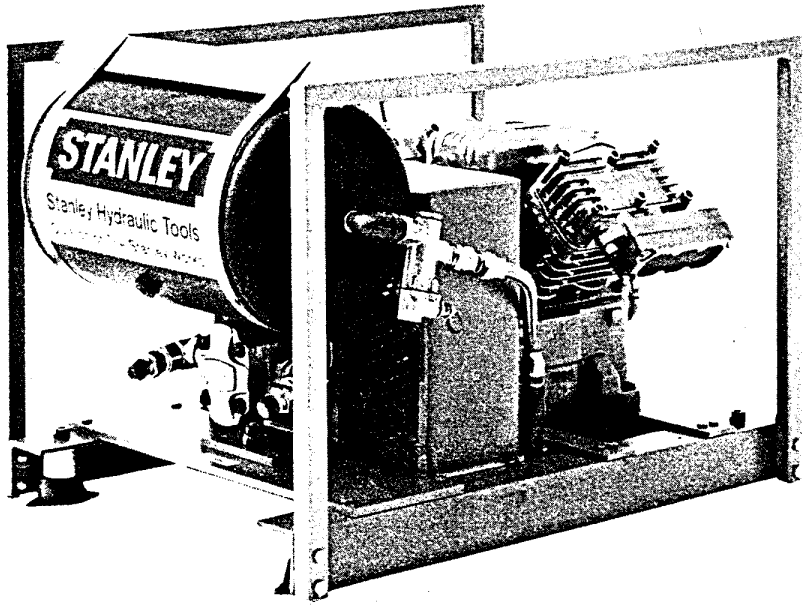
AC24
AIR COMPRESSOR



Safety, Operation and Maintenance Manual

Focused on performance ™

STANLEY®
helps you do things right

06682 9/93R

SAFETY PRECAUTIONS

Tool operators and maintenance personnel must always comply with the safety precautions given in this manual and on the stickers and tags attached to the tool and hose.

These safety precautions are given for your safety. Review them carefully before operating the tool and before performing maintenance or repairs.

Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. If so, place the added precautions in the space provided on page 4.

GENERAL SAFETY PRECAUTIONS

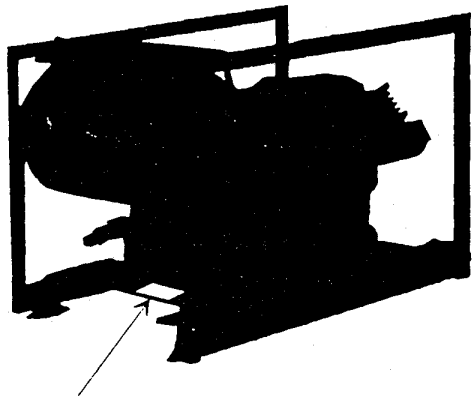
The AC24 Hydraulic Air Compressor provides safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hose before operation. Failure to do so can result in personal injury or equipment damage.

- Operators must start in a work area without bystanders. Flying debris can cause serious injury.
- Establish a training program for all operators to ensure safe operation.
- The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Do not operate the compressor unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, ear and head protection, and safety shoes when operating the compressor.
- Never use tools near energized transmission lines. Know the location of buried or covered services before starting your work.
- Do not overreach. Maintain proper footing and balance at all times.
- Do not inspect or clean the compressor while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Always connect hoses to the tool hose couplers before energizing the hydraulic power source. Be sure all hose connections are tight.
- Do not operate the compressor at fluid temperatures above 140°F/60°C. Operation at higher temperatures can cause higher than normal temperatures at the compressor which can result in operator discomfort.
- Do not operate the compressor if it is damaged, improperly adjusted or not completely and correctly assembled.
- To avoid personal injury or equipment damage, all compressor repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Before performing any maintenance on the compressor, place a warning tag on the hydraulic power source or disconnect the hoses from the compressor motor to prevent accidental startup of the compressor.
- Never operate the compressor with the fan guard removed.
- Do not attempt to adjust or disable the compressor relief valve. This valve limits air pressure to 150 psi/ 10.3 bar.
- The surface of the air compressor and the plumbing between the compressor and aftercooler may reach temperatures above 150°F/66°C. Touching these surfaces during operation can cause burns.
- The air taken in by the air compressor must be free of flammable fumes and vapors.

