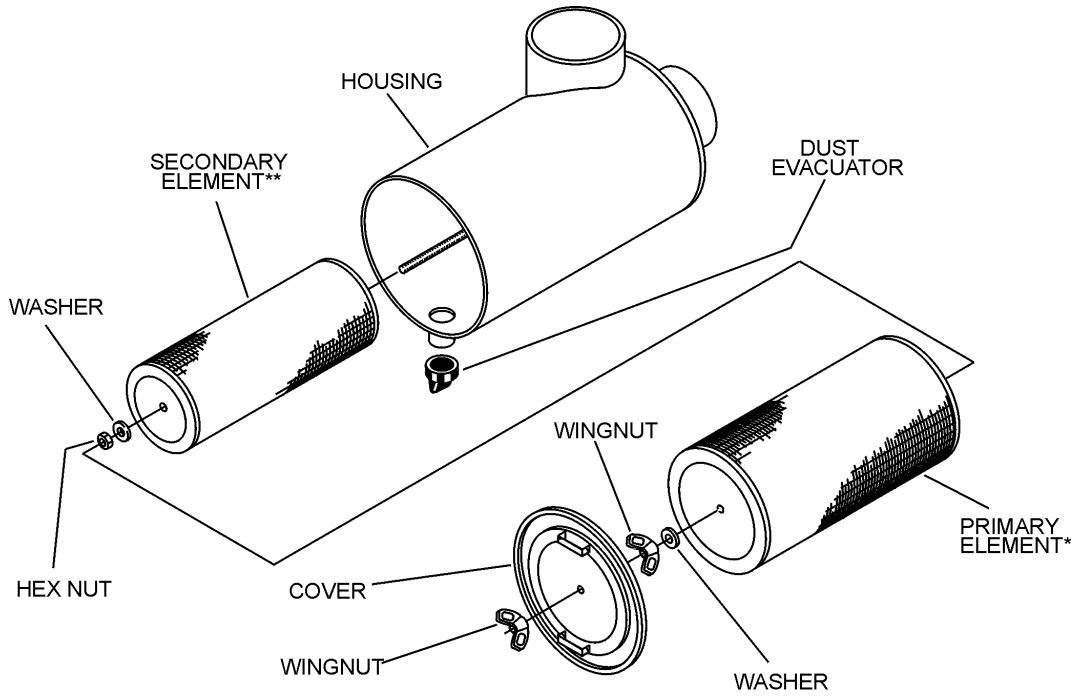
AIR FILTER MAINTENANCE

Refer to Figure 7-2. Air filter maintenance should be performed when the air filter maintenance message is displayed. The air filter is equipped with a primary element and a secondary element. As previously stated, the Supervisor will alert you as to when the primary element maintenance is necessary. When removing the primary element, always check the secondary element for visible dirt, grease or damage. The secondary element must be changed after every sixth primary element change. **DO NOT** clean the secondary element.

ELEMENT REMOVAL

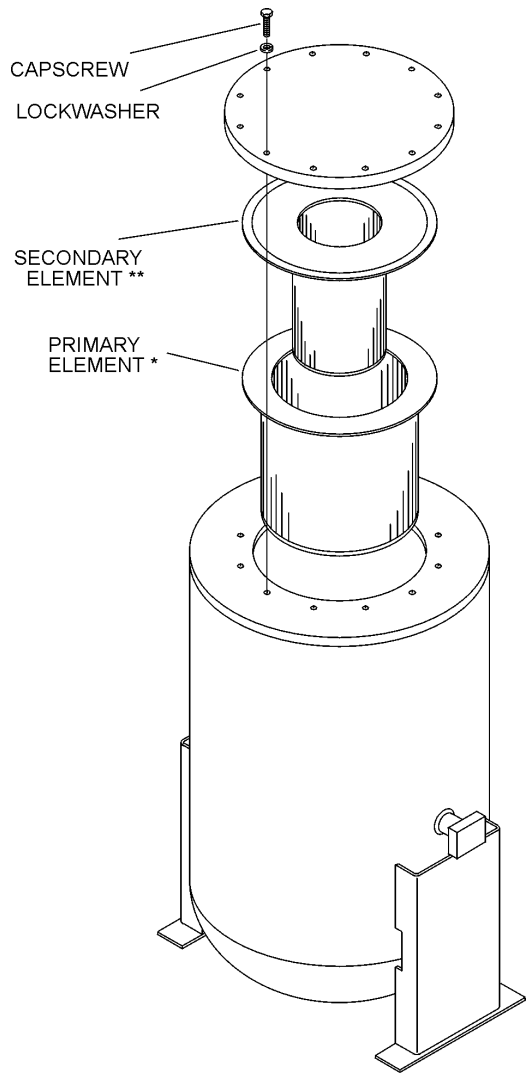
1. Clean the exterior of the air filter housing.
2. Remove the cover assembly by loosening the wingnut securing it.
3. Pull the element assembly out of the housing.
4. On the inside of the element, you will notice a wingnut which fastens the element to the housing. Remove the wingnut and pull the primary element out.
5. Loosen and remove the hex nut securing the secondary element. Remove the secondary element.
6. Inspect the secondary element and replace if necessary.
7. Clean the interior of the housing by using a damp cloth. **DO NOT** blow dirt out with compressor air.
8. Install the new secondary element and replace the sealing washer and hex nut.
9. With the secondary element in place, replace the primary element.

Figure 7-2 Air Filter Replacement (P/N 250006-718)



*Primary Replacement Element P/N 250007-838
**Secondary Replacement Element P/N 250007-839

Figure 7-3 Separator Element Replacement



*Primary Replacement Element Kit P/N 02250126-352
**Secondary Replacement Element Kit P/N 02250126-355

DO NOT strike the element against any hard surface to dislodge dust. This will damage the sealing surfaces and possibly rupture the element.

DO NOT "blow" dirt out of the interior of the filter housing. This may introduce dust downstream of the filter. Instead, use a clean damp cloth.

DO NOT oil the element.

ELEMENT INSPECTION

1. Place a bright light inside the element to inspect for damage or leak holes. Concentrated light will shine through the element, revealing any holes.
2. Inspect all gaskets and gasket contact surfaces of the housing. Should faulty gaskets be evident, correct the condition immediately.
3. If the clean element is to be stored for later use, it must be stored in a clean, closed container.
4. After the element has been installed, inspect and tighten, if necessary, all air inlet connections prior to resuming operation.

PRIMARY ELEMENT REPLACEMENT

1. Place the element in position over secondary element. Replace the sealing washer and wingnut. Tighten the wingnut so as to fully seat the element gasket.
2. Install the cover/element assembly and replace the wingnut.

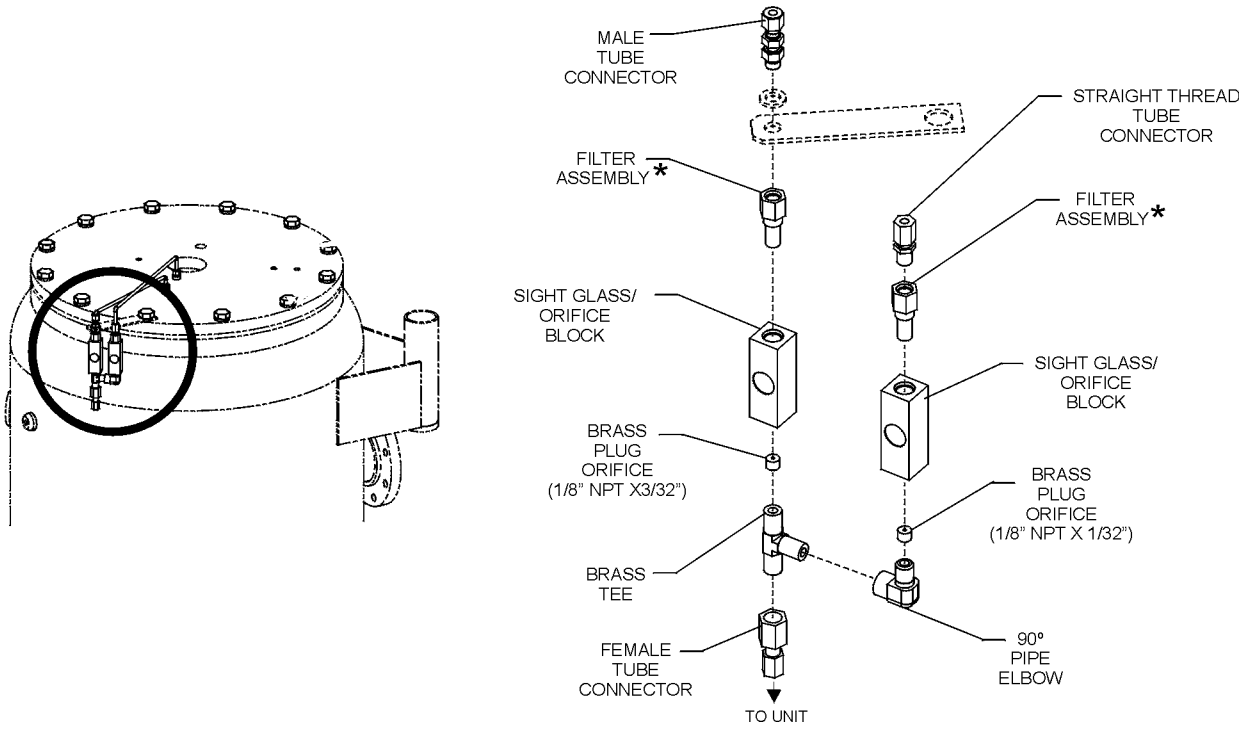
SEPARATOR ELEMENTS REPLACEMENT

Refer to Figure 7-3. The separator elements must be changed when "Separator Maintenance Required" message is displayed, or once a year whichever occurs first. Follow the procedure explained below for separator element replacement.

PROCEDURE FOR ELEMENT REPLACEMENT

1. Relieve all pressure from the separator and all compressor lines prior to disconnecting any pipes, tubing, etc.
2. Disconnect all piping connected to the separator cover to allow removal (return lines, service lines, etc.).
3. Loosen and remove the twelve (12) 3/4" x 3" hex head capscrews from the cover plate.
4. Lift the cover plate from the separator using a 3/4" jackscrew under the lifting arm post. The lid can be pivoted to the side supported by the lifting arm.
5. Remove the primary and secondary separator elements.
6. Scrape the old gasket material from the cover and flange on the sump being careful not to let the scraps fall in the sump.
7. Inspect the separator tank for rust, dirt, etc.
8. Reinsert the separator elements with gaskets attached into the sump taking care not to dent them against the tank opening. **DO NOT** remove grounding staples. Check between separator element flange and tank for continuity after torquing bolts. **DO NOT** use anti-seize compound on gaskets.
9. Clean the underside of the separator tank cover and remove any rust.
10. Replace the cover plate, washers and 3/4-10 capscrews. Lubricate and Torque to 200 ft.-lbs.

Figure 7-4 Oil Return/Sight Glass



*Replacement Filter Assembly P/N 02250117-782

(271 Nm).

11. Reconnect all piping making sure return line tubes extend to the bottom or 1/4" (6mm) above the bottom of the separator element. This will assure proper fluid return flow to the compressor.
12. Check the return line strainers before restarting the compressor (order replacement kit no. 02250117-782).

OIL RETURN/SIGHT GLASS MAINTENANCE

Refer to Figure 7-4. The oil return/sight glass subassembly is attached to the separator tank lid.Oil return/sight glass maintenance should be performed on a routine basis parallel to that of the fluid filter, or as indicated in the Troubleshooting Sections (both Supervisor and Maintenance) of this manual. The maintenance on an oil return/sight glass is mainly concerned with the condition of the filter assembly. Order filter assembly no. 02250117-782, and use the following instructions as a guide.

NOTE

Always performing maintenance on both oil return/sight glasses at the same time.

1. Disconnect the tubes at the tops of the sight glass assemblies.
2. Unscrew male connector (for left-side glass), or the straight thread tube connector (for right-side glass) from sight glass/orifice blocks.
3. Remove used filter assembly, and replace with new assembly.
4. Coat/lubricate the O-rings will silicone grease.
5. Reattach the connectors to the sight glass/orifice blocks.

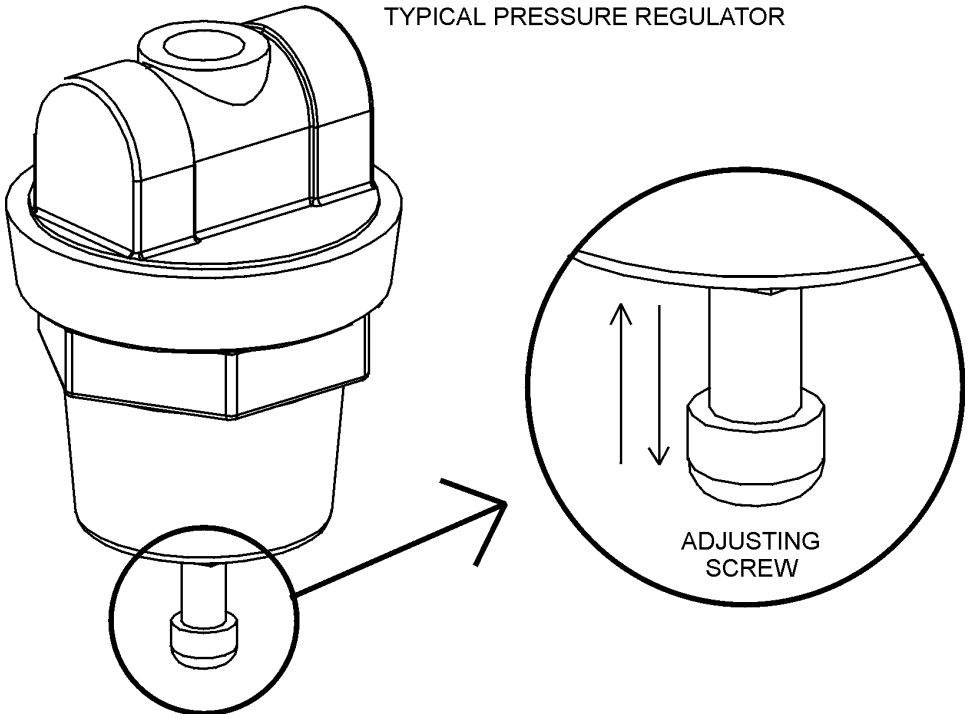
DIFFERENTIAL PRESSURE REGULATOR ADJUSTMENT

Refer to Figure 7-5 and 7-6. The differential pressure regulators are adjusted by loosening the jam nut on the end of the cone shaped cover of the pressure regulator. When the jam nut is loose, turn the adjusting screw clockwise to increase or counterclockwise to decrease the setting.

Above 100 psig (6.9 bar), the spiral valve regulator should allow pressure to flow into the chamber of the spiral valve actuator. The spiral valve should start to rotate at this time.

At approximately 108 psig (7.5 bar), the Sullicon regulator should allow pressure to flow into the control chamber of the Sullicon Control. The Sullicon Control level should start to move at this time. Cycle the Control System several times and recheck all pressure settings.

Figure 7-5 Pressure Regulator Adjustments



COMPRESSOR DRIVE COUPLING

The performance and life of couplings depend largely upon how you install and maintain them.

NOTE

Before installing couplings, make certain that foundations of equipment to be connected meet requirements of Section 4.1. The drive coupling must be aligned after installation and prior to initial start-up of the compressor.

The use of stainless steel shims under the motor feet is recommended. Measuring misalignment and positioning equipment within alignment tolerances is simplified with an alignment computer. These calculations can also be done graphically or mathematically.

ANNUAL MAINTENANCE- DRIVE COUPLING

Refer to Figures 7-6, 7-7 and 7-8.

⚠ WARNING

Disconnect all power at source before attempting maintenance or adjustments.

1. Check alignment per Step 3. If operation limits from *Table 7-1 Installation Data* are exceeded, realign coupling to installation limits.
2. Check outer blades of discpacks near bushings for fatigue cracks. Discpacks can be checked while coupling is in operation by using a strobe light. Replace cracked discpacks and recheck alignment. A slight bowing or “S”-like distortion is normal.
3. Check tightening torques of all drive bolts.

Standard mechanics tools, torque wrenches, a straight edge and feeler gauges or dial indicators and brackets and micrometers are required to install couplings. A 17mm end wrench is required for shrink disc locking screws. For best results use a dial indicator to check final alignment and make certain bolts are tightened to the required elongation or torque listed in *Table 7-1 Installation Data*. The drive bolts have been factory tightened to the required elongation indicated in *Table 7-1 Installation Data*, and should not be disturbed.

STEP 1- HUB INSTALLATION

MOTOR HUB INSTALLATION FOR MOTOR HUB MOUNTING

Coupling is furnished for an interference fit with a set screw. Heat hub to 275ºF (135ºC) using an oven, torch, induction heater or an oil bath.

⚠ CAUTION

To prevent damage DO NOT heat hubs beyond a maximum temperature of 400ºF (205ºC).

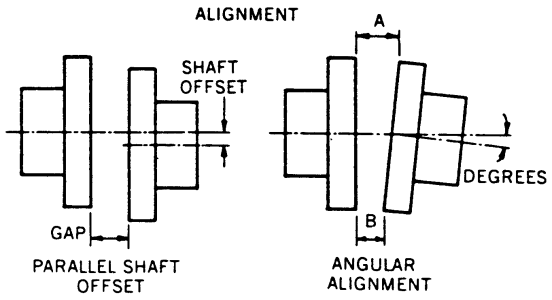
When an oxy-acetylene or blow torch is used, use

Table 7-1 Installation Data

Adapter Bolt Tightening Torque, Oiled ft.-lbs./ Nm	Coupling Gap ± .030 inches	Max. Operating Misalignment Coupling Parallel Offset Inches	Capscrew Angular Deg.	Capscrew Angular Inches(I)	Drive Bolt Tightening Torque, Oiled ft.-lbs./ Nm	Drive Bolt Elongation Inches
28/ 38	7.00	T.I.R. .005	.5	.005	169/ 229	.0050-.0060

(I)*Angular misalignment in inches equals maximum A minus minimum B as shown in Figure 7-6. Do not exceed values in Table above.*

Figure 7-6 Drive Coupling Alignment



an excess acetylene mixture. Mark hubs near the center of their length in several places on hub body with a temperature sensitive crayon, 275ºF (135ºC) melt temperature. Direct flame towards hub bore using constant motion to avoid overheating an area.

⚠ WARNING

If an oil bath is used, the oil must have a flash point of 350ºF (177ºC) or higher. Do not rest hubs on the bottom of the container. Do not use an open flame in a combustible atmosphere or near combustible materials.

Heat hubs as instructed above. Mount hubs as quickly as possible with hub flange face flush with shaft end. Allow hubs to cool before proceeding. Insert set screws (if required) and tighten.

COMPRESSOR HUB INSTALLATION

Refer to shrink disc installation sequence before mounting special compressor hub assembly. Slide compressor hub and shrink disc assembly onto compressor hub. Shaft should be recessed 3/8" from face of hub. Gradually tighten all shrink disc locking screws to 42 ft. lbs. torque per step no. 6, (under INSTALLATION SEQUENCE), and Figure 7-12.

STEP 2 OFFSET ALIGNMENT - Position equipment for coupling gap approximately 7" (178mm). Align the shafts so that a straight edge will rest squarely (or within the offset limits specified in *Table 7-1 Installation Data*) on both flanges and at a point 90º away. Vertical offset alignment is adjusted by the addition or removal of motor mounting shims. Loosen motor mounting bolts and slide the motor sideways to correct the horizontal offset.

STEP 3 COUPLING GAP AND ANGULAR ALIGNMENT - Align shafts within the angular limits and to the coupling gap specified in *Table 7-1 Installation Data*. To determine angular misalignment in inches, measure the maximum space between flanges and the minimum space 180º away, then subtract. To adjust the motor mounting bolts and adjust the motor position until the angular alignment is within tolerance.

NOTE

DO NOT upset the offset alignment or hub gap when adjusting motor position.

Figure 7-7 Parallel/ Angular Offset Alignment

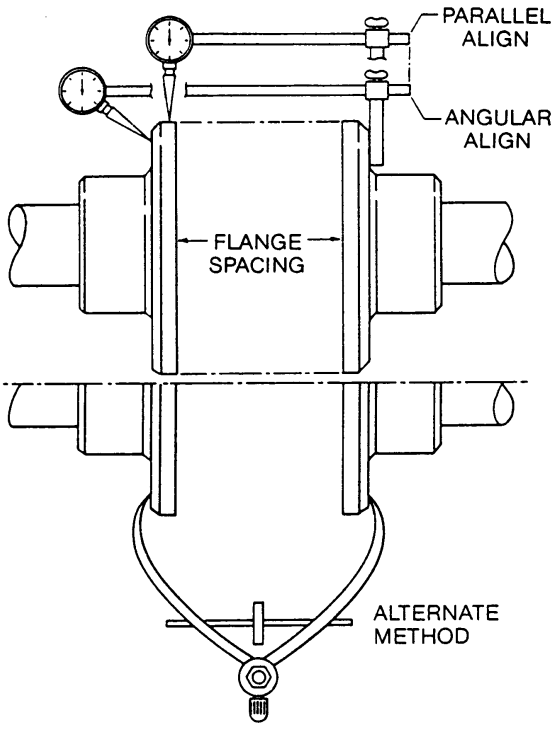


Figure 7-8 Drive Coupling

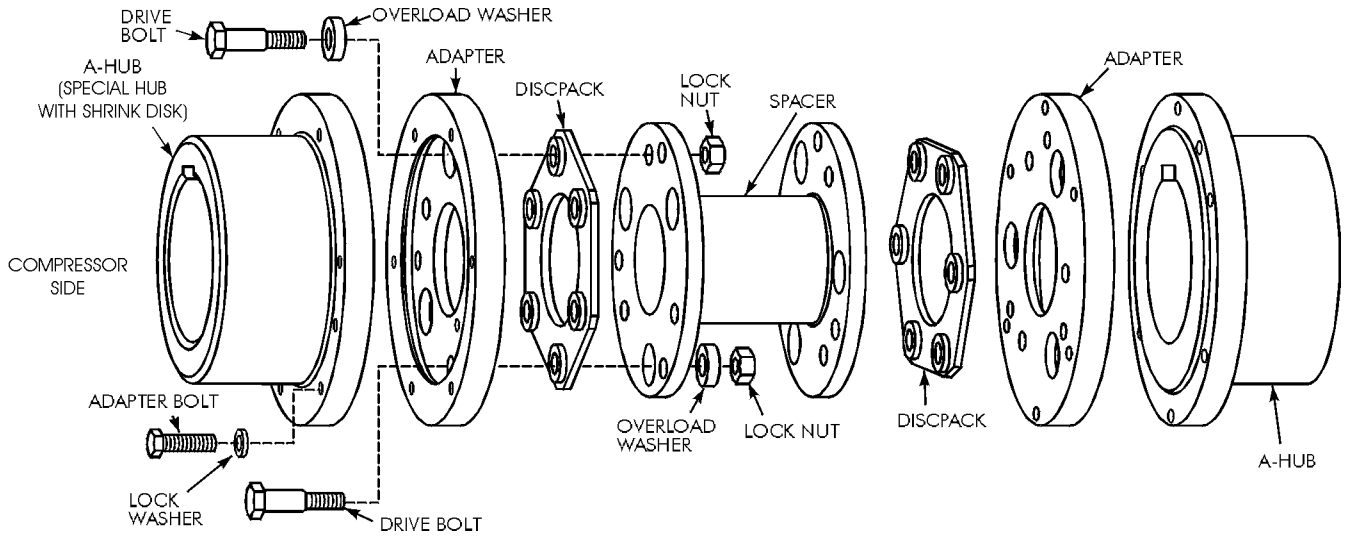
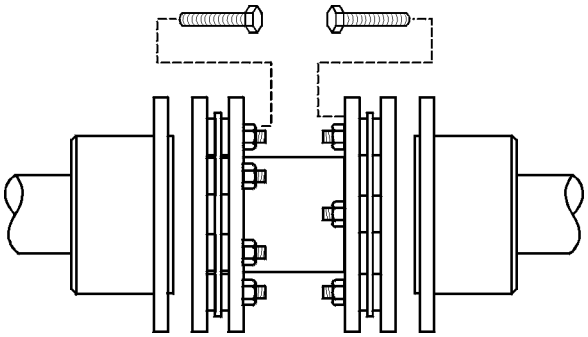


Figure 7-9 Installation/Removal Bolts



Tighten the spacer mounting bolts and recheck offset and angular alignment (within the limits specified in *Table 7-1 Installation Data*). If the vertical angular alignment is not within the specified tolerance, shim the front or rear of the motor separately to correct. Recheck the vertical offset.

COUPLING ELEMENT INSTALLATION

Refer to Figure 7-9.

1. Insert installation/removal bolts provided through clearance holes in spacer and into tapped holes in adapters. A quantity of six (6) 5/16-18 UNC x 1 1/2" long bolts are required. Assemble all fasteners to a "finger tight" condition. Then tighten each fastener in both flanges an additional 1 1/2 turns from the finger tight position. This will draw the adapters toward the spacer and allow the spacer assembly to clear the registers on the adapter hubs.
2. Place compressed assembly into position. If additional compression is required, tighten each installation/removal bolt on each end an additional 1/2 turn.
3. Refer to Figure 7-10. Dip adapter bolt threads in SAE 30 oil and insert bolts with lockwashers through hub flange holes and engage tapped holes in each adapter. **REMOVE ALL INSTALLATION/REMOVAL BOLTS FROM BOTH FLANGES** and put in a safe place for future use should center section assembly require removal. Tighten adapter bolts to the recommended torque as given in *Table 7-1 Installation Data*.

DISCPACK REPLACEMENT

Should discpacks require replacement, it is recommended that new drive bolts, overload washers and locknuts also be obtained. Order replacement kit no. 02250044-346.

1. Remove old discpacks from adapters and spacer, and discard.
2. Install overload washers onto half of the new

Figure 7-10 Adapter Bolt Installation

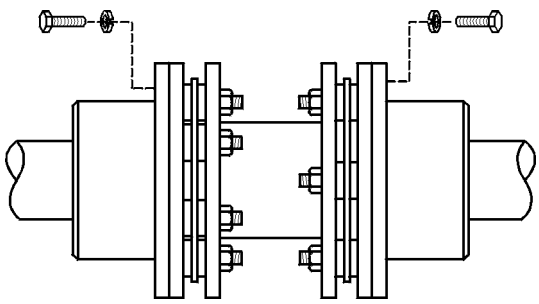
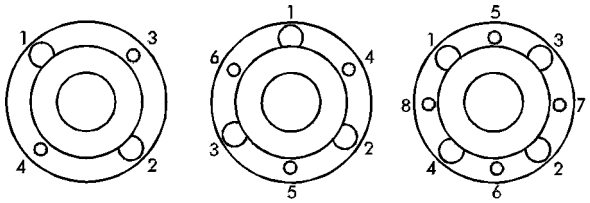


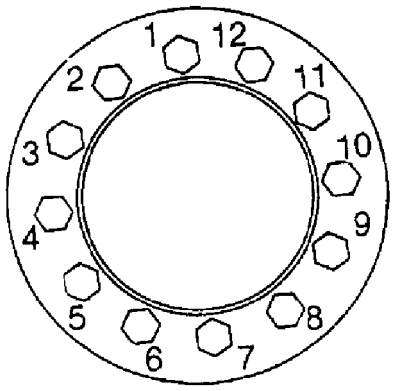
Figure 7-11 Drive Bolt Tightening Pattern



drive bolts provided, and dip threads of ALL drive bolts with overload washers in SAE 30 or equivalent oil. Insert drive bolts with overload washers through alternate holes in each discpack and through the small holes in each end of the spacer, and install nuts until bolts protrude through nut. **DO NOT FULLY TIGHTEN**.

3. Insert the remaining drive bolts from the counterbore side of each adapter through the three small non-threaded holes, and through through the remaining holes in each discpack. These bolts should now be protruding through the large holes in each flange of the spacer. Install the remaining overload washers and nuts onto these bolts. All nuts should be on the spacer side and all bolts heads located in the adapter.
4. Refer to Figure 7-11. Tightening of all drive bolts should be done with the center component assembly in a horizontal position. The most reliable method of tightening drive bolts is achieved using Drive Bolt Elongation. Measure the length of the #1 drive bolt with an outside micrometer and record. Hold the drive bolt head and tighten the nut to the tightening torque listed in *Table 7-1 Installation Data*. Recheck drive bolt length. Subtract the first reading from the second reading. Compare the difference to the elongation listed in *Table 7-1 Installation Data*. If required, increase or decrease tightening to achieve proper elongation. Repeat this procedure for each drive bolt in cylinder head fashion illustrated in Figure 7-11.

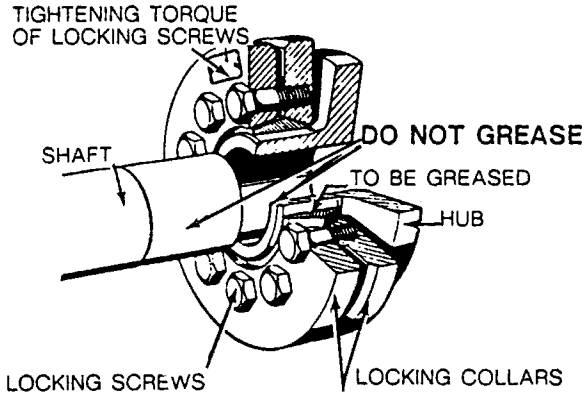
Figure 7-12 Bolt Tightening



SHRINK DISC INSTALLATION

Refer to Figures 7-12 and 7-13. Shrink discs are supplied ready for installation. Therefore, they should not be disassembled prior to initial installation.

Figure 7-13 Hub Cutaway



INSTALLATION SEQUENCE

1. Remove spacers placed between collars for protection during transportation.
2. Take any three locking screws forming the points of an equilateral triangle (e.g. screw 1, 5 and 9 in Figure 7-12) and tighten them slightly until the inner ring can still just be turned.
3. Slide shrink disc over the hub. The hub outside surface can be greased.

NOTE

Never tighten locking screws before shaft is inside the hub.

4. Degrease the hub bore and shaft seat.
5. Insert shaft or slide hub over the shaft.
6. Refer to Figure 7-12. Tighten all locking screws gradually and all the way around (not in diametrically opposite sequence).

Several passes are required until all screws are torqued to specified tightening torque of 42 ft.-lbs. (57 Nm). Check tightening torque (42 ft.-lbs. [57 Nm]) with a torque wrench. Both collars must remain an equal distance apart.

REMOVAL

Shrink disc removal procedure is similar to installation.

Table 7-2 Tapered Surface Lubricants

LUBRICANT (MoS2)	TYPE
Molykote 321 R (lube coat)	Spray
Molykote Spray (powder spray)	Spray
Molykote G Rapid	Spray or Paste
Aemason MO 19 P	Spray or Paste
DIO-setral 57 N (lube coat)	Spray or Paste

Locking screws are lubricated with a multipurpose grease as Molykote BR 2 or similar.

1. Gradual release of locking screws all the way around. Initially each screw should be released about a quarter of a turn only. Thus tilting and jamming of collars will be avoided. **DO NOT** remove locking screws.
2. Remove shaft or pull hub from the shaft. Any rust formed on shaft in front of hub must first be removed.
3. Pull shrink disc from hub.

CLEANING AND LUBRICATION

Removed shrink discs need not to be taken apart or lubricated prior to reinstallation. Only a dirty shrink disc should be cleaned and lubricated.

For the tapered surfaces, use one of the lubricant recommendations shown in *Table 7-2 Tapered Surface Lubricants*.

7.8 TROUBLESHOOTING

The information contained in the Troubleshooting chart is based upon both the actual applied situations and extensive testing at the factory. It contains symptoms and usual causes for the described problems. However **DO NOT** assume that these are the only problems that may occur. All available data concerning the trouble should be systematically analyzed before undertaking any repair or component replacement.

A detailed visual inspection is worth performing for almost any problems which may prevent unnecessary damage to the compressor. Always remember to:

a. Check for loose wiring.

b. Check for damaged piping.

c. Check for parts damaged by heat or an electrical short circuit, usually apparent by discoloration or a burnt odor.

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

7.9 TROUBLESHOOTING GUIDE (I)

SYMPTOM	PROBABLE CAUSE	REMEDY
COMPRESSOR WILL NOT START	Main Disconnect Switch Open	Close switch.
	Line Fuse Blown	Replace fuse.
	Control Transformer Fuse Blown	Replace fuse.
	Motor Starter Overloads Tripped	Reset. Should trouble persist, check whether motor starter contacts are functioning properly.
	Low Incoming Line Voltage	Check voltage. Should voltage check low, consult power company.
		Replace Supervisor display module if no display or erratic display.
COMPRESSOR SHUTS DOWN WITH AIR DEMAND PRESENT	Loss of Control Voltage	Check incoming power.
	Low Incoming Voltage	Check control fuses and wiring. Consult power company. The Sullair Supervisor will provide indication of most maintenance problems if control power has not been lost. Shutdowns will occur upon a faulty condition or a bad sender condition.

(I) Consult the Supervisor Controller manual for additional aid to troubleshooting.

7.9 TROUBLESHOOTING GUIDE (I) (CONTINUED)

SYMPTOM	PROBABLE CAUSE	REMEDY
COMPRESSOR SHUTS DOWN WITH AIR DEMAND PRESENT (CONTINUED)	Excessive Operating Pressure	Check maximum P2 pressure setting. HIGH PRESS P1 display; Max P1 pressure may be set too low. Consult factory for recalibration. Defective solenoid valve; solenoid valve should cause Sullicon Control lever to move to unload stop when the unload pressure setting P2A is exceeded. Repair if defective. Defective blowdown valve; blowdown valve should exhaust sump pressure to 30 psig (2.1 bar) for integrated coolers; 50 psig (3.4 bar) for remote coolers when maximum operating pressure is reached. Repair if defective. Open or shorted P1, P2, P3 or P4 sender message; replace sender indicated. Operating lever of inlet butterfly valve is loose on valve shaft. Reposition the valve plate and tighten lever set screw.
	HIGH TEMP T1 or T3 Message Displayed	Cooling water temperature too high; increase water flow (water-cooled only). Cooling water flow insufficient; check water lines, valves (water-cooled only) and available water pressure differential. Cooler plugged; clean tubes. If plugging persists, install water conditioner or water filter(water-cooled only). Cooling air flow restricted; clean cooler and check for proper ventilation. Ambient temperature is too high; provide sufficient ventilation. Cooling air ductwork, if installed, may restrict air flow. High static fan must be specified with customer-supplied ductwork, and ductwork must be sized to minimize flow restriction. Low fluid level; add fluid. Clogged filter; change the fluid filter element as indicated by Supervisor control. Thermal valve not functioning properly; replace element (air-cooled only). Optional Water flow regulating valve not functioning properly; change (water-cooled only). Open or shorted T1 or T2 sender; check for a short or open circuit to probe and correct wiring. Excessive pressure drop in supply and return lines of remote air-cooled cooling package. Consult paragraph 4.6 of this manual.

(I) Consult the Supervisor Controller manual for additional aid to troubleshooting.

7.9 TROUBLESHOOTING GUIDE (I) (CONTINUED)

SYMPTOM	PROBABLE CAUSE	REMEDY
COMPRESSOR SHUTS DOWN WITH AIR DEMAND PRESENT (CONTINUED)	Low Fluid Pressure (LOW PRESSURE P3 display)	Check fluid level.
		Check for clogged fluid filter.
	Low Water Pressure (FAN OL/LOW WATER display)	Check the cooling fan motor or water flow system.
COMPRESSOR WILL NOT BUILD UP FULL DISCHARGE PRESSURE	Air Demand is Too Great	Check service lines for leaks or open valves.
	Dirty Air Filter	Check for filter maintenance message on supervisor panel and change or clean element if required.
	Pressure Regulator Out of Adjustment	Adjust regulator according to control adjustment instructions in the Maintenance Section.
	Defective Pressure Regulator	Check diaphragm and replace if necessary (kit available).
	Broken Sullicon Spring	Replace.
LINE PRESSURE RISES ABOVE UNLOAD P2 PRESSURE SETTING ON THE SUPERVISOR	Leak in Control System Causing Loss of Pressure Signals	Check for leaks.
	Defective Solenoid Valve	Check that Sullicon Control lever is moved to unload stop when Supervisor is in NO LOAD mode. Repair or replace if necessary (kit available).
	Defective Blowdown Valve	Check that sump pressure is exhausted to the atmosphere when in the OFF LOAD mode. Repair or replace if necessary (kit available).
	Ruptured Sullicon Control Diaphragm	Replace.
	Plugged Control Line Filter	Clean or repair if necessary.
EXCESSIVE FLUID CONSUMPTION	Clogged Return Line Strainer or Orifice	Clean strainer (screen with o-ring replacement kit available)
		Clean orifice.
	Separator Element Damaged or Not Functioning Properly	Check Separator Differential (plugged) dP1.
		Change Separator
	Leak in the Lubrication System	Check all pipes, connections and components.
	Excess Fluid Foaming	Drain and change.
	Fluid Level Too High	Drain excess fluid.
PRESSURE RELIEF VALVE OPENS REPEATEDLY	Defective Pressure Relief Valve	Replace pressure relief valve.
LIQUID WATER IN COMPRESSED AIR SERVICE LINE	Water Vapor Condensation From Cooling and Compression Occurs Naturally	Remove the water vapor from compressed air prior to distribution through the air system. Check operation of aftercooler and moisture separator. Install a compressed air dryer sized for the flow and dryness level required. (Note: Filters may also be required to remove particulates, liquid oil aerosols or for oil vapor removal. Change cartridges as recommended by the filter manufacturer.) Check all drain traps routinely to insure their proper operation. Maintain them regularly.

(I) Consult the Supervisor Controller manual for additional aid to troubleshooting.

NOTES

8.1 PROCEDURE FOR ORDERING PARTS

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

When ordering parts always indicate the Serial Number of the compressor. This can be obtained from the Bill of Lading for the compressor or from the Serial Number Plate located on the compressor. For compressor unit parts only, order parts by the unit serial number place located on the compressor unit.

For ordering parts other than those pertaining to the compressor unit, use serial number located on nameplate mounted on control panel.

SULLAIR ASIA, LTD.
Sullair Road, No. 1
Chiwan, Shekou
Shenzhen, Guangdong PRV.
PRC POST CODE 518068
Telephone: 755-6851686
Fax: 755-6853473
www.sullair-asia.com

SULLAIR CORPORATION
3700 East Michigan Boulevard
Michigan City, Indiana 46360 U.S.A.
www.sullair.com
Telephone: 1-800-SULLAIR (U.S.A. Only)
or 1-219-879-5451
Fax: (219) 874-1273

PARTS DEPARTMENT
Fax: (219) 874-1835
www.sullair.com/parts.shtm

SERVICE DEPARTMENT
Fax: (219) 874-1205
www.sullaircompressors.com

SULLAIR EUROPE, S.A.
Zone Des Granges BP 82
42602 Montbrison Cedex, France
Telephone: 33-477968470
Fax: 33-477968499
www.sullaireurope.com

8.2 RECOMMENDED SPARE PARTS LIST - 400, 500 and 600HP/ 298, 373 and 447KW

DESCRIPTION	QUANTITY	KIT NUMBER
element for 18” diameter air filter 250006-718 (primary)	**250007-838**	**1**
element for 18” diameter air filter 250006-718 (secondary)	**250007-839**	**1**
element for separator with gaskets 02250126-325 (primary)	**02250126-352**	**1**
element for separator with gaskets 02250126-331 (secondary)	**02250126-355**	**1**
replacement kit for fluid filter 02250121-638	**02250139-996**	**1**
repair kit for fluid stop valve 02250122-004	**001684**	**1**
repair kit for thermal valve (170°) 02250120-955	**02250120-957**	**1**
repair kit for thermal valve (195°) 02250127-962 **(I)**	**02250127-963**	**1**
repair kit for regulator valve 045099	**048409**	**1**
repair kit for regulator valve 048059	**048409**	**1**
repair kit for blowdown valve 409783	**001667**	**1**
repair kit for control air filter 02250112-032	**02250112-031**	**1**
repair kit for fliter assembly 02250117-782	**02250117-782**	**1**
repair kit for Sullicon Control 011682-003	**250020-353**	**1**

(Continued on page 56)

(I) For 24KT water-cooled, and ≥ 150 psig compressors.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.2 RECOMMENDED SPARE PARTS LIST - 400, 500 and 600HP/ 298, 373 and 447KW (CONTINUED)

DESCRIPTION	QUANTITY	KIT NUMBER
repair kit for solenoid valve 02250125-657	**02250125-829 (valve)**	**1**
replacement coil for solenoid valve 02250125-657	**02250125-861 (coil)**	**1**
repair kit for solenoid valve 02250125-679	**02250125-824**	**1**
replacement coil for solenoid valve 02250125-679	**02250125-861 (coil)**	**1**
repair kit for pressure regulator valve 408275	**250028-693**	**1**
repair kit for pressure regulator valve 406929	**041742**	**1**
replacement gasket for water separator/trap no. 250007-799	**02250121-257**	**1**
repair kit for minimum pressure valve 02250050-630	**02250050-633**	**1**
repair kit for separator/trap 250000-511	**250033-036**	**1**
discpack kit for flexible disk (drive) coupling 02250115-080	**02250044-346**	**1**
adapter kit bolt for drive coupling	**02250136-266**	**1**
diaphragm repair kit for spiral valve air cylinder 250016-183	**608311-001**	**1**
repair kit for scd 400 electric condensate drain 02250130-866	**02250131-044**	**1**
repair kit for scd 500 drain 02250131-113	**02250131-044**	**1**
repair kit for shaft seal	**067329-001**	**1**
o-ring for 2 1/2 -12 SAE tube fittings	**250042-649**	**1**
o-ring for 4” SAE minimum pressure outlet	**826502-245**	**1**
compressor Sullube fluid (5 gallons)	**250022-669**	**-**
compressor 24KT fluid (5 gallons)	**02250051-153**	**-**
compressor CP-4600-32-F fluid (5 gallons)	**250029-008**	**-**

Enclosure Door handles (replacment parts for these panel doors):

pnl, access assy 30 x 57” TS32A 02250130-227	**02250120-349 (II)**	**(per door)**
pnl, access assy 30 x 57” TS32S w/ padlock latch 02250134-175	**02250126-149 (III)**	**(per door)**
pnl, access assy 30 x 57” TS32S w/ qtr trn latches 02250134-180	**02250135-276 (IV)**	**(per door)**

(II) Padlockable lever-action latch.

(III) Pocket snap-in handle.