TOOL STICKERS AND TAGS

A flow and pressure sticker is attached to the compressor at the location shown. Never exceed the flow and pressure levels specified on this sticker.

The information listed on the flow and pressure must be eligible at all times. Replace the sticker when it becomes worn or damaged. A replacement is available from your local Stanley distributor.



GPM/PRESSURE STICKER

CAUTION

7-9 GPM/26-34 LPM
DO NOT EXCEED 2000 PSI/140 BAR

■ **DO NOT** EXCEED SPECIFIED FLOW OR PRESSURE. ■ USE CLOSED-CENTER TOOL ON CLOSED-CENTER SYSTEM. ■ USE OPEN-CENTER TOOL ON OPEN-CENTER SYSTEM. ■ CORRECTLY CONNECT HOSES TO TOOL "**IN**" AND "**OUT**" PORTS. ■ IMPROPER HANDLING, USE OR MAINTENANCE OF TOOL COULD RESULT IN A LEAK, BURST OR OTHER TOOL FAILURE. ■ CONTACT AT A LEAK OR BURST CAN CAUSE OIL INJECTION INTO THE BODY. ■ FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS PERSONAL INJURY. 03766

GPM/PRESSURE STICKER

HYDRAULIC HOSE REQUIREMENTS

HOSE TYPES

Hydraulic hose types authorized for use with Stanley Hydraulic Tools are as follows:

1. Labeled and certified non-conductive
2. Wire braided (conductive)
3. Fabric braided (not certified or labeled non-conductive)

Hose 1 listed above is the only hose authorized for use near electrical conductors.

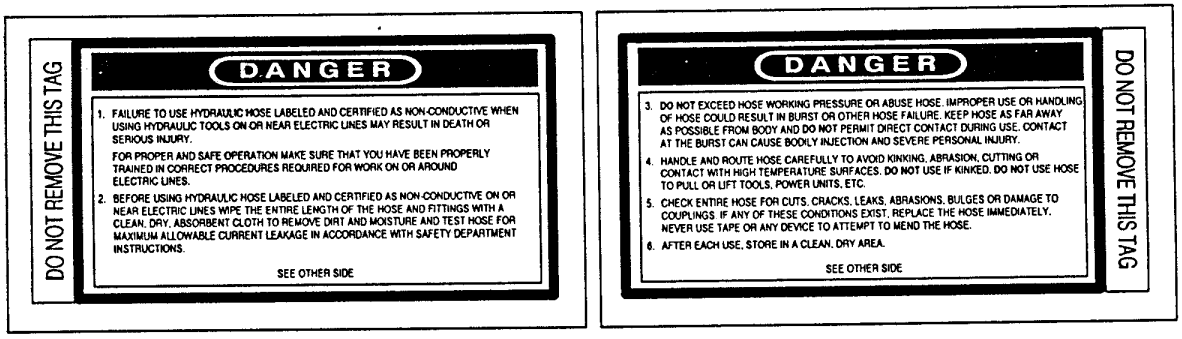
Hoses 2 and 3 listed above are conductive and must never be used near electrical conductors.

To help ensure your safety, the following DANGER tags are attached to all hoses purchased from Stanley Hydraulic Tools. DO NOT REMOVE THESE TAGS.

If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag can be obtained at no charge from your Stanley distributor.

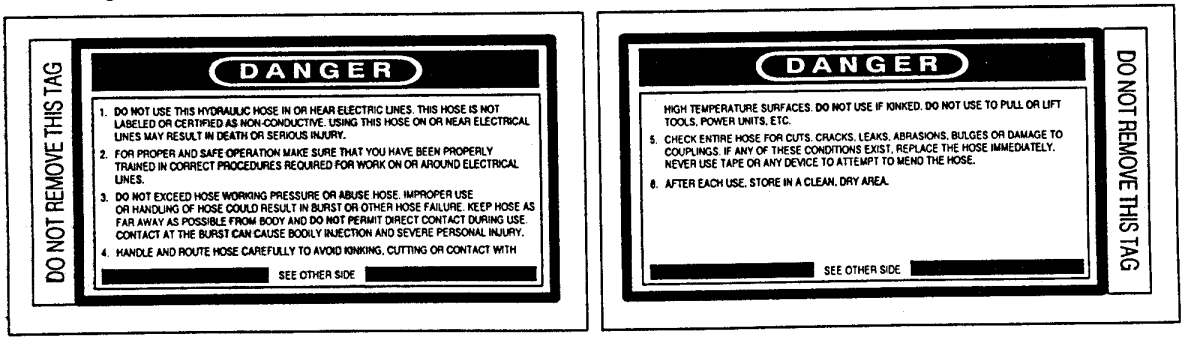
1 CERTIFIED NON-CONDUCTIVE HOSE

This tag is attached to all certified **non-conductive** hose.



2 AND 3 WIRE- AND FABRIC-BRAIDED (NOT CERTIFIED OR LABELED NON-CONDUCTIVE)

This tag is attached to all **conductive** hose.



HOSE PRESSURE RATING

The rated working pressure of the hydraulic hose **must be equal to or higher than** the relief valve setting of the hydraulic system used to power the breaker.

SAFETY SYMBOLS

Safety symbols are used to emphasize all operator, maintenance and repair actions which, if not strictly followed, could result in a life-threatening situation, bodily injury or damage to equipment.

DANGER

This safety symbol may appear on the tool. It is used to alert the operator of an action that could place him/her or others in a life threatening situation.

⚠ WARNING

This safety symbol appears in these instructions to identify an action that could cause bodily injury to the operator or other personnel.

IMPORTANT

This safety symbol appears in these instructions to identify an action or condition that could result in damage to the tool or other equipment.

Always observe safety symbols. They are included for your safety and for the protection of the tool.

LOCAL SAFETY REGULATIONS

Enter any local safety regulations here. Keep these instructions in an area accessible to the operator and maintenance personnel.

OPERATION

IMPORTANT

In addition to the Safety Precautions on pages 1 thru4 of this manual, observe the following for equipment protection and care.

- Always store an idle air compressor in a clean dry space, safe from damage or pilferage.

- Do not force a small compressor to do the job of a large compressor.

- Always keep critical compressor markings, such as labels and stickers legible.

- Always replace hoses, couplings and other parts with replacement parts recommended by Stanley Hydraulic Tools. Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar. All hoses must have an oil resistant inner surface and an abrasion resistant outer surface.

- Tool repair should be performed by experienced personnel only.

- Make sure all couplers are wiped clean before connection.

- The hydraulic circuit control valve must be in the "OFF" position when coupling or uncoupling hydraulic tools. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.

HYDRAULIC SYSTEM REQUIREMENTS

- The hydraulic system should provide a flow of 7-9 gpm/26-34 lpm at an operating pressure of 1000-2000 psi/70-140 bar. Recommended relief valve setting is 2100-2250 psi/ 145-155 bar.

- The system should have no more than 250 psi/ 17 bar backpressure, measured at the tool end of the operating hoses. The system conditions for measurement are at maximum fluid viscosity or 400 ssu/ 82 centistokes (minimum operating temperatures).

- The hydraulic system should have sufficient heat rejection capacity to limit the maximum oil temperatureto 140° F/60°C atthe maximum expected ambient temperature. The recommended minimum cooling capacity is 5 hp/3.73 kW at a 40°F/22°C difference between ambient temperature and oil temperature.

- The hydraulic system should have a minimum of 25 micron filtration. It is recommended that filter elements be sized for a flow of at least 30 gpm/114 lpm forcold temperature startup and maximum dirt holding capacity.

- The hydraulic fluid used should have a viscosity between 100 and 400 ssu/20 and 82 centistokes at the maximum and minimum expected operating temperatures. Petroleum base hydraulic fluids with antiwear properties and a viscosity index over 140 will meet the recommended requirements over a wide range of operating temperatures.

- The recommended hose size is .500 inch/12 mm I.D. up to 50 ft/15 m long and .625 inch/ 16 mm I.D. minimum up to 100 ft/30 m long.