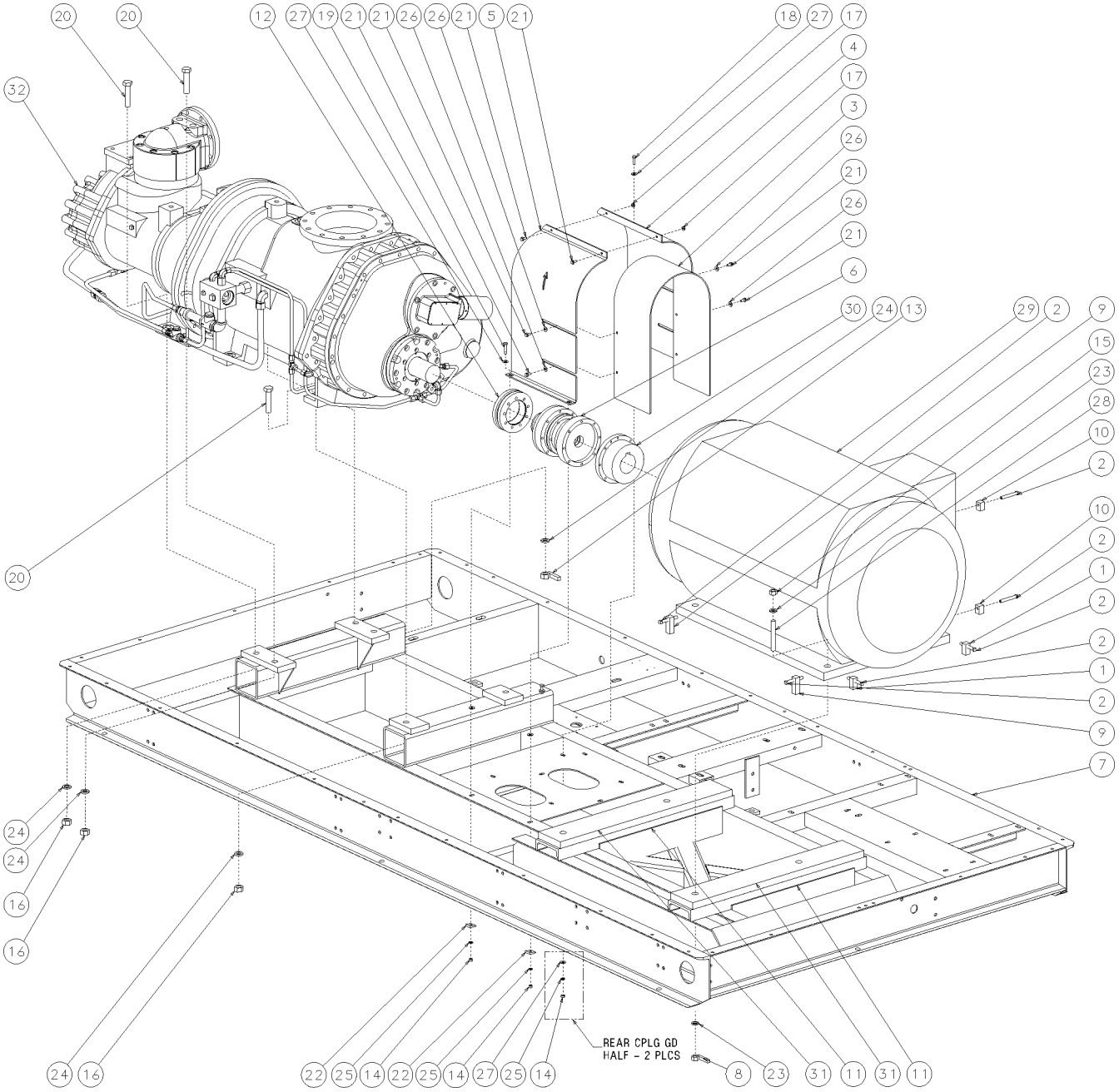
(IV) Canopy quarter-turn latch.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

NOTES

Section 8
ILLUSTRATIONS AND PARTS LIST

8.3 MOTOR, COMPRESSOR, FRAME AND PARTS- GEAR DRIVE



02250135-723R03

8.3 MOTOR, COMPRESSOR, FRAME AND PARTS- GEAR DRIVE (CONTINUED)

key number	*description*	*part number*	*quantity*
1	block, motor adjust base 2”	02250059-262	2
2	screw, sqhd 0.5 x 3.5 cup set pt	02250112-193	6
3	guard, coupling TS32S center dd adjustable	02250113-561	1
4	guard, coupling l.h. TS32S g.d. adjustable	02250113-562	1
5	guard, coupling r.h. TS32S g.d adjustable	02250113-563	1
6	coupling, flexible disc TS32S **(I)**	02250115-080	1
7	frame, main TS32-400	02250125-491	1
8	nut, assy compr mtg 32/25	02250135-358	4
9	block, motor adjusting	222054	2
10	block, motor adjust bse 1-1/2”	230450	2
11	bar, 5” x 1/4” x 27-1/4”gusset	250008-139	4
12	disconnect, shrink rfn-4071	250009-242	1
13	nut, assy compr mtg 32/25	250024-587	3
14	nut, hex pltd 3/8-16	825206-337	4
15	nut, hex pltd 3/4-10	825212-665	4
16	nut, hex pltd 7/8-9	825214-776	3
17	nut, hex f pltd 5/16-18	825305-283	2
18	capscr, hex gr5 3/8-16 x 1 1/4	829106-125	2
19	capscr, hex gr5 3/8-16 x 1 3/4	829106-175	2
20	capscr, hex gr5 7/8-9 x 4	829114-400	6
21	screw, hex ser washer 5/16-18 x 3/4	829705-075	6
22	washer, bevel 3/8	837006-125	2
23	washer, spr lock 3/4	837512-188	8
24	washer, spr lock 7/8	837514-219	6
25	washer, spr lock reg pltd 3/8	837806-094	4
26	washer, pl-b reg pltd 5/16	838205-071	4
27	washer, pl-b reg pltd 3/8	838206-071	6
28	rod, threaded 3/4-10 x 5 1/2	843912-055	4
29	motor, TS32S - 400/600hp - various **(II)**	-	1
30	hub, coupling TS32S motor - various **(II)**	-	1

(Continued on page 61)

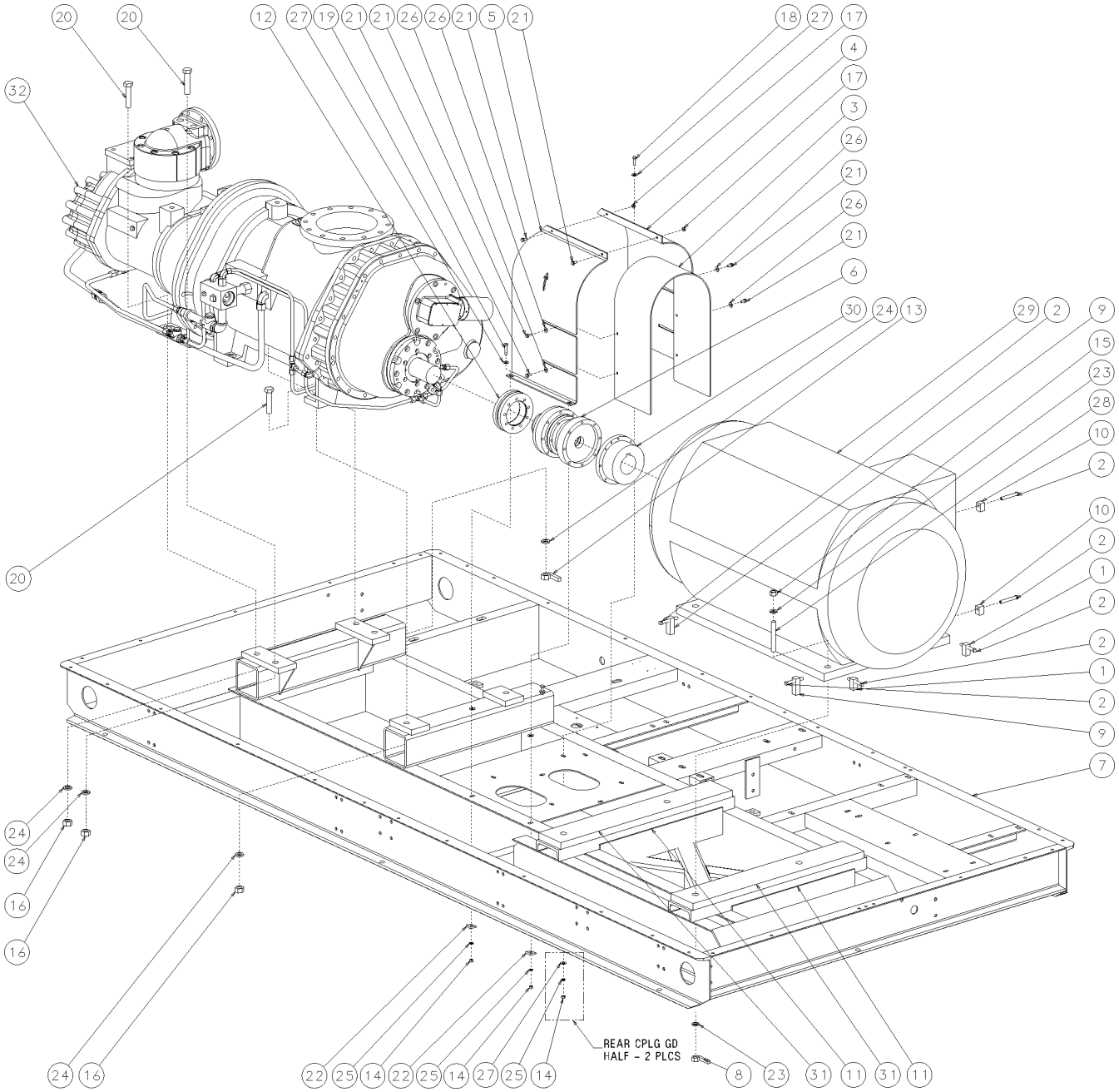
(I) For maintenance on coupling no. 02250115-080, order replacement kit no. 02250044-346.

(II) This part may vary by machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.3 MOTOR, COMPRESSOR, FRAME AND PARTS- GEAR DRIVE



02250135-723R03

8.3 MOTOR, COMPRESSOR, FRAME AND PARTS- GEAR DRIVE (CONTINUED)

key number	*description*	*part number*	*quantity*
31	TS32S motor support - various **(II)**	-	2
32	TS32S-air end - gd sae **(III)**	-	1

(II) This part may vary by machine. Consult factory with machine serial number.

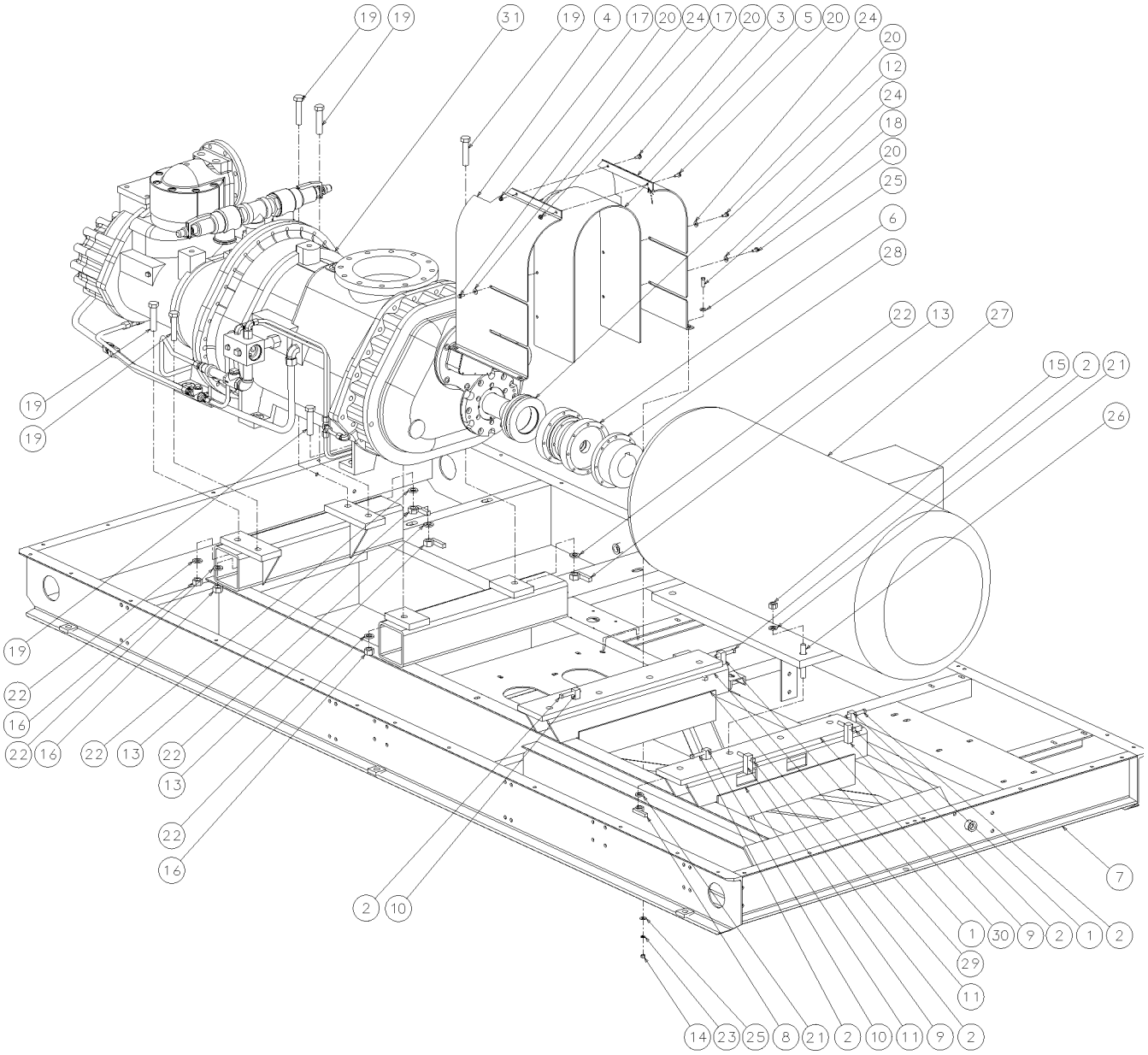
(III) There is an exchange program whereby a remanufactured compressor unit can be obtained from Sullair distributors or the factory at less cost than the owner could repair the unit. For information regarding the unit exchange program, contact your nearest Sullair representative or the Sullair Corporation.

The shaft seal is not considered part of the compressor unit in regard to the two year warranty. The normal Sullair parts warranty applies. For shaft seal repairs order repair kit no. 067329-001.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.4 MOTOR, COMPRESSOR, FRAME AND PARTS- DIRECT DRIVE



8.4 MOTOR, COMPRESSOR, FRAME AND PARTS- DIRECT DRIVE

key number	*description*	*part number*	*quantity*
1	block,motor adjust base 2”	02250059-262	2
2	screw, sqhd 0.5 x 3.5 cup set pt	02250112-193	6
3	guard, coupling lh TS32S dd adjust.	02250113-559	1
4	guard, coupling rh TS32S dd adjust.	02250113-560	1
5	guard, coupling TS32S center dd adjustable	02250113-561	1
6	coupling, flexible disc TS32S **(I)**	02250115-080	1
7	frame, main TS32-400	02250125-491	1
8	nut, assy compr mtg 32/25	02250135-358	4
9	block, motor adjusting	222054	2
10	block, motor adjust bse 1-1/2”	230450	2
11	bar, 5” x 1/4” x 27-1/4”gusset	250008-139	4
12	disc, shrink rfn-4071	250009-242	1
13	nut, assy compr mtg 32/25	250024-587	3
14	nut, hex pltd 3/8-16	825206-337	4
15	nut, hex pltd 3/4-10	825212-665	4
16	nut, hex pltd 7/8-9	825214-776	3
17	nut, hex f pltd 5/16-18	825305-283	2
18	capscr, hex gr5 3/8-16 x 1 1/4	829106-125	4
19	capscr, hex gr5 7/8-9 x 4	829114-400	6
20	screw, hex ser washer 5/16-18 x 3/4	829705-075	6
21	washer, spr lock 3/4	837512-188	8
22	washer, spr lock 7/8	837514-219	6
23	washer, spr lock reg pltd 3/8	837806-094	4
24	washer, pl-b reg pltd 5/16	838205-071	4
25	washer, pl-b reg pltd 3/8	838206-071	8
26	rod, threaded 3/4-10 x 5 1/2	843912-055	4
27	motor, TS32S - various hp and type **(II)**	-	1
28	hub, coupling TS32S motor - various **(II)**	-	1
29	TS32S motor support - various **(II)**	-	1

(Continued on page 65)

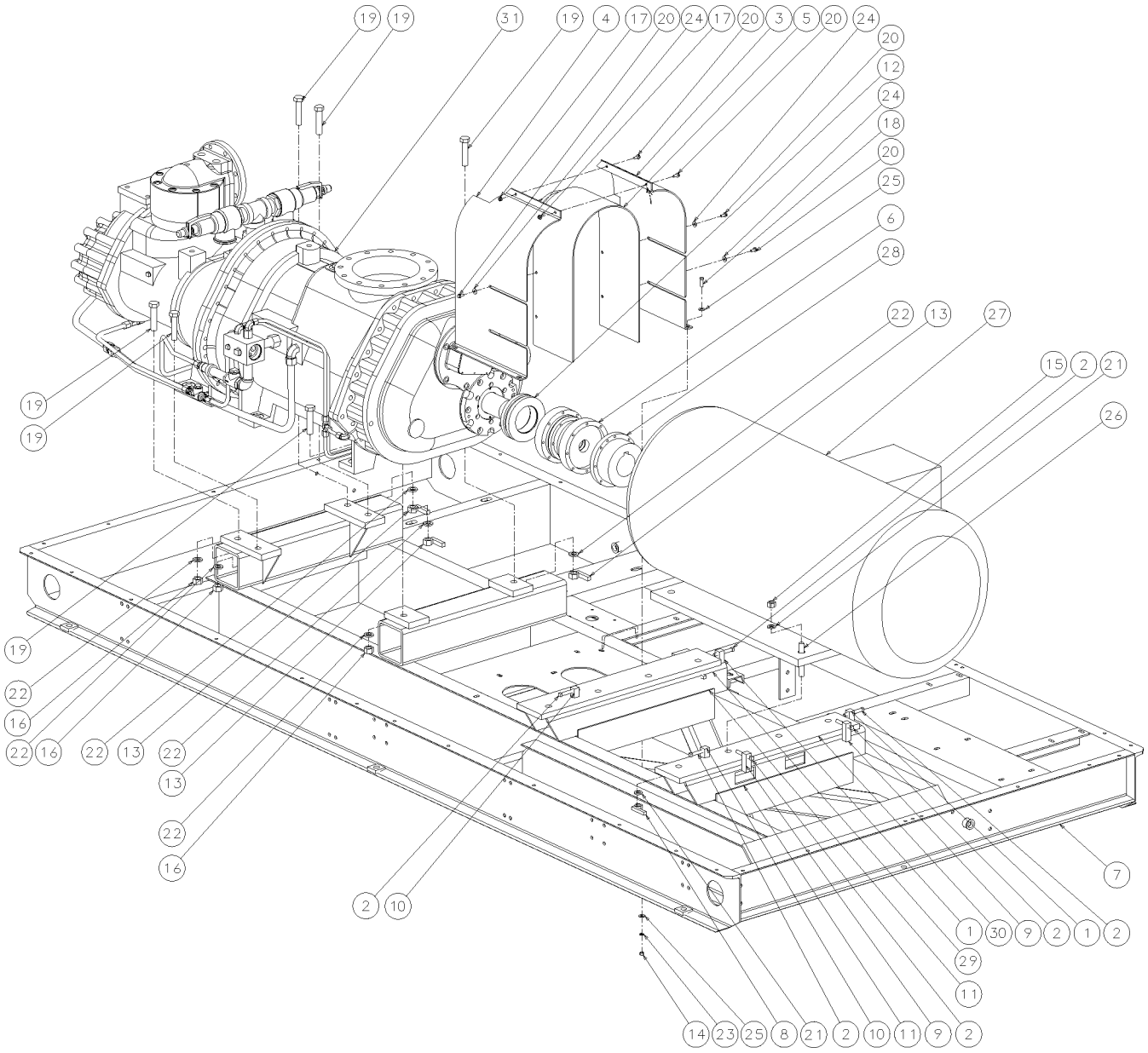
(I) For maintenance on flexible disc coupling no. 02250115-080, order replacement kit no. 02250044-346.

(II) This part may vary by machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.4 MOTOR, COMPRESSOR, FRAME AND PARTS- DIRECT DRIVE



8.4 MOTOR, COMPRESSOR, FRAME AND PARTS- DIRECT DRIVE (CONTINUED)

key number	*description*	*part number*	*quantity*
30	TS32S motor support - various **(II)**	-	1
31	TS32S - tandem - direct drive **(III)**	-	1

(II) This part may vary with machine. Consult factory with machine serial number.

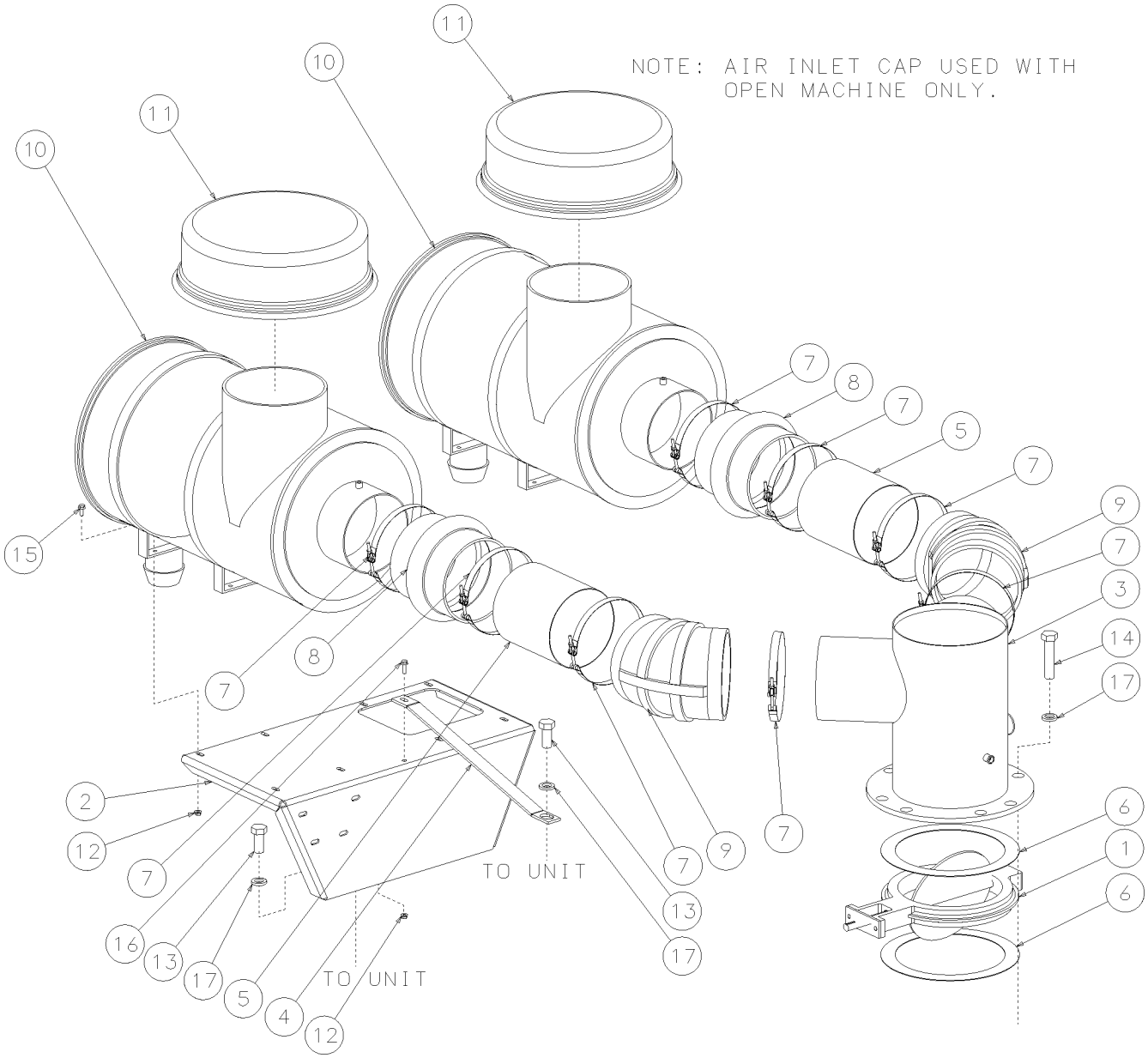
(III) There is an exchange program whereby a remanufactured compressor unit can be obtained from Sullair distributors or the factory at less cost than the owner could repair the unit. For information regarding the unit exchange program, contact your nearest Sullair representative or the Sullair Corporation.

The shaft seal is not considered part of the compressor unit in regard to the two year warranty. The normal Sullair parts warranty applies. For shaft seal repairs order repair kit no.067329-001.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.5 AIR INLET SYSTEM



8.5 AIR INLET SYSTEM

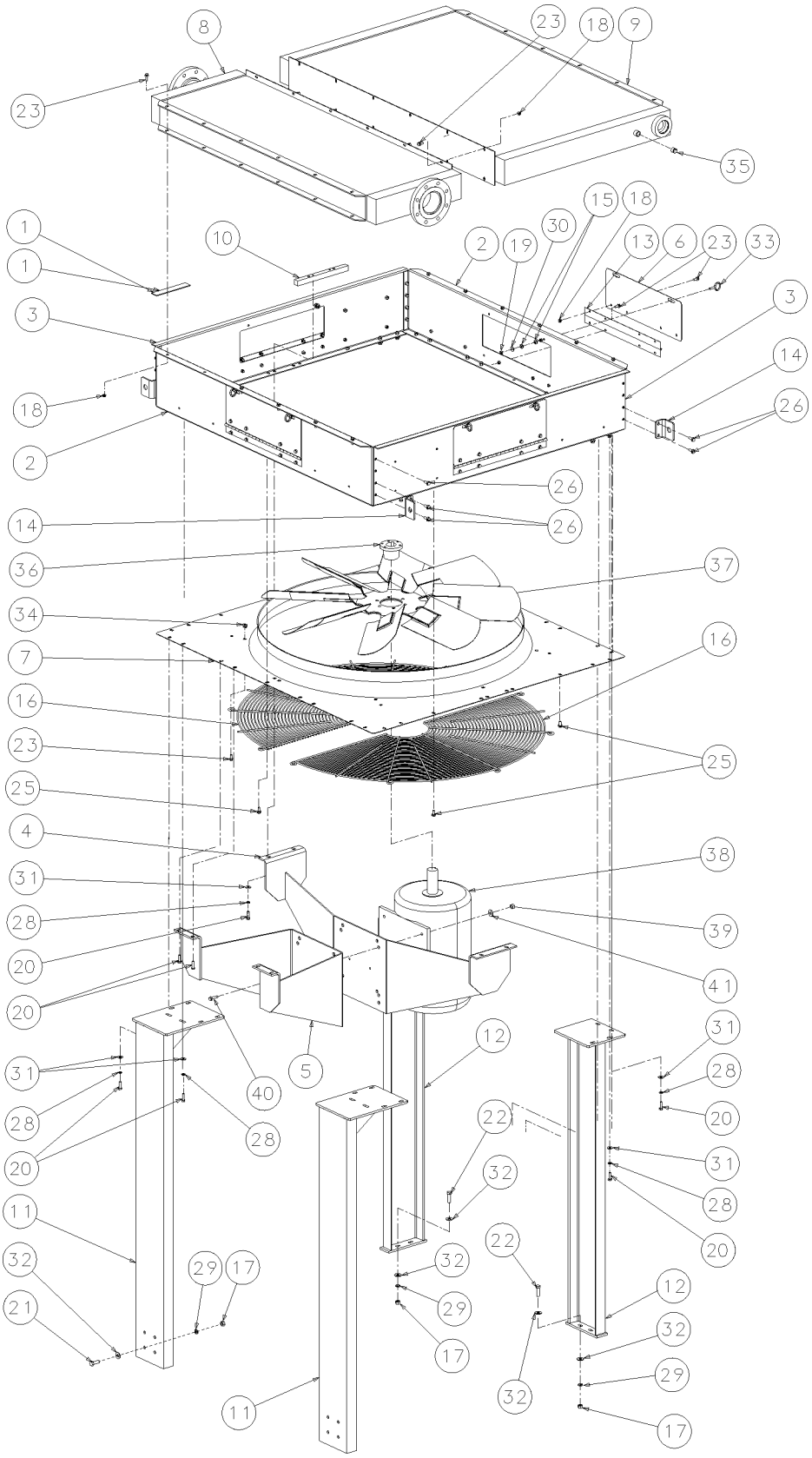
key number	*description*	*part number*	*quantity*
1	valve, 10” inl btfly TS32A	02250126-220	1
2	support, air filter TS32S	02250129-084	1
3	adapter, TS32SC air inlet	02250129-113	1
4	support,strap air flt TS32SC	02250133-621	1
5	tube, alum air inlet 8”od x 8.5”lg	025068	2
6	gasket, .06 x 10.5id x 13.25od	041079	2
7	clamp, hose 8”	043598	8
8	hose, hump 8 x 8”	044733	2
9	elbow, rubber 8” x 45 degrees	250005-776	2
10	filter, 18” dia air **(I)**	250006-718	2
11	cap, air inlet 10”	250007-712	2
12	nut, hex f pltd 5/16-18	825305-283	9
13	capscr, hex gr5 7/8-9 x 2	829114-200	3
14	capscr, hex gr5 7/8-9 x 4	829114-400	8
15	screw, hex ser washer 5/16-18 x 3/4	829705-075	8
16	screw, hex ser washer 5/16-18 x 1	829705-100	1
17	washer, spr lock reg pltd 7/8	837814-219	11

(I) For maintenance on air filter no. 250006-718, order primary replacement element no. 250007-838, and secondary replacement element no. 250007-839. **NOTE:** be sure to order the proper quantities, since there are two air filters present on the machine.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.6 FLUID COOLING SYSTEM- AIR-COOLED 400HP/ 298KW



02250137-202R01

8.6 FLUID COOLING SYSTEM- AIR-COOLED 400HP/ 298KW

key number	*description*	*part number*	*quantity*
1	strip, weather 1” x 1/8” foam	02250058-345	1
2	panel, adapter 400hp clr pk	02250121-117	2
3	panel, adapter 400hp clr pk w/clean	02250121-118	2
4	saddle, motor supt 300/400hp clr pk	02250121-119	1
5	support, mtr 300/400hp clr pk	02250121-120	1
6	plate, clean out cover **(I)**	02250121-123	4
7	panel, venturi 48” TS32-300-450	02250121-343	1
8	cooler, air after 400-450 hp	02250122-215	1
9	cooler, oil 400-450 hp side x side	02250122-217	1
10	bar, back-up horizontal clr pk	02250123-797	3
11	support, cooler TS32A-300/350 intac mtrside	02250123-834	2
12	support, cooler TS32A-300/350 intac strside	02250123-835	2
13	hinge, door	02250125-402	4
14	lug, lifting clr pk - 90deg bend	02250132-040	4
15	grommet, rubber	040125	16
16	guard, fan (1600q)	241347	2
17	nut, hex pltd 1/2-13	825208-448	12
18	nut, hex f pltd 5/16-18	825305-283	40
19	nut, hex locking 5/16-18	825505-166	8
20	capscr, hex gr5 3/8-16 x 1 1/4	829106-125	28
21	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	8
22	capscr, hex gr5 1/2-13 x 1 3/4	829108-175	4
23	screw, hex ser washer 5/16-18 x 3/4	829705-075	38
24	screw, hex ser washer 5/16-18 x 1	829705-100	12
25	screw, hex ser washer 3/8-16 x 3/4	829706-075	9
26	screw, hex ser washer 3/8-16 x 1	829706-100	16
27	screw, hex ser washer 3/8-16 x 1 1/4	829706-125	1
28	washer, spr lock reg pltd 3/8	837806-094	24
29	washer, spr lock reg pltd 1/2	837808-125	12

(Continued on page 71)

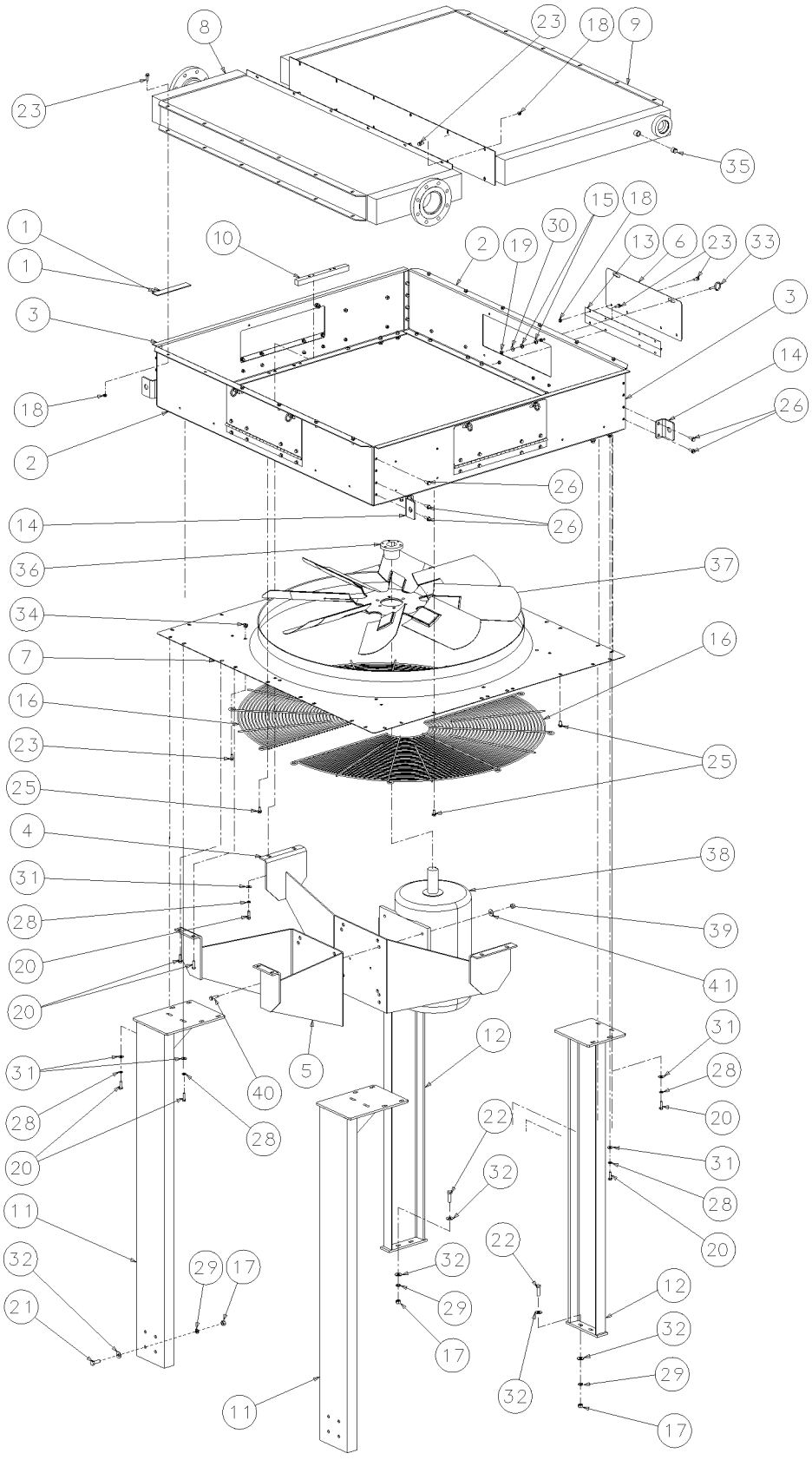
NOTE

(I) DO NOT operate the compressor without cooler access panels in place.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.6 FLUID COOLING SYSTEM- AIR-COOLED 400HP/ 298KW



02250137-202R01

8.6 FLUID COOLING SYSTEM- AIR-COOLED 400HP/ 298KW (CONTINUED)

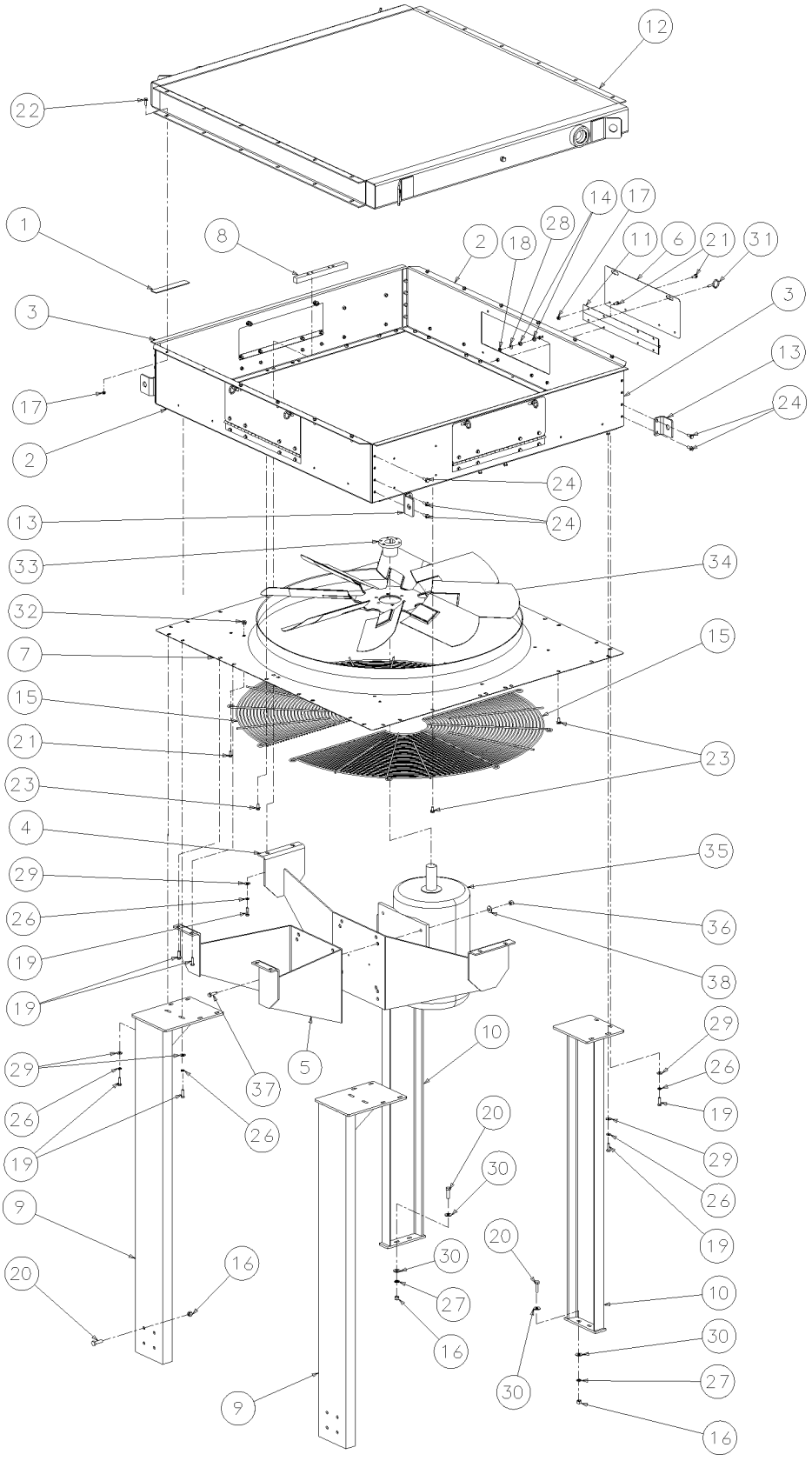
key number	*description*	*part number*	*quantity*
30	washer, pl-b reg pltd 5/16	838205-071	8
31	washer, pl-b reg pltd 3/8	838206-071	24
32	washer, pl-b reg pltd 1/2	838208-112	16
33	eyebolt, 5/16-18 x 1 1/8” pltd	839105-112	8
34	nut, retainer 5/16-18 .092	861405-092	10
35	plug, pipe 1/2” 3000# stl plt	866900-020	1
36	bushing **(II)**	-	1
37	fan **(II)**	-	1
38	motor **(II)**	-	1
39	nut **(II)**	-	4
40	scew **(II)**	-	4
41	washer **(II)**	-	4

(II) This part may vary by machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.7 FLUID COOLING SYSTEM- AIR-COOLED 500-600HP/ 373-447KW



02250132-133R00

8.7 FLUID COOLING SYSTEM- AIR-COOLED 500-600HP/ 373-447KW

key number	*description*	*part number*	*quantity*
1	strip, weather 1” x 1/8” foam	02250058-345	1
2	panel, adapter 400hp clr pk	02250121-117	2
3	panel, adapter 400hp clr pk w/clean	02250121-118	2
4	saddle, motor supt 300/400hp clr pk	02250121-119	1
5	support, mtr 300/400hp clr pk	02250121-120	1
6	plate, clean out cover **(I)**	02250121-123	4
7	panel, venturi 48” TS32-300-450	02250121-343	1
8	bar, back-up horizontal clr pk **(II)**	02250123-797	3
9	support, cooler TS32A-300/350 intac mtrside **(II)**	02250123-834	2
10	support, cooler TS32A-300/350 intac strside	02250123-835	2
11	hinge, door	02250125-402	4
12	cooler, oil 600hp	02250127-107	1
13	lug, lifting clr pk - 90deg bend	02250132-040	4
14	grommet, rubber	040125	16
15	guard, fan (1600q)	241347	2
16	nut, hex pltd 1/2-13	825208-448	12
17	nut, hex f pltd 5/16-18	825305-283	28
18	nut, hex locking 5/16-18	825505-166	8
19	capscr, hex gr5 3/8-16 x 1 1/4	829106-125	24
20	capscr, hex gr5 1/2-13 x 1 3/4	829108-175	12
21	screw, hex ser washer 5/16-18 x 3/4	829705-075	26
22	screw, hex ser washer 5/16-18 x 1	829705-100	12
23	screw, hex ser washer 3/8-16 x 3/4	829706-075	5
24	screw, hex ser washer 3/8-16 x 1	829706-100	16
25	screw, hex ser washer 3/8-16 x 1 1/4	829706-125	1
26	washer, spr lock reg pltd 3/8	837806-094	20
27	washer, spr lock reg pltd 1/2	837808-125	4
28	washer, pl-b reg pltd 5/16	838205-071	8
29	washer, pl-b reg pltd 3/8	838206-071	20

(Continued on page 75)

NOTE

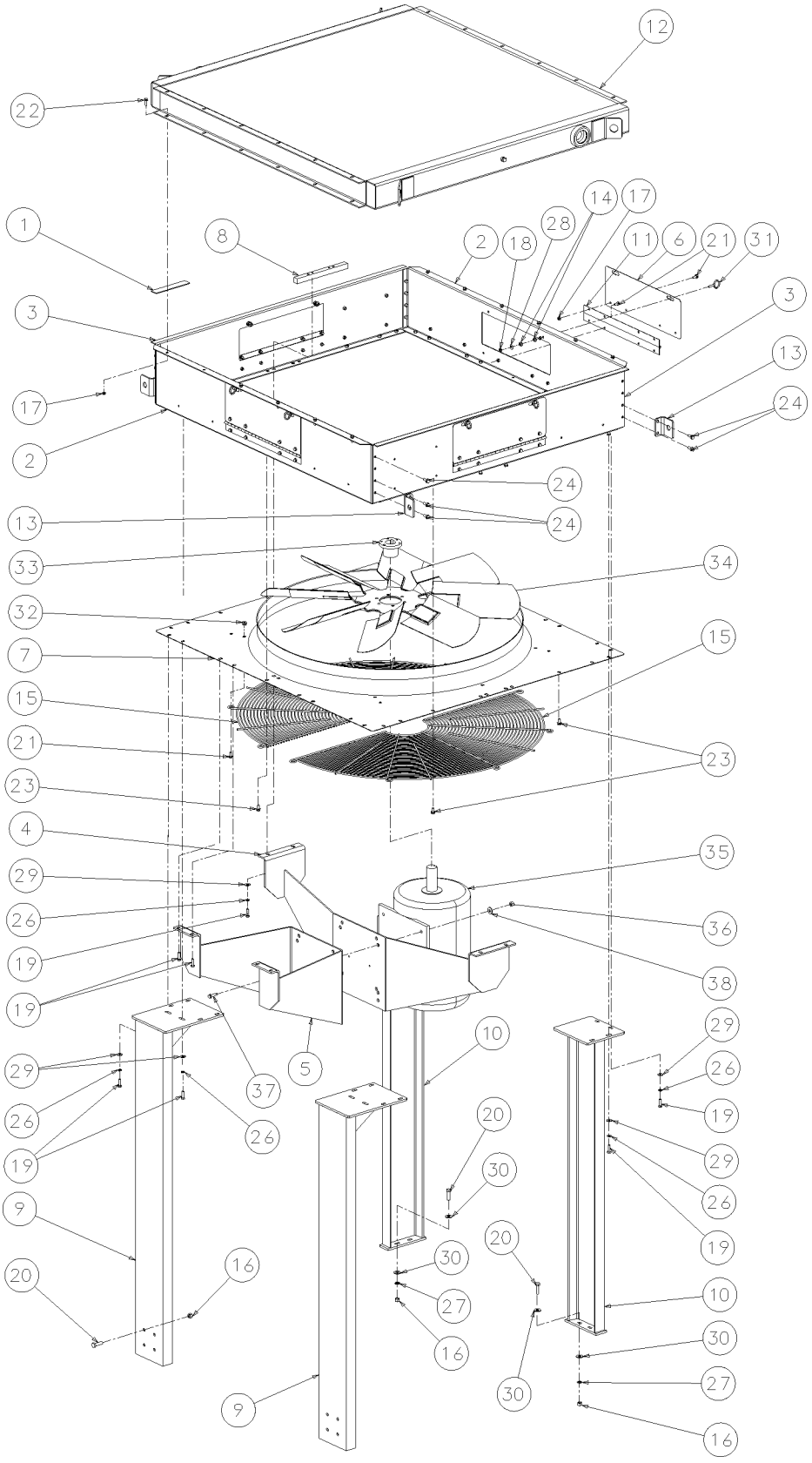
(I) DO NOT operate the compressor without cooler access panels in place.