OPERATING INSTRUCTIONS

PRIOR TO OPERATION

Prior to operating the air compressor, perform the following checks:

Fasteners and Fi1tings

- Check all fittings and fasteners. Keep them tight.

Cooling Fins and Screens

- Keep the cooling fin surfaces of the compressor clean to maintain maximum fin effectiveness. Keep the guard screens clean for maximum air flow through the fan.

Oil Level

- Check the air compressor crankcase oil level before each use. The oil level should be between the upper and lower marks on the dipstick. Do not over fill. Use non-detergent oil as follows:

  SAE30 above 65° F/18° C
  SAE20 between 32° and 65° F/0° and 18° C
  SAE10 between 0° and 32° F/-18° and 0° C

- Change the oil every 100 hours or sooner if it becomes dirty.

Air Filters

- The air filters should be checked before each use. They must be kept clean. The filters are foam elements that can be cleaned with soap and water. Be sure the filters are dry before installing them after they have been cleaned.

Safety Reliet Valve

- The safety relief valve should be exercised periodically to be sure that it is operating properly. While the air compressor is running, pull the ring on the stem of the valve to open the valve and release air. Release the ring. The valve should close. If the valve fails to close, replace it with a new safety relief valve.

Unloader Valve

- The unloader valve should be exercised periodically to be sure that it is in working order. While the air compressor is running, pull and hold the ring on the stem of the unloader valve. The air compressor should unload and exhaust out the muffler on the unloader valve. Release the ring. The com-pressor should load if the air pressure in the air reservoir has dropped below the cut-in setting of the unloader valve. Leaving the air outlet valve slightly open or opening the safety valve will allow the air pressure to drop while checking the un-loader valve.

COMPRESSOR OPERATION

The AC24 Air Compressor will deliver 24 SCFM at 100 psi/7 bar when a flow of 8 gpm/30 lpm is supplied to the motor. With this input the air compressor will be running at approximately 1400 rpm.

The unloader valve located at the inlet to the air reservior is preset at the factory to cut out at 110 psi/7.8 bar and cut in at 90 psi/6 bar. The unloader valve allows the com-pressor to run continuously while loading and unloading the compressor according to the air demand .

1. Place the air compressor on a flat surface. It may be attached to the surface using fasteners through the flanges of the vibration isolators on which the air compressor sets. The ambient air should be as cool and as clean as possible. Minimize the entry of moisture with the inlet air. The air taken in by the compressor must be free of flammable fumes and vapors. The air compressor is air-cooled and must have a supply of cooling air to the fan and minimum restriction of the air. The air circulating over the air compressor should not recirculate to the fan inlet.

2. Connect the hydraulic power source to the air compressor motor by means of the fittings in the ports of the motor. Both ports have final fittings of 1/2-inch male pipe. Connect the supply (pressure) line to the fitting on the left side of the motor. Connect the return (tank) line to the fitting on the right side of the motor. The supply line should be of at least 1/2-inch size plumbing. The return line should be sized and routed so that the back pressure at the motor port is no higher than 250 psi/18 bar at a flow rate of 9 gpm/34 lpm when the oil is at the lowest expected operating temperature.

3. If a valve is used to control the hydraulic power to the air compressor, it must be large enough to handle the flow rate to the air compressor and must not block the return flow when it is in the "off" position. In a 4-way valve, this can be done with a motor spool in the valve. As an alternative, use a 3-way valve in the supply line and do not run the return line through the valve.

4. Connect the air line to the outlet fitting on the air reservoir. The outlet fitting is located on the end of the reservoir. All plumbing in the air line must have a minimum working pressure capacity of 150 psi/10.6 bar.

5. To start the compressor, have the hydraulic system at operating temperature and supplying no more than 10 gpm/37.5 lpm, unloaded. Operate the hydraulic control valve in the hydraulic system to direct the flow of hydraulic oil to the air compressor. The air compressor will come up to speed and will fill the reservior and air line. When the air pressure

reaches the cut-out pressure setting of the unloader valve, the unloader valve will cycle and open the air compressor outlet to atmosphere through the muffler located on the unloader valve.The unloader valve hasacheck valve in it to prevent the compressed air from flowing back through the valve.

6. The compressor has a pressure type lubrication system. While the air compressor is running, check the air compressor lubrication oil pressure gauge reading. it should be at least 30 psi/2.1 bar. If the oil pressure is less than 30 psi/2.1 bar, turn the compressor off. If the crankcase is full, then there may be an air lock in the oil pump. To clear the air lock, loosen the oil pressure gauge while the air compressor is running. Wait until oil flows from the fitting, then tighten the gauge.

7. Using air from the compressed air supply will cause the air pressure to drop. When the pressure drops to the preset cut-in pressure setting of the unloader valve, the valve will cycle to recon nect the com pressor outlet to the air reservoir and the air line. The unloader valve will stay in this mode until the air pressure rises to the cut-out setting of the valve. If the compressor capacity is less than the air demand, the compressor will continue to supply air at its capacity and the demand pressure. If the compressor capacity is in excess of the air demand the air pressure will rise to the cut-out pressure setting of the unloader valve. It will then unload the compressor.

8. Whenever the compressor hydraulic power is turned off, open the air line to blow down the air reservoir and line so that the air compressor is not started against an air load. Only start the air compressor against an empty air reservoir.

⚠ WARNING

Always empty the compressor air from the iar system when the compressor is not in use. This will prevent possible injury to anyone who expects the air system to be empty.

COLD WEATHER OPERATION

If the air compressor is to be used during cold weather, preheat the hydraulic oil at low engine speed prior to use. When using the normally recommended oils, oil should be at or above 50° F/10° C (400 ssu/82 centistokes) before use.

Damage to the hydraulic system or compressor can result from use with oil that is too viscous or thick.

SERVICE INSTRUCTIONS

DISASSEMBLY

To repair the air compressor, it must be disconnected from both the air delivery system and the hydraulic power source. Clean the air compressor. The area in which the air compressor is to be repaired should be clean.

1. Disconnect the hose to the unloader valve at the swivel fitting on the unloader valve.

2. Remove the capscrews which connect the side frame to the base frame and remove the side frame from the base frame. The air reservoir will remain attached to the side frame.

3. Remove the locknuts which hold the fan guard assembly to the base frame and remove the guard.

⚠ WARNING

The fan blade edges are vary sharp. Handle the fan with care to avoid personal injury.

4. The hydraulic motor may now be removed. Remove the two capscrews and nuts which fasten the motor to the motor foot. Remove the motor by lifting it from the motor foot.

5. To remove the fan, remove the hydraulic motor and the shaft coupling drive element. Loosen the setscrew in the drive flange on the drive hub to which the fan is attached. Remove the flange from the drive hub. Remove the four capscrews that fasten the fan and the drive hub to the compressor shaft adapter. Remove the fan and drive hub.

6. To remove the air cooler, remove the hydraulic motor and the fan. Disconnect the hose at the swivel fitting on the air compressor outlet. Remove the two capscrews that fasten the cooler brackets to the base frame. Remove the cooler, cooler brackets and cooler spacers. To remove the hose and fittings from the cooler, hold the hex portion of the cooler ports in a vise or wrench while loosening the fittings from the cooler to prevent damage to the cooler manifold tubes.

7. To remove the air compressor from the base frame, first remove the hydraulic motor and fan. Disconnect the hose at the swivel fitting on the air compressor outlet. Remove the capscrews, nuts and washers which fasten the air compressor to the base frame. The air compressor can be lifted from the base frame.

8. To remove the compressor shaft adapter, loosen the capscrew located in the center of the shaft adapter but do not remove the capscrew. The compressor shaft is tapered so the shaft adapter must be loosened from the shaft by firmly hitting the head of the capscrew with a hard hammer while pulling the shaft adapter from the compressor. When the shaft adapter is loose from the shaft, remove the capscrew, lockwasher and washer from the center of the shaft adapter, then remove the shaft adapter from the compressor. The Woodruff key will remain in the compressor shaft.