(II) This part is not required with Remote-cooled package.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.7 FLUID COOLING SYSTEM- AIR-COOLED 500-600HP/ 373-447KW



02250132-133R00

8.7 FLUID COOLING SYSTEM- AIR-COOLED 500-600HP/ 373-447KW (CONTINUED)

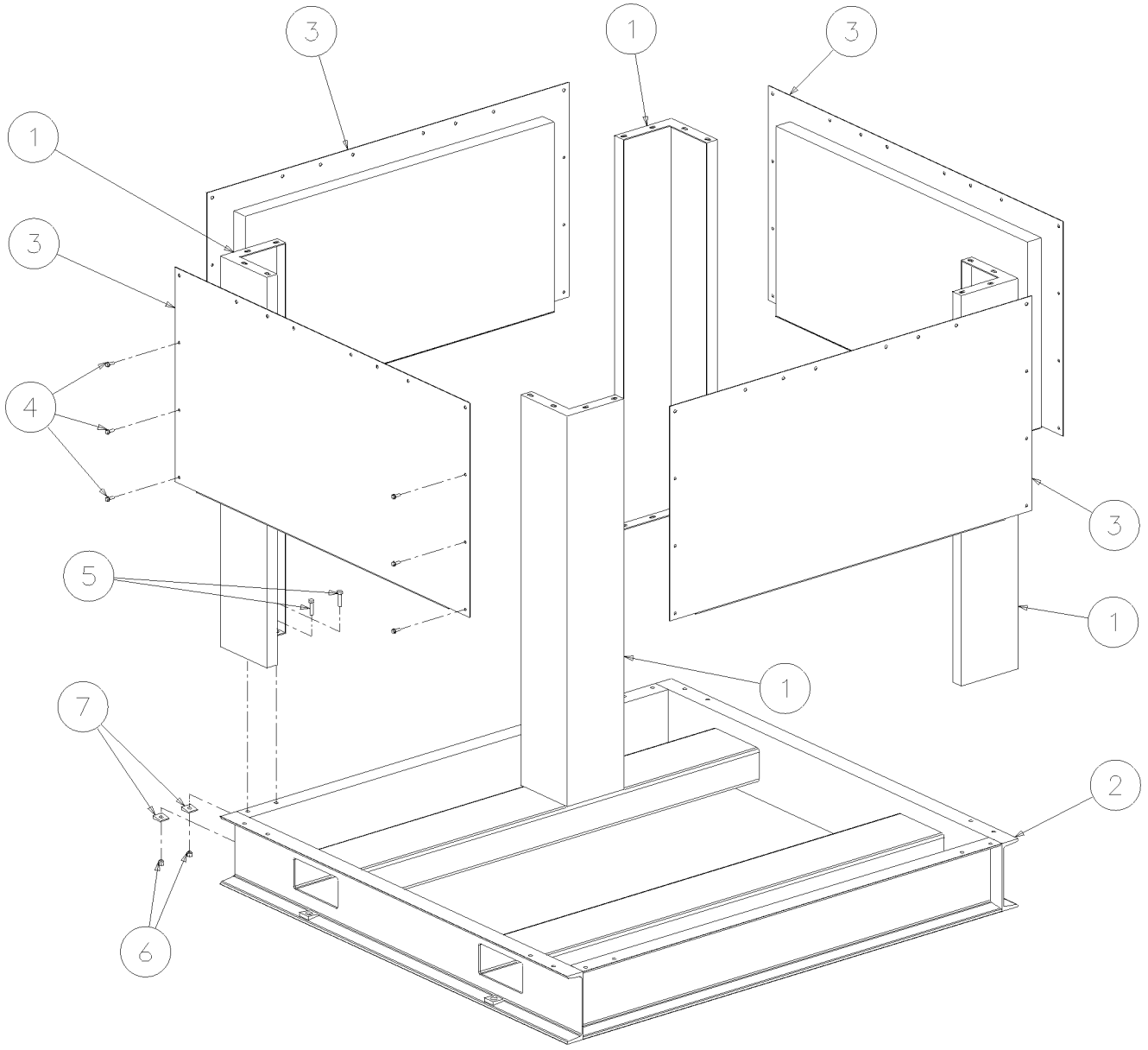
key number	*description*	*part number*	*quantity*
30	washer, pl-b reg pltd 1/2	838208-112	8
31	eyebolt, 5/16-18 x 1 1/8” pltd	839105-112	8
32	nut, retainer 5/16-18 .092	861405-092	10
33	bushing **(III)**	-	1
34	fan **(III)**	-	1
35	motor **(III)**	-	1
36	nut **(III)**	-	4
37	screw **(III)**	-	4
38	washer **(III)**	-	4

(III) This part may vary with machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.8 HORIZONTAL REMOTE COOLER- 600HP/ 447KW



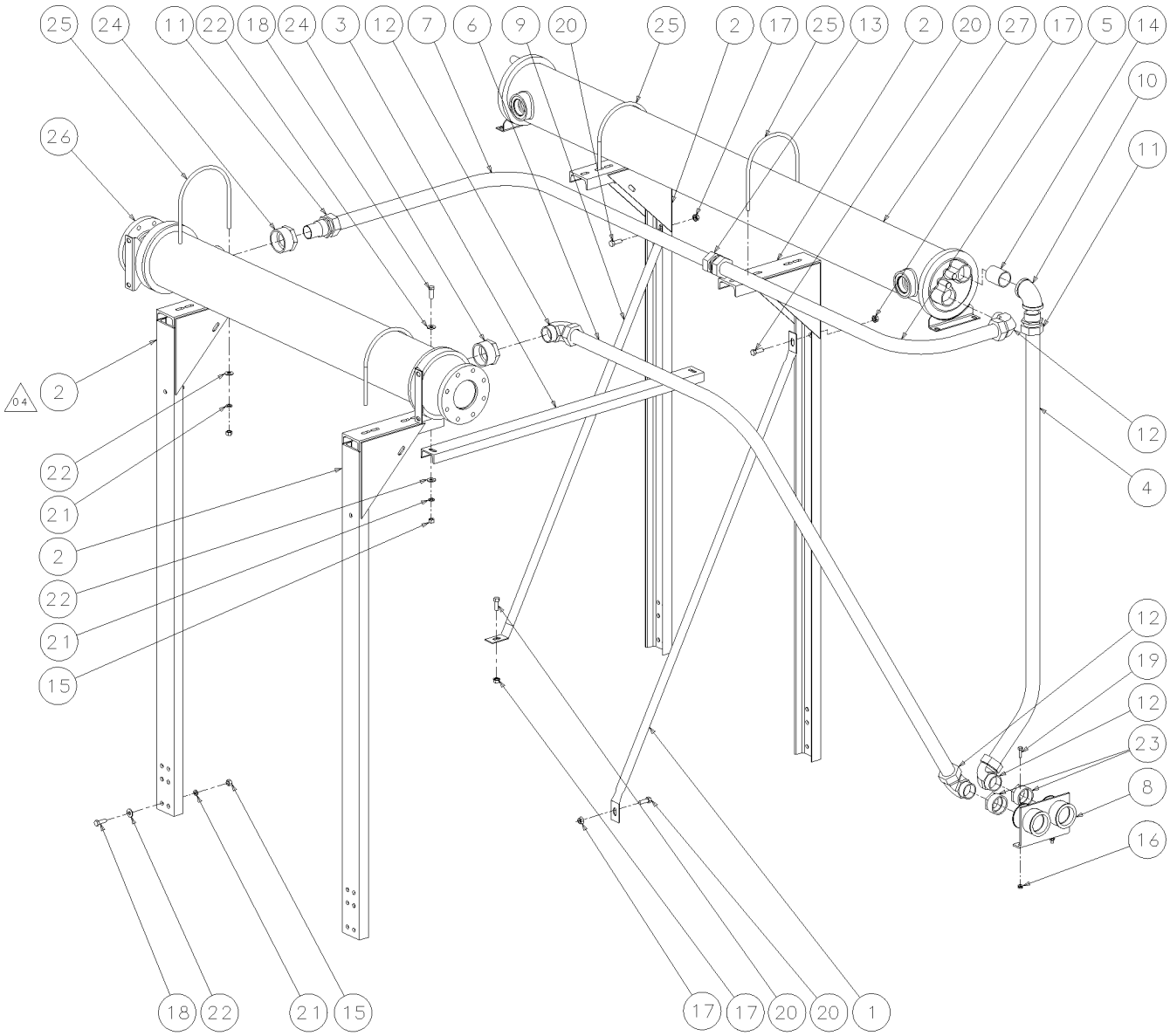
8.8 HORIZONTAL REMOTE COOLER- 600HP/ 447KW

key number	*description*	*part number*	*quantity*
1	support, corner 300/400hp rc	02250121-121	4
2	frame, rem clr 300/400 hp	02210121-124	1
3	panel, assembly side 300/400 hp rem clr	02250124-335	4
4	screw, self-drill 1/4 x 3/4	834504-075	24
5	capscr, hex gr5 3/8-16 x 1 1/2	829106-150	16
6	nut, hex locking 3/8-16	825506-198	16
7	washer, bevel 3/8 plt	868706-125	16

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.9 FLUID COOLING SYSTEM- WATER-COOLED 400HP/ 298KW



NOTE: REFER TO THE FOLLOWING BILL OF MATERIALS FOR ALL PARTS USED:

M,WTROC
M,WTRPP
M,WCACOPT

8.9 FLUID COOLING SYSTEM- WATER-COOLED 400HP/ 298KW

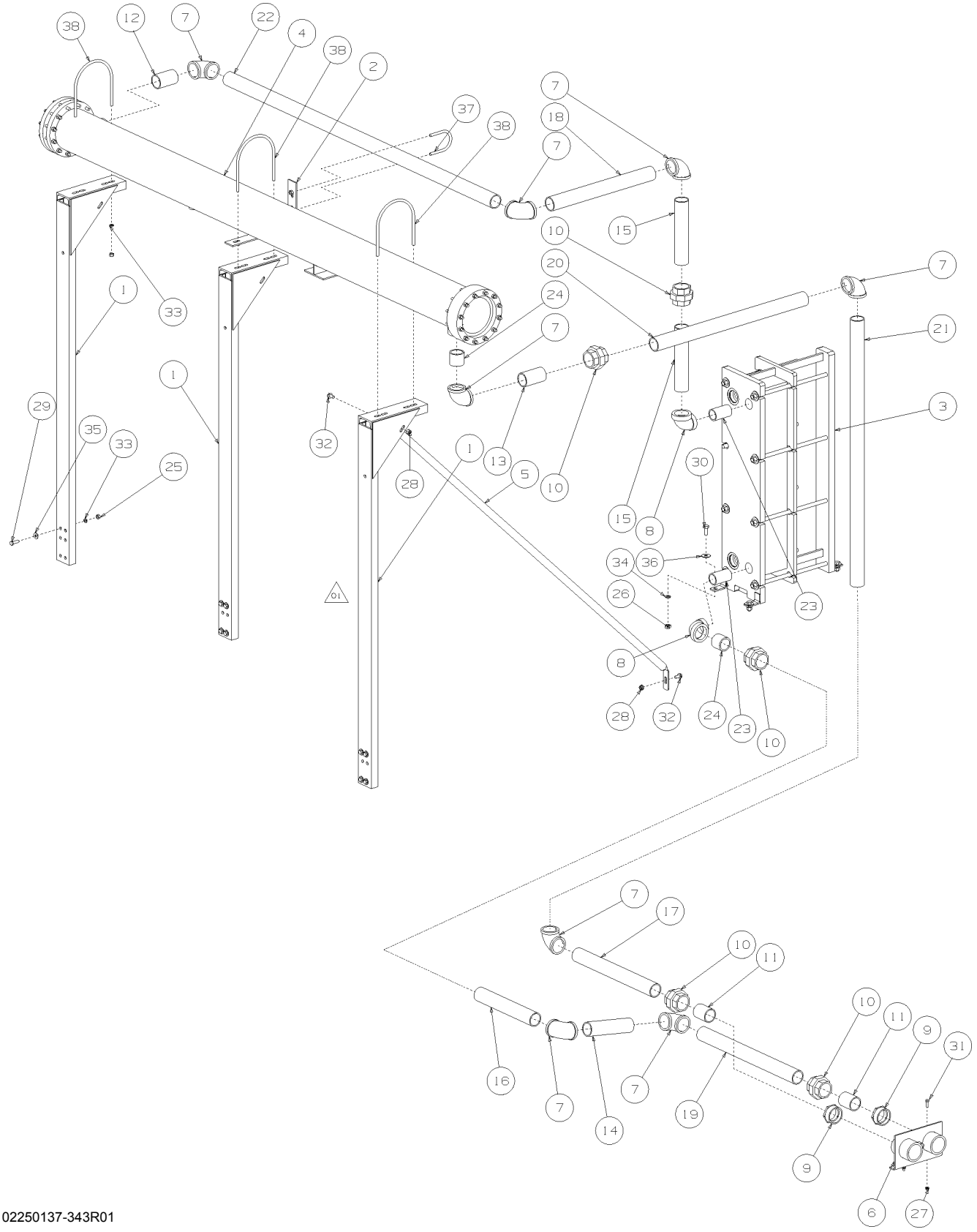
key number	*description*	*part number*	*quantity*
1	support, wc aftclr/ac discharge pipe	02250128-850	1
2	support, after cooler TS32-400	02250129-208	4
3	supt-brace horizontal 400hp wcac	02250129-741	1
4	tube, wtrout to cust.conn.TS32SC-400	02250132-307	1
5	tube, cooler wtr out to frame TS32S-2”	02250132-308	1
6	tube, aftrclr to fram TS32S	02250132-361	1
7	tube, aftr clr to clr out TS32S-wc	02250132-366	1
8	support, water conn 2-1/2” TS32SC	02250133-582	1
9	support,wc aftclr/ac sumpendTS32SC-40	02250140-575	1
10	elbow, pipe 90 deg 2”	803515-080	1
11	connector, tube-m 2 x 2	810232-200	2
12	elbow, tube 90 deg m 2 x 2	810532-200	4
13	union, tube hex 2”	811332-200	1
14	nipple, pipe 2 x 3	822132-030	1
15	nut, hex pltd 1/2-13	825208-448	26
16	nut, hex f pltd 3/8-16	825306-347	2
17	nut, hex f pltd 1/2-13	825308-458	4
18	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	18
19	screw, hex ser washer 3/8-16 x 1 1/	829706-125	2
20	screw, hex ser washer 1/2-13 x 1 1/	829708-150	4
21	washer, spr lock reg pltd 1/2	837808-125	26
22	washer, pl-b reg pltd 1/2	838208-112	28
23	bushing, red pltd 2 1/2 x 2	867110-080	2
24	bushing, red pltd 3 x 2	867112-080	2
25	u-bolt, 1/2” x 8” pipe pltd	868308-800	4
26	aftercooler - wc **(I)**	-	1
27	oilcooler - wc **(I)**	-	1

(I) This part may vary with machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.10 FLUID COOLING SYSTEM- WATER-COOLED 500-600HP/ 373-447KW



02250137-343R01

8.10 FLUID COOLING SYSTEM- WATER-COOLED 500-600HP/ 373-447KW

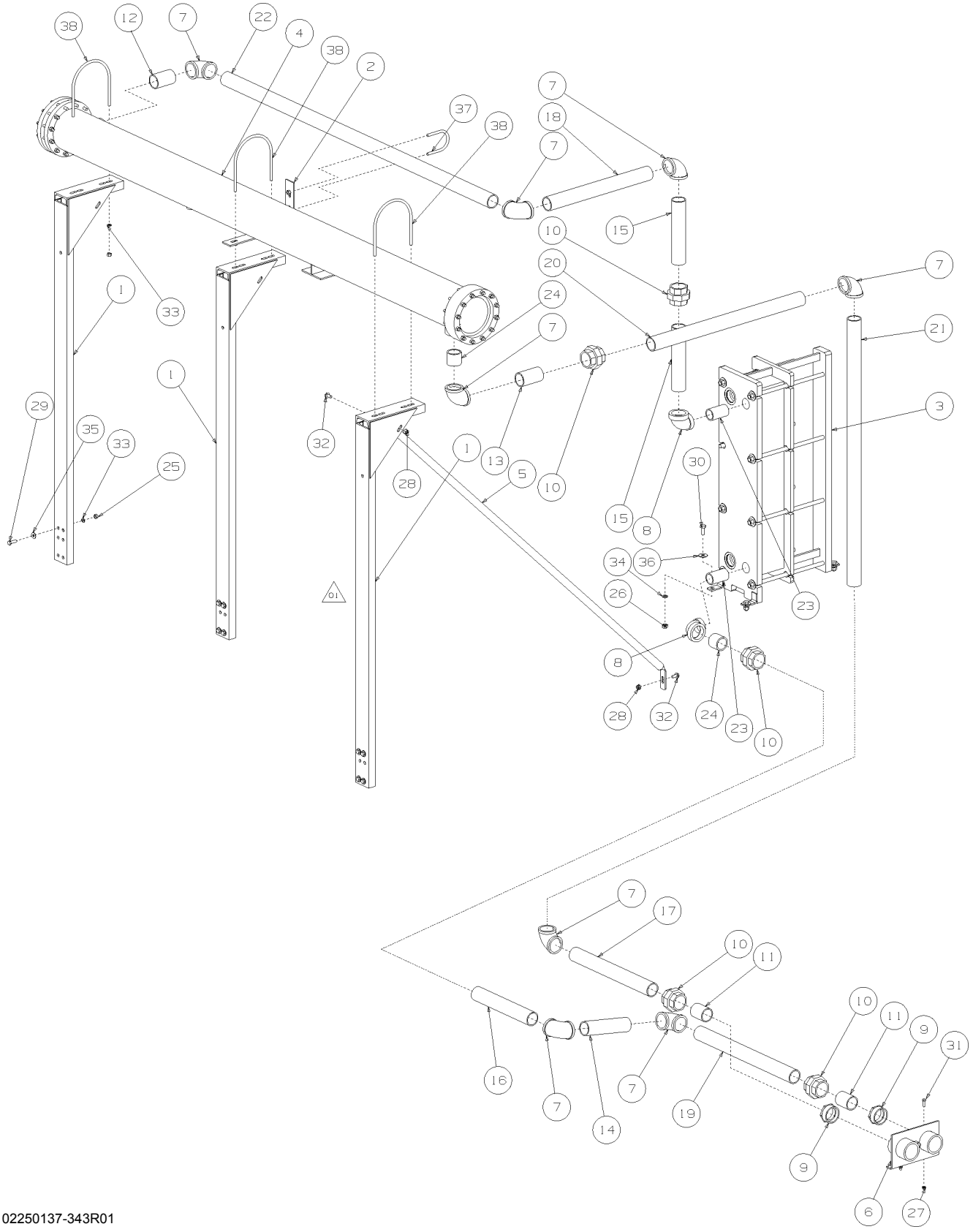
key number	*description*	*part number*	*quantity*
1	support, after cooler TS32-400	02250129-208	3
2	support, pipe 500 hp wc	02250129-694	1
3	cooler, 500hp plate TS32S	02250130-619	1
4	aftercooler, wc aftclr TS32SC	02250133-658	1
5	support, aftrclr brace TS32SC wc	02250133-775	1
6	bracket, 3” npt in and out	250016-803	1
7	elbow, pipe 90 deg 2 1/2” 150#	801515-100	8
8	elbow, red 2 1/2 x 2 150#	801610-080	2
9	bushing,red hx 3 x 2 1/2	802112-100	2
10	union, pipe-brs seat 2 1/2 150#	802515-100	5
11	nipple, pipe 2 1/2 x 3 1/2	822140-035	2
12	nipple, pipe 2 1/2 x 4 1/2	822140-045	1
13	nipple, pipe 2 1/2 x 5	822140-050	1
14	nipple, pipe 2 1/2 x 11	822140-110	1
15	nipple, pipe 2 1/2 x 13 1/2	822140-135	2
16	nipple, pipe 2 1/2 x 17 1/2	822140-175	1
17	nipple, pipe 2 1/2 x 24 1/2	822140-245	1
18	nipple, pipe 2 1/2 x 26	822140-260	1
19	nipple, pipe 2 1/2 x 30	822140-300	1
20	nipple, pipe 2 1/2 x 38 1/2	822140-385	1
21	nipple, pipe 2 1/2 x 57	822140-570	1
22	nipple, pipe 2 1/2 x 84	822140-840	1
23	nipple, pipe-xs 2 x 4	822232-040	2
24	nipple, pipe-xs 2 1/2 x cl	822240-000	2
25	nut, hex pltd 1/2-13	825208-448	14
26	nut, hex pltd 5/8-11	825210-559	3
27	nut, hex f pltd 3/8-16	825306-347	2
28	nut, hex f pltd 1/2-13	825308-458	2
29	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	12
30	capscr, hex gr5 5/8-11 x 1 1/2	829110-150	3
31	screw, hex ser washer 3/8-16 x 1 1/4	829706-125	2
32	screw, hex ser washer 1/2-13 x 1	829708-100	2
33	washer, spr lock reg pltd 1/2	837808-125	18

(Continued on page 83)

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.10 FLUID COOLING SYSTEM- WATER-COOLED 500-600HP/ 373-447KW



02250137-343R01

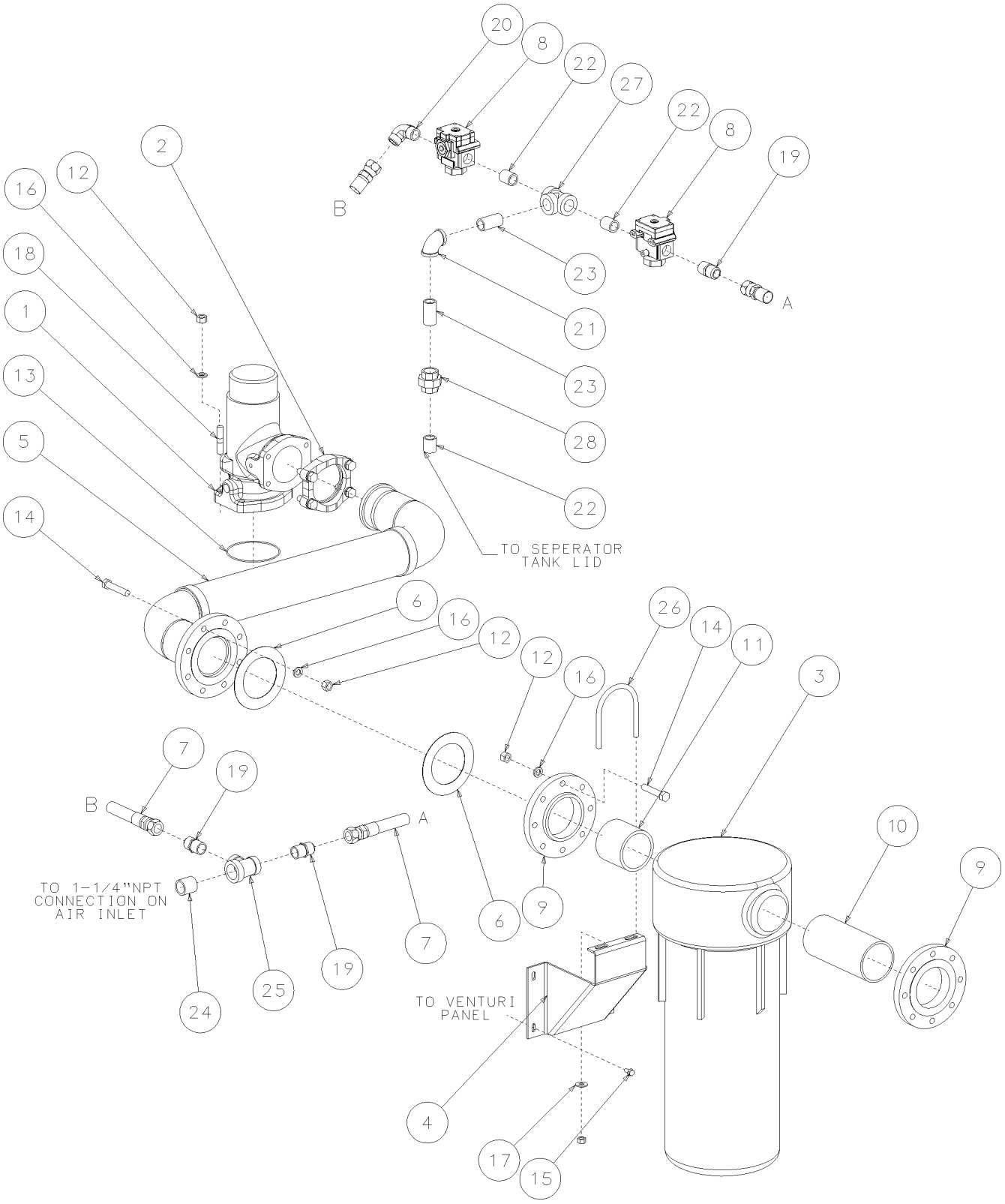
8.10 FLUID COOLING SYSTEM- WATER-COOLED 500-600HP/ 373-447KW (CONTINUED)

key number	*description*	*part number*	*quantity*
34	washer, spr lock reg pltd 5/8	837810-156	3
35	washer, pl-b reg pltd 1/2	838208-112	12
36	washer, pl-b reg pltd 5/8	838210-112	3
37	u-bolt,1/2” x 3” pipe pltd	868308-300	1
38	u-bolt,1/2” x 8” pipe pltd	868308-800	3

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.11 AIR PIPING SYSTEM- AIR-COOLED 400HP/ 298KW



02250137-367R01

8.11 AIR PIPING SYSTEM- AIR-COOLED 400HP/ 298KW

key number	*description*	*part number*	*quantity*
1	valve, minimum pressure 4” w/ck **(I)**	02250050-630	1
2	flange, split 4” sae j518	02250105-533	1
3	seperator, water ws1000	02250111-106	1
4	bracket, seperator mount	02250121-831	1
5	joint, expansion TS32-400intac mpv to clr	02250128-897	1
6	gasket, asa flange 150# 4”	240621-010	2
7	hose,med press 1.00 x .068”	249616-015	2
8	valve, blwdwn 1”nc 2way #c6654 **(II)**	409783	2
9	flange, thrd 4” 150# rf	819315-064	2
10	nipple, pipe 4 x 9 1/2	822164-095	1
11	nipple, pipe-xs 4 x 4	822264-040	1
12	nut, hex pltd 5/8-11	825210-559	20
13	o-ring, viton 5 3/8 x 1/8”	826502-253	1
14	capscr, hex gr5 5/8-11 x 3 1/4	829110-325	16
15	screw, hex ser washer 3/8-16 x 3/4	829706-075	4
16	washer, spr lock reg pltd 5/8	837810-156	20
17	washer, pl-b reg pltd 1/2	838208-112	2
18	stud, threaded 5/8-11 x 3	839410-030	4
19	connector, 37 fl/mpt pltd 1 x 1	860116-100	3
20	elbow, 37fl 90m 1 x 1	860216-100	1
21	elbow, pipe 90 deg plt 1”	866215-040	1
22	nipple, pipe-xs plt 1 x cl	866416-000	3
23	nipple, pipe-xs plt 1 x 2 1/2	866416-025	2
24	nipple, pipe-xs plt 1 1/4 x cl	866420-000	1
25	tee, reducing pltd 1 1/4 x 1 x 1	867505-044	1
26	u-bolt, 1/2” x 4” pipe pltd	868308-400	1
27	tee, pipe pltd 1	868430-040	1
28	union, pipe-brs seat 1 150#	871615-040	1

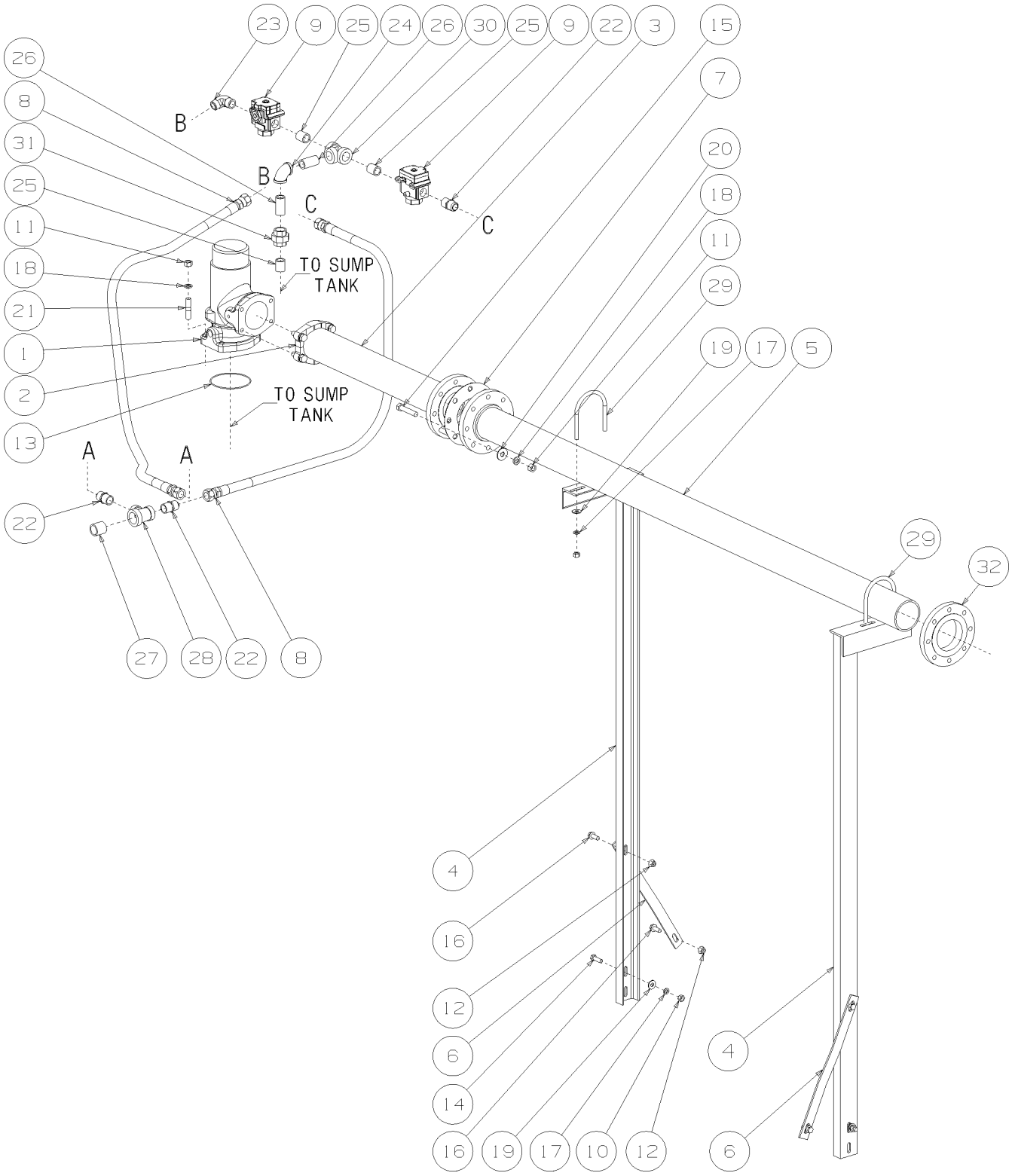
(I) For maintenance on minimum pressure check valve no. 02250050-630, order repair kit no. 02250050-633.

(II) For maintenance on blowdown valve no. 409783 , order repair kit no. 001677 (**NOTE:** quantity of two).

P**LEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR**

Section 8
ILLUSTRATIONS AND PARTS LIST

8.12 AIR PIPING SYSTEM- AIR-COOLED AND REMOTE-COOLED 500-600HP/ 373-447KW



02250136-709R01

8.12 AIR PIPING SYSTEM- AIR-COOLED AND REMOTE-COOLED 500-600HP/ 373-447KW

key number	*description*	*part number*	*quantity*
1	valve, minimum pressure 4” w/ck **(I)**	02250050-630	1
2	flange, split 4” sae j518	02250105-533	1
3	adapter, mpv to tube TS32SC	02250132-702	1
4	support, discharge pipe TS32SC-600 wc	02250133-191	2
5	adapter, tube air out TS32SC rc	02250134-054	1
6	support, air out strap TS32SC 600ac & r	02250134-066	2
7	gasket, 4” 125# flg full face	242437-010	1
8	hose, med press 1.000 x 068”	249616-015	2
9	valve, blwdwn 1”nc 2way #c6654**(II)**	409783	2
10	nut, hex pltd 1/2-13	825208-448	4
11	nut, hex pltd 5/8-11	825210-559	12
12	nut, hex f pltd 1/2-13	825308-458	4
13	o-ring, viton 5 3/8 x 1/8”	826502-253	1
14	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	4
15	capscr, hex gr5 5/8-11 x 3 1/4	829110-325	8
16	screw, hex ser washer 1/2-13 x 1 1/4	829708-125	4
17	washer, spr lock reg pltd 1/2	837808-125	8
18	washer, spr lock reg pltd 5/8	837810-156	12
19	washer, pl-b reg pltd 1/2	838208-112	8
20	washer, pl-b reg pltd 5/8	838210-112	8
21	stud, threaded 5/8-11 x 3	839410-030	4
22	connector, 37 fl/mpt pltd 1 x 1	860116-100	3
23	elbow, 37fl 90m 1 x 1	860216-100	1
24	elbow, pipe 90 deg plt 1”	866215-040	1
25	nipple, pipe-xs plt 1 x cl	866416-000	3
26	nipple, pipe-xs plt 1 x 2 1/2	866416-025	2
27	nipple, pipe-xs plt 1 1/4 x cl	866420-000	1
28	tee, reducing pltd 1 1/4 x 1 x 1	867505-044	1
29	u-bolt, 1/2” x 4” pipe pltd	868308-400	2
30	tee, pipe pltd 1	868430-040	1

(Continued on page 89)

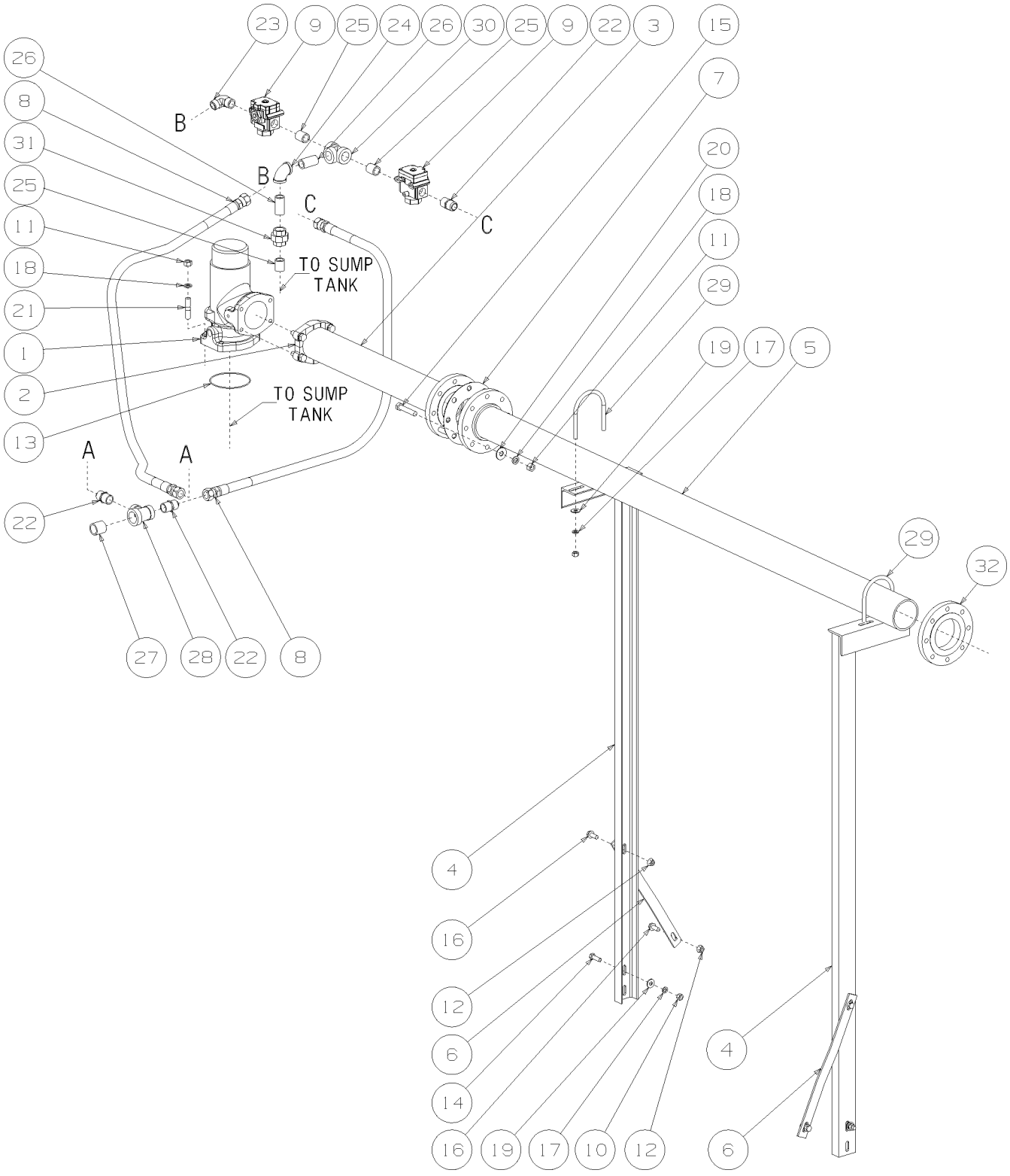
(I) For maintenance on minimum pressure check valve no. 02250050-630, order repair kit no. 02250050-633.

(II) For maintenance on blowdown valve no. 409783 , order repair kit no. 001677 (NOTE: quantity of two).

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.12 AIR PIPING SYSTEM- AIR-COOLED AND REMOTE-COOLED 500-600HP/ 373-447KW



02250136-709R01

8.12 AIR PIPING SYSTEM- AIR-COOLED AND REMOTE-COOLED 500-600HP/ 373-447KW (CONTINUED)

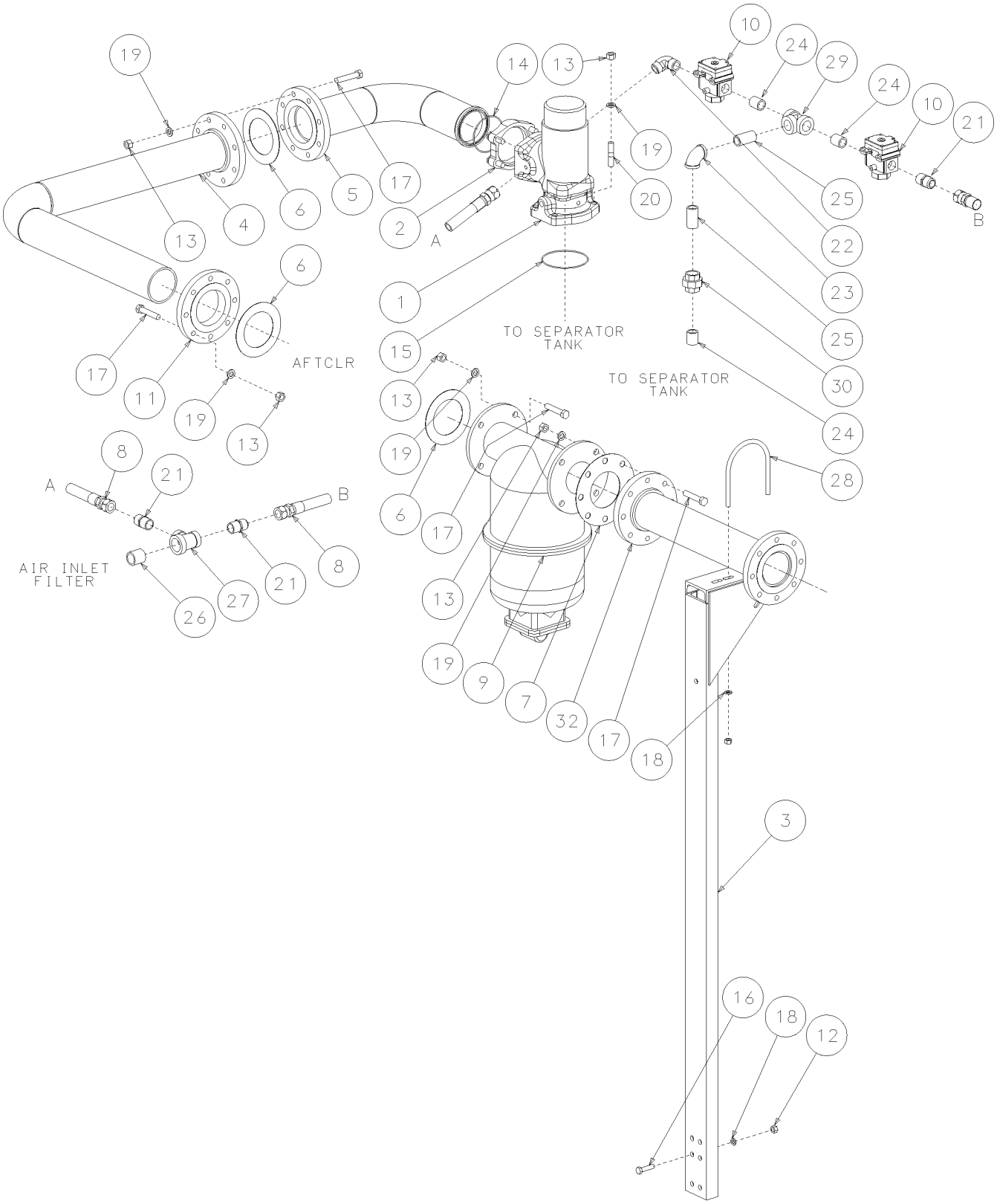
key number	*description*	*part number*	*quantity*
31	union, pipe-brs seat 1 150#	871615-040	1
32	flange, thrd 4” various **(III)**	-	1

(III) This part may vary by machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.13 AIR PIPING SYSTEM- WATER-COOLED 400HP/ 298KW



02250137-255R02

8.13 AIR PIPING SYSTEM- WATER-COOLED 400HP/ 298KW

key number	*description*	*part number*	*quantity*
1	valve, minimum pressure 4” w/ck **(I)**	02250050-630	1
2	flange, split 4” sae j518	02250105-533	1
3	support, after cooler TS32-400	02250129-208	1
4	adapter, aftrclr TS32SC 400 wc	02250133-183	1
5	adptr, mpv to aftrclr TS32SC 400 wc	02250133-184	1
6	gasket, asa flange 150# 4”	240621-010	3
7	gasket, 4” 125# flg full face	242437-010	1
8	hose, med press 1.00 x .068”	249616-015	2
9	separator, 4” comb trap-4st **(II)**	250000-511	1
10	valve, blwdwn 1”nc 2way #c6654**(III)**	409783	2
11	flange, thrd 4” 150# rf	819315-064	1
12	nut, hex pltd 1/2-13	825208-448	4
13	nut, hex pltd 5/8-11	825210-559	28
14	o-ring, viton 4 3/8 x 1/8”	826502-245	1
15	o-ring, viton 5 3/8 x 1/8”	826502-253	1
16	capscr, hex gr5 1/2-13 x 2	829108-200	4
17	capscr, hex gr5 5/8-11 x 3 1/4	829110-325	24
18	washer, spr lock reg pltd 1/2	837808-125	6
19	washer, spr lock reg pltd 5/8	837810-156	28
20	stud, threaded 5/8-11 x 3	839410-030	4
21	connector, 37 fl/mpt pltd 1 x 1	860116-100	3
22	elbow, 37fl 90m 1 x 1	860216-100	1
23	elbow, pipe 90 deg plt 1”	866215-040	1
24	nipple, pipe-xs plt 1 x cl	866416-000	3
25	nipple, pipe-xs plt 1 x 2 1/2	866416-025	2
26	nipple, pipe-xs plt 1 1/4 x cl	866420-000	1
27	tee, reducing pltd 1 1/4 x 1 x 1	867505-044	1
28	u-bolt, 1/2” x 5” pipe pltd	868308-500	1
29	tee, pipe pltd 1	868430-040	1
30	union, pipe-brs seat 1 150#	871615-040	1

(I) For maintenance on minimum pressure check valve no. 02250050-630, order repair kit no. 02250050-633.

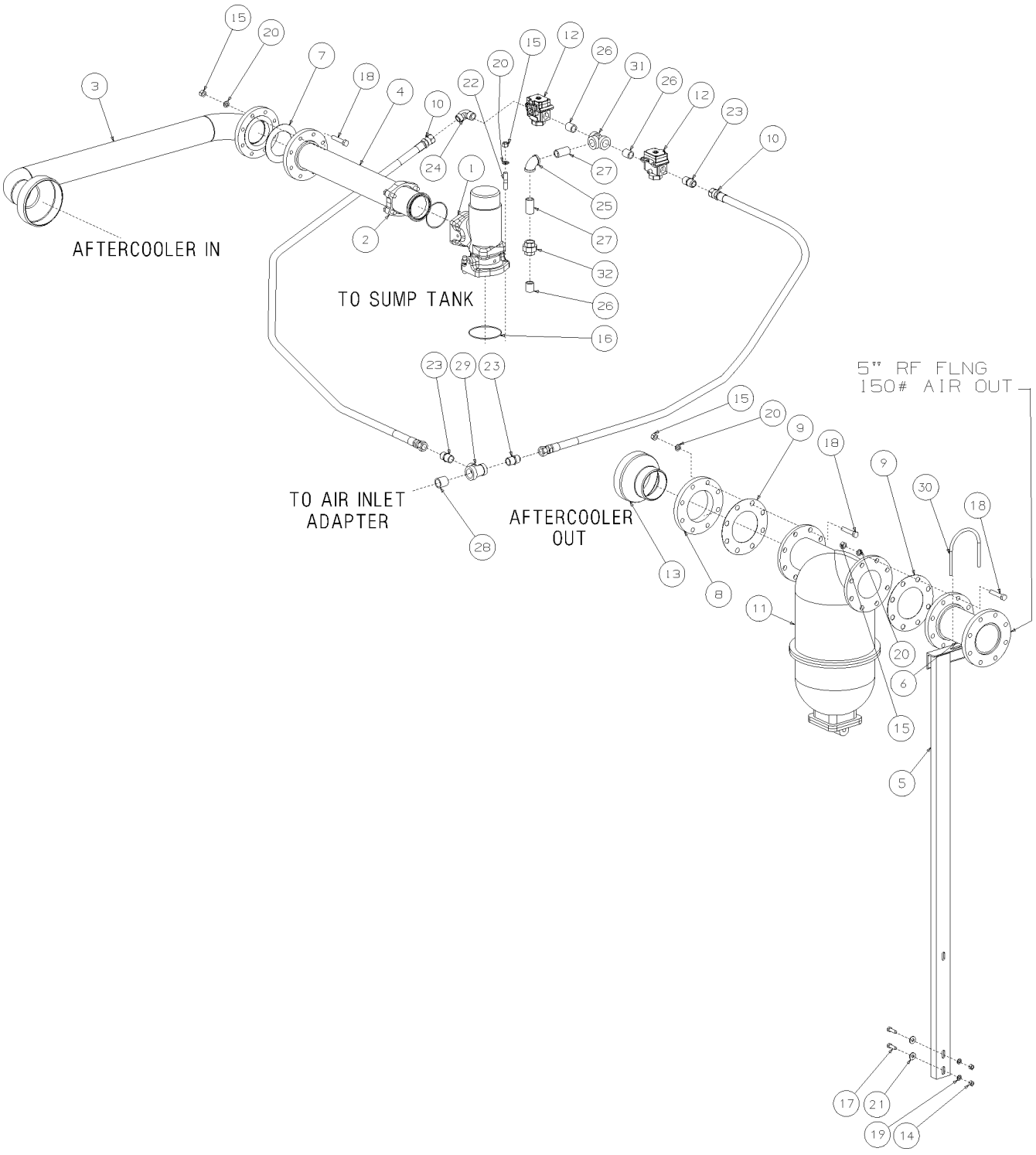
(II) For maintenance on water separator no. 250000-511, order repair kit no. 250033-036.

(III) For maintenance on blowdown valve no. 409783 , order repair kit no. 001677 **(NOTE:** quantity of two).

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.14 AIR PIPING SYSTEM- WATER-COOLED 500-600HP/ 373-447KW



8.14 AIR PIPING SYSTEM- WATER-COOLED 500-600HP/ 373-447KW

key number	*description*	*part number*	*quantity*
1	valve, minimum pressure 4” w/ck **(I)**	02250050-630	1
2	flange, split 4” sae j518	02250105-533	1
3	pipe, mpv to aftrclr TS32S	02250132-497	1
4	adapter, mpv to tube TS32SC	02250132-702	1
5	support, discharge pipe TS32SC-600 wc	02250133-191	1
6	tube, adapt TS32SC rc/ac 500/600	02250137-267	1
7	gasket, asa flange 150# 4”	240621-010	1
8	flange, slip-on flt face 5”	242319-011	1
9	gasket, 5” 125# flg full face	242437-011	2
10	hose, med press 1.00 x .068”	249616-015	2
11	separator, 5” comb trap 5st **(II)**	250007-799	1
12	valve, blwdwn 1”nc 2way #c6654 **(III)**	409783	2
13	reducer, wld 8 x 5 std	819932-050	1
14	nut, hex pltd 1/2-13	825208-448	2
15	nut, hex pltd 5/8-11	825210-559	28
16	o-ring, viton 5 3/8 x 1/8”	826502-253	1
17	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	2
18	capscr, hex gr5 5/8-11 x 3 1/4	829110-325	24
19	washer, spr lock reg pltd 1/2	837808-125	2
20	washer, spr lock reg pltd 5/8	837810-156	28
21	washer, pl-b reg pltd 1/2	838208-112	2
22	stud, threaded 5/8-11 x 3	839410-030	4
23	connector, 37 fl/mpt pltd 1 x 1	860116-100	3
24	elbow, 37fl 90m 1 x 1	860216-100	1
25	elbow, pipe 90 deg plt 1”	866215-040	1
26	nipple, pipe-xs plt 1 x cl	866416-000	3
27	nipple, pipe-xs plt 1 x 2 1/2	866416-025	2
28	nipple, pipe-xs plt 1 1/4 x cl	866420-000	1
29	tee, reducing pltd 1 1/4 x 1 x 1	867505-044	1

(Continued on page 95)

(I) For maintenance on minimum pressure check valve no. 02250050-630, order repair kit no. 02250050-633.

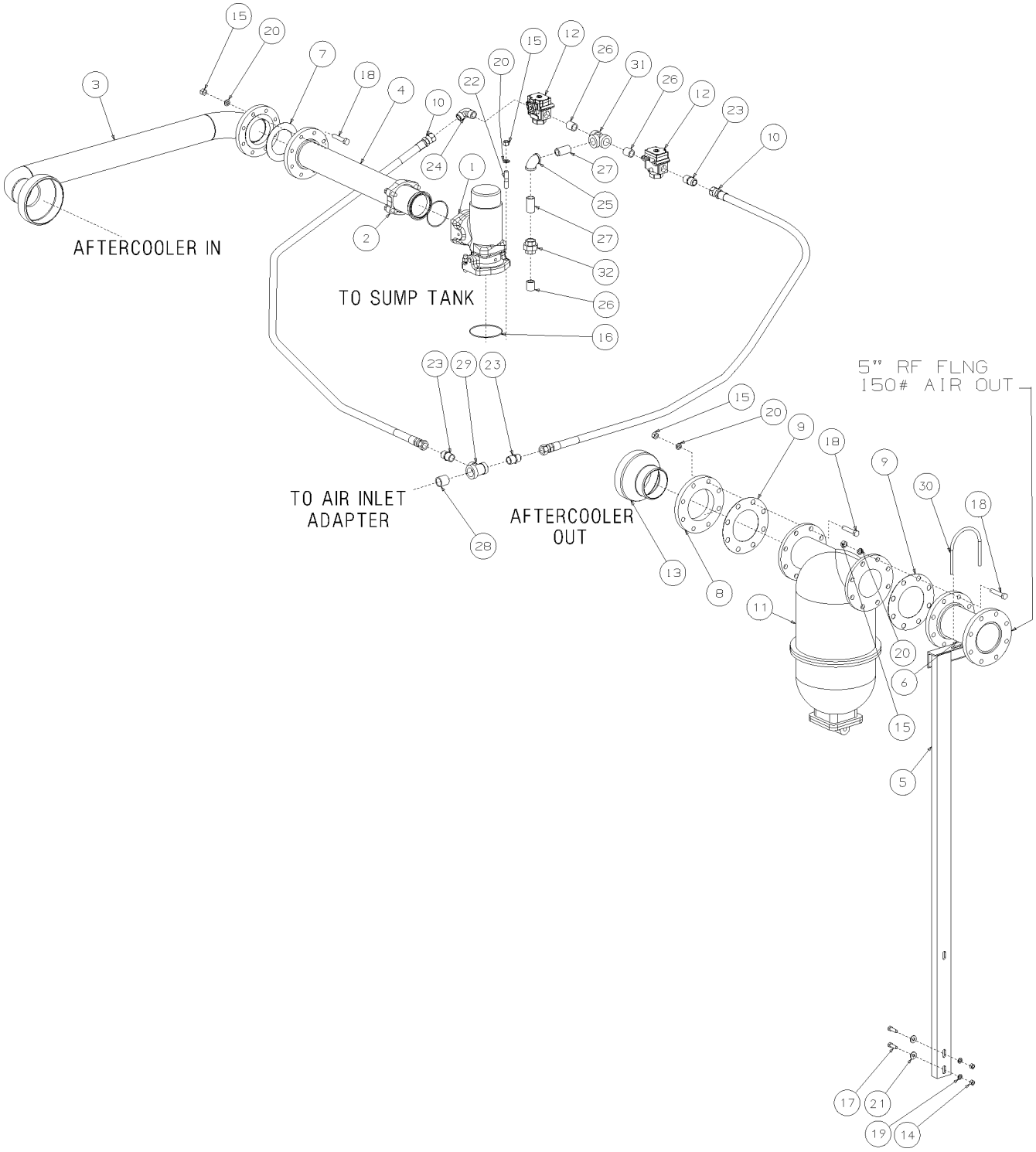
(II) For maintenance on water separator no. 250007-799, order trap replacement gasket no. 022250121-257.

(III) For maintenance on blowdown valve no. 409783, order repair kit no. 001677 (NOTE: quantity of two).

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.14 AIR PIPING SYSTEM- WATER-COOLED 500-600HP/ 373-447KW



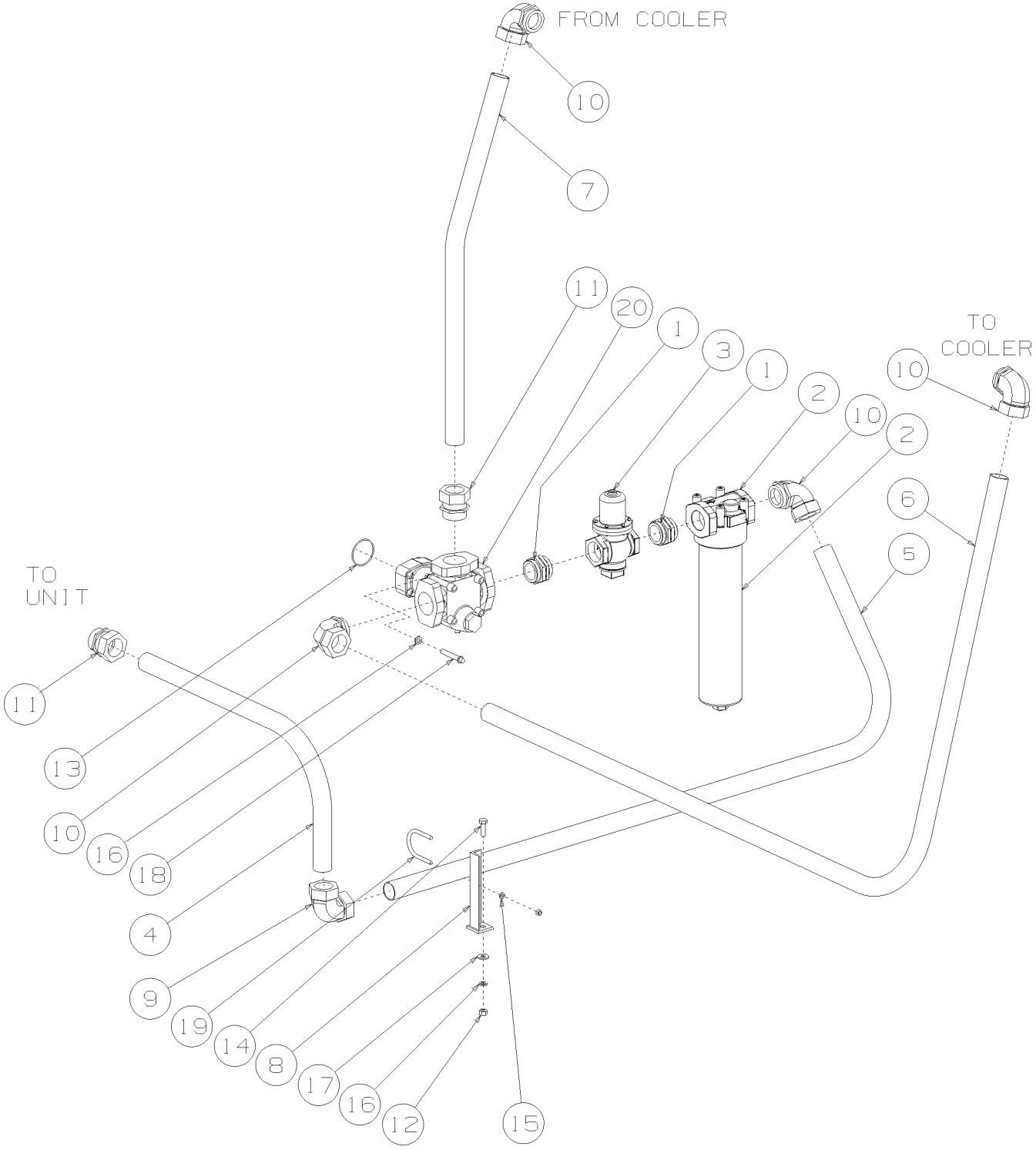
8.14 AIR PIPING SYSTEM- WATER-COOLED 500-600HP/ 373-447KW (CONTINUED)

key number	*description*	*part number*	*quantity*
30	u-bolt, 1/2” x 5” pipe pltd	868308-500	1
31	tee, pipe pltd 1	868430-040	1
32	union, pipe-brs seat 1 150#	871615-040	1

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.15 FLUID PIPING SYSTEM- AIR-COOLED 400HP/ 298KW



8.15 FLUID PIPING SYSTEM- AIR-COOLED 400HP/ 298KW

key number	*description*	*part number*	*quantity*
1	adapter, sae 2-1/2-12 x 2-1/2-12	02250110-661	2
2	filter, 2 1/2-12 sae coreless 80cn-2 **(I)**	02250121-638	1
3	valve, oil stop 2.5” sae **(II)**	02250122-004	1
4	tube, unit to filter TS32 2”	02250132-287	1
5	tube, union to filter TS32S 2”	02250132-288	1
6	tube, bypass to cooler out ac TS32S	02250132-289	1
7	tube, cooler in to bpv TS32S ac	02250133-002	1
8	support, tubing TS32SC	02250133-850	1
9	elbow, tube union 2	811232-200	1
10	elbow, tube str thrd 2 x 2 1/2	811632-250	4
11	connector, tube str thd 2 x 2 1/2	811832-250	2
12	nut, hex pltd 1/2-13	825208-448	1
13	o-ring, viton 2 3/4 x 1/8”	826502-232	1
14	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	1
15	washer, spr lock reg pltd 3/8	837806-094	2
16	washer, spr lock reg pltd 1/2	837808-125	5
17	washer, pl-b reg pltd 1/2	838208-112	1
18	capscrew, ferry head hd pltd 1/2-13 x 3	867308-300	4
19	u-bolt, 3/8” x 2” pipe pltd	868306-200	1
20	valve, thermal 2.5 in sae **(III)**	-	1

(I) For maintenance on fluid filter no. 02250121-638, order repair kit no. 02250139-996.

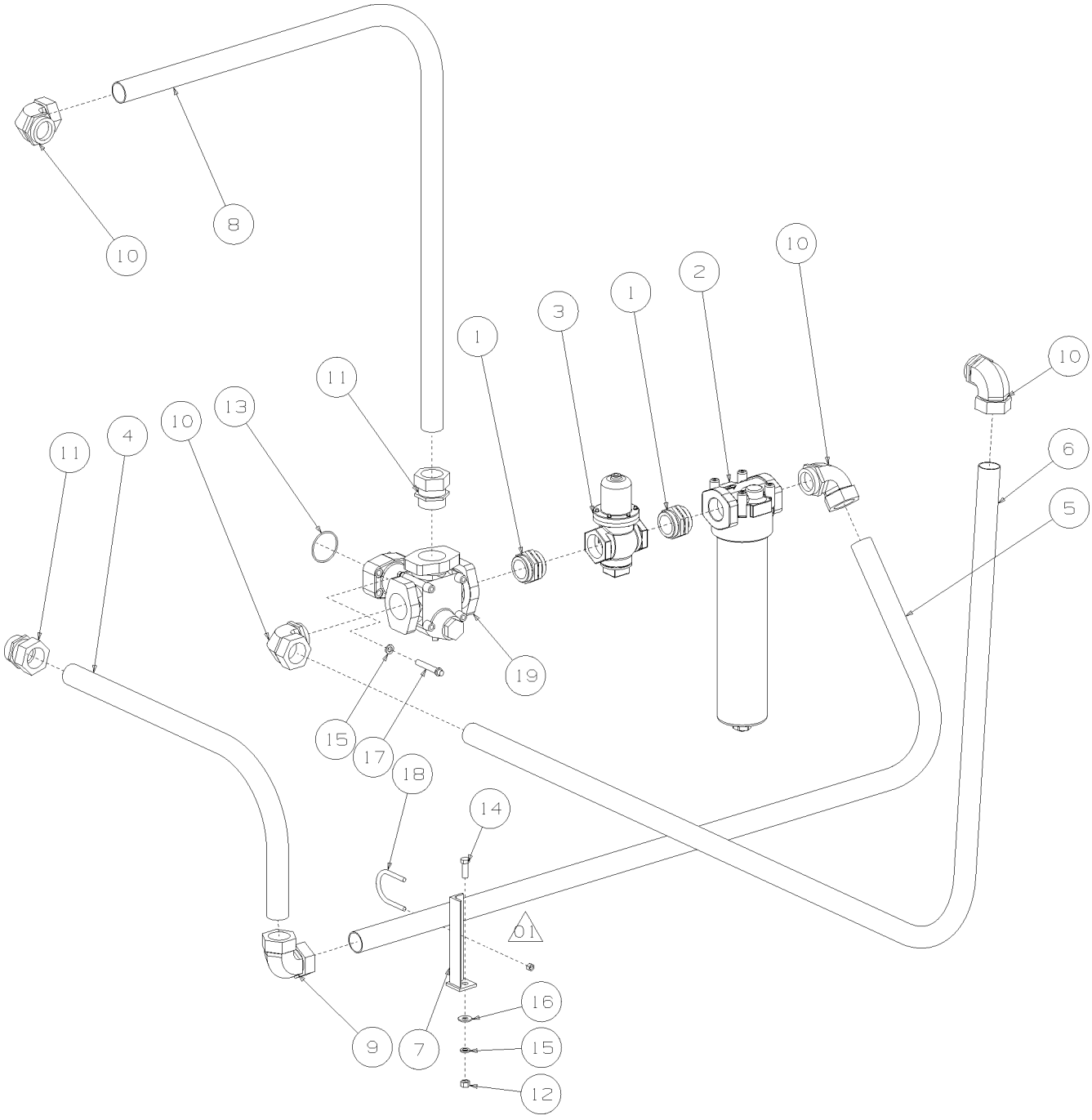
(II) For maintenance on fluid stop valve no. 02250122-004, order repair kit no. 001684.

(III) This part may vary by machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.16 FLUID PIPING SYSTEM- AIR-COOLED 500-600HP/ 373-447KW



8.16 FLUID PIPING SYSTEM- AIR-COOLED 500-600HP/ 373-447KW

key number	*description*	*part number*	*quantity*
1	adapter, sae 2-1/2-12 x 2-1/2-12	02250110-661	2
2	filter, 2 1/2-12 sae coreless 80cn-2 **(I)**	02250121-638	1
3	valve, oil stop 2.5” sae **(II)**	02250122-004	1
4	tube, unit to filter TS32 2”	02250132-287	1
5	tube, union to filter TS32S 2”	02250132-288	1
6	tube, bypass to cooler out ac TS32S	02250132-289	1
7	support, tubing TS32S	02250133-850	1
8	tube, clrout to bypass vlv TS32SC-600	02250134-125	1
9	elbow, tube union 2	811232-200	1
10	elbow, tube str thrd 2 x 2 1/2	811632-250	4
11	connector, tube str thd 2 x 2 1/2	811832-250	2
12	nut, hex pltd 1/2-13	825208-448	1
13	o-ring, viton 2 3/4 x 1/8”	826502-232	1
14	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	1
15	washer, spr lock reg pltd 1/2	837808-125	5
16	washer, pl-b reg pltd 1/2	838208-112	1
17	capscrew, ferry head hd pltd 1/2-13 x 3	867308-300	4
18	u-bolt, 3/8” x 2” pipe pltd	868306-200	1
19	valve, thermal 2.5 in sae **(III)**	-	1

(I) For maintenance on fluid filter no. 02250121-638, order repair kit no. 02250139-996.

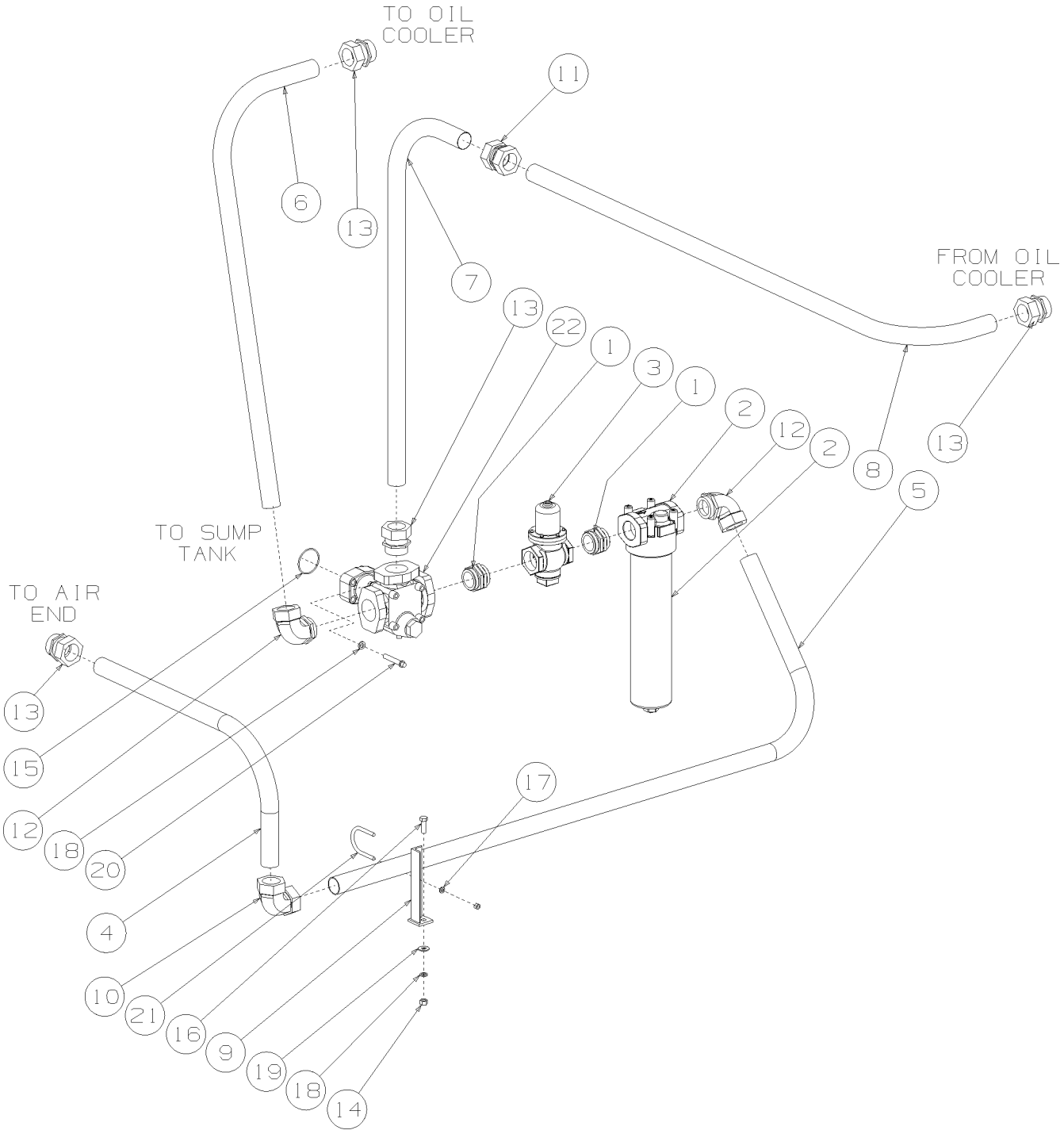
(II) For maintenance on fluid stop valve no. 02250122-004, order repair kit no. 001684.

(III) This part may vary by machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.17 FLUID PIPING SYSTEM- WATER-COOLED 400HP/ 298KW



8.17 FLUID PIPING SYSTEM- WATER-COOLED 400HP/ 298KW

key number	*description*	*part number*	*quantity*
1	adapter, sae 2-1/2-12 x 2-1/2-12	02250110-661	2
2	filter, 2 1/2-12 sae coreless 80cn-2 **(I)**	02250121-638	1
3	valve, oil stop 2.5” sae **(II)**	02250122-004	1
4	tube, unit to filter TS32 2”	02250132-287	1
5	tube, union to filter TS32S 2”	02250132-288	1
6	tube, bypass to clr in wc TS32S	02250132-309	1
7	tube, bypass to clrout wc TS32S	02250132-310	1
8	tube, clrout to bypass horiz.TS32S	02250132-362	1
9	support, tubing TS32SC	02250133-850	1
10	elbow, tube union 2	811232-200	1
11	union, tube hex 2”	811332-200	1
12	elbow, tube str thrd 2 x 2 1/2	811632-250	2
13	connector, tube str thd 2 x 2 1/2	811832-250	4
14	nut, hex pltd 1/2-13	825208-448	1
15	o-ring, viton 2 3/4 x 1/8”	826502-232	1
16	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	1
17	washer, spr lock reg pltd 3/8	837806-094	2
18	washer, spr lock reg pltd 1/2	837808-125	5
19	washer, pl-b reg pltd 1/2	838208-112	1
20	capscrew, ferry head hd pltd 1/2-13 x 3	867308-300	4
21	u-bolt, 3/8” x 2” pipe pltd	868306-200	1
22	valve, thermal 2.5 in sae **(III)**	-	1

(I) For maintenance on fluid filter no. 02250121-638, order repair kit no. 02250139-996.

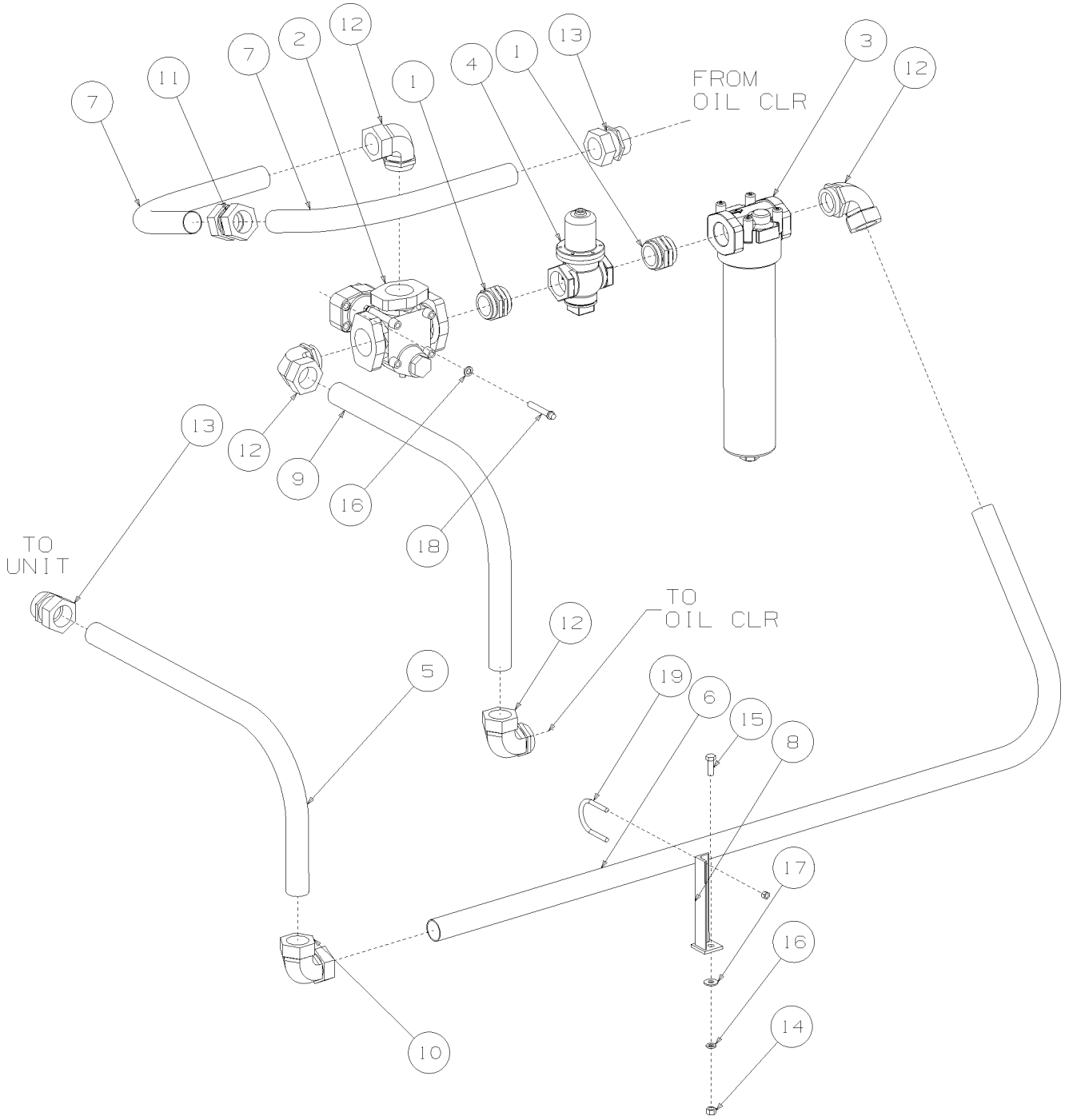
(II) For maintenance on fluid stop valve no. 02250122-004, order repair kit no. 001684.

(III) This part may vary by machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.18 FLUID PIPING SYSTEM- WATER-COOLED 500-600HP/ 373-447KW



02250137-342R01

8.18 FLUID PIPING SYSTEM- WATER-COOLED 500-600HP/ 373-447KW

key number	*description*	*part number*	*quantity*
1	adapter, sae 2-1/2-12 x 2-1/2-12	02250110-661	2
2	valve, thermal 2.5” sae 170deg **(I)**	02250120-955	1
3	filter, 2 1/2-12 sae coreless 80cn-2 **(II)**	02250121-638	1
4	valve, oil stop 2.5” sae **(III)**	02250122-004	1
5	tube, unit to filter TS32S	02250132-287	1
6	tube, union to filter TS32S 2”	02250132-288	1
7	tube,bypass to clr out	02250132-699	2
8	support, tubing TS32SC	02250133-850	1
9	tube, bypass to clr TS32S-500/600 wcw	02250137-555	1
10	elbow, tube union 2	811232-200	1
11	union,tube hex 2”	811332-200	1
12	elbow, tube str thrd 2 x 2 1/2	811632-250	4
13	connector, tube str thd 2 x 2 1/2	811832-250	2
14	nut, hex pltd 1/2-13	825208-448	1
15	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	1
16	washer, spr lock reg pltd 1/2	837808-125	5
17	washer, pl-b reg pltd 1/2	838208-112	1
18	capscrew, ferry head hd pltd 1/2-13 x 3	867308-300	4
19	u-bolt, 3/8” x 2” pipe pltd	868306-200	1

(I) For maintenance on thermal valve (170º) no. 02250120-955, order repair kit no. 02250120-957.

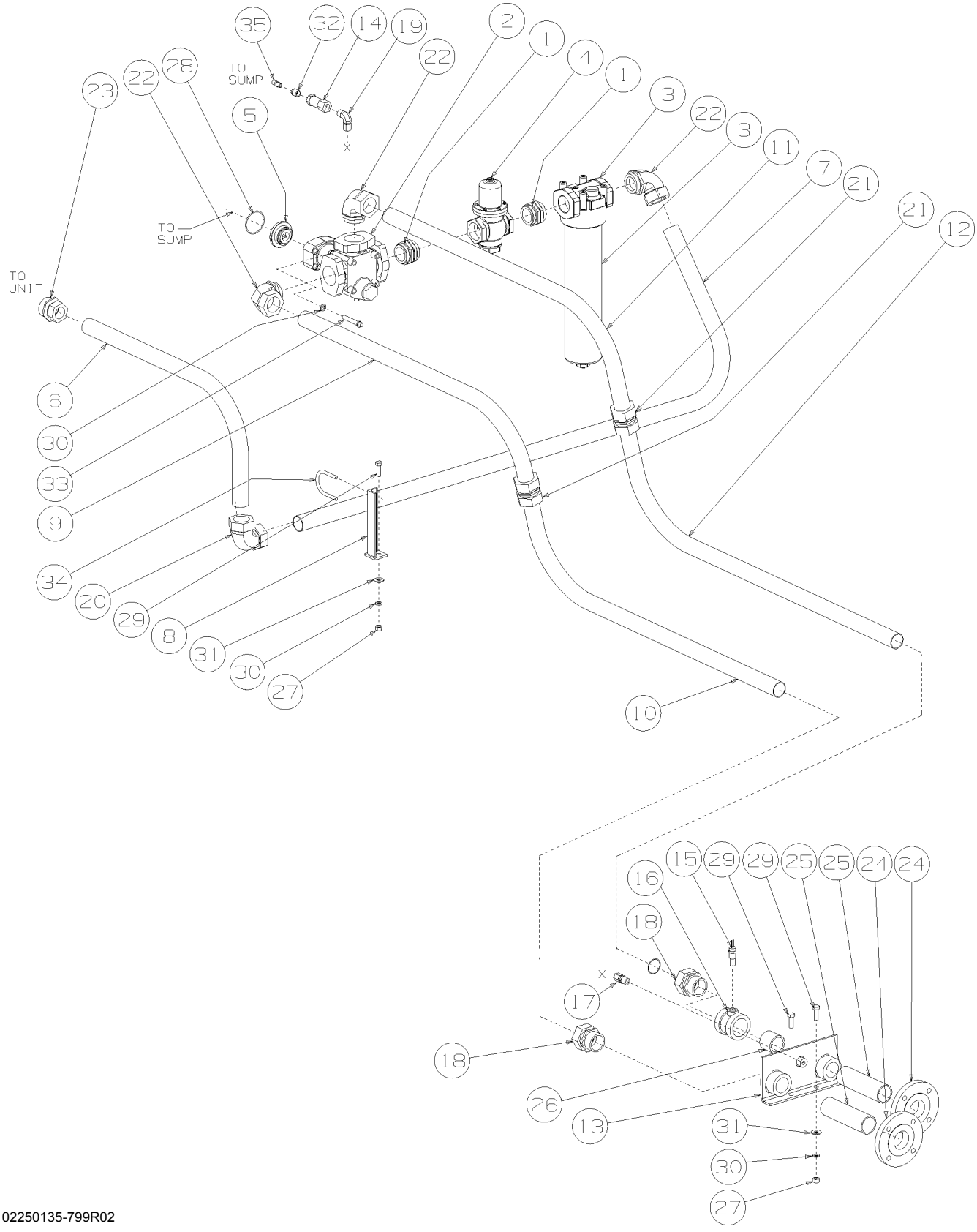
(II) For maintenance on fluid filter no. 02250121-638, order repair kit no. 02250139-996.

(III) For maintenance on fluid stop valve no. 02250122-004, order repair kit no. 001684.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.19 FLUID PIPING SYSTEM- REMOTE-COOLED 500-600HP/ 373-447KW



02250135-799R02

8.19 FLUID PIPING SYSTEM- REMOTE-COOLED 500-600HP/ 373-447KW

key number	*description*	*part number*	*quantity*
1	adapter, sae 2-1/2-12 x 2-1/2-12	02250110-661	2
2	valve, thermal 2.5” sae 170deg **(I)**	02250120-955	1
3	filter, 2 1/2-12 sae coreless 80cn-2 **(II)**	02250121-638	1
4	valve, oil stop 2.5” sae **(III)**	02250122-004	1
5	2-1/2” sae check valve insert	02250125-617	1
6	tube, unit to filter TS32 2”	02250132-287	1
7	tube, union to filter TS32S 2”	02250132-288	1
8	support, tubing TS32SC	02250133-850	1
9	tube, bypass to union 2”	02250135-856	1
10	tube, oil in to union 2” TS32SC	02250135-858	1
11	tube, bypass out to union TS32SC	02250135-860	1
12	tube, oil out to union 2” TS32SC	02250135-862	1
13	support, 2”npt oil in/out TS32SC	02250136-215	1
14	valve, check 1/2”	042694	1
15	switch, temp n.o. 115f	043239	1
16	tee, reducing 2 x 2 x 1/2	802208-082	1
17	connector, tube-m 1/2 x 1/2	810208-050	1
18	connector, tube-m 2 x 2	810232-200	2
19	elbow, tube 90 deg m 1/2 x 1/2	810508-050	1
20	elbow, tube union 2	811232-200	1
21	union, tube hex 2”	811332-200	2
22	elbow, tube str thrd 2 x 2 1/2	811632-250	3
23	connector, tube str thd 1 1/2 x 2 1/2	811824-250	1
24	flange, thrd red 2 x 7”	819532-070	2
25	nipple, pipe 2 x 8	822132-080	2
26	nipple, pipe-xs 2 x cl	822232-000	1
27	nut, hex pltd 1/2-13	825208-448	3
28	o-ring, viton 2 3/4 x 1/8”	826502-232	1
29	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	3

(Continued on page 107)

(I) For maintenance on thermal valve (170º) no. 02250120-955, order repair kit no. 02250120-957.

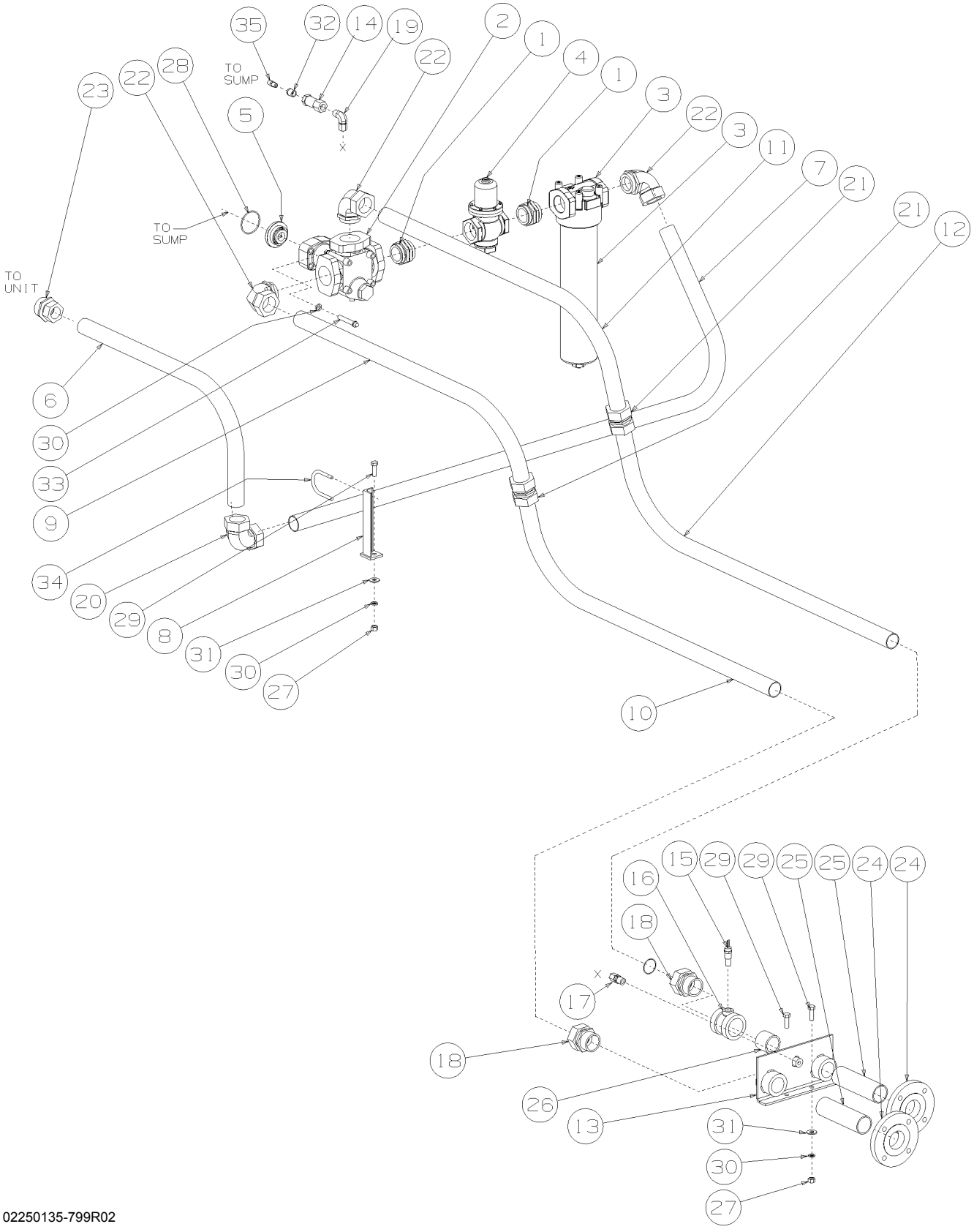
(II) For maintenance on coreless filter no. 02250121-638, order repair kit no. 02250139-996.