SERVICING THE HYDRAULIC MOTOR

Premature failure of the motor will result if any of the following conditions are present:

- Excessive system pressures. Over 2000 psi/ 140 bar for prolonged periods.
- Excessive return line pressures. Over 200 psi/ 14 bar for prolonged periods.
- High oil temperatures. Over 250°F/123°C for prolonged periods.
- Contaminated hydraulic fluid.
- Lack of preventive maintenance. Preventive maintenance includes maintaining proper fluid level in the hydraulic system, keeping system filters clean, using high quality fluids and using fluids of correct specifications.

Note: The motor shaft seal is Stanely Part Number 06967. The motor repair kit is Stanley Part Number 15659.

1. Plug the ports and wash exterior with min-eral spirits or solvent. Clean the parts and the work area.

2. If, the shaft coupling flange has not been removed, remove the flange from the motor shaft by loosening the setscrew and pulling the flange from the shaft.

IMPORTANT

Use extreme caution when using a vise so as to avoid distorting any parts.

3. Remove all the capscrews from the motor.

4. Never pry components apart; tap them apart using a plastic hammer to avoid raising burrs.

5. When disassembling the motor, note the position or orientation of the components as they are removed.

6. Inspect parts and replace all worn or damaged parts.

7. All parts must be free of burrs, nicks, scores, etc.

8. Gears should be replaced in sets unless other components can be restored to a like new condition.

9. Use extreme care when installing seals. They must be installed square with seal bores and with metal case to the outside of the motor.

10. Generously lubricate the lips of seal with general purpose grease or seal lubricant before installing the shaft.

11. Rotate the drive shaft before tightening the motor bolts.

12. Tighten all bolts and capscrews evenly to avoid distortion.

Torque Requirements:

5/16-18 UNC: 190-210 inch-pounds/21.5-24 Nm
3/8-16 UNC: 360-380 inch-pounds/40-43 Nm

SERVICING THE AIR COMPRESSOR

The air compressor is manufactured by P.K. Lindsay. For prompt service call (603) 463-8311 to order replacement parts.

- Give compressor model number, which is V-360.
- Give the Smith compressor serial number.
- Give the name of the part.
- Give the part number.
- Give the quantity required.

Refer to the Smith compressor Instruction and Parts List for part names and part numbers. This booklet was included with the AC24 air compressor when shipped from Stanley Hydraulic Tools. If this booklet is lost or missing, another can be ordered from P.K. Lindsay.

To Clean Or Replace The Air Filter Elements

1. Pull the foam elements from the air filter holders. Clean the elements with soap and water if they are dirty but serviceable. Discard the elements if they are no longer serviceable.
2. Clean or new filter elements are installed by pushing the foam elements into the filter holders, ensuring that the elements are fully within the holders.

To Clean Or Replace The Reed Valves

1. Remove the capscrews that attach the pulsation tank to the head assemblies.
2. Remove the pulsation tank and the o-rings that seal the pulsation tank to the head assemblies.
3. Remove the head bolts that attach the head assembly to the cylinder.
4. Remove the head, valve plates and gaskets from the cylinder.
5. Inspect and clean the reed valves. If the valves are broken or damaged, install new valves.

Note: If new reed valves are installed be sure to use the correct reeds. The intake reed is .010 inch/.25 mm thick. The discharge reed is .015 inch/.38 mm thick.

6. Inspect the gaskets. If the gaskets are broken or damaged, install new gaskets.
7. Place the bottom gasket on the cylinder.
8. Place the bottom valve plate on the bottom gasket. The bottom plate is the discharge.
9. Place the middle gasket on the bottom valve plate.
10. Place the top valve plate on the middle gasket. The top plate is the intake and is stamped "this side up". Align the top and bottom plates with the spring pins.
11. Place the top gasket on the top valve plate.
12. Place the head on the top gasket.
13. Insert the head bolts through the gasket washers and into the head and cylinder.
14. Centralize all the head assembly parts and run the head bolts up to just loose against the head
15. If both head assemblies were removed, install the second head assembly following steps 7 thru 14.
16. Inspect the pulsation tank o-rings. If damaged, install new o-rings. Install the o-rings in the grooves in the heads.
17. Place the pulsation tank on the head assemblies.
18. Install the pulsation tank mounting bolts and run them up loosely to the pulsation tank flanges.
19. Tighten the head bolts to a light torque.
20. Tighten the tank bolts to 350 inch-pounds/ 46.5 Nm torque.
21. Tighten the head bolts to 350 inch-pounds/ 46.5 Nm torque. Tighten the center two bolts first and the four corner bolts last.
22. After 5 hours use, retighten all head bolts to 350 inch-pounds/46.5 Nm.

REASSEMBLY

HYDRAULIC MOTOR INSTALLATION

1. Slide the shaft coupling flange onto the motor shaft. Do not tighten the setscrew.

2. Place the motor into the motor foot. Be sure the coupling drive element is in place between the coupling flanges.

3. Install the two motor mounting capscrews and nuts, installing the capscrews from the fan side of the foot.

4. Tighten the capscrews to 20-35 foot-pounds/ 27-34 Nm torque.

5. Position the shaft coupling flange on the shaft so that there is .020-.060 inch/.50-1.5 mm space between the flange and the coupling drive element to prevent thrust loading the motor shaft.

6. If the motor foot had been loosened or removed from the base plate, position it, with the motor attached, on the base plate. Install the carriage bolts, washers and locknuts. Slide this loose assembly to position the motor coupling flange with the drive element and the coupling flange on the fan. Tighten the locknuts.

7. Place the fan guard over the fan and install the locknuts and washers to fasten the guard to the base frame. Before tightening the locknuts be sure the capscrews which hold the lower fan guard to the base frame are tight; these cap-screws are threaded into tapped holes in the base frame.

8. Tighten the locknuts on the fan guard assembly.

9. Position the side frame to the base frame and install the eight capscrews to attach the side frame to the base frame.

10. Attach the hose from the cooler to the swivel connection on the unloader valve, tiqhten securely.

FAN INSTALLATION

1. Slide the fan over the shaft stub on the fan drive hub.

2. Position the fan and drive hub on the compressor shaft adapter, locating the pilot stub on the drive hub to the pilot hole in the shaft adapter.

3. Install the four capscrews and lockwashers to attach the fan and drive hub to the shaft adapter. Tighten the capscrews to 15 foot-pounds/ 20 Nm torque.

4. Place the key in the seat in the shaft stub on the drive hub.

5. Slide the coupling flange onto the shaft stub. Tiqhten the setscrew.

6. Install the hydraulic motor as specified in this section

COMPRESSOR INSTALLATION

1. Install the compressor shaft adapter on the compressor shaft. Push the Woodruff key into the key seat on the shaft. Slide the shaft adap-ter onto the shaft, aligning the keyway in the adapter with the key on the shaft. Insert the washer, lockwasher and 5/16-24 capscrew into the shaft adapter, in that order. Tighten the capscrew into the shaft to 15-20 foot-pounds/20-27 Nm torque.

2. Position the compressor on the base frame over the mounting holes in the cross-frame angles. The shaft should be towards the motor end of the base frame.

3. Insert the 3/8 capscrews through the mounting feet of the compressor and the cross-frame angles. Install the washers and locknuts onto the capscrews from the underside of the frame. Do not tighten.

4. Install the cooler if removed.

5. Install the fan.

6. Install the motor.

7. Align the shaft coupling flanges. Tighten the capscrews that fasten the compressor to the base frame. Use 3/8 flat washers under the compressor as shims to align the coupling flanges to within .015 inches/0.4 mm parallel.

8. Adjust the clearance between the motor coupling flange and the drive element to .020-.060 inch/ .50-1.5 mm by adjusting the position of the flange on the motor shaft and/or adjusting the position of the motor foot on the base frame. Tighten the coupling flange setscrew and the locknuts on the motor foot carriage bolts.