(III) For maintenance on fluid stop valve no. 02250122-004, order repair kit no. 001684.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.19 FLUID PIPING SYSTEM- REMOTE-COOLED 500-600HP/ 373-447KW



02250135-799R02

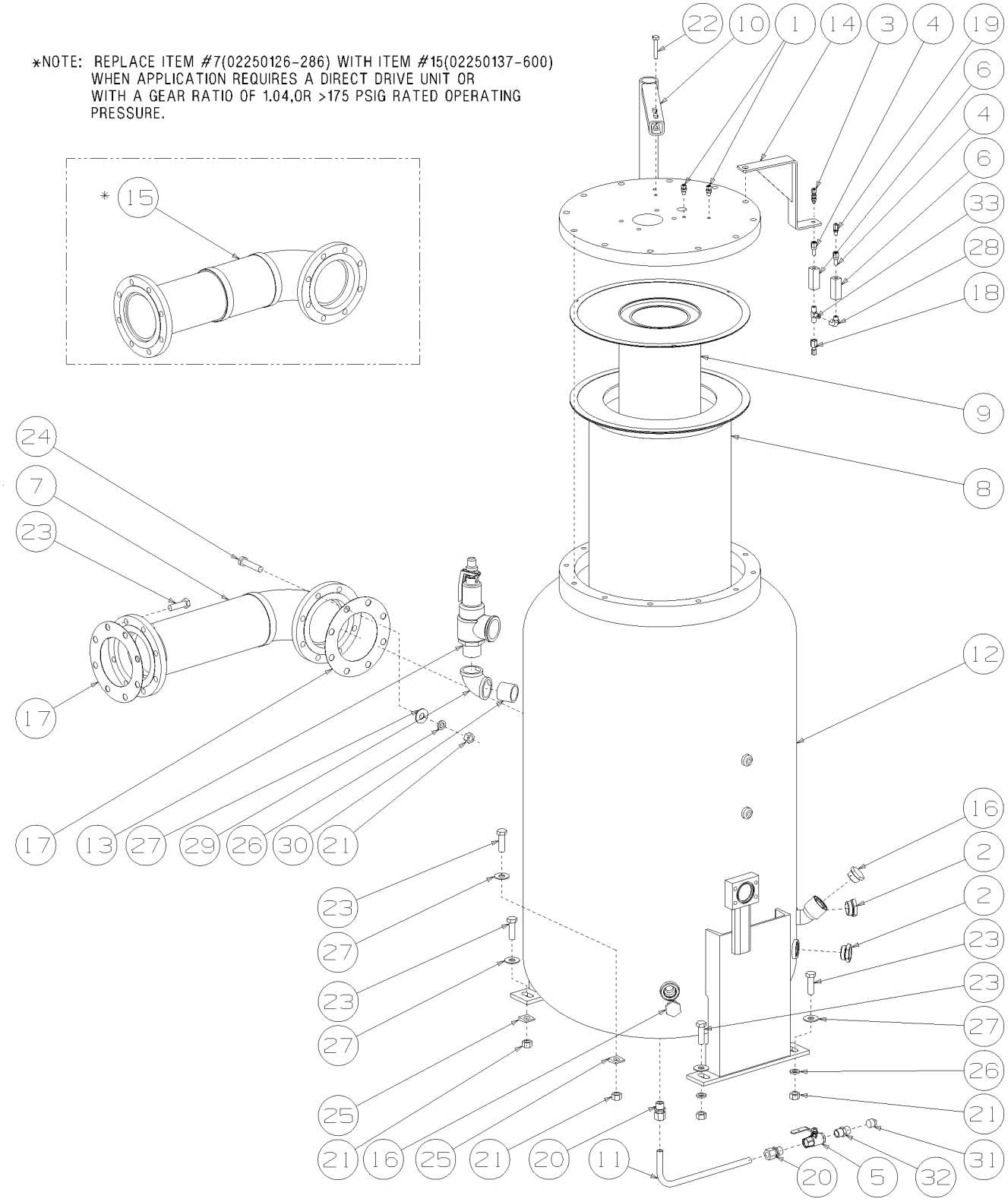
8.19 FLUID PIPING SYSTEM- REMOTE-COOLED 500-600HP/ 373-447KW (CONTINUED)

key number	*description*	*part number*	*quantity*
30	washer, spr lock reg pltd 1/2	837808-125	7
31	washer, pl-b reg pltd 1/2	838208-112	3
32	bushing, red pltd 1/2 x 1/4	867102-010	1
33	capscrew, ferry head hd pltd 1/2-13 x 3	867308-300	4
34	u-bolt, 3/8” x 2” pipe pltd	868306-200	1
35	nipple, pipe-hx pltd 1/4 x 1/4	868504-025	1

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.20 SUMP AND PARTS



02250135-534R03

8.20 SUMP AND PARTS

key number	*description*	*part number*	*quantity*
1	connector, flex 1/4t x 1/4p	020169	2
2	plug, sight glass 1-7/8” sae	02250097-611	2
3	connector, tube male bhd 1/4 x sae	02250101-490	1
4	filter, asembly genisis filter **(I)**	02250117-782	2
5	valve, ball 3/4”sae x 3/4”npt	02250125-221	1
6	sightglass, orf block sae	02250126-129	2
7	joint, expansion TS32S rec. tnk to unit	02250126-286	1
8	element, sep/pri **(II)**	02250126-325	1
9	element, sep/sec **(III)**	02250126-331	1
10	boom, lid lifting	02250127-249	1
11	tube, 3/4” sump drain	02250129-121	1
12	tank, oil sep 36” dia.	02250129-137	1
13	valve, relief 2” 160# soft seat	02250132-162	1
14	support, oil rtn sightgl TS32S-400/600	02250137-560	1
15	joint, expansion TS32S rectnk to unit 6” ac/w	02250137-600	1
16	plug, o-ring boss sae 1 1/4	040029	2
17	gasket, 6” 125# flg full face	242437-012	2
18	connector, tube-f 1/4 x 1/4	810104-025	1
19	connector, tube str thd 1/4 x 7/16	811804-044	1
20	connector, tube str thd 3/4 x 1 1/16	811812-106	2
21	nut, hex pltd 3/4-10	825212-665	12
22	capscr, hex gr5 1/2-13 x 2 3/4	829108-275	2
23	capscr, hex gr5 3/4-10 x 2 1/2	829112-250	12
24	capscr, hex gr5 3/4-10 x 3 1/2	829112-350	8
25	washer, bevel 3/4	837012-150	2
26	washer, spr lock reg pltd 3/4	837812-188	10
27	washer, pl-b reg pltd 3/4	838212-112	12

(Continued on page 111)

(I) For mainteinance on filter assemlby no. 02250117-782, order filter assembly no. 02250117-782.

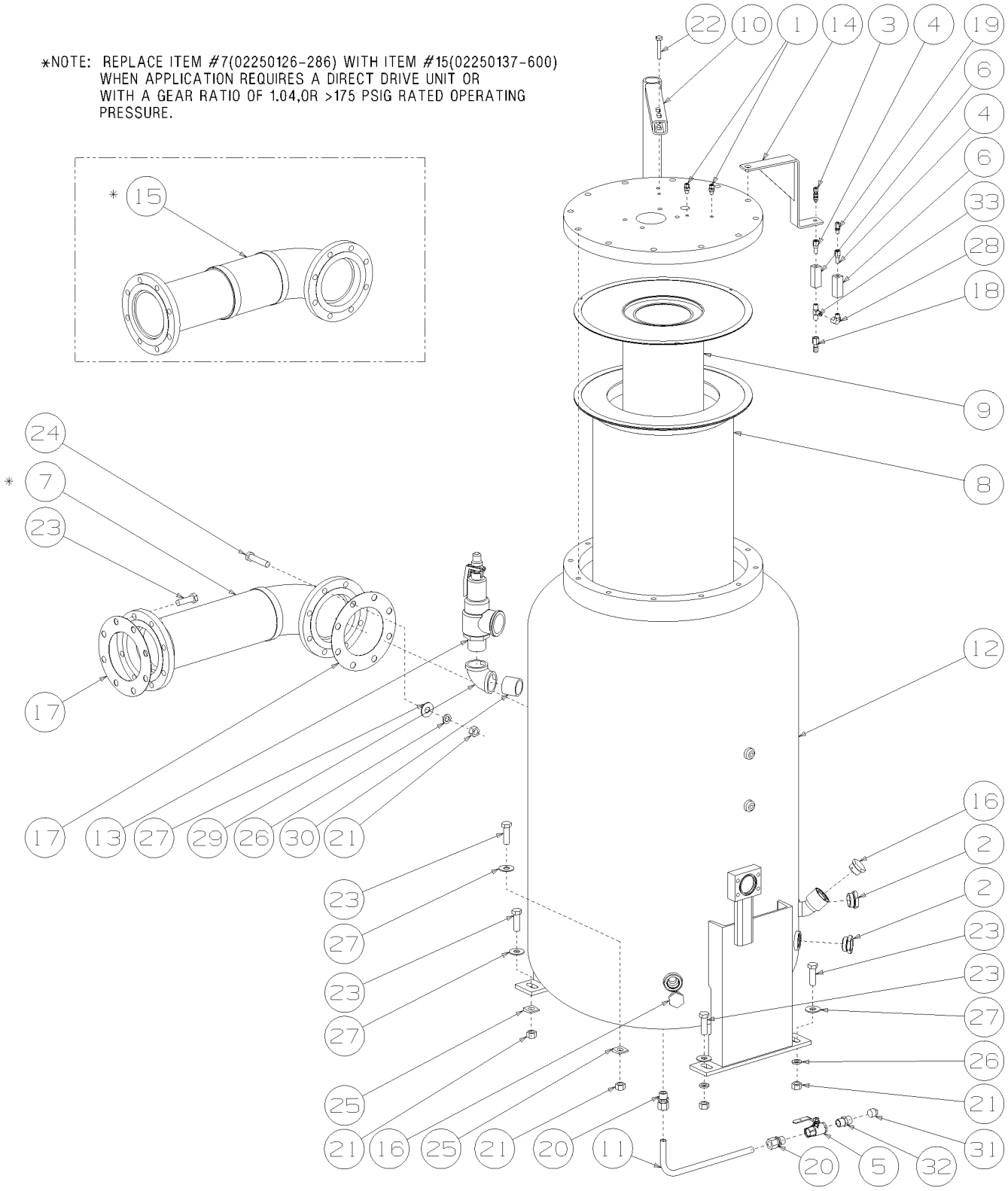
(II) For maintenance on primary separator element no. 02250126-325, order replacement element no. 02250126-352.

(III) For maintenance on secondary separator element no. 02250126-331, order replacement element no. 02250126-355.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.20 SUMP AND PARTS



02250135-534R03

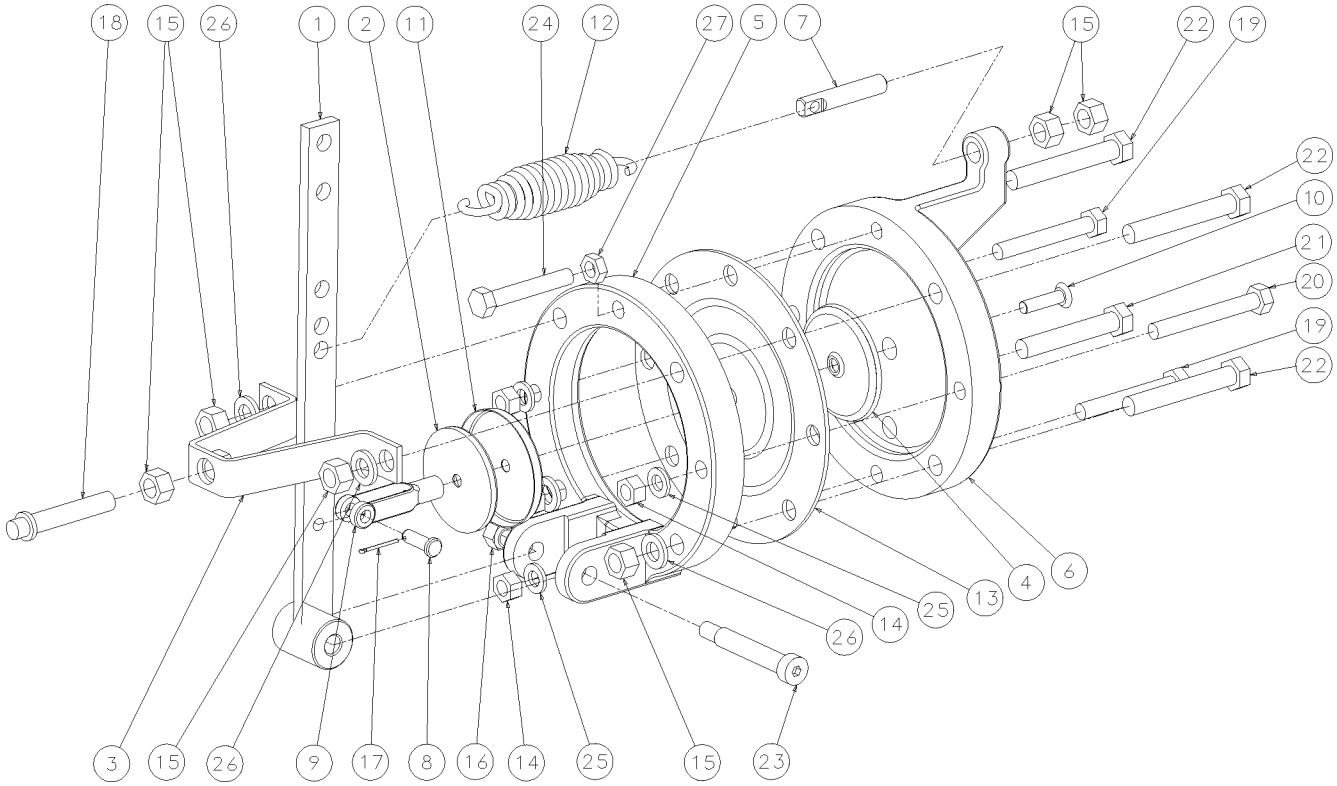
8.20 SUMP AND PARTS (CONTINUED)

key number	*description*	*part number*	*quantity*
28	elbow, pipe 90m/f 1/4 x 1/4	860704-025	1
29	elbow, pipe 90 deg plt 2”	866215-080	1
30	nipple, pipe-xs plt 2 x cl	866432-000	1
31	plug, pipe 3/4” 3000# stl plt	866900-030	1
32	nipple, pipe-hx pltd 3/4 x 3/4	868512-075	1
33	tee, male pipe brass 1/4	869825-025	1

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.21 SULLICON CONTROL



8.21 SULLICON CONTROL

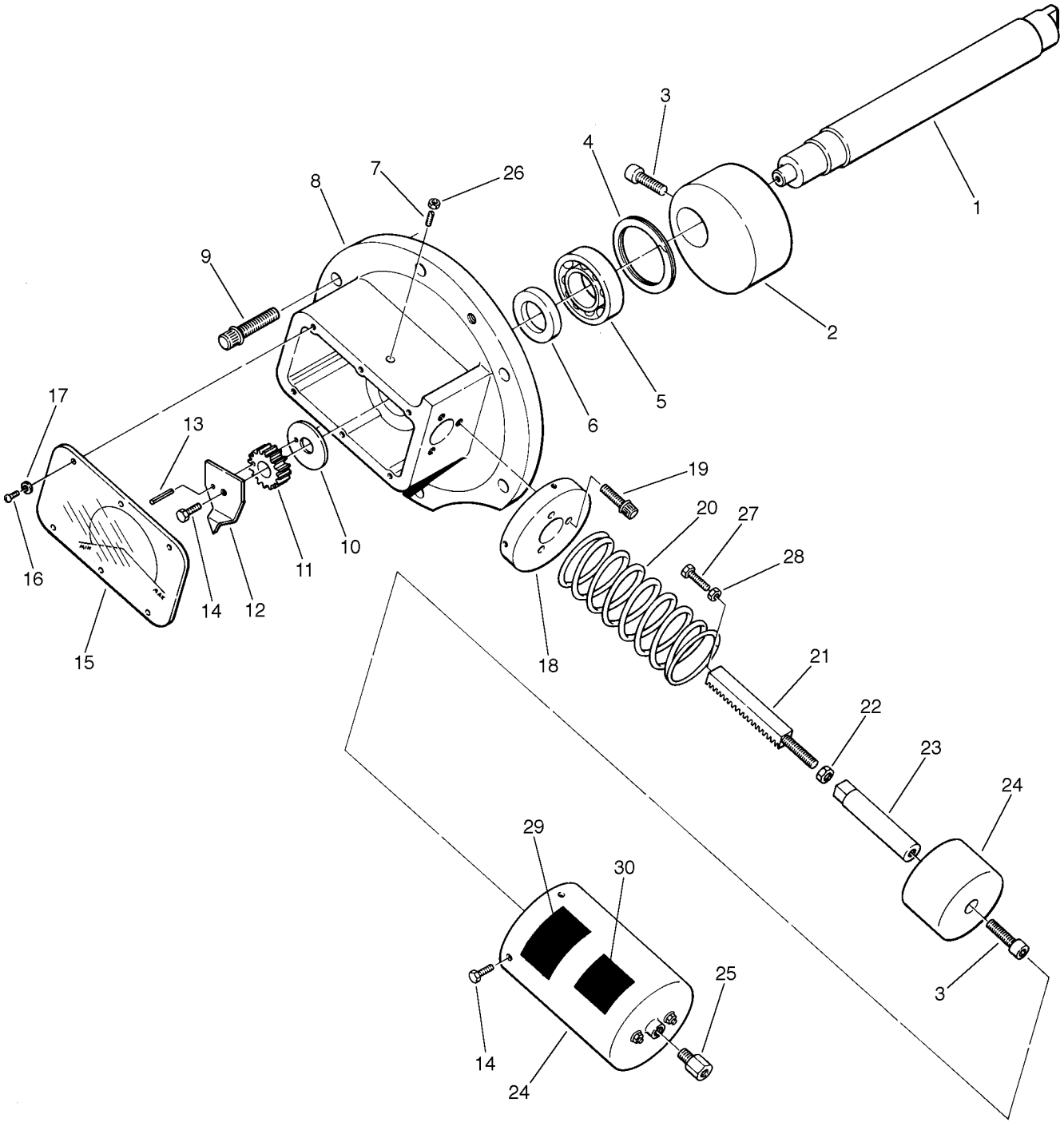
key number	*description*	*part number*	*quantity*
1	lever, control Sullicon	011084	1
2	plunger	020094	1
3	stop, control	020864	1
4	washer, back-up **(I)**	021172	1
5	body, control	021635	1
6	cover, control	021654	1
7	bolt, adj sullicon spring yellow zinc	02250112-184	1
8	pin, yoke 1/4”	040065	1
9	rod-end, yoke	040138	1
10	screw, flathead countersunk **(I)**	041264	1
11	cup seal **(I)**	042538	1
12	spring, control light	250006-526	1
13	diaphragm, external **(I)**	250020-028	1
14	nut, hex pltd 5/16-18	825205-273	3
15	nut, hex pltd 3/8-16	825206-337	7
16	nut, hex locking 5/16-18	825505-166	1
17	pin, cotter ep-sc 1/16 x 3/4	827101-075	1
18	capscrew, ferry head hd 3/8-16 x 2	828406-200	1
19	capscr, hex gr5 5/16-18 x 2 1/4	829105-225	2
20	capscr, hex gr5 5/16-18 x 2 1/2	829105-250	1
21	capscr, hex gr5 3/8-16 x 2 1/4	829106-225	1
22	capscr, hex gr5 3/8-16 x 2 1/2	829106-250	3
23	screw, shoulder 3/8 x 2	830506-200	1
24	screw, mach-hex 5/16-24 x 2	831105-200	1
25	washer, spr lock reg pltd 5/16	837805-078	3
26	washer, spr lock reg pltd 3/8	837806-094	5
27	nut, hex jam rh pltd 5/16-24	868205-195	1

(I) This part is included in Sullicon repair kit no. 250020-353. For maintenance, order repair kit no. 250020-353.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.22 COMPRESSOR SPIRIAL VALVE ACTUATOR



8.22 COMPRESSOR SPIRIAL VALVE ACTUATOR

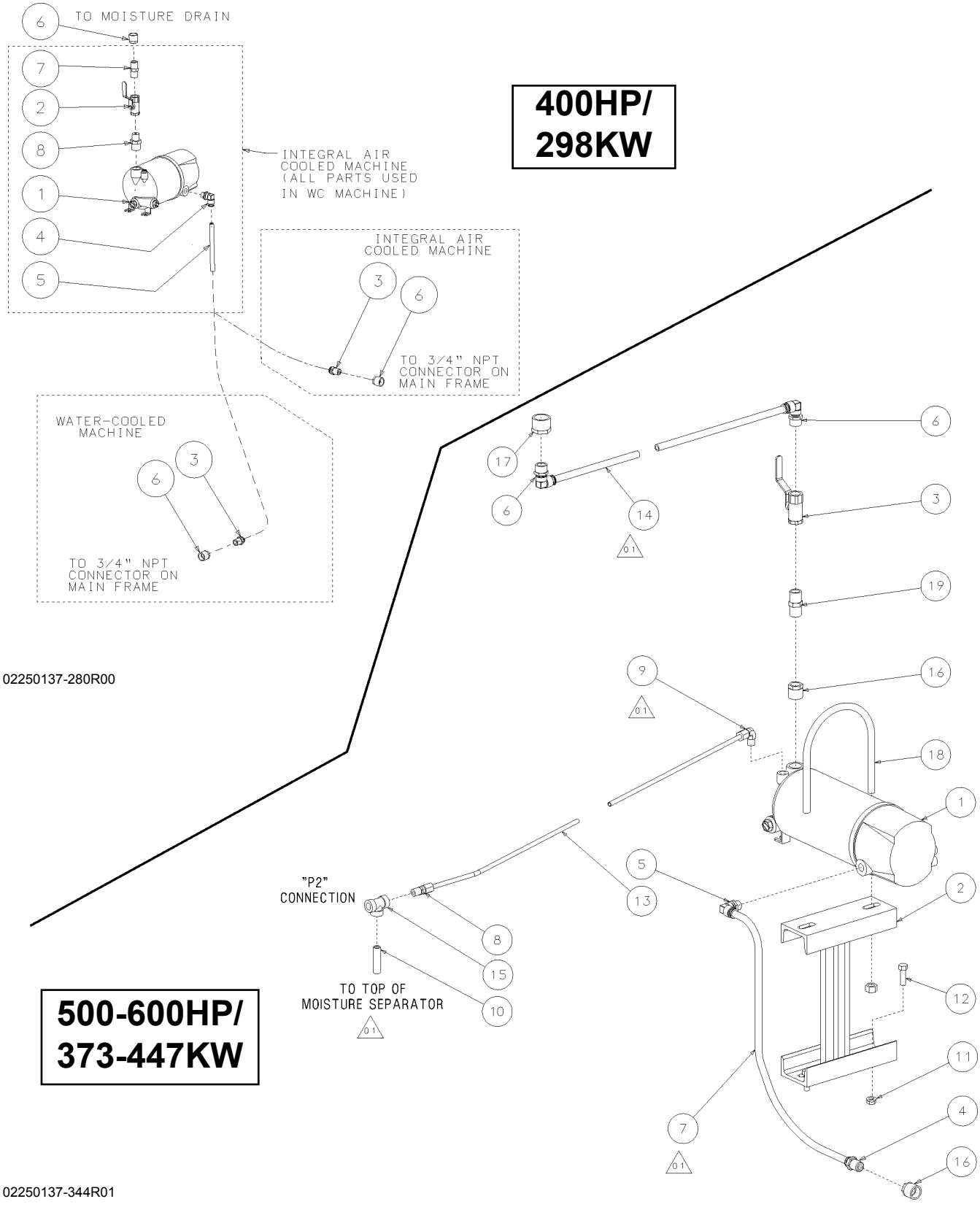
key number	*description*	*part number*	*quantity*
1	shaft, valve - direct	250030-981	1
	•shaft, valve - geared	250030-982	1
2	valve, weight counterbalance	250016-193	1
3	capscrew, socket 3/8”-16 x 1”	828906-100	2
4	ring, retaining	499068-005	1
5	bearing, ball	499002-207	1
6	seal, lip	250016-200	1
7	screw, set 1/2”-13 x 1.62 br	250024-465	1
8	adapter, air cylinder	250016-182	1
9	capscrew, ferry head 1/2”-13 x 1 1/2”	828408-150	6
10	guide, rack	250016-199	1
11	gear, pinion	250016-196	1
12	indicator, actuator	250030-983	1
13	pin, roll unfinished 1/4”x 1”	827404-100	1
14	capscrew, hex head gr8 1/4”-20 x 1/2”	828204-050	4
15	cover, adapter	250016-195	1
16	washer, regular #8	838201-045	6
17	screw, machine rod #8-32 x 1/2”	831601-050	6
18	mount, air cylinder	250016-188	1
19	capscrew, ferry head 1/2”-18 x 1 1/4”	828405-125	3
20	spring, seal 2 1/4”	250016-394	1
21	rack, gear	250016-197	1
22	nut, hex jam 3/8”-16	824906-227	1
23	shaft, air cylinder	250016-194	1
24	cylinder, air **(I)**	250016-183	1
25	orifice, .062 x .25m x .25f	028831	1
26	nut, hex unfinished 1/2”-13	824208-448	1
27	screw, machine hex 1/4”-20 x 1 3/4”	830104-175	1
28	nut, hex jam 1/4”-20	824904-164	1
29	decal, warning actuator	250029-836	1
30	decal, actuator valve positioning	250029-784	1

(I) For maintenance on air cylinder no. 250016-183, order diaphragm repair kit no. 608311-001.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.23A MOISTURE DRAIN- 400HP/ 298KW (02250137-280)
8.23B MOISTURE DRAIN- 500-600HP/ 373-447KW (02250137-344)



02250137-280R00

02250137-344R01

8.23A MOISTURE DRAIN- 400HP/ 298KW (02250137-280)

key number	*description*	*part number*	*quantity*
1	drain, electric condensate - scd400 **(I)**	02250130-866	1
2	valve, ball 1/2”npt	047117	1
3	connector, tube-strt 1/2”mnpt x 1/2”tube	250024-695	1
4	connector, tube-el 3/8”npt x 1/2”tube	250024-713	1
5	tubing, 1/2 thermoplastic	250030-855	4 ft.
6	bushing, red pltd 3/4 x 1/2	867103-020	2
7	nipple, pipe-hx pltd 1/2 x 1/2	868508-050	1
8	nipple, pipe-hx pltd 3/4 x 1/2	868512-050	1

8.23B MOISTURE DRAIN- 500-600HP/ 373-447KW (02250137-344)

1	drain, electric condensate - scd500 **(II)**	02250131-113	1
2	support, elec drn trap TS32SC	02250133-842	1
3	valve, ball 1/2”npt	047117	1
4	connector, tube-strt 1/2”mnpt x 1/2”tube	250024-695	1
5	connector, tube-el 3/8”npt x 1/2”tube	250024-713	1
6	connector, tube-el 1/2”npt x 1/2”tube	250024-714	2
7	tubing, 1/2” thermoplastic	250030-855	2
8	connector, tube-m 5/16 x 1/4	810205-025	1
9	elbow, tube 90 deg m 5/16 x 1/4	810505-025	1
10	nipple, pipe 1/4 x 2	822104-020	1
11	nut, hex f pltd 3/8-16	825306-347	2
12	screw, hex ser washer 3/8-16 x 1 1/4	829706-125	2
13	tubing, stnl stl 5/16” 20ga	841215-005	8 ft.
14	tubing, stnl stl 1/2” 20ga	841215-008	4 ft.
15	tee, pipe 150# plt 1/4	866815-010	1
16	bushing, red pltd 3/4 x 1/2	867103-020	2
17	bushing, red pltd 1 x 1/2	867104-020	1
18	u-bolt, 1/2” x 5” pipe pltd	868308-500	1
19	nipple, pipe-hx pltd 1/2 x 1/2	868508-050	1

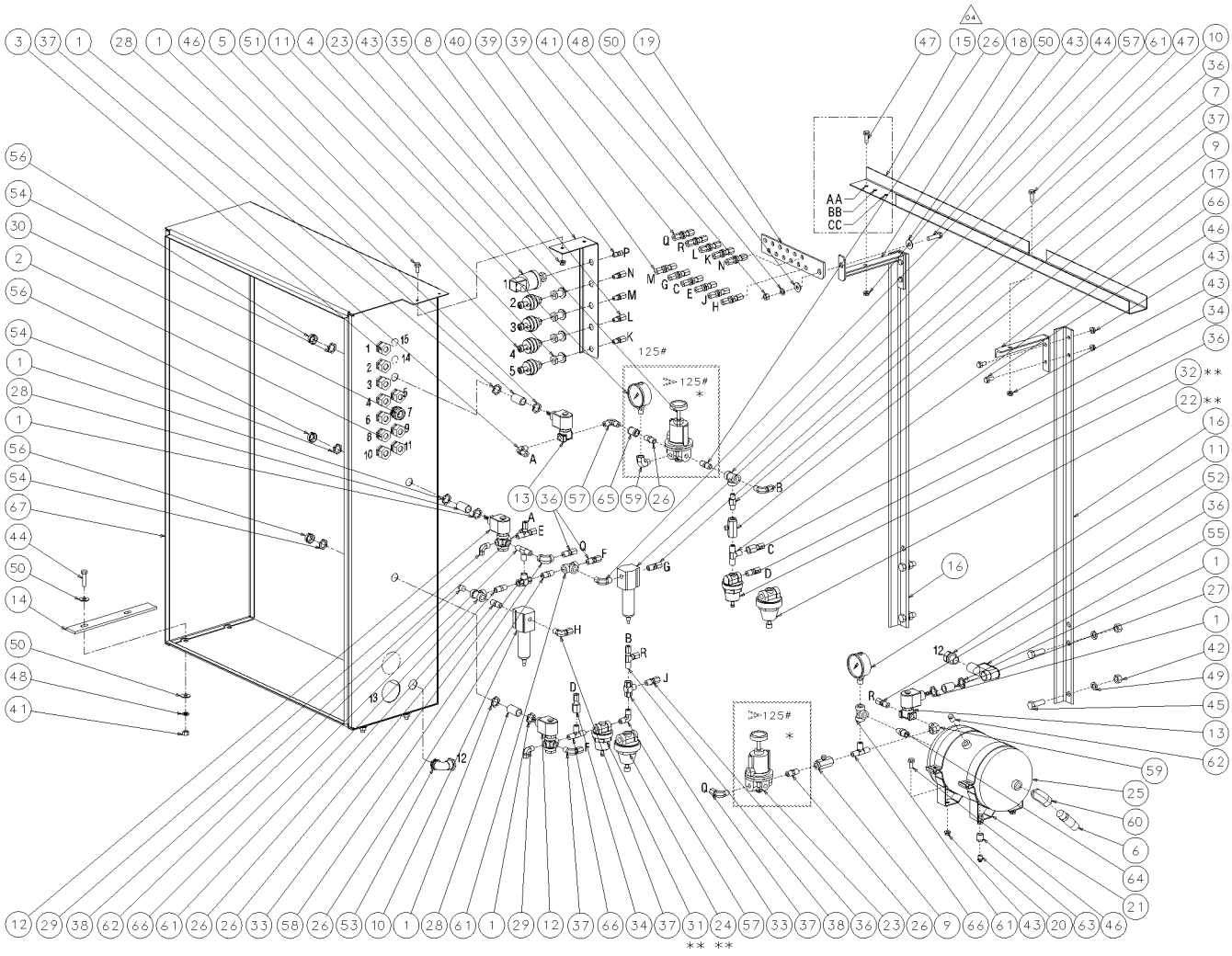
(I) For maintenance on electric condensate drain (scd 400) no. 02250130-866, order repair kit no. 02250131-044.

(II) For maintenance on electric condensate drain (scd 500) no. 02250131-113, order repair kit no. 02250131-044.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.24 PNEUMATIC CONTROLS



NOTES:
1. STARTER MOUNTS TO FRAME.
2. CLOSED INLET ASSEMBLY MOUNTS TO FRAME.
3. CONTROL TUBING CHANNEL SUPPORT MOUNTS TO ANGLE UPRIGHTS FOR INTAC APPLICTION AND TO AFTCLR/DISCHARGE PIPE SUPPORT FOR WC & RC APPLICATIONS. (ANGLE UPRIGHTS ARE NOT REQUIRED FOR WC & RC APPLICATIONS).

△04 4. HOLE AA USED WITH LS25S/TS20/TS32 APPLICATIONS.
HOLE BB USED WITH LS25S/TS20/TS32 WHEN EXTRA CLEARANCE IS NEEDED.
HOLE CC USED WITH ALL TS32S APPLICATIONS.

* ITEMS ENCLOSED BY RECTANGLE,AS INDICATED, ARE USED FOR WORKING PRESSURES ABOVE 125 PSI.

** ITEM #24 (048059) REPLACES ITEM #31(406929)& ITEM #22(045099) REPLACES ITEM #32(408275) FOR HI PRESSURE OPERATION (>=175#).

CONTROL TUBING LEGEND:
- A - INTERNAL TO CONTROLS
- B - INTERNAL TO CONTROLS
- C - SPIRAL VALVE
- D - INTERNAL TO CONTROLS
- E - BLOWDOWN VALVE
- F - INTERNAL TO CONTROLS
- G - SYSTEM PRESSURE
- H - DRY AIR/SUMP TANK LID PRESSURE
- J - SULLICON CONTROLLER
- K - HIGH OIL PRESSURE-OIL FILTER DIFFERENTIAL
- L - LOW OIL PRESSURE-OIL FILTER DIFFERENTIAL
- M - MOISTURE SEPARATOR OUT
- N - HIGH SUMP/WET SIDE OIL SEPARATOR
- P - INLET AIR FILTER
- Q - CLOSED INLET ASSEMBLY-SOLENOID VALVE
- R - CLOSED INLET ASSEMBLY-CHECK VALVE OR PRESSURE REGULATING VALVE(>125PSIG)

ELECTRICAL LEGEND:
- 1 - INLET FILTER VACUUM SWITCH
- 2 - PRESSURE TRANSDUCER: P1
- 3 - PRESSURE TRANSDUCER: P2
- 4 - PRESSURE TRANSDUCER: P3
- 5 - PRESSURE TRANSDUCER: P4
- 6 - SCD MOISTURE SEPARATOR DRAIN
- 7 - AIR COOLED FAN MOTOR (WATER COOLED WATER PRESSURE SWITCH)
- 8 - T1 RTD-UNIT DISCHARGE TEMPERATURE
- 9 - T2 RTD-DRY SIDE SUMP TEMPERATURE
- 10 - T3 RTD-UNIT INJECTION OIL TEMPERATURE
- 11 - T4 RTD-UNIT INTERSTAGE TEMPERATURE
- 12 - CLOSED INLET SOLENOID VALVE
- 13 - MAIN MOTOR WIRE CONNECTOR (ADDITIONAL HOLE/CONNECTOR FOR Y-DELTA)
- 14 - INTEGRAL COOLER EES LOUVER CONTROL
- 15 - INTEGRAL COOLER EES TEMPERATURE SWITCH

02250135-643R05

8.24 PNEUMATIC CONTROLS

key number	*description*	*part number*	*quantity*
1	locknut, n4 conduit sealing	02250071-362	8
2	grip, cord n4 .125 -.187 x 1/2”	02250071-379	4
3	grip, cord n4 .250-.375 x 1/2”	02250071-381	6
4	switch, vacuum 22”wc n4 6ft cable 5a	02250078-249	1
5	transducer, pressure 0-25psi 1-5vdc n4	02250078-933	4
6	valve, pressure relief 1/2”npt-150 psig	02250092-138	1
7	orifice, .031” x .25m x .25m nptf -	02250101-191	1
8	support, bracket transducer mounting	02250110-132	1
9	valve, check 1/4”nptf viton seat	02250110-557	2
10	filter, control air 1/4”npt **(I)**	02250112-032	2
11	gauge, air press 2 1/2” 0-200 psi	02250117-009	2
12	valve, solenoid 3wno 1/4 235# n4 **(II)**	02250125-657	2
13	valve, solenoid 2wnc 1/4 150# n4 + **(III)**	02250125-679	2
14	support, str box ls20s ac	02250127-380	2
15	channel, ctl tubing supt	02250127-559	1
16	angle, support	02250133-550	2
17	bracket, support	02250133-551	1
18	bracket, supt	02250133-552	1
19	bracket, tubing manifold	02250133-564	1
20	valve, drain-self close 1/8npt	041111	1
21	band, mounting 7” dia	044285	2
22	valve, regulator **(IV)**	045099	1
23	regulator, press-1/4npt 2-150#	046556	2
24	valve, regulator 400 psi **(V)**	048059	1
25	reservoir, air 415 cu.in.	242221	1
26	nipple, brass hex 1/4”-npt	249537	6

(Continued on page 121)

(I) For maintenance on control air filter no. 02250112-032, order repair kit no. 02250112-031.

(II) For maintenance on 3-way solenoid valve no. 02250125-657, order repair kit no. 022500125-829, and replacement coil no. 02250125-861.

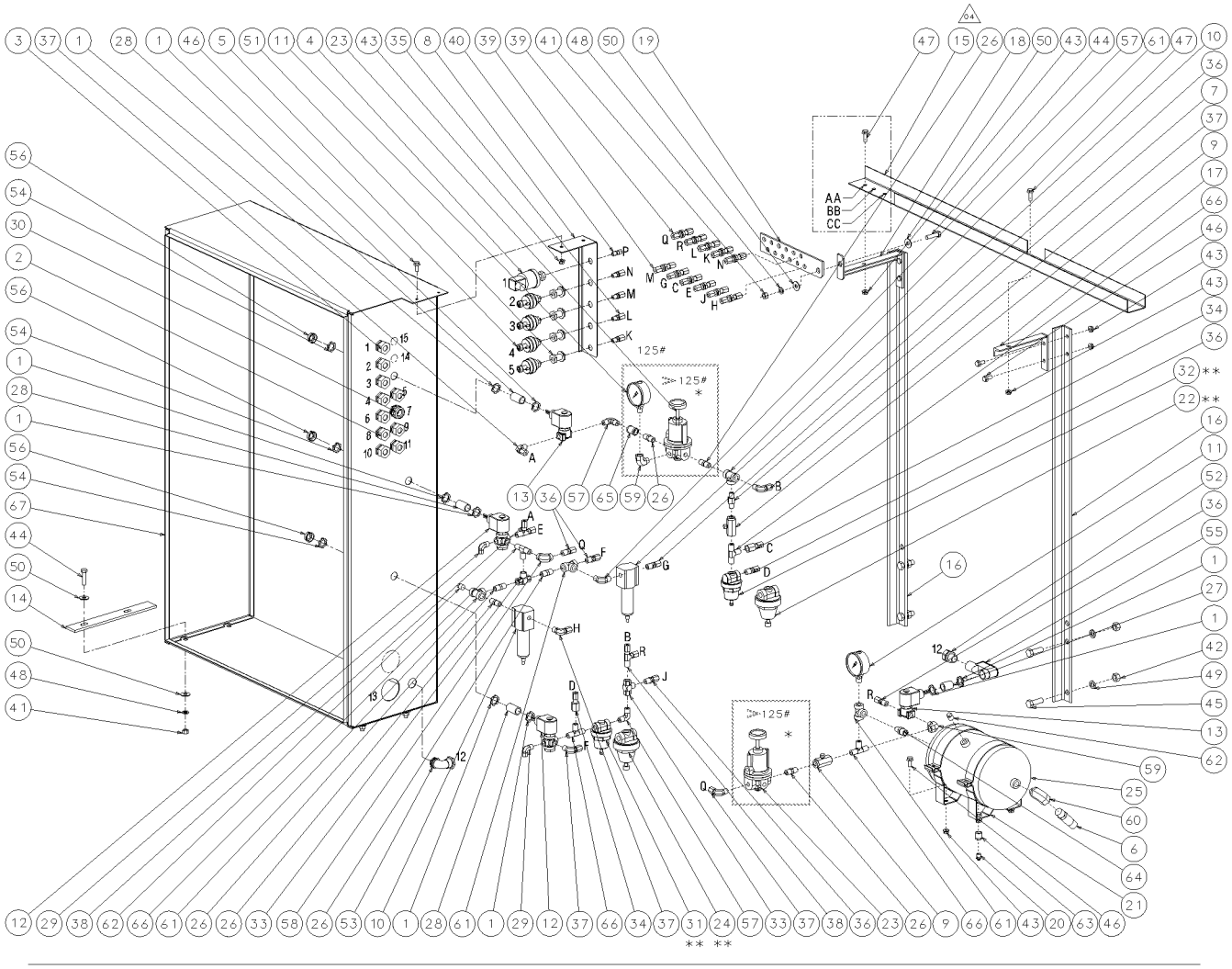
(III) For maintenance on 2-way solenoid valve no. 02250125-679, order repair kit no. 02250125-284, and replacement coil no. 02250125-861.

(IV) For maintenance on regulator valve no. 045099, order repair kit no. 048409.

(V) For maintenance on regulator valve no. 048059, order repair kit no. 048409.

Section 8
ILLUSTRATIONS AND PARTS LIST

8.24 PNEUMATIC CONTROLS



NOTES:
1. STARTER MOUNTS TO FRAME.
2. CLOSED INLET ASSEMBLY MOUNTS TO FRAME.
3. CONTROL TUBING CHANNEL SUPPORT MOUNTS TO ANGLE UPRIGHTS FOR INTAC APPLICTION AND TO AFTCLR/DISCHARGE PIPE SUPPORT FOR WC & RC APPLICATIONS. (ANGLE UPRIGHTS ARE NOT REQUIRED FOR WC & RC APPLICATIONS).

△04 4. HOLE AA USED WITH LS25S/TS20/TS32 APPLICATIONS. HOLE BB USED WITH LS25S/TS20/TS32 WHEN EXTRA CLEARANCE IS NEEDED. HOLE CC USED WITH ALL TS32S APPLICATIONS.

* ITEMS ENCLOSED BY RECTANGLE, AS INDICATED, ARE USED FOR WORKING PRESSURES ABOVE 125 PSI.

** ITEM #24 (048059) REPLACES ITEM #31(406929)& ITEM #22(045099) REPLACES ITEM #32(408275) FOR HI PRESSURE OPERATION (>=175#).

CONTROL TUBING LEGEND:
- A - INTERNAL TO CONTROLS
- B - INTERNAL TO CONTROLS
- C - SPIRAL VALVE
- D - INTERNAL TO CONTROLS
- E - BLOWDOWN VALVE
- F - INTERNAL TO CONTROLS
- G - SYSTEM PRESSURE
- H - DRY AIR/SUMP TANK LID PRESSURE
- J - SULLICON CONTROLLER
- K - HIGH OIL PRESSURE-OIL FILTER DIFFERENTIAL
- L - LOW OIL PRESSURE-OIL FILTER DIFFERENTIAL
- M - MOISTURE SEPARATOR OUT
- N - HIGH SUMP/WET SIDE OIL SEPARATOR
- P - INLET AIR FILTER
- Q - CLOSED INLET ASSEMBLY-SOLENOID VALVE
- R - CLOSED INLET ASSEMBLY-CHECK VALVE OR PRESSURE REGULATING VALVE(>125PSIG)

ELECTRICAL LEGEND:
- 1 - INLET FILTER VACUUM SWITCH
- 2 - PRESSURE TRANSDUCER: P1
- 3 - PRESSURE TRANSDUCER: P2
- 4 - PRESSURE TRANSDUCER: P3
- 5 - PRESSURE TRANSDUCER: P4
- 6 - SCD MOISTURE SEPARATOR DRAIN
- 7 - AIR COOLED FAN MOTOR (WATER COOLED WATER PRESSURE SWITCH)
- 8 - T1 RTD-UNIT DISCHARGE TEMPERATURE
- 9 - T2 RTD-DRY SIDE SUMP TEMPERATURE
- 10 - T3 RTD-UNIT INJECTION OIL TEMPERATURE
- 11 - T4 RTD-UNIT INTERSTAGE TEMPERATURE
- 12 - CLOSED INLET SOLENOID VALVE
- 13 - MAIN MOTOR WIRE CONNECTOR (ADDITIONAL HOLE/CONNECTOR FOR Y-DELTA)
- 14 - INTEGRAL COOLER EES LOUVER CONTROL
- 15 - INTEGRAL COOLER EES TEMPERATURE SWITCH

02250135-643R05

8.24 PNEUMATIC CONTROLS (CONTINUED)

key number	*description*	*part number*	*quantity*
27	nipple, conduit 1/2 x 1.125”	250007-168	1
28	nipple, conduit 1/2 x 1.5”	250007-169	3
29	elbow, 90 1/4t pls x 1/4 npt m	250018-430	2
30	grip, cord so 12/4 st 1/2”	250018-495	1
31	valve, diff press reg 1/4”npt **(VI)**	406929	1
32	valve, pressure reg 100psi **(VII)**	408275	1
33	valve, shuttle 1/4” npt (dbl chk)	408893	2
34	connector, tube-f 1/4 x 1/4	810104-025	2
35	connector, tube-m 1/4 x 1/8	810204-012	4
36	connector, tube-m 1/4 x 1/4	810204-025	6
37	elbow, tube 90 deg m 1/4 x 1/4	810504-025	5
38	tee, tube-male run 1/4 x 1/4	810904-025	2
39	union, tube bhd 1/4”	811104-025	11
40	connector, tube-m 1/4 x 1/8	813604-125	1
41	nut, hex pltd 3/8-16	825206-337	5
42	nut, hex pltd 1/2-13	825208-448	4
43	nut, hex f pltd 5/16-18	825305-283	12
44	capscr, hex gr5 3/8-16 x 1 1/2	829106-150	5
45	capscr, hex gr5 1/2-13 x 1 1/2	829108-150	4
46	screw, hex ser washer 5/16-18 x 3/4	829705-075	10
47	screw, hex ser washer 5/16-18 x 1	829705-100	2
48	washer, spr lock reg pltd 3/8	837806-094	5
49	washer, spr lock reg pltd 1/2	837808-125	4
50	washer, pl-b reg pltd 3/8	838206-071	10
51	bulkhead, pipe 1/8” npt	841500-002	4
52	connector, straight lq-tite 1/2	846400-050	1
53	elbow, 90deg lq-tite 1/2	846600-050	1
54	locknut, conduit 1/2	847200-050	3
55	elbow, entrance 1/2	847715-050	1
56	bushing, conduit plastic 1/2	848815-050	3

(Continued on page 123)

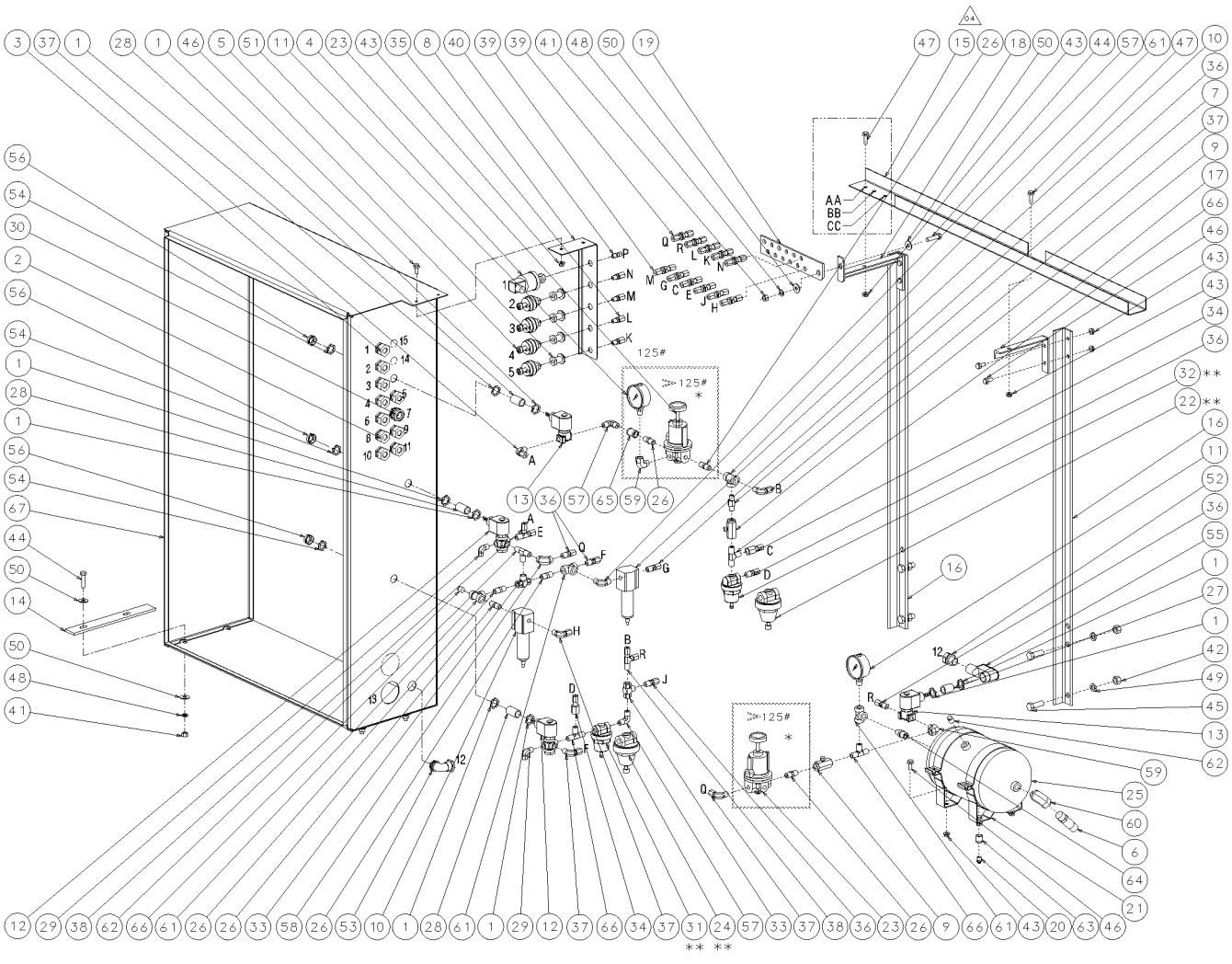
(VI) For maintenance on differential pressure regulator valve no. 406929, order repair kit no. 041742.

(VII) For maintenance on pressure regulator valve no. 408275, order repair kit no. 250028-693.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.24 PNEUMATIC CONTROLS



NOTES:
1. STARTER MOUNTS TO FRAME.
2. CLOSED INLET ASSEMBLY MOUNTS TO FRAME.
3. CONTROL TUBING CHANNEL SUPPORT MOUNTS TO ANGLE UPRIGHTS FOR INTAC APPLICTION AND TO AFTCLR/DISCHARGE PIPE SUPPORT FOR WC & RC APPLICATIONS. (ANGLE UPRIGHTS ARE NOT REQUIRED FOR WC & RC APPLICATIONS).

△04 4. HOLE AA USED WITH LS25S/TS20/TS32 APPLICATIONS. HOLE BB USED WITH LS25S/TS20/TS32 WHEN EXTRA CLEARANCE IS NEEDED. HOLE CC USED WITH ALL TS32S APPLICATIONS.

* ITEMS ENCLOSED BY RECTANGLE, AS INDICATED, ARE USED FOR WORKING PRESSURES ABOVE 125 PSI.

** ITEM #24 (1048059) REPLACES ITEM #31(406929)& ITEM #22(1045099) REPLACES ITEM #32(408275) FOR HI PRESSURE OPERATION (>=175#).

CONTROL TUBING LEGEND:
- A - INTERNAL TO CONTROLS
- B - INTERNAL TO CONTROLS
- C - SPIRAL VALVE
- D - INTERNAL TO CONTROLS
- E - BLOWDOWN VALVE
- F - INTERNAL TO CONTROLS
- G - SYSTEM PRESSURE
- H - DRY AIR/SUMP TANK LID PRESSURE
- J - SULLICON CONTROLLER
- K - HIGH OIL PRESSURE-OIL FILTER DIFFERENTIAL
- L - LOW OIL PRESSURE-OIL FILTER DIFFERENTIAL
- M - MOISTURE SEPARATOR OUT
- N - HIGH SUMP/WET SIDE OIL SEPARATOR
- P - INLET AIR FILTER
- Q - CLOSED INLET ASSEMBLY-SOLENOID VALVE
- R - CLOSED INLET ASSEMBLY-CHECK VALVE OR PRESSURE REGULATING VALVE(>125PSIG)

ELECTRICAL LEGEND:
- 1 - INLET FILTER VACUUM SWITCH
- 2 - PRESSURE TRANSDUCER: P1
- 3 - PRESSURE TRANSDUCER: P2
- 4 - PRESSURE TRANSDUCER: P3
- 5 - PRESSURE TRANSDUCER: P4
- 6 - SCD MOISTURE SEPARATOR DRAIN
- 7 - AIR COOLED FAN MOTOR (WATER COOLED WATER PRESSURE SWITCH)
- 8 - T1 RTD-UNIT DISCHARGE TEMPERATURE
- 9 - T2 RTD-DRY SIDE SUMP TEMPERATURE
- 10 - T3 RTD-UNIT INJECTION OIL TEMPERATURE
- 11 - T4 RTD-UNIT INTERSTAGE TEMPERATURE
- 12 - CLOSED INLET SOLENOID VALVE
- 13 - MAIN MOTOR WIRE CONNECTOR (ADDITIONAL HOLE/CONNECTOR FOR Y-DELTA)
- 14 - INTEGRAL COOLER EES LOUVER CONTROL
- 15 - INTEGRAL COOLER EES TEMPERATURE SWITCH

02250135-643R05

8.24 PNEUMATIC CONTROLS (CONTINUED)

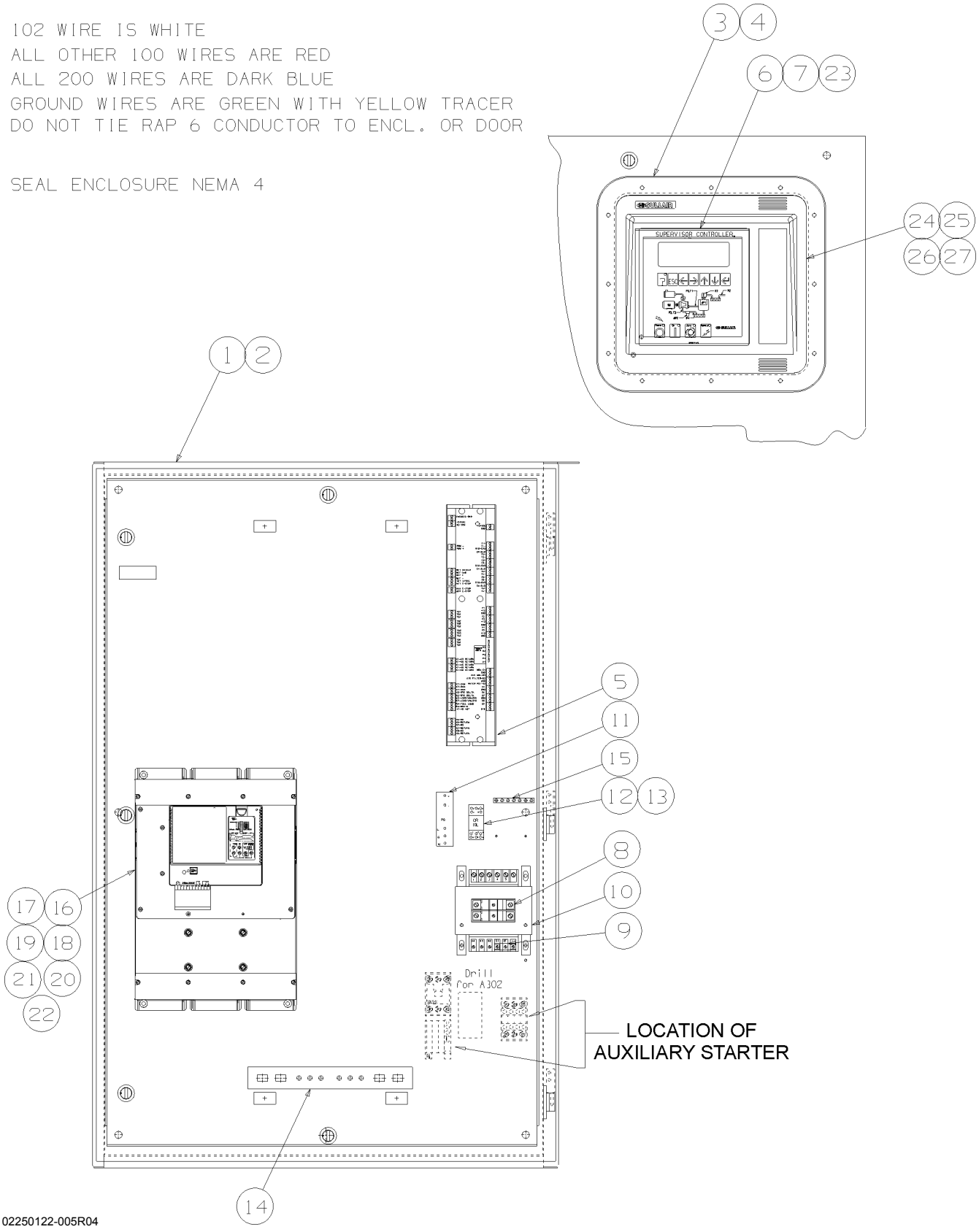
key number	*description*	*part number*	*quantity*
57	elbow, pipe-90m 1/4 x 1/4	860504-025	3
58	elbow, pipe 90f 1/4 x 1/4	860604-025	1
59	elbow, pipe 90m/f 1/4 x 1/4	860704-025	2
60	elbow, pipe 90m/f 3/8 x 1/2	860706-050	1
61	tee, pipe 150# plt 1/4	866815-010	4
62	plug, pipe 1/4” 3000# stl plt	866900-010	2
63	bushing,red pltd 3/8 x 1/8	867101-005	1
64	nipple, pipe-hx pltd 3/8 x 1/4	868506-025	1
65	coupling, pipe 1/4 150# plt	869015-010	1
66	tee, male pipe brass 1/4	869825-025	4
67	starter, assy TS32S **(VIII)**	-	1

(VIII) This part may vary by machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.25 CONTROL BOX- SOLID STATE (TYPICAL)



02250122-005R04

8.25 CONTROL BOX- SOLID STATE (TYPICAL)

key number	*description*	*part number*	*quantity*
1	enclosure	02550108-859	1
2	door	02550109-465	1
3	bezel	02250089-302	1
4	beze; gasket	02550090-872	1
5	I/0 module	02250141-089	1
6	display module	02250119-330	1
7	display gasket	02250048-822	2
8	primary fuse 305 amp	250026-648	1
9	secondary fuse 5 amp	250019-751	1
10	univ. 250 va trans	02250083-189	1
11	power supply 24v	0250120-644	1
12	relay	45496	1
13	relay base	46467	1
14	ground bus	02550110-334	1
15	ground bar	02550101-721	1
16	240A IT starter	02250122-042	1
17	304A IT starter	02250120-789	-
18	360A IT starter	02250120-792	-
19	420A IT starter	02250122-043	-
20	500A IT starter	02250122-044	-
21	650A IT starter	02250120-645	-
22	850A IT starter	02250122-046	-
23	display label	02250130-344	1
24	E-stop decal	02550086-259	1
25	E-stop operator	02550085-504	1
26	contact block	250027-125	1
27	plate	02550086-265	1

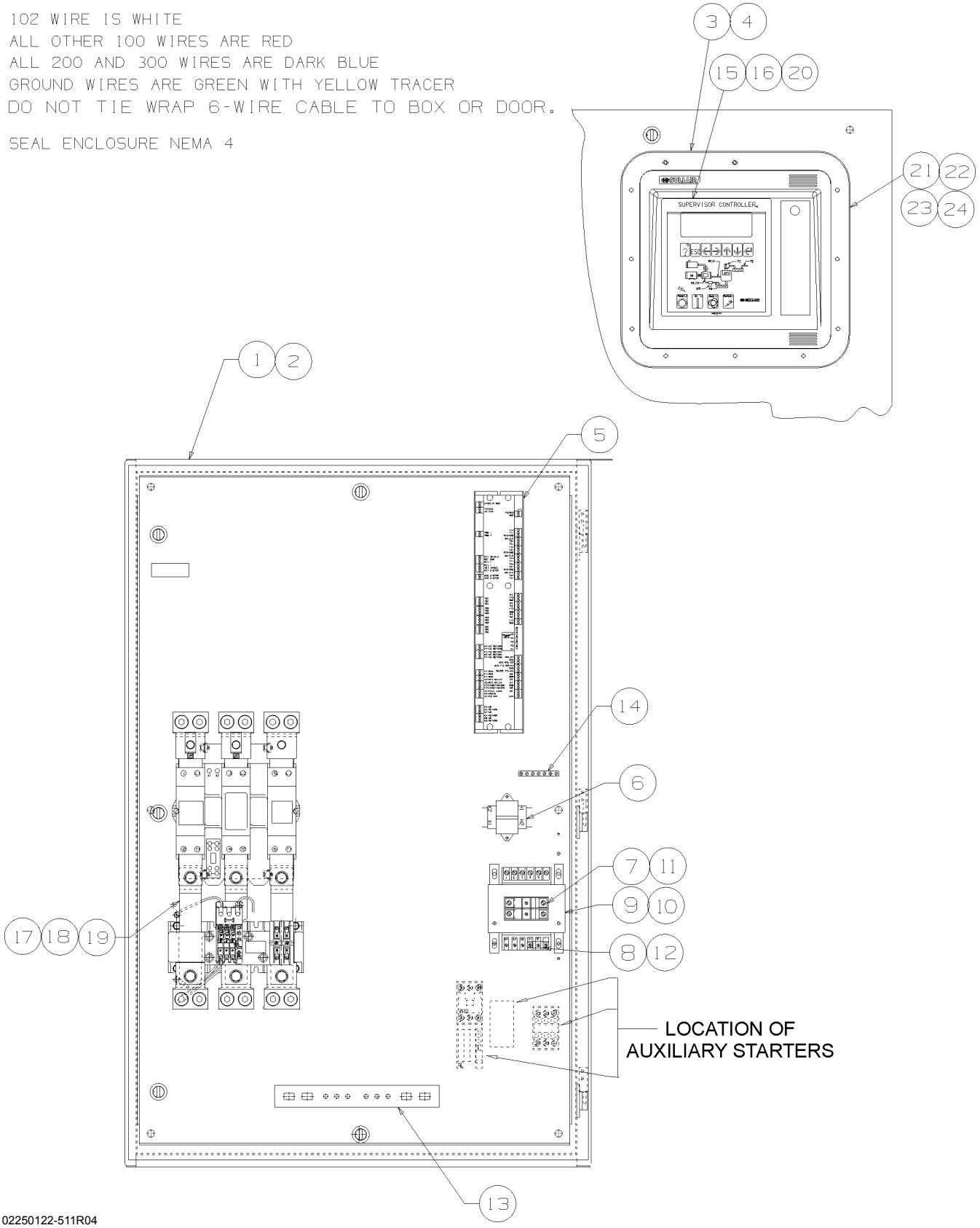
PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.26 CONTROL BOX- FULL VOLTAGE (TYPICAL)

102 WIRE IS WHITE
ALL OTHER 100 WIRES ARE RED
ALL 200 AND 300 WIRES ARE DARK BLUE
GROUND WIRES ARE GREEN WITH YELLOW TRACER
DO NOT TIE WRAP 6-WIRE CABLE TO BOX OR DOOR.

SEAL ENCLOSURE NEMA 4



02250122-511R04

8.26 CONTROL BOX- FULL VOLTAGE (TYPICAL)

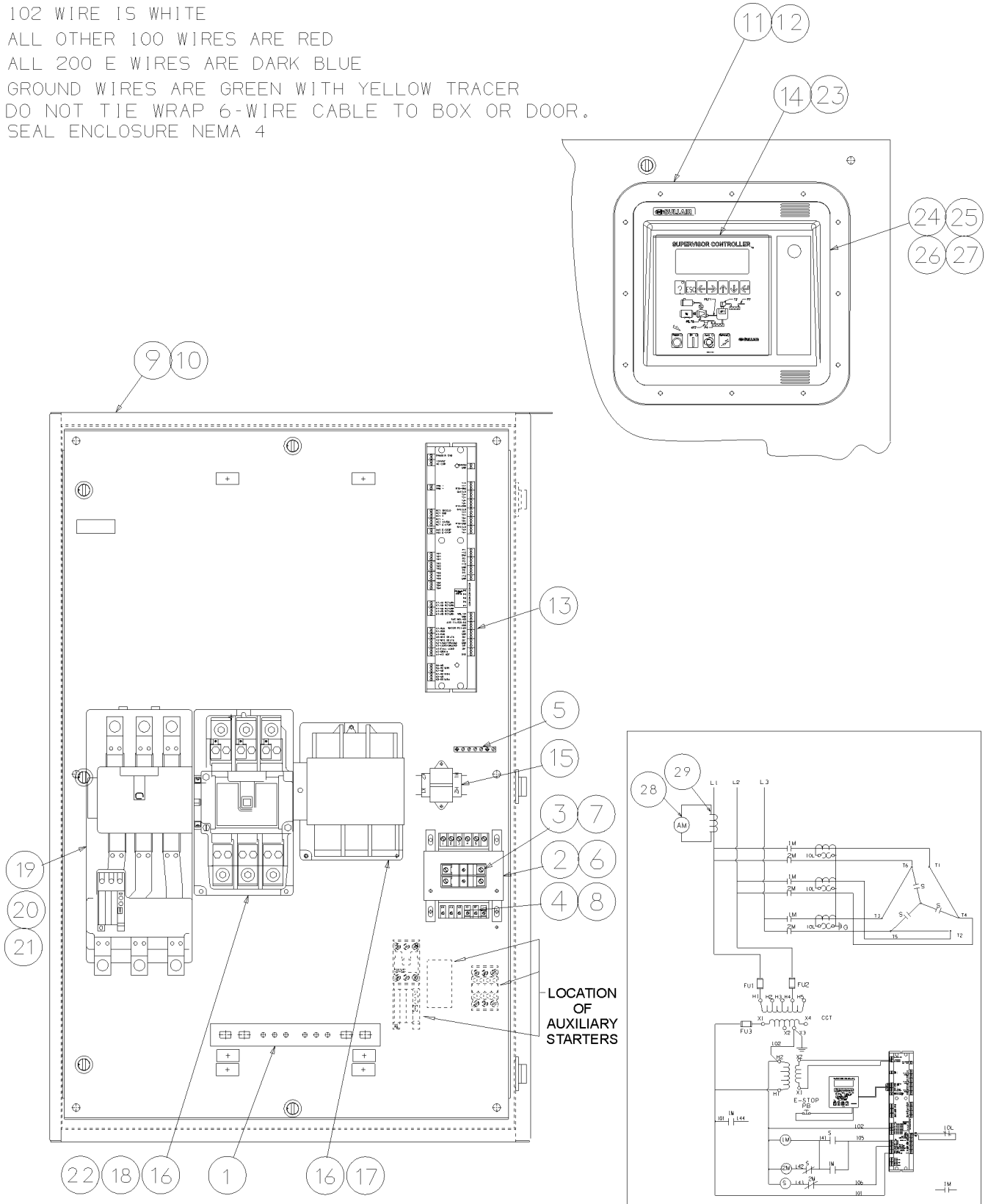
key number	*description*	*part number*	*quantity*
1	enclosure	02550108-859	1
2	door	02550109-465	1
3	bezel	02250129-958	1
4	bezel gasket	02550090-872	1
5	I/O module	02550141-089	1
6	transformer 24v	02250135-283	1
7	primary fuse 3.5 amp	250026-648	2
8	secondary fuse 5 amp	250019-751	1
9	univ. 250 va trans	02250083-188	1
10	univ. 350 va trans	02250083-190	-
11	primary fuse 4 amp	250026-649	-
12	secondary fuse 6 a	250019-762	-
13	ground bus	02550110-334	1
14	ground bar	02550101-721	1
15	display module	02550119-330	1
16	display label	02550130-344	1
17	starter9 size 5	250038-284	1
18	starter9 size 5dp	02250113-513	-
19	starter9 size 6	250038-285	-
20	display module gasket	02250048-822	2
21	E-stop operator	02250085-504	1
22	contact block I-NC	250027-125	1
23	E-stop decal	02250086-259	1
24	plate	02250086-265	1

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.27 CONTROL BOX- WYE-DELTA (TYPICAL)

102 WIRE IS WHITE
ALL OTHER 100 WIRES ARE RED
ALL 200 E WIRES ARE DARK BLUE
GROUND WIRES ARE GREEN WITH YELLOW TRACER
DO NOT TIE WRAP 6-WIRE CABLE TO BOX OR DOOR.
SEAL ENCLOSURE NEMA 4



02250122-516R08

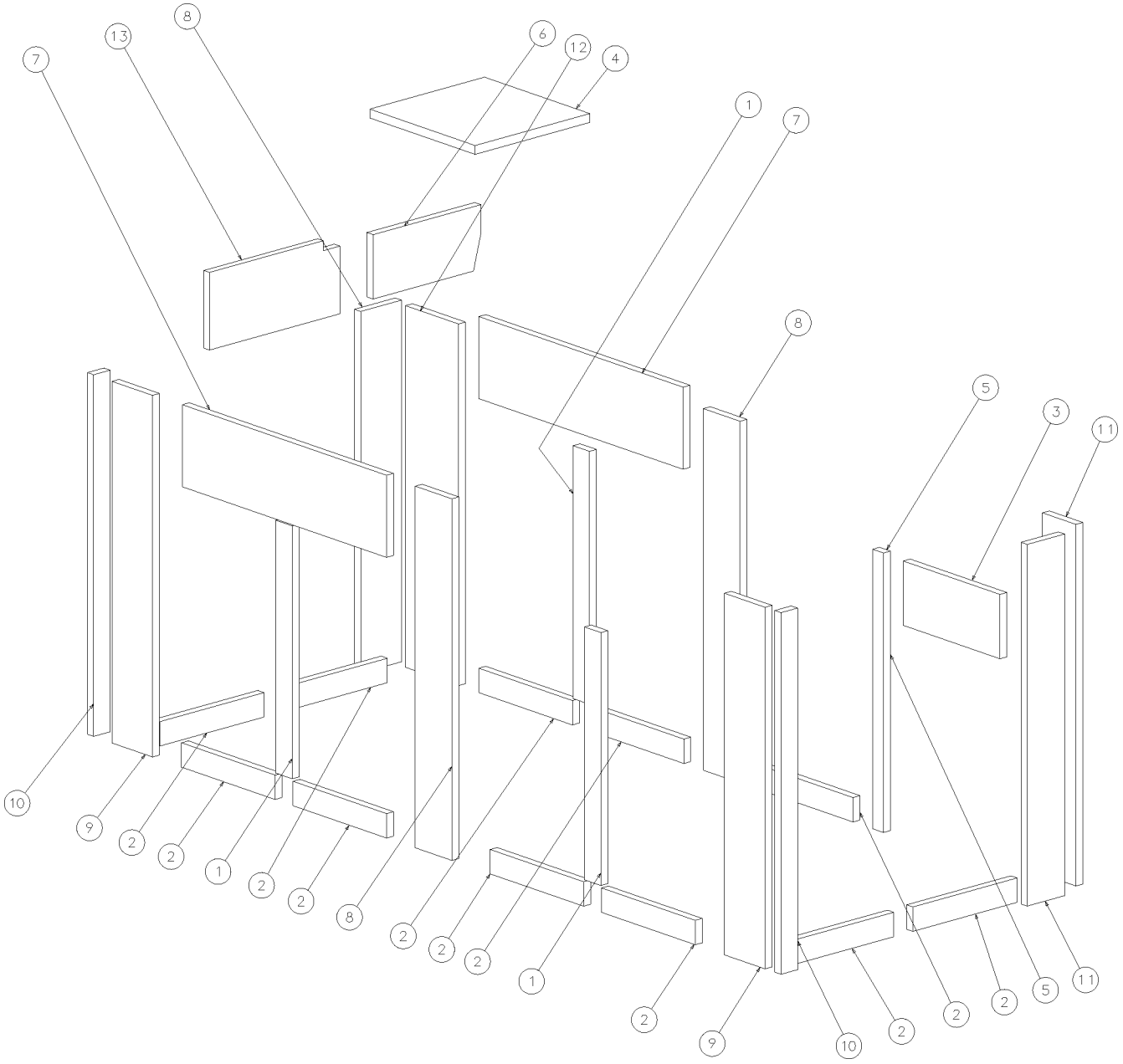
8.27 CONTROL BOX- WYE-DELTA (TYPICAL)

key number	*description*	*part number*	*quantity*
1	ground bus	02550110-334	
2	univ. 250 va trans	02250083-188	-
3	primary fuse 2.5 amp	250026-646	-
4	secondary fuse 3 amp	250019-758	-
5	ground bar	02550101-721	1
6	univ. 350 va trans	02250083-190	1
7	primary fuse 3.5 amp	250026-648	2
8	secondary fuse 5 amp	250019-761	1
9	door	02550109-465	1
10	enclosure	02550108-859	1
11	bezel	02250089-302	1
12	bezel gasket	02550090-872	1
13	I/O module	02550141-089	1
14	display module	02550119-330	1
15	transformer 24v	02250135-283	1
16	size 5 contactor	02250083-824	1
17	size 4 contactor	02550083-823	1
18	size 5dp contactor	02550113-514	-
19	size 5dp starter	02550113-513	-
20	starter size 5	250038-284	1
21	starter size n	250038-283	-
22	rev contactors size n	250041-589	-
23	display label	02550130-344	1
24	E-stop operator	02550085-504	1
25	contact block	250027-125	1
26	plate	02550086-265	1
27	E-stop decal	02550086-259	1
28	current transformer (optional)	-	1
29	ammeter (optional)	-	1

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.28 INSULATION- AIR-COOLED 400-600HP/ 298-447KW



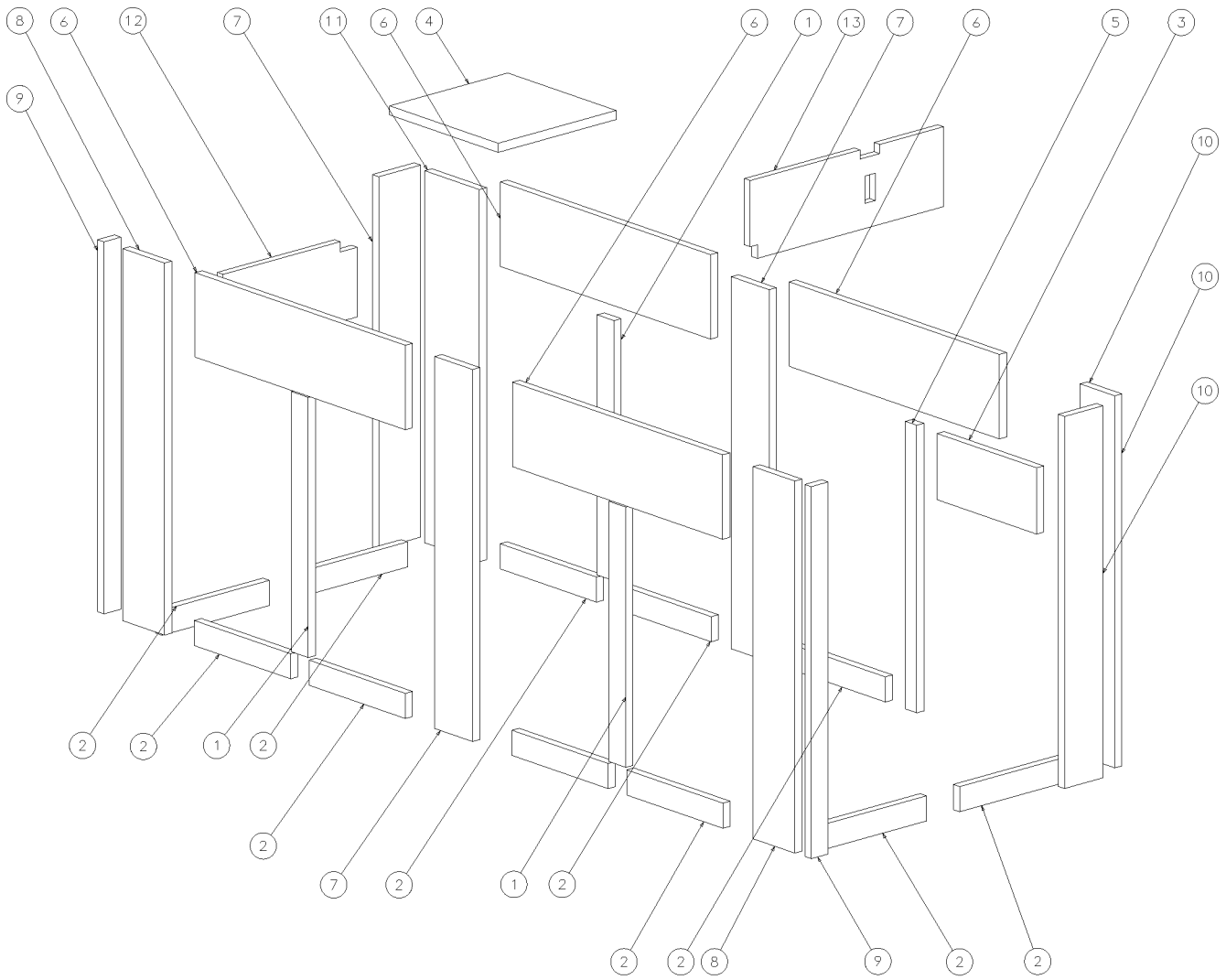
8.28 INSULATION- AIR-COOLED 400-600HP/ 298-447KW

key number	*description*	*part number*	*quantity*
1	panel, acoustic foam 5.25 x 63 x 2	02250127-687	3
2	panel, acoustic foam 5.5 x 30 x 2	02250127-689	11
3	panel, acoustic foam 14.5 x 31 x 2	02250127-691	1
4	panel, acoustic foam 33 x 33.75 x 2	02250127-694	1
5	panel, acoustic foam 3.5 x 63 x 2	02250127-700	1
6	panel, acoustic foam 2” x 14.5” x 31”	02250128-038	1
7	panel, acoustic foam 18.5 x 65.5 x 2	02250135-431	2
8	panel, acoustic foam 11.75 x 81.5 x 2	02250135-432	3
9	panel, acoustic foam 13 x 81.5 x 2	02250135-433	2
10	panel, acoustic foam 4.75 x 81.5 x 2	02250135-434	2
11	panel, acoustic foam 10.75 x 81.5 x 2	02250135-435	2
12	panel, acoustic foam 17 x 81.5 x 2	02250135-443	1
13	panel, acoustic foam 2 x 17.5 x 37.5	02250135-444	1

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.29 INSULATION- WATER-COOLED AND REMOTE-COOLED 400-600HP/ 298-447KW



NOTE: ITEM #12 IS NOT USED WITH 500/600HP MACHINES.

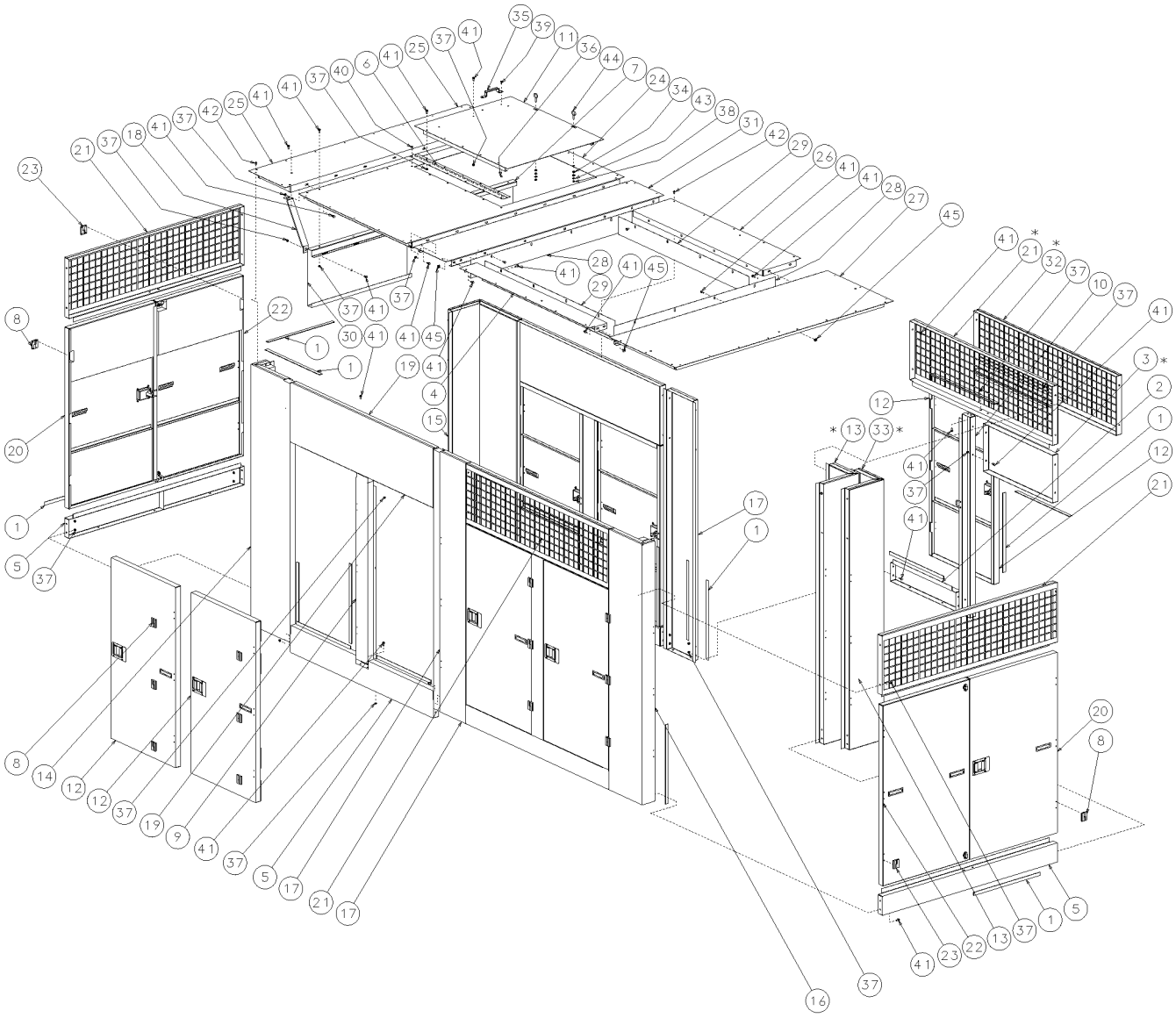
8.29 INSULATION- WATER-COOLED AND REMOTE-COOLED 400-600HP/ 298-447KW

key number	*description*	*part number*	*quantity*
1	panel, acoustic foam 5.25 x 63 x 2	02250127-687	3
2	panel, acoustic foam 5.5 x 30 x 2	02250127-689	11
3	panel, acoustic foam 14.5 x 31 x 2	02250127-691	1
4	panel, acoustic foam 33 x 33.75 x 2	02250127-694	1
5	panel, acoustic foam 3.5 x 63 x 2	02250127-700	1
6	panel, acoustic foam 18.5 x 65.5 x 2	02250135-431	4
7	panel, acoustic foam 11.75 x 81.5 x 2	02250135-432	3
8	panel, acoustic foam 13 x 81.5 x 2	02250135-433	2
9	panel, acoustic foam 4.75 x 81.5 x 2	02250135-434	2
10	panel, acoustic foam 10.75 x 81.5 x 2	02250135-435	2
11	panel, acoustic foam 17 x 81.5 x 2	02250135-443	1
12	panel, acoustic foam 2 x 17.5 x 37.5	02250135-444	1
13	panel, acoustic foam 2”x 17.5” x 49” spcl	02250135-465	1

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.30 ENCLOSURE- AIR-COOLED



NOTE: (*) REPLACE ITEM #21 (02250134-178) WITH ITEM #32 (02250138-949)
WHEN USING THE 63" STARTER BOX. ALSO REPLACE ITEM #13(02250131-171)
WITH ITEM #33 (02250139-442) WHEN USING THE 63" STARTER BOX.
ITEM #3 (02250124-942) IS NOT USED WITH THE 63" STARTER BOX.

8.30 ENCLOSURE- AIR-COOLED

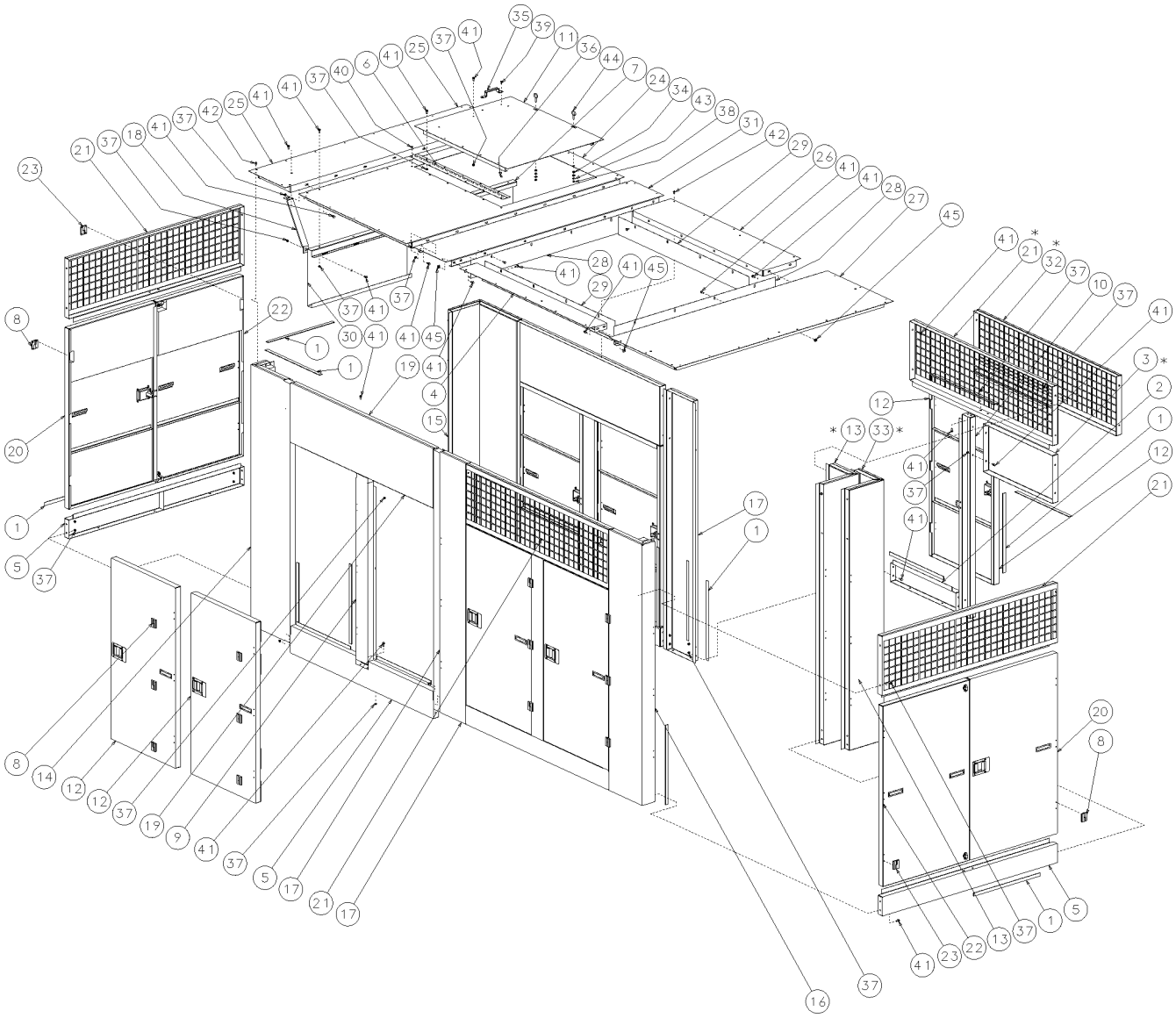
key number	*description*	*part number*	*quantity*
1	strip, weather 1” x 1/8” foam	02250058-345	150 ft
2	panel, sill short TS32S	02250124-938	1
3	panel, header 60” str TS32 encl	02250124-942	1
4	panel, roof motor side TS32A-300/350a	02250127-100	1
5	panel, sill TS32A	02250129-475	5
6	hinge, separator access door	02250129-761	1
7	panel, baffle sep access door TS32A	02250129-762	1
8	hinge, 180deg. screw-on lift-off rh	02250129-863	27
9	support, canopy TS32A	02250130-219	3
10	support, starter side TS32A	02250130-221	1
11	cover, separator access	02250130-226	1
12	panel, access assy 30” x 57” **(I)**	02250130-227	7
13	support, corner TS32S	02250131-171	1
14	support, corner air flt end TS32S	02250131-172	1
15	support, corner rec tnk end TS32S	02250131-942	1
16	support, corner wtr sep end TS32S	02250131-945	1
17	support, canopy cntr post TS32S	02250133-839	2
18	strap, bustle support TS32S ac/wc	02250133-840	1
19	panel, canopy header TS32S	02250134-127	2
20	panel, access assy 30 x 57” TS32S w/padlock **(I)**	02250134-175	2
21	panel, canopy header unit end TS32S	02250134-178	4
22	panel, access assy 30 x 57” TS32S w/qtr turn ltchs **(I)**	02250134-180	2
23	hinge, 180deg. screw-on lift-off lh	02250134-279	6
24	panel, roof tnk opening TS32S ac/wc	02250134-437	1
25	panel, roof unit end TS32S	02250134-495	1
26	panel, roof-str side TS32S ac	02250134-529	1
27	panel, roof-mtr end TS32S ac	02250134-530	1
28	angle, roof/clr seal TS32S ac 60-5/8” long	02250134-650	2
29	angle, roof/clr seal TS32S ac 60-1/8” long	02250134-670	2
30	panel, baffle TS32S-acac	02250134-771	1
31	panel, roof-center TS32S ac/wc	02250135-898	1

(Continued on page 137)

(I) For door panel handle and latch replacement, order padlockable lever action latch no. 02250120-349, lift pocket handle no. 02250126-149, and/or quarter-turn latch no. 02250135-276.

Section 8
ILLUSTRATIONS AND PARTS LIST

8.30 ENCLOSURE- AIR-COOLED



NOTE: (*) REPLACE ITEM #21 (02250134-178) WITH ITEM #32 (02250138-949)
WHEN USING THE 63" STARTER BOX. ALSO REPLACE ITEM #13(02250131-171)
WITH ITEM #33 (02250139-442) WHEN USING THE 63" STARTER BOX.
ITEM #3 (02250124-942) IS NOT USED WITH THE 63" STARTER BOX.

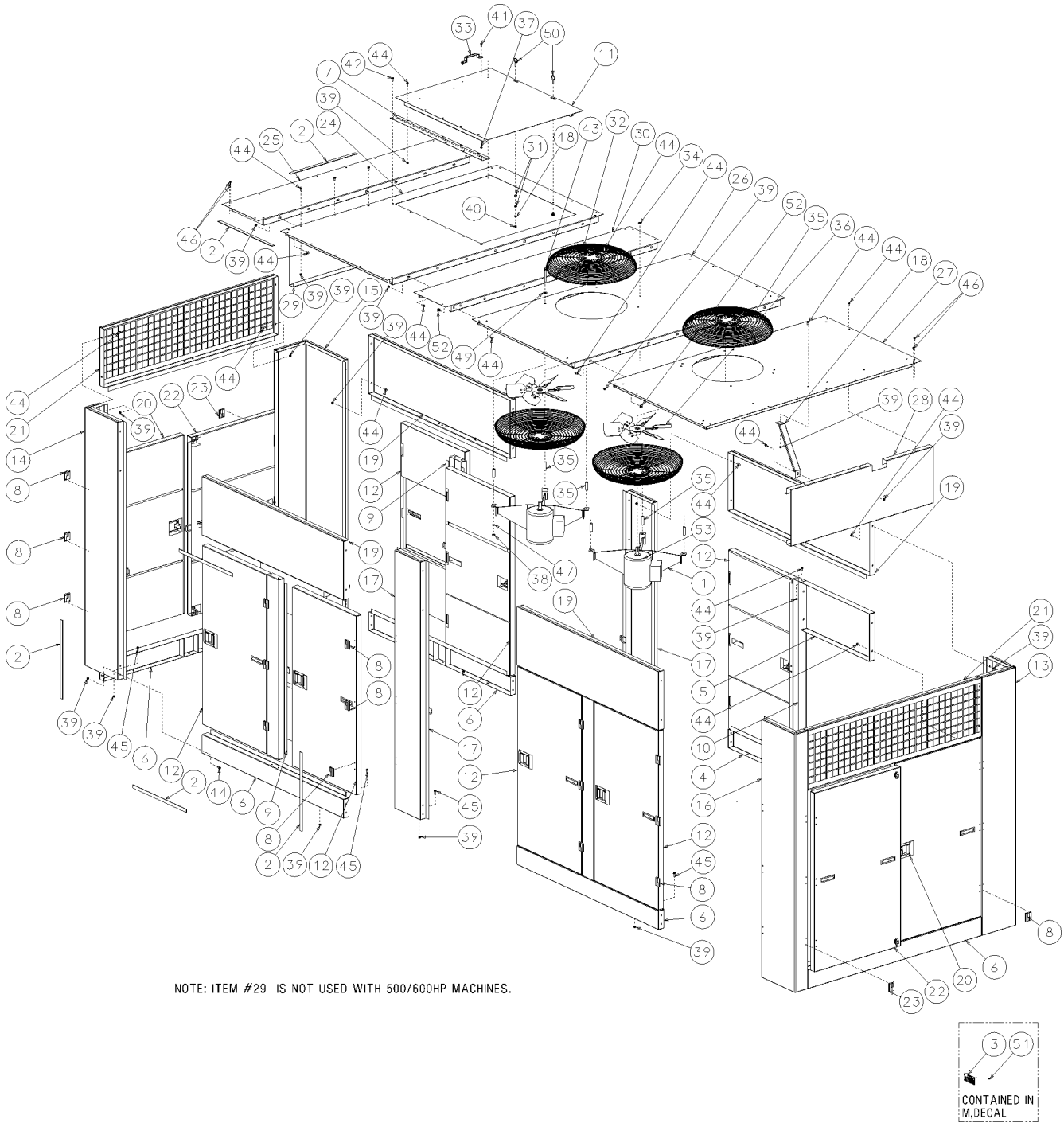
8.30 ENCLOSURE- AIR-COOLED (CONTINUED)

key number	*description*	*part number*	*quantity*
32	panel, canopy header grille TS32S w/63”	02250138-949	1
33	support, corner-str (63”box) TS32S	02250139-442	1
34	grommet, rubber	040125	4
35	handle, canopy	042262	1
36	nut, hex pltd 1/4-20	825104-226	2
37	nut, hex f pltd 5/16-18	825305-283	92
38	nut, hex locking 5/16-18	825505-166	2
39	capscr, hex gr5 1/4-20 x 3/4	829104-075	2
40	capscr, hex gr5 5/16-18 x 3/4	829105-075	6
41	screw, hex ser washer 5/16-18 x 3/4	829705-075	11
42	screw, self-drill 1/4 x 1/2	834504-050	43
43	washer, pl-b reg pltd 5/16	838205-071	2
44	eyebolt, 5/16-18 x 1 1/8” pltd	839105-112	2
45	nut, retainer 5/16-18 .092	861405-092	24

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.31 ENCLOSURE- WATER-COOLED



8.31 ENCLOSURE- WATER-COOLED

key number	*part description*	*number*	*quantity*
1	support, fan motor	014613	2
2	strip, weather 1” x 1/8” foam	02250058-345	12 ft.
3	nameplate, sullair serial number	02250059-318	1
4	panel, sill short TS32A	02250124-938	1
5	panel, header 60” str TS32 encl	02250124-942	1
6	panel, sill TS32A	02250129-475	5
7	hinge, separator access door	02250129-761	1
8	hinge, 180deg. screw-on lift-off rh	02250129-863	27
9	support, canopy TS32A	02250130-219	3
10	support, starter side TS32A	02250130-221	1
11	cover, separator access	02250130-226	1
12	panel, access assy 30” x 57” **(I)**	02250130-227	7
13	support, corner TS32S	02250131-171	1
14	support, corner air flt end TS32S	02250131-172	1
15	support, corner rec tnk end TS32S	02250131-942	1
16	support, corner wtr sep end TS32S	02250131-945	1
17	support, canopy cntr post TS32S	02250133-839	2
18	strap, bustle support TS32S ac/wc	02250133-840	1
19	panel, canopy header TS32S	02250134-127	4
20	panel, access assy 30 x 57” TS32S w/padlock latch **(I)**	02250134-175	2
21	panel, canopy header unit end TS32S	02250134-178	2
22	panel, access assy 30 x 57” TS32S w/qtr trn latches **(I)**	02250134-180	2
23	hinge, 180deg. screw-on lift-off lh	02250134-279	6
24	panel, roof tnk opening TS32S ac/wc	02250134-437	1
25	panel, roof unit end TS32S	02250134-495	1
26	panel, roof fan mtg TS32S wc	02250134-496	1
27	panel, roof fan mtg TS32S wc-mtrend	02250134-497	1
28	panel, baffle mtr/unit end TS32S-wcac	02250134-732	1
29	panel, baffle TS32S-acac	02250134-771	1
30	panel, roof-center TS32Sac/wc	02250135-898	1
31	grommet, rubber	040125	4
32	guard, fan 24”	041765	2

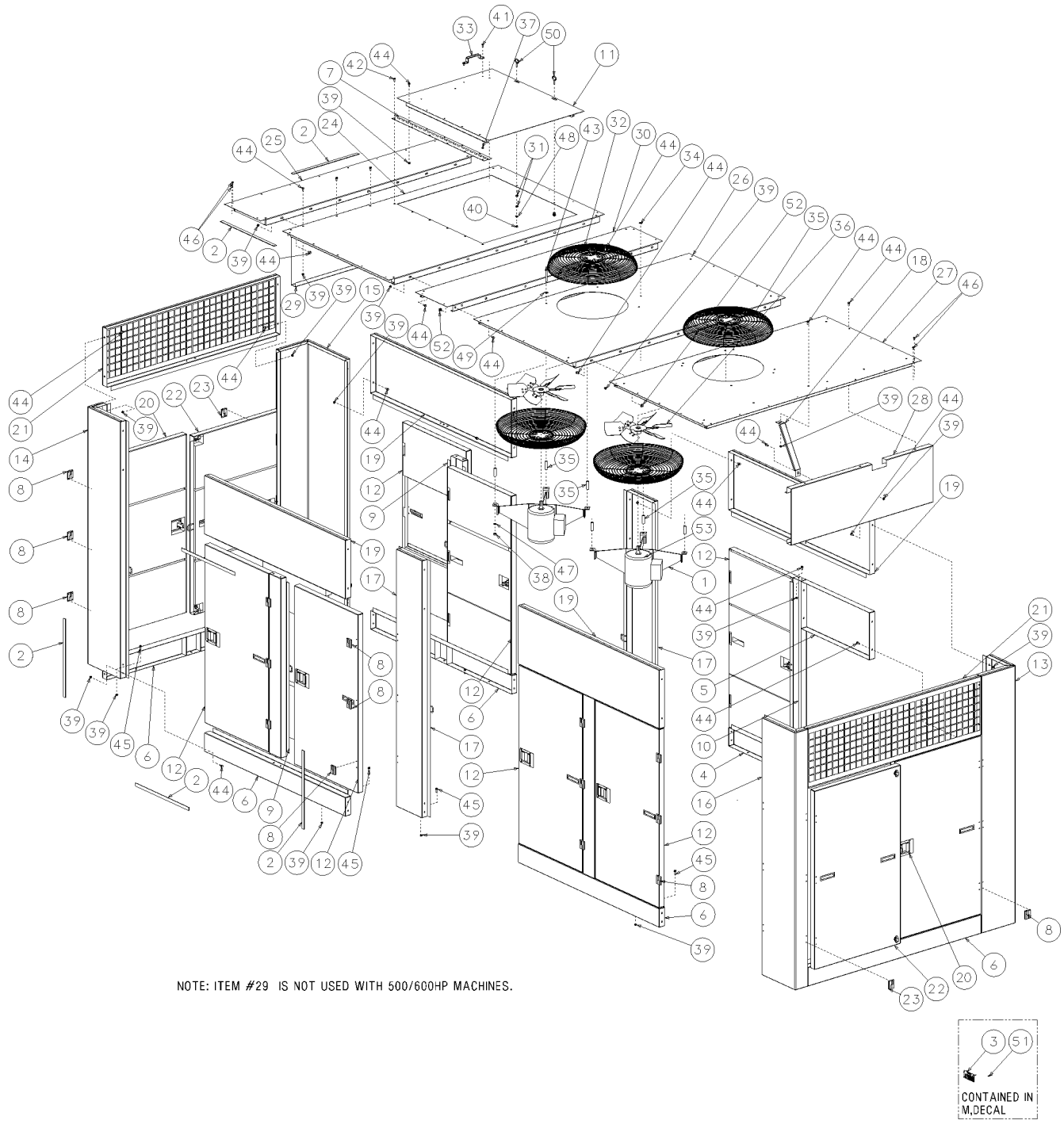
(Continued on page 141)

(I) For door panel handle and latch replacement, order padlockable lever action latch no. 02250120-349, lift pocket handle no. 02250126-149, and/or quarter-turn latch no. 02250135-276.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.31 ENCLOSURE- WATER-COOLED



8.31 ENCLOSURE- WATER-COOLED (CONTINUED)

key number	*description*	*part number*	*quantity*
33	handle, canopy	042262	1
34	clamp, wire	043194	6
35	spacer, fan support	227267	6
36	fan, 20”	245748	2
37	nut, hex pltd 1/4-20	825104-226	2
38	nut, hex pltd 7/16-14	825207-385	6
39	nut, hex f pltd 5/16-18	825305-283	13
40	nut, hex locking 5/16-18	825505-166	2
41	capscr, hex gr5 1/4-20 x 3/4	829104-075	2
42	capscr, hex gr5 5/16-18 x 3/4	829105-075	6
43	capscr, hex gr5 7/16-14 x 3 1/2	829107-350	6
44	screw, hex ser washer 5/16-18 x 3/4	829705-075	11
45	screw, hex ser washer 5/16-18 x 1	829705-100	38
46	screw, self-drill 1/4 x 1/2	834504-050	54
47	washer, spr lock reg pltd 7/16	837807-112	6
48	washer, pl-b reg pltd 5/16	838205-071	2
49	washer, pl-b reg pltd 7/16	838207-071	6
50	eyebolt, 5/16-18 x 1 1/8” pltd	839105-112	2
51	rivet, pop 1/8 x 1/2	843102-050	4
52	nut, retainer 5/16-18 .092	861405-092	15
53	motor, 0.75hp **(II)**	-	2

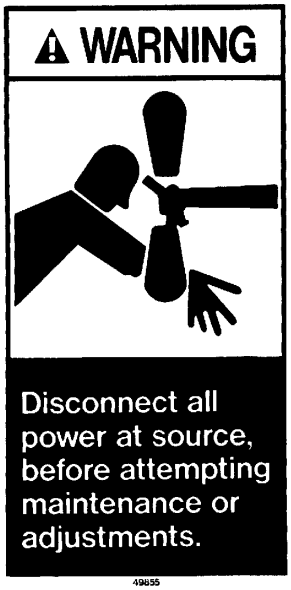
(II) This part may vary by machine. Consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE THE SERIAL NUMBER OF COMPRESSOR

8.32 DECALS

1

2

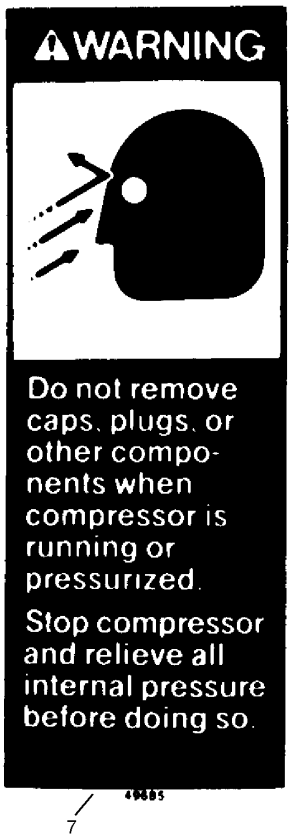


3

4

5

6



7

8

9

SULLAIR®

8.32 DECALS

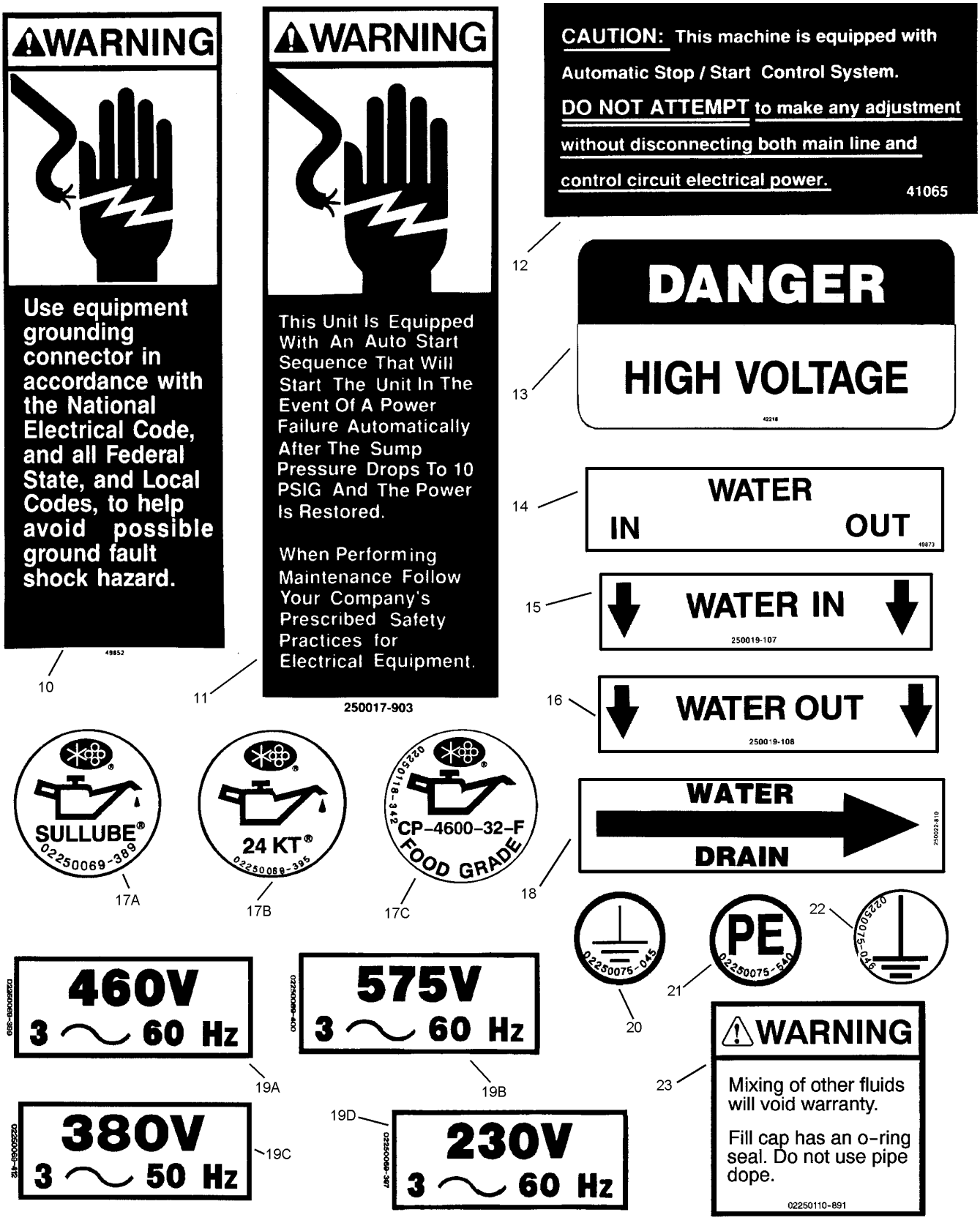
key number	*description*	*part number*	*quantity*
1	sign, warning sever-fan port	049965	1
2	sign, warning hot surfaces	407408	1
3	sign, warning sever - fan	049855	2
4	sign, danger electrocution	049850	1
5	sign, warning “food grade” lube	250003-144	1
6	decal, warning actuator	250029-836	1
7	sign, warning “compressor fluid fill cap”	049685	1
8	sign, air breathing (danger)	250027-935	1
9	decal, Sullair logo	02250059-048	2

(Continued on page 145)

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.32 DECALS



8.32 DECALS (CONTINUED)

key number	*description*	*part number*	*quantity*
10	sign, warning ground fault	049852	1
11	decal, warning auto start	250017-903	1
12	decal, autostart	041065	1
13	decal, danger high voltage	042218	1
14	decal, water inlet-outlet	049873	1
15	decal, water in	250019-107	1
16	decal, water out	250019-108	1
17A	decal, fluid Sullube	02250069-389	1
17B	decal, fluid 24KT	02250069-395	1
17C	decal, fluid CP-4600-32-F	02250118-342	1
18	decal, water drain	250022-810	1
19A	decal, V 460/3/60 international	02250069-399	1
19B	decal, V 575/3/60 international	02250069-400	1
19C	decal, V 380/3/50 international	02250069-412	1
19D	decal, V 230/3/60 international	02250069-397	1
20	decal, protective earth ground	02250075-045	1
21	decal, PE designation	02250075-540	1
22	decal, earth ground	02250075-046	1
23	decal, warning mixing fluids	02250110-891	1

(Continued on page 147)

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

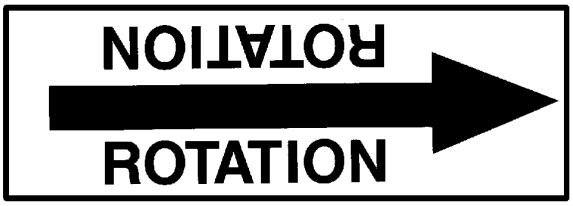
8.32 DECALS

24

25

26

27



28

This product was manufactured to the highest quality standards in an ISO 9001 certified system.
Ce produit a été fabriqué selon les normes les plus strictes de qualité dans un système ISO 9001 certifié.
Dieses Produkt wurde In einem mit ISO 9001 Zertifikat versehenenSystem hergestellt und entspricht den höchsten Qualitäts normen.
Dette produkt er fremstillet i overensstemmelse med de strengeste kvalitetsnormer i et ISO 9001 - certificeret anlæg.

ISO 9001

Το προϊόν αυτό έχει κατασκευαστεί σύμφωνα με τις πλέον αυστηρές προδιαγραφές ποιότητας σε εγκατάσταση πιστοποιημένη με ISO 9001.
Dit produkt werd volgens de hoogste kwaliteitseisen geproduceerd in een ISO-9001 gecertificeerd kwaliteitssysteem.
Este producto ha sido fabricado según los más altos estándares de calidad en un sistema con la certificación ISO 9001.
Questo prodotto é stato fabbricato secondo i più alti standard qualitativi, in un sistema omologato ISO 9001.
本産品是由取得最高品管水准 ISO 9001資格之製造廠所生産

29

MACH. S/N _____ MODEL # _____
CUST. NAME _____
ADDRESS _____
CITY / STATE _____ ZIP _____
CUST. PRODUCT _____
BRAND OF FLUID _____
HOURS ON MACH. _____ FLUID _____
DATE SAMPLE TAKEN: _____
DISCHARGE TEMP. _____ °F
AMBIENT TEMP. _____ °F
FLUID USAGE RATE - GAL / MO. _____
SAMPLE TAKEN FROM: _____
COMMENTS: _____

31

POWER ENERGIZED

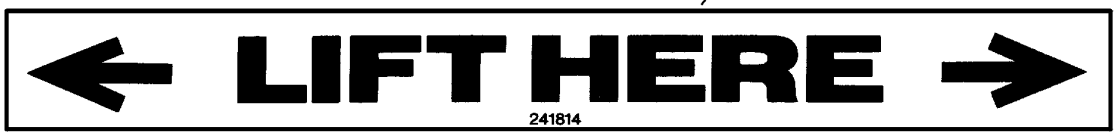
250038-457

1 CR	1 TR	LINE PRESS	INLET
2 CR	2 TR	DISCH PRESS	T1
3 CR	3 TR	WATER PRESS	T2
4 CR	4 TR	SEPARATOR	T3
5 CR	1 M	SPIRAL VALVE	T4
6 CR	2 M	INLET VALVE	T5
1 FU	3 M	CIS VALVE	T6
2 FU	4 M	OIL PRESS	T3
3 FU	HCR	OIL FILTER	T4

30

32

33



8.32 DECALS (CONTINUED)

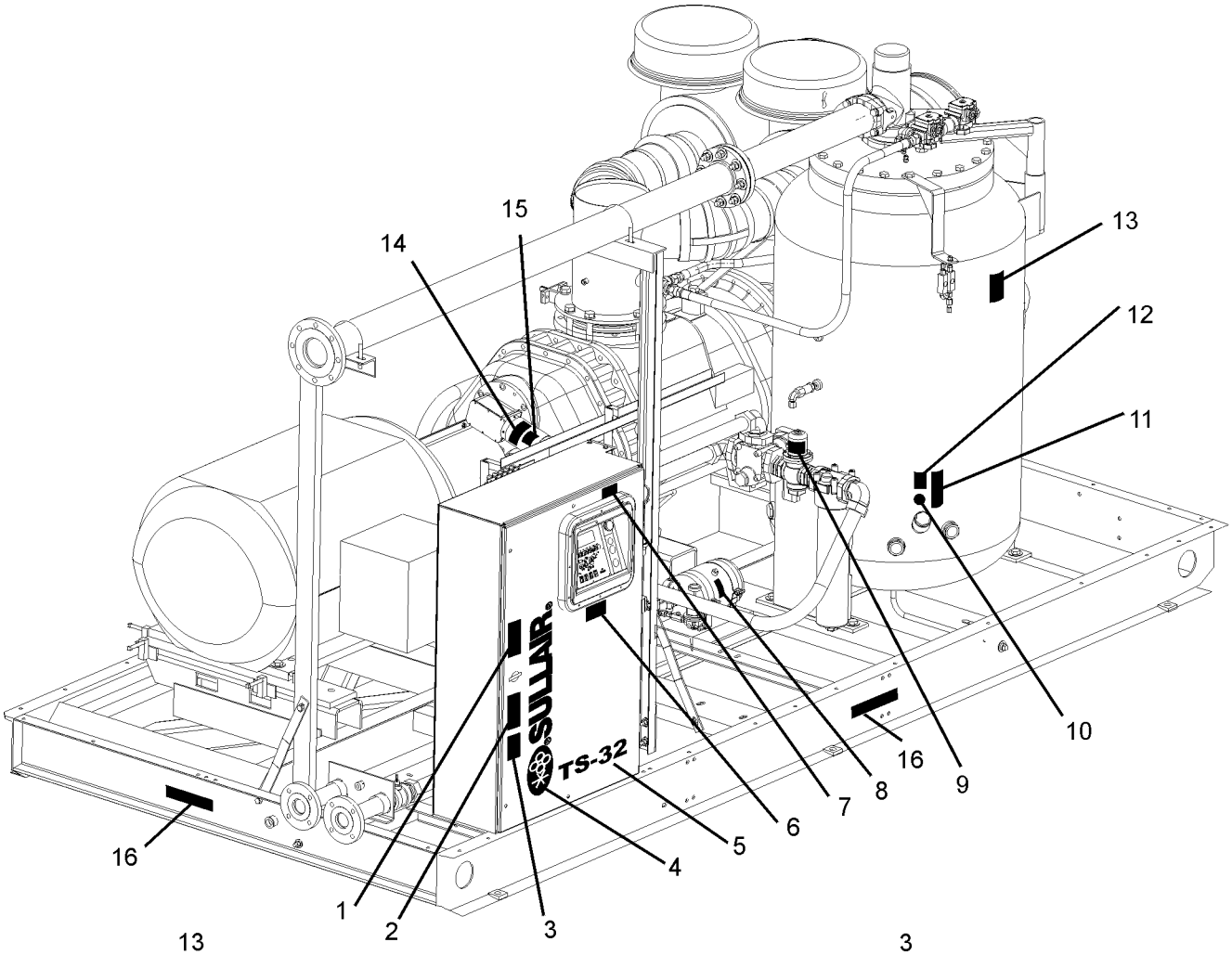
key number	*description*	*part number*	*quantity*
24	decal, TS-32	02250061-379	1
25	decal, compressor fluid 24KT	02250061-022	1
26	decal, rotation	250021-564	1
27	decal, rotation	250021-286	1
28	decal, ISO 9001 **(I)**	-	1
29	decal, fluid sample	250022-675	1
30	decal, electrical component ID	250038-457	1
31	sign, power energized	249544-049	1
32	sign, warning sever fan door closed	02250131-539	4
33	decal, fork lifting	241814	4

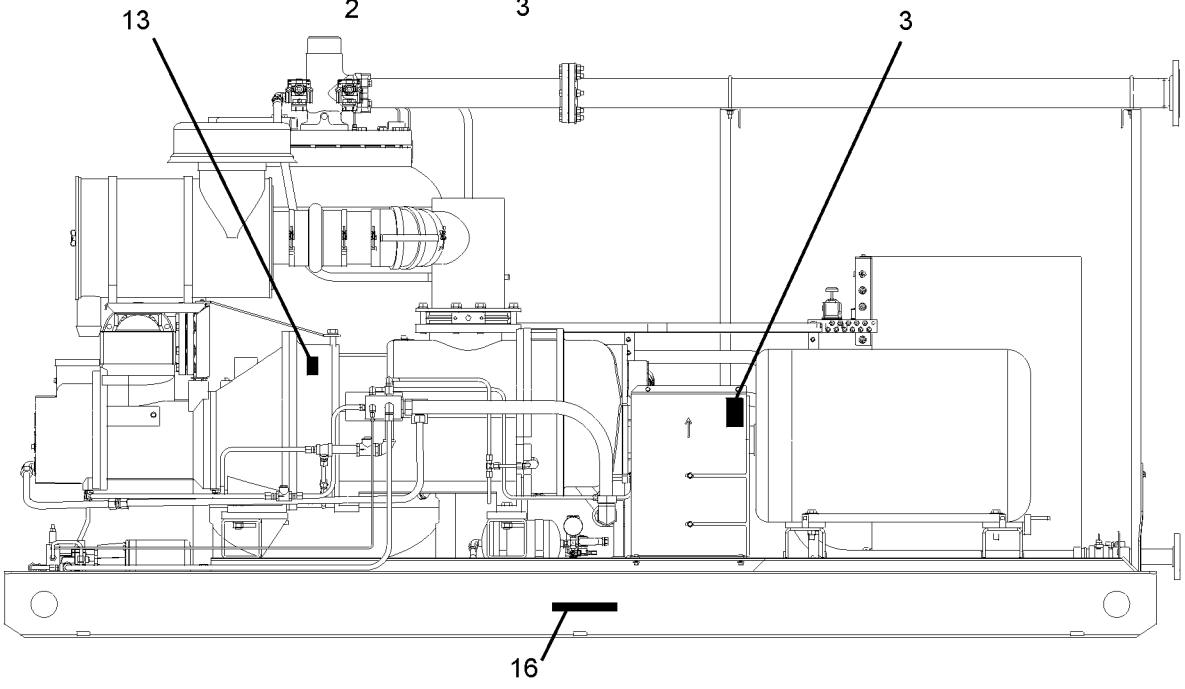
(I) ISO decal may vary per machine. To determine the proper part number of this decal, consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.33 DECAL LOCATIONS





8.33 DECAL LOCATIONS

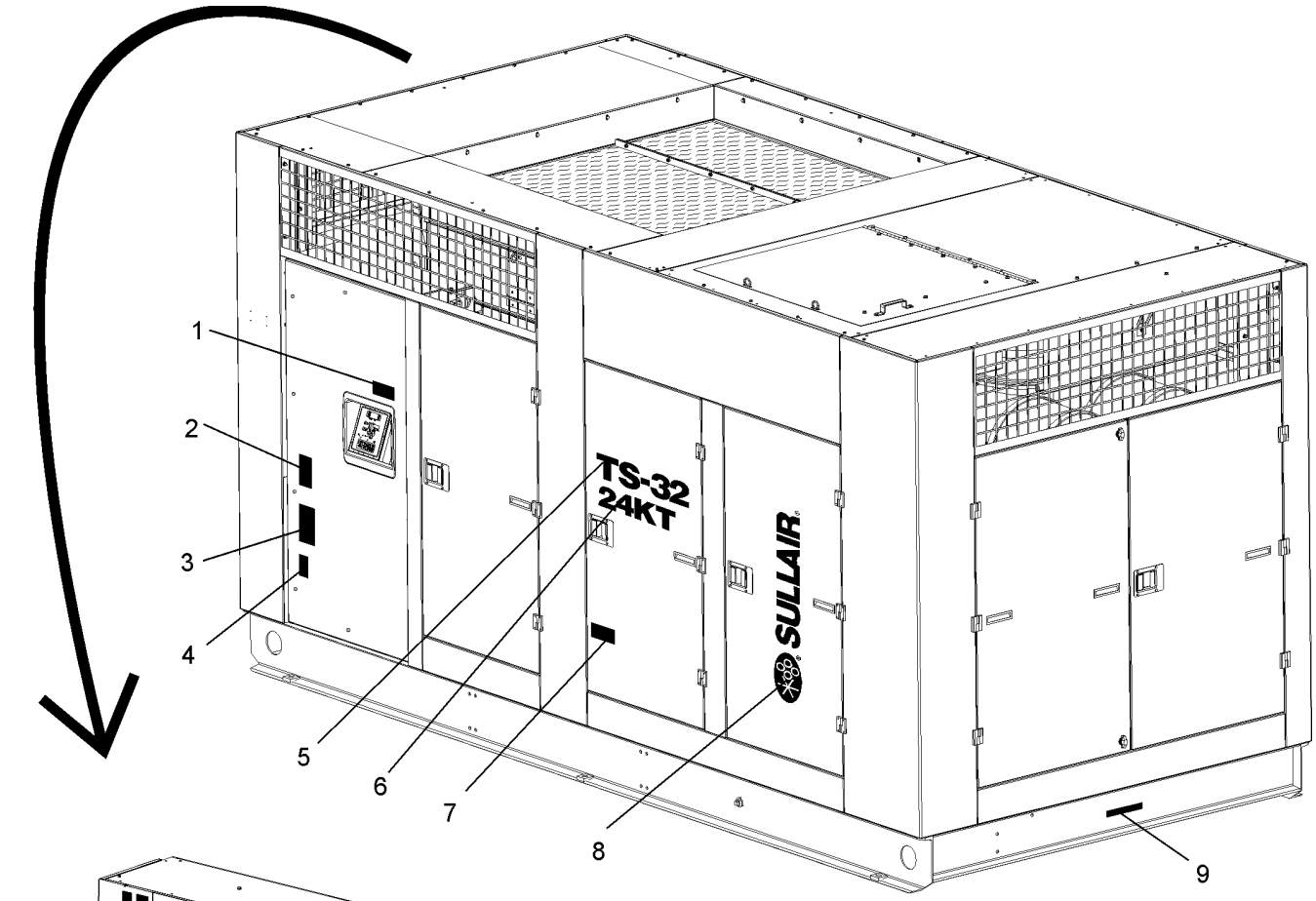
key number	*description*	*part number*	*quantity*
1	sign, danger electrocution	049850	1
2	decal, warning auto start	250017-903	1
3	sign, warning sever - fan	049855	2
4	decal, Sullair logo	02250059-048	2
5	decal, TS-32	02250061-379	1
6	decal, ISO 9001 **(I)**	-	1
7	decal, autostart	041065	1
8	decal, water drain	250022-810	1
9	decal, OSV pn 016742	4102389	1
10	decal, fluid **(II)**	-	
11	sign, warning “compressor fluid fill cap”	049685	1
12	decal, warning mixing fluids	02250110-891	1
13	sign, warning hot surfaces	407408	3
14	decal, warning actuator	250029-836	1
15	decal, actuator valve positioning	250029-784	1
16	decal, fork lifting	241814	4

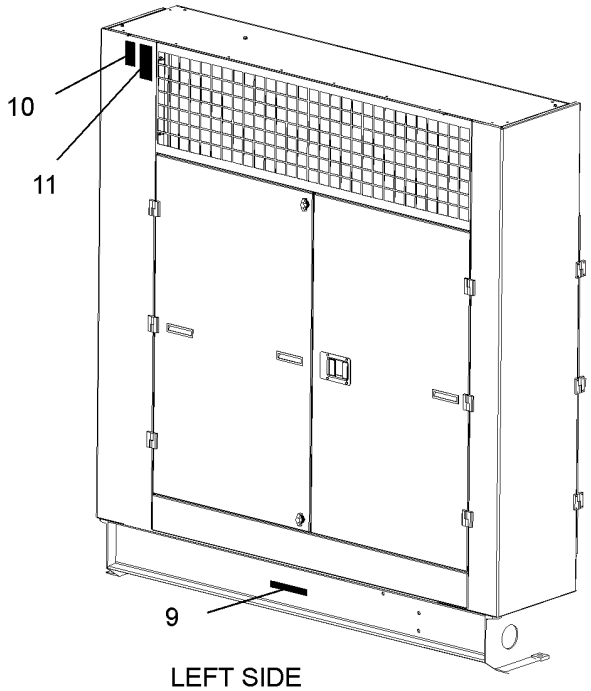
(I) ISO decal may vary per machine. To determine the proper part number of this decal, consult factory with machine serial number.

(II) Fluid decal will vary per machine fill. To determine the compressor’s proper fill decal, consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

8.34 DECAL LOCATIONS- AIR-COOLED ENCLOSURE (TYPICAL)





LEFT SIDE
(FACING CONTROL PANEL)

8.34 DECAL LOCATIONS- AIR-COOLED ENCLOSURE (TYPICAL)

key number	*description*	*part number*	*quantity*
1	decal, autostart	041065	1
2	sign, danger electrocution	049850	1
3	decal, warning auto start	250017-903	1
4	sign, warning sever - fan	049855	2
5	decal, TS-32	02250061-379	1
6	decal, 24KT **(I)**	02250061-022	1
7	decal, ISO 9001 **(II)**	-	1
8	decal, Sullair logo	02250059-048	2
9	decal, fork lifting	241814	4
10	sign, air breathing (danger)	250027-935	1
11	sign, warning “food grade” lube	250003-144	1

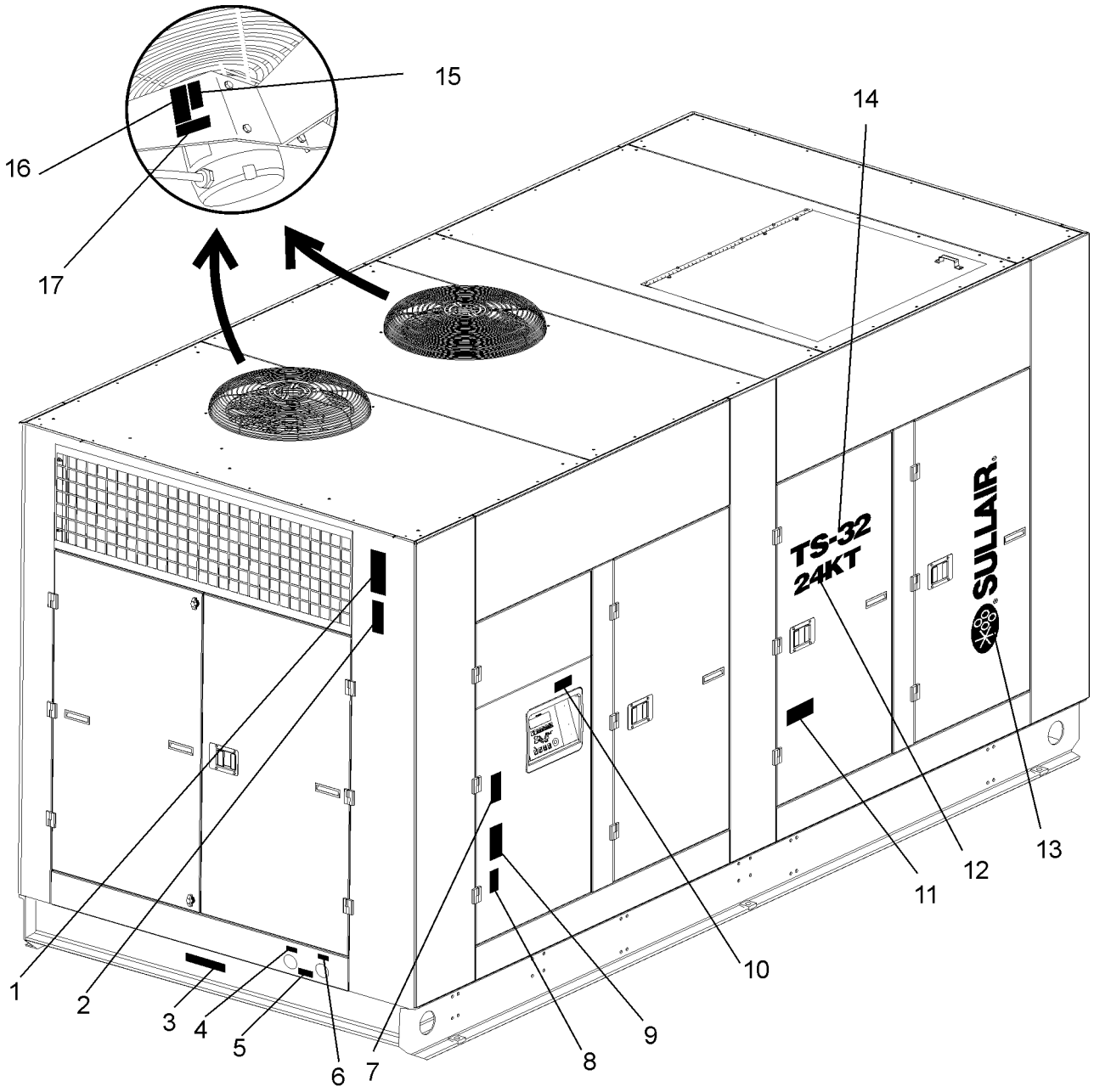
(I) Decal is valid for machines using 24KT fluid only.

(II) ISO decal may vary per machine. To determine the proper part number of this decal, consult factory with machine serial number.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.35 DECAL LOCATIONS- WATER-COOLED ENCLOSURE (TYPICAL)



8.35 DECAL LOCATIONS- WATER-COOLED ENCLOSURE (TYPICAL)

key number	*description*	*part number*	*quantity*
1	sign, warning “food grade” lube	250003-144	1
2	sign, air breathing (danger)	250027-935	1
3	decal, fork lifting	241814	4
4	decal, water out	250019-108	1
5	decal, water inlet-outlet	049873	1
6	decal, water in	250019-107	1
7	sign, danger electrocution	049850	1
8	sign, warning sever - fan	049855	2
9	decal, warning auto start	250017-903	1
10	decal, autostart	041065	1
11	decal, ISO 9001 **(II)**	-	1
12	decal, 24KT **(I)**	02250061-022	1
13	decal, Sullair logo	02250059-048	2
14	decal, TS-32	02250061-379	1
15	sign, warning sever-fan port	049965	1
16	sign, warning sever - fan	049855	1
17	decal, rotation	250021-564	1

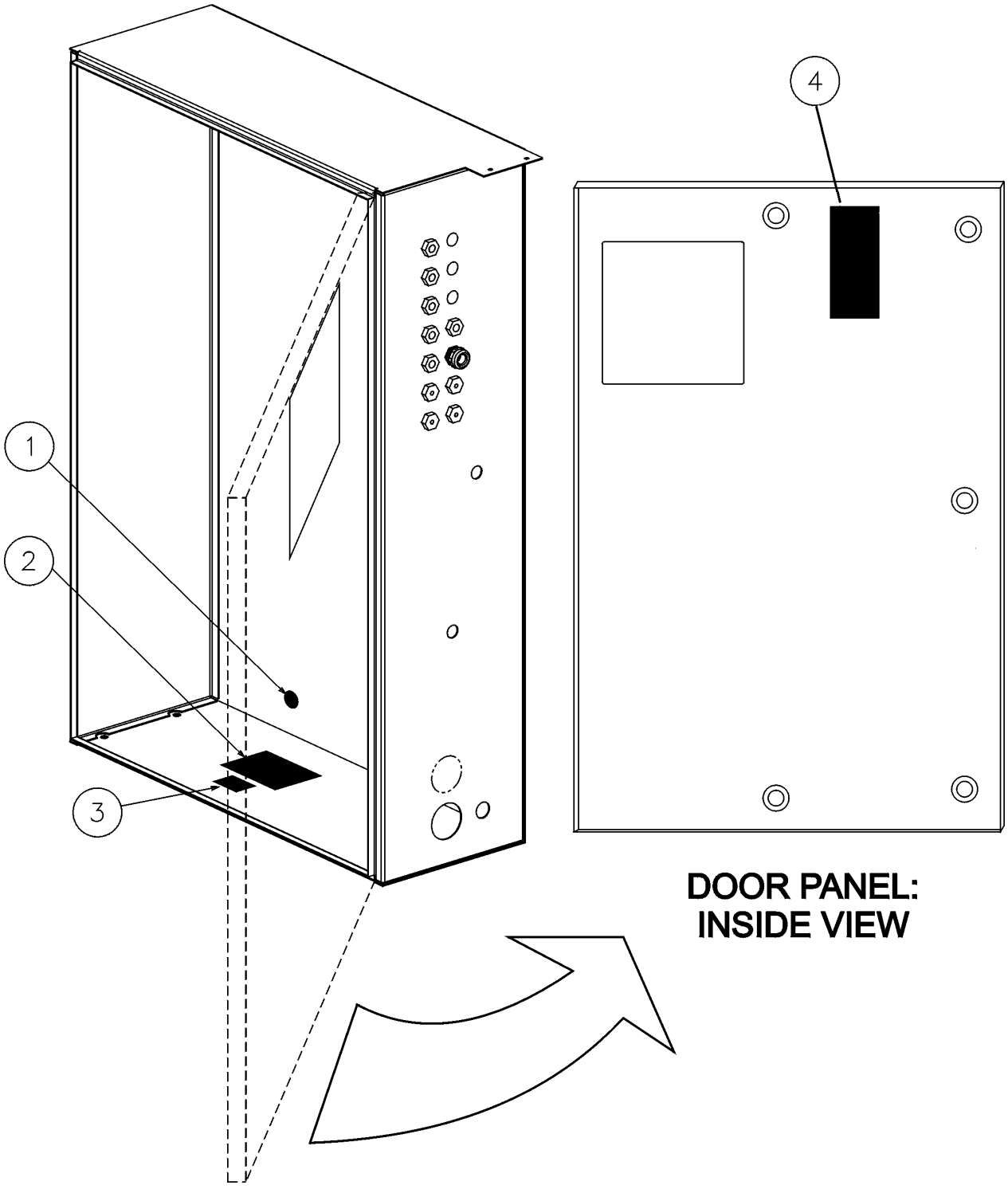
(I) ISO decal may vary per machine. To determine the proper part number of this decal, consult factory with machine serial number.

(II) Decal is valid for machines using 24KT fluid only.

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

Section 8
ILLUSTRATIONS AND PARTS LIST

8.36 DECAL LOCATIONS- CONTROL BOX

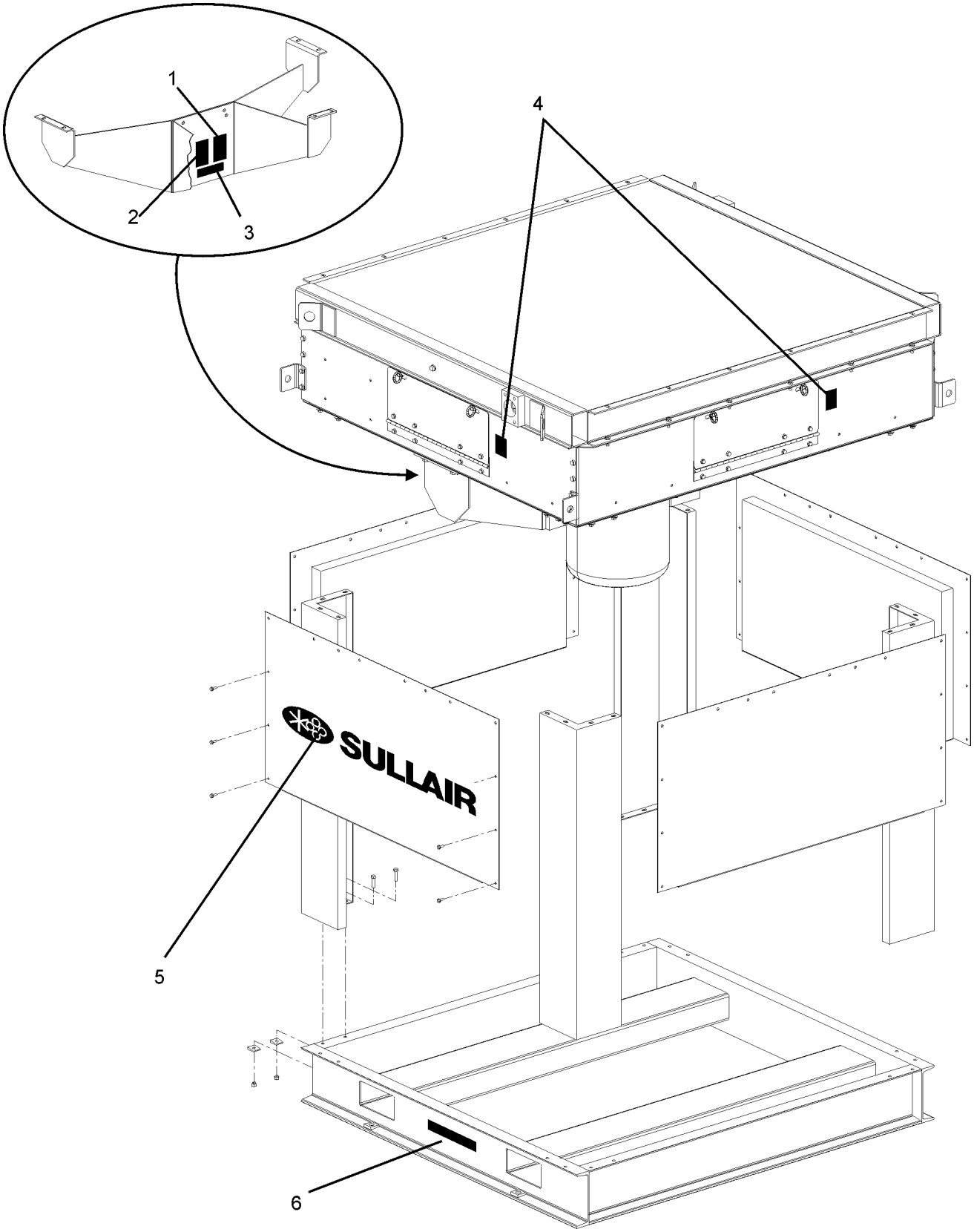


8.36 DECAL LOCATIONS- CONTROL BOX

key number	*description*	*part number*	*quantity*
1	decal, protective earth ground	02250075-045	2
2	decal, danger high voltage	042218	1
3	decal, V 460/3/60 international	02250069-399	1
	•decal, V 575/3/60 international	02250069-400	1
	•decal, V 380/3/50 international	02250069-412	1
	•decal, V 230/3/60 international	02250069-397	1
4	sign, warning ground fault	049852	1

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

8.37 DECAL LOCATIONS- AFTER-COOLER



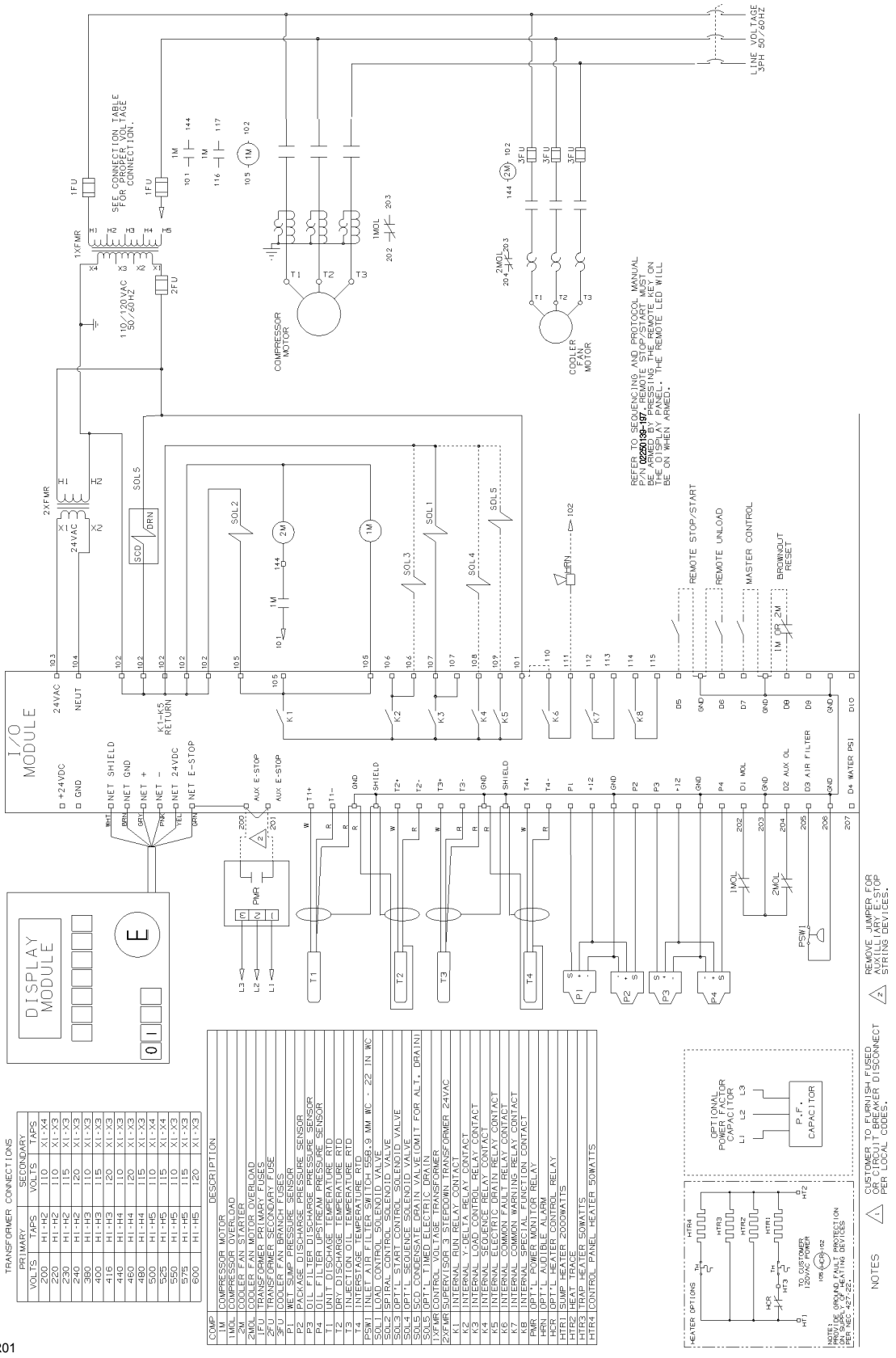
8.37 DECAL LOCATIONS- AFTER-COOLER

key number	*description*	*part number*	*quantity*
1	sign, warning sever-fan port	049965	1
2	sign, warning sever - fan	049855	1
3	decal, rotation	250021-564	1
4	sign, warning sever fan door closed	02250131-539	4
5	decal, Sullair 4.5 x 36 black	02250057-603	2
6	decal, fork lifting	241814	2

PLEASE NOTE: WHEN ORDERING PARTS, INDICATE SERIAL NUMBER OF COMPRESSOR

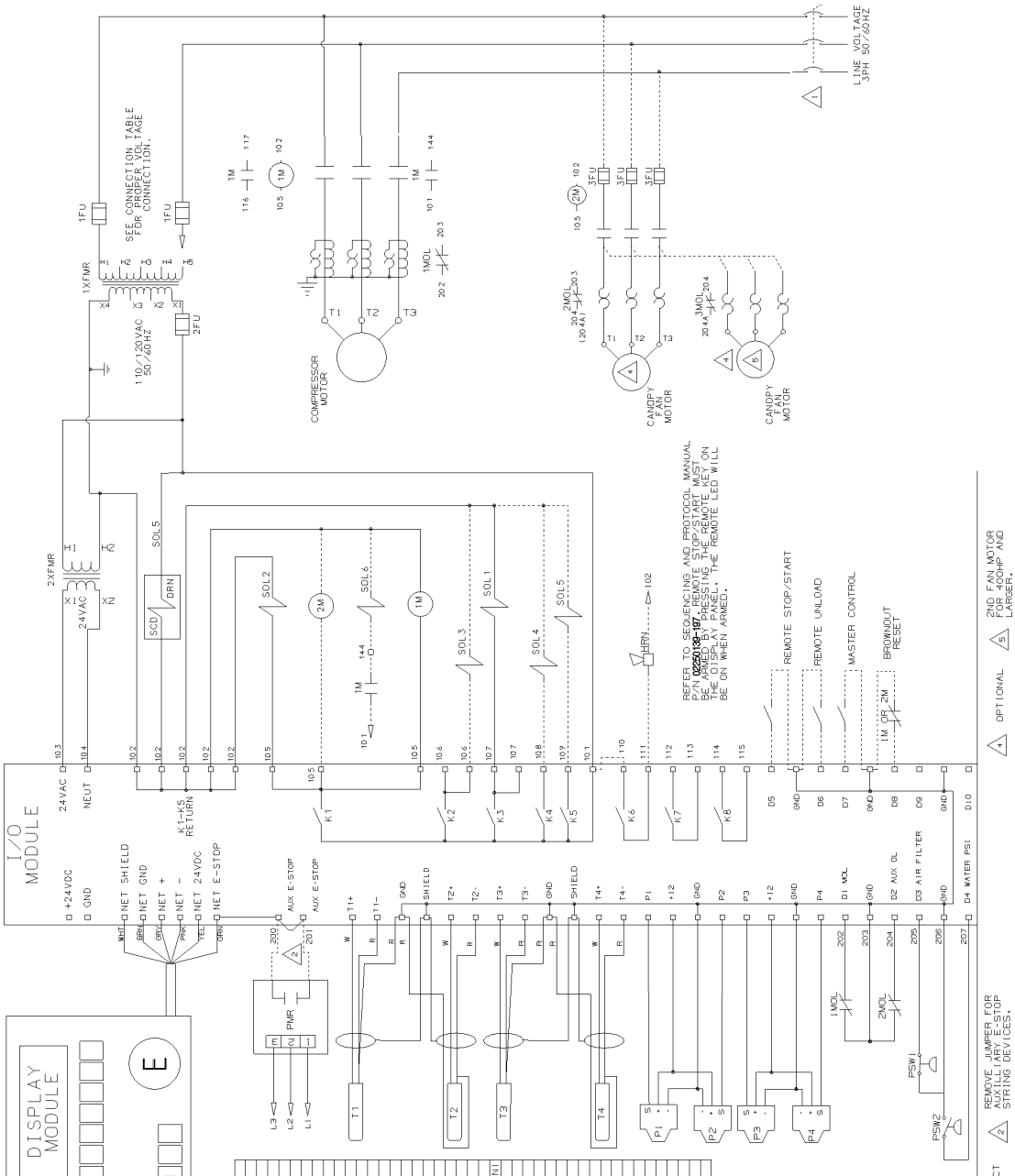
Section 8
ILLUSTRATIONS AND PARTS LIST

8.38 WIRING DIAGRAM- AIR-COOLED/FULL VOLTAGE



02250130-732R01

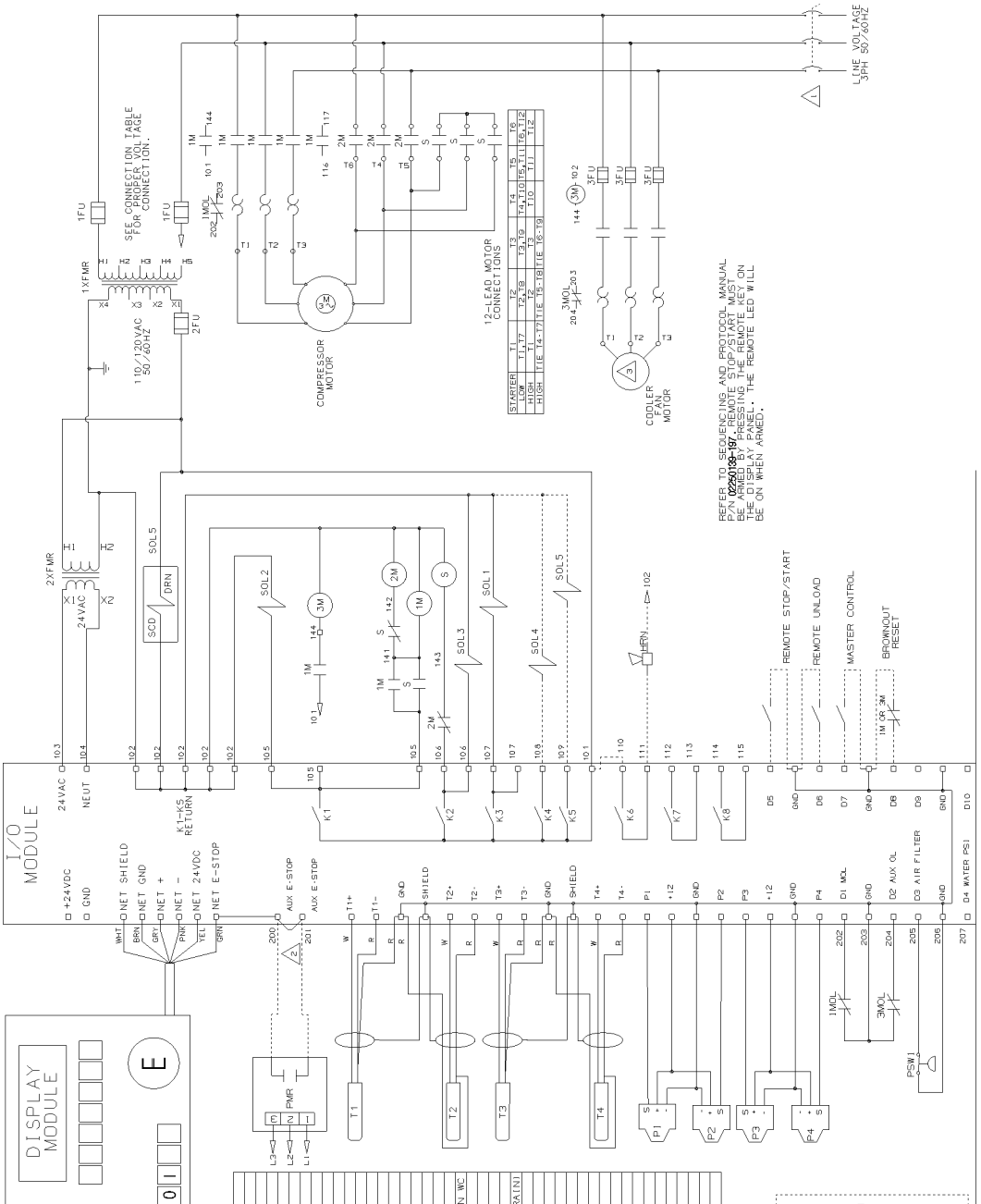
8.39 WIRING DIAGRAM- WATER-COOLED/FULL VOLTAGE



02250130-726R01

Section 8
ILLUSTRATIONS AND PARTS LIST

8.40 WIRING DIAGRAM- AIR-COOLED/WYE-DELTA

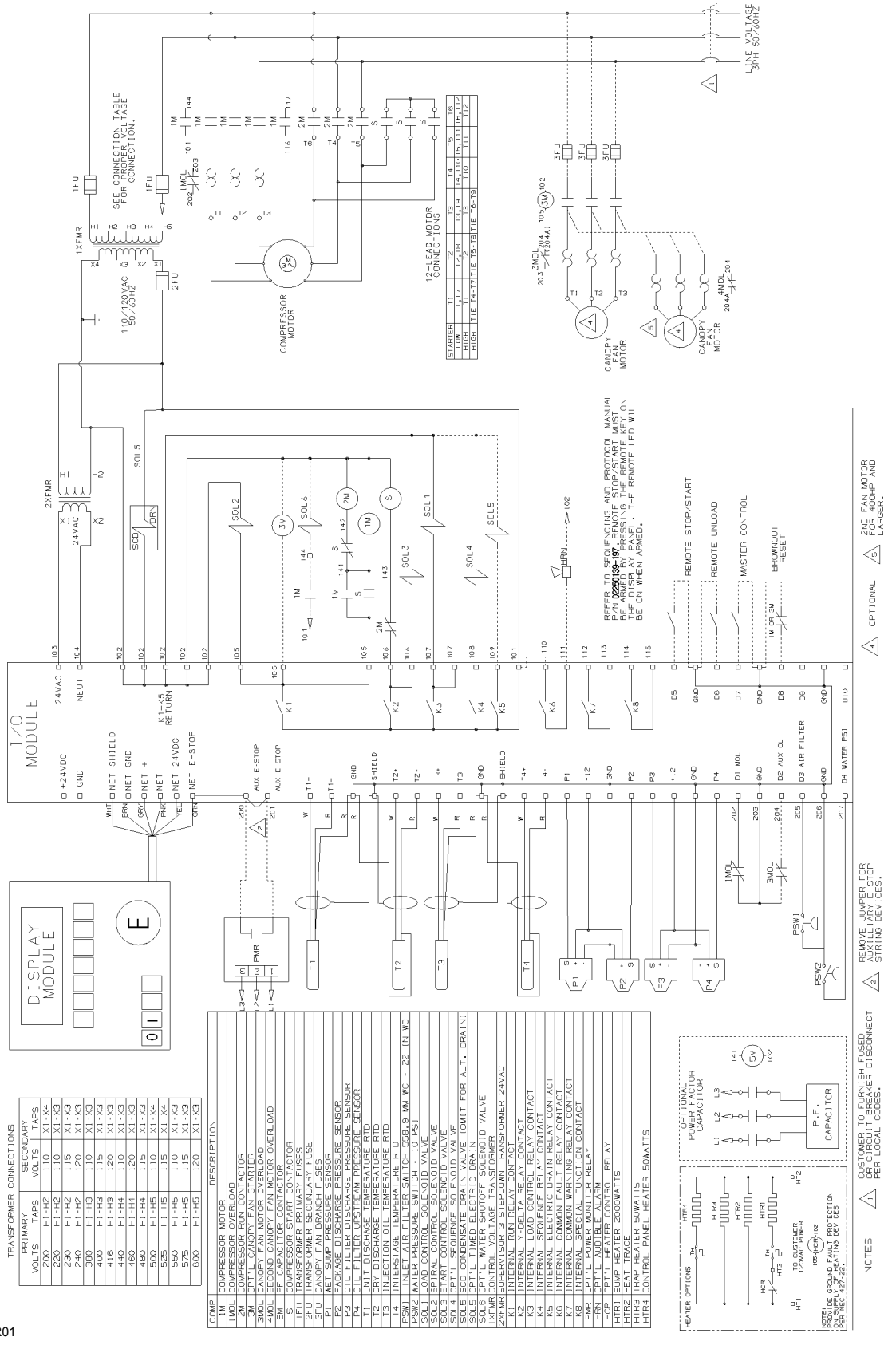


TRANSFORMER CONNECTIONS

PRIMARY VOLTS	PRIMARY TAPS	SECONDARY VOLTS	SECONDARY TAPS
200	H1-H2	110	X1-X4
220	H1-H2	110	X1-X3
230	H1-H2	115	X1-X3
240	H1-H2	120	X1-X3
380	H1-H3	110	X1-X3
400	H1-H3	115	X1-X3
416	H1-H3	120	X1-X3
440	H1-H4	110	X1-X3
460	H1-H4	120	X1-X3
480	H1-H4	115	X1-X3
500	H1-H5	110	X1-X4
525	H1-H5	115	X1-X3
550	H1-H5	110	X1-X3
575	H1-H5	115	X1-X3
600	H1-H5	120	X1-X3

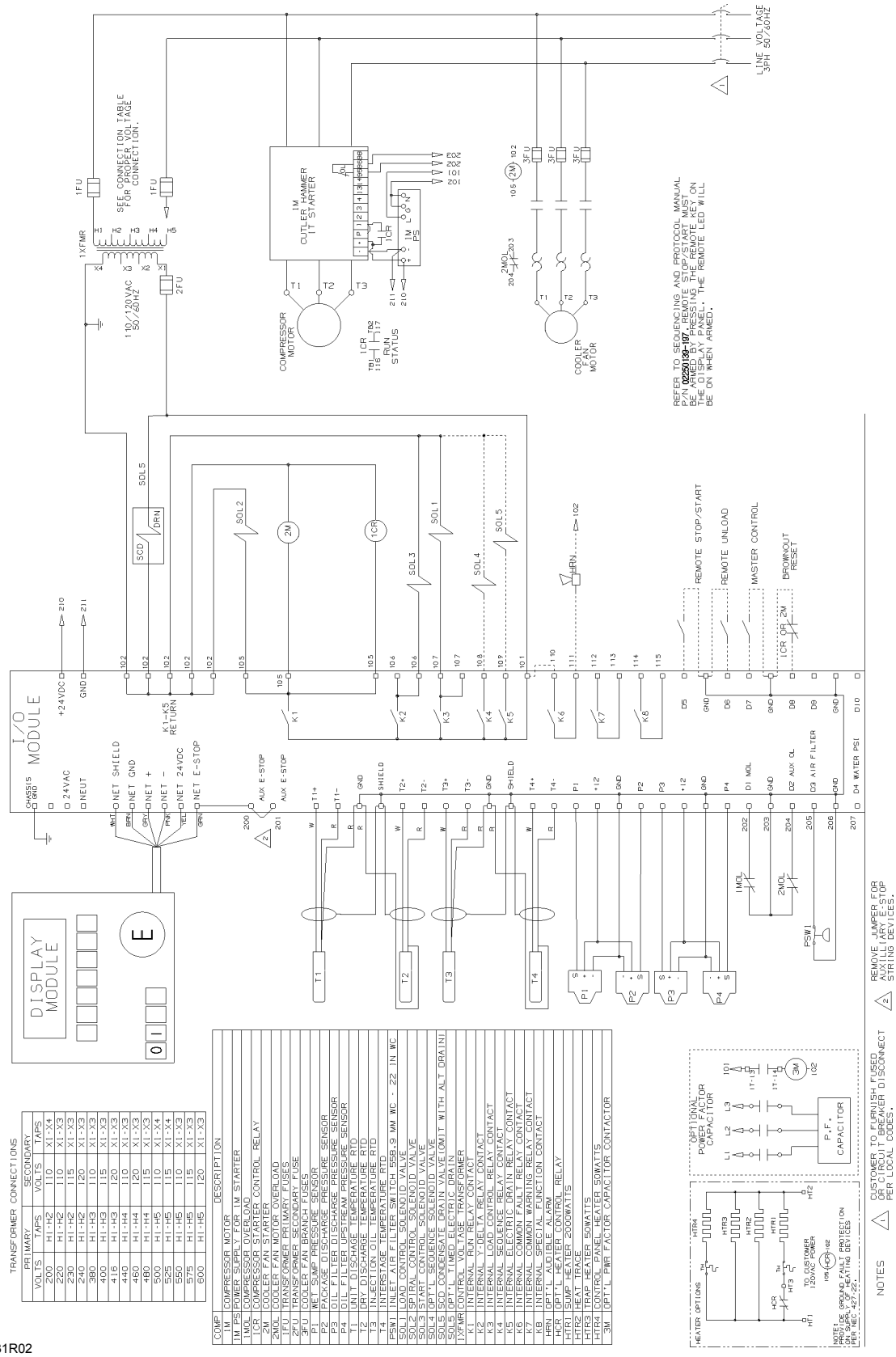
COMP	DESCRIPTION
1M	COMPRESSOR MOTOR
1MOL	COMPRESSOR OVERLOAD
2M	COMPRESSOR RUN CONTACTOR
3M	COOLER FAN STARTER
3MOL	COOLER FAN MOTOR OVERLOAD
4M	OPT'L PF CAPACITOR CONTACTOR
S	COMPRESSOR START CONTACTOR
1FU	TRANSFORMER PRIMARY FUSES
2FU	TRANSFORMER SECONDARY FUSE
3FU	COOLER FAN BRANCH FUSES
4FU	CRANKCASE HEATER FUSE
P1	INLET AIR FILTER SWITCH
P2	PACKAGE DISCHARGE PRESSURE SENSOR
P3	OIL FILTER DISCHARGE PRESSURE SENSOR
P4	OIL FILTER UPSTREAM PRESSURE SENSOR
T1	UNIT DISCHAGE TEMPERATURE RTD
T2	DRY DISCHARGE TEMPERATURE RTD
T3	INJECTION OIL TEMPERATURE RTD
T4	INTERSTAGE TEMPERATURE RTD
PSW1	INLET AIR FILTER SWITCH 55B-9 MM WC - 22 IN WC
SOL1	LOAD CONTROL SOLENOID VALVE
SOL2	SPIRAL CONTROL SOLENOID VALVE
SOL3	START CONTROL SOLENOID VALVE
SOL4	OPT'L SEQUENCE SOLENOID VALVE
SOL5	SCD CONDENSATE EJECTOR DRAIN VALVE(OMIT FOR ALT. DRAIN)
1XFMR	CONTROL VOLTAGE TRANSFORMER
2XFMR	SUPERVISOR 3 STEPDOWN TRANSFORMER 24VAC
K1	INTERNAL RUN RELAY CONTACT
K2	INTERNAL Y-DELTA RELAY CONTACT
K3	INTERNAL LOAD CONTROL RELAY CONTACT
K4	INTERNAL SEQUENCE RELAY CONTACT
K5	INTERNAL FACTORY TEST RELAY CONTACT
K6	INTERNAL COMMON FAULT RELAY CONTACT
K7	INTERNAL COMMON WARNING RELAY CONTACT
K8	INTERNAL SPECIAL FUNCTION CONTACT
PWR	OPT'L POWER MONITOR RELAY
HRN	OPT'L AUDIBLE ALARM
HCR	SUMP HEATER CONTROL RELAY
HTR1	SUMP HEATER 2000WATTS
HTR2	HEAT TRACE
HTR3	TRAP HEATER 50WATTS
HTR4	CONTROL PANEL HEATER 50WATTS

8.41 WIRING DIAGRAM- WATER-COOLED/WYE-DELTA



Section 8
ILLUSTRATIONS AND PARTS LIST

8.42 WIRING DIAGRAM- AIR-COOLED/SOLID STATE

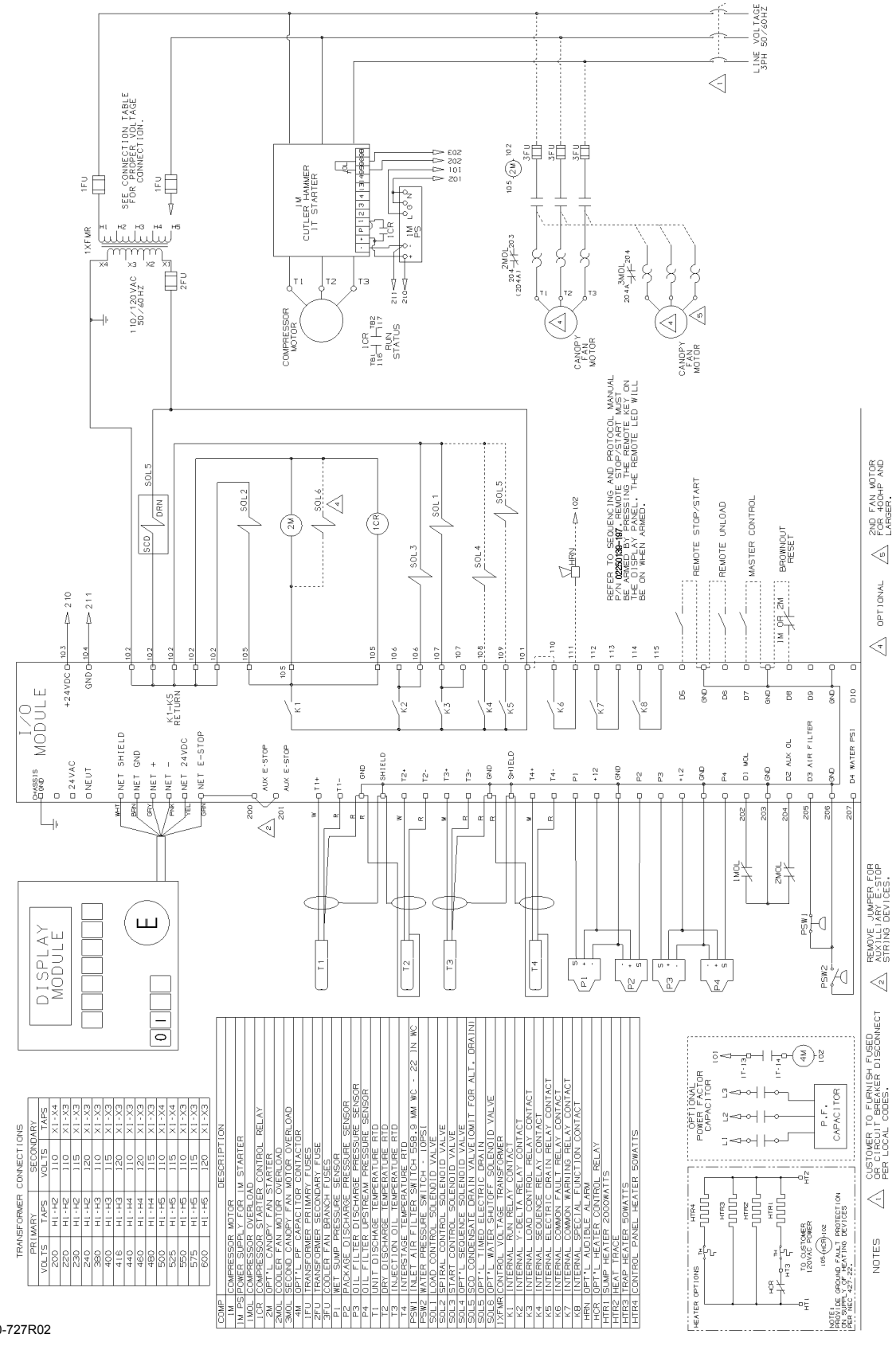


TRANSFORMER CONNECTIONS

PRIMARY		SECONDARY	
VOLTS	TAPS	VOLTS	TAPS
200	H1-H2	110	X1-X4
220	H1-H2	110	X1-X3
230	H1-H2	115	X1-X3
240	H1-H2	120	X1-X3
380	H1-H3	110	X1-X3
400	H1-H3	115	X1-X3
416	H1-H3	120	X1-X3
440	H1-H4	110	X1-X3
460	H1-H4	120	X1-X3
480	H1-H4	115	X1-X4
525	H1-H5	115	X1-X4
550	H1-H5	110	X1-X3
575	H1-H5	115	X1-X3
600	H1-H5	120	X1-X3

COMP	DESCRIPTION
1M	COMPRESSOR MOTOR
1MS	COMPRESSOR POWER 1M STARTER
1MOL	COMPRESSOR OVERLOAD RELAY
1CR	COMPRESSOR STARTER CONTROL RELAY
2M	COOLER FAN STARTER
2MOL	COOLER FAN MOTOR OVERLOAD
1FU	TRANSFORMER PRIMARY FUSES
2FU	TRANSFORMER SECONDARY FUSE
3FU	COOLER FAN MOTOR FUSES
P1	WET SUMP PRESSURE SENSOR
P2	PACKAGE DISCHARGE PRESSURE SENSOR
P3	OIL FILTER DISCHARGE PRESSURE SENSOR
P4	OIL FILTER UPSTREAM PRESSURE SENSOR
T1	UNIT DISCHARGE TEMPERATURE RTD
T2	DRY DISCHARGE TEMPERATURE RTD
T3	INTERSTAGE TEMPERATURE RTD
T4	INTERSTAGE TEMPERATURE RTD
PSW1	INLET AIR FILTER SWITCH 558.9 MM WC - 22 IN WC
SOL1	LOAD CONTROL SOLENOID VALVE
SOL2	SPIRAL CONTROL SOLENOID VALVE
SOL3	START CONTROL SOLENOID VALVE
SOL4	OPT'L SEQUENCE SOLENOID VALVE
SOL5	SEP. CONDENSATE DRAIN VALVE(OMIT WITH ALT DRAIN)
1XFMR	CONTROL VOLTAGE TRANSFORMER
K1	INTERNAL RUN RELAY CONTACT
K2	INTERNAL Y-DELTA RELAY CONTACT
K3	INTERNAL LOAD CONTROL RELAY CONTACT
K4	INTERNAL SEQUENCE RELAY CONTACT
K5	INTERNAL ELECTRIC DRAIN RELAY CONTACT
K7	INTERNAL COMMON WARNING RELAY CONTACT
K8	INTERNAL SPECIAL FUNCTION CONTACT
HRN	OPT'L AUDIBLE ALARM
HCR	OPT'L HEATER CONTROL RELAY
HTR1	SUMP HEATER 200OWATTS
HTR2	HEAT TRACE 50WATTS
HTR3	HEATER 200WATTS
HTR4	CONTROL PANEL HEATER 50WATTS
3M	OPT'L PWR FACTOR CAPACITOR CONTACTOR

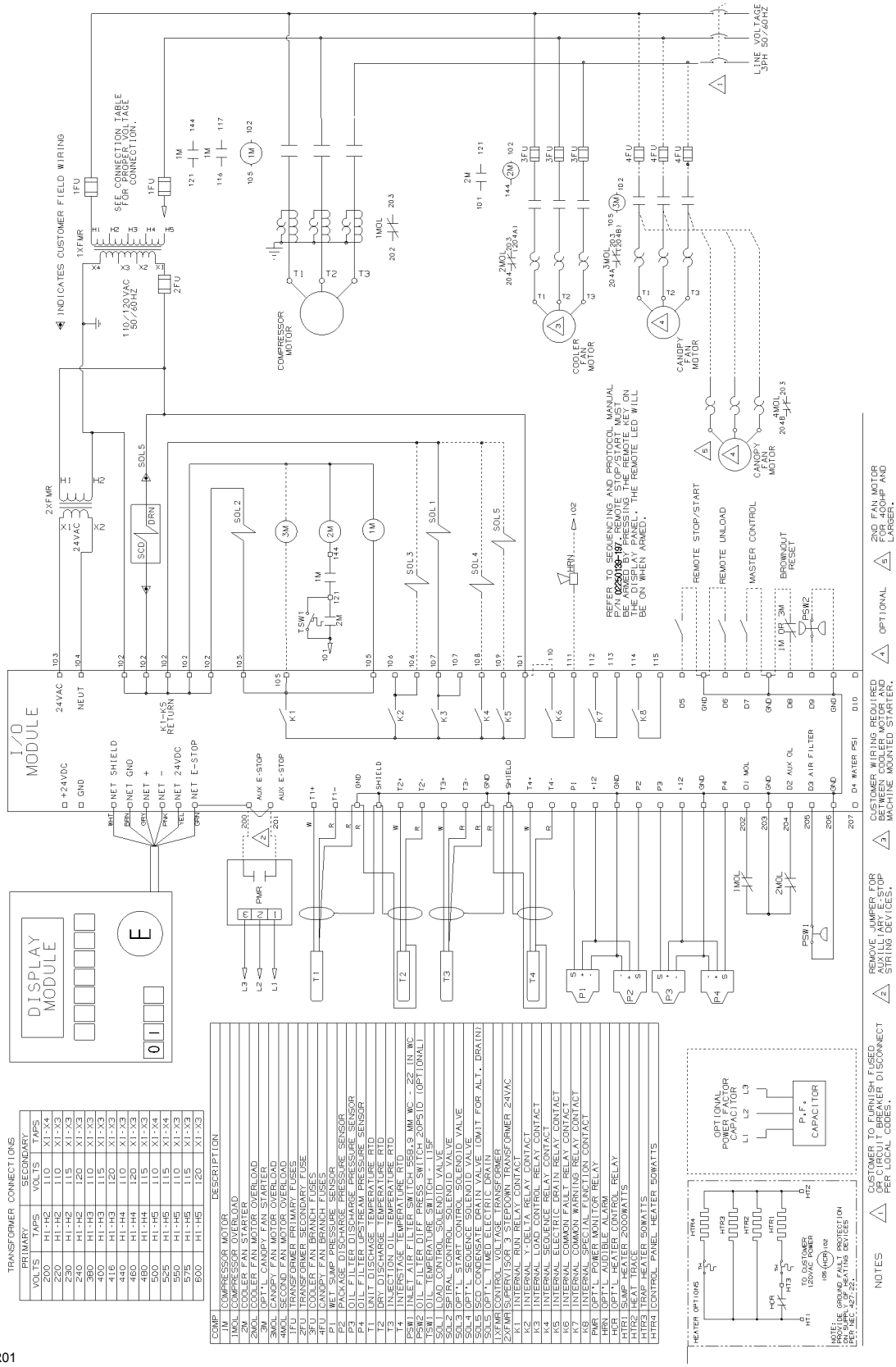
8.43 WIRING DIAGRAM- WATER-COOLED/SOLID STATE



02250130-727R02

Section 8
ILLUSTRATIONS AND PARTS LIST

8.44 WIRING DIAGRAM- AIR-COOLED/REMOTE COOLER



02250130-723R01

NOTES

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Fax: 33-477968499
www.sullaireurope.com

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Fax: (219) 874-1835
www.sullair.com/parts.shtm

SERVICE DEPARTMENT

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