9. Install the fan guard assembly.

10. Install the side frame assembly and connect the hose to the swivel connection on the unloader valve.

11. Fill the compressor crankcase with oil. Check the oil level with the dip-stick.

UNLOADER VALVE ADJUSTMENT

The unloader valve may be adjusted to settings different from the 90 psi/6 bar cut-in /110 psi/7.8 bar cut-out set at the factory. This is accomplished by adjusting the cut-out pressure and the pressure differential settings. There are two adjustable parts on the unloader valve, each with a locking nut. One adjustment interacts with the other so both must be done back and forth until each is set as desired. Do not try to adjust the valve for a d ifferential pressure less than10 psi/.7 bar. Attach a pressure gauge to the air line. The gauge should have a pressure capacity of at least 150 psi/11 bar, but no higher than 300 psi/21 bar. With the air compressor running, loosen both locking nuts. Turn the smaller adjustable part to change the cut-out pressure. Turn clockwise to increase the pressure and counterclockwise to decrease the pressure. Turn the larger adjustable part to change the differential pres-sure. Clockwise to decrease the differential and counterclockwise to increase the differential. With a valve in the air line, open the air valve slightly to allow air to flow. Adjust the air flow so the unloader valve cycles slowly from cut-in to cut-out pressure. When the desired settings have been reached, tighten the locking nuts. Turn off the hydraulic power to the air compressor and release the compressed air from the air system.

TROUBLESHOOTING

If symptoms of poor performance develop, the following chart can be used as a guide to correct the problem.

When diagnosing faults in operation of the compressor, always check that the hydraulic power source is supplying the correct hydraulic flow and pressure to the tool as listed in the table. Use a flow meter known to be accurate. Check the flow with the hydraulic fluid temperature at least 80°F/ 27°C.

PROBLEM	CAUSE	REMEDY
Compressor does not run.	Hydraulic lines not connected.	Connect lines.
	Couplers or hoses blocked.	Locate and remove restriction.
	Air load against the compressor.	Relieve load by pulling ring to manually operate unloader pilot valve.
	Power unit not functioning properly.	Check for proper flow and pressure capacity.
	Hydraulic motor failure.	Inspect and repair.
Unloader valve cycles too frequently when air is not being used.	Leakes in the air lines.	Inspect and seal.
	Pilot differential pressure setting too small.	Check cut-in and cut-out pressures, adjust for at least 10 psi/.7 bar differance.
	Dirt in the pilot valve.	Inspect and repair.
	Unloader check valve leaks.	Inspect and repair.
Compressor runs too slow.	Hydraulic flow too low.	Increase input flow.
	Power unit relief valve below required operating pressure.	Check relief valve setting and adjust to 2100 to 2250 psi/145-155 bar.
	Hydraulic system too hot.	Determine cause of heat. Add cooling capacity.
	Hydraulic motor worn.	Inspect and repair or replace.
Air output flow too low, air pressure okay.	Low compressor speed.	See "Compressor runs too slow".
	Air filter dirty.	Inspect and clean or replace.
	Air line leaking or blocked.	Inspect and seal.
Air output flow too low, air pressure low.	Air filter dirty.	Inspect and clean or replace.
	Intake valve(s) malfunction.	If air back-flows out the filter, intake valve is at fault.
	Exhaust valve(s) malfunction.	Inspect the valves.

PROBLEM	CAUSE	REMEDY
Air output flow too low, air pressure low (continued).	Insufficient torque on head bolts.	Inspect. Tighten to 350 inch pounds/40 Nm.
Air pressure too low.	Unloader pilot valve adjusted too low.	Adjust pilot valve setting.
	Air line leak.	Inspect and seal.
	Air consumption exceeds compressor capacity.	Check air demand of unit consuming the air.
	Intake or exhaust valve damaged.	Inspect and replace.
Air pressure too high causing safety valve to open.	Unloader pilot valve not opening. Internal contamination.	Inspect and clean.
	Unloader pilot valve adjusted too high.	Readjust to lower pressure.
High crankcase oil consumption.	Oil level too high.	Check oil level. Keep within markings on the dip-stick.
	Oil leaks.	Inspect pump gaskets, shaft seals, crankcase plugs, pressure gauge.
	Piston ring(s) worn or broken.	Inspect and replace.
Blowing oil from crankcase breather.	Blown head gasket.	Inspect and replace.
	Piston ring(s) worn or broken.	Check oil level. Keep within markings on the dip-stick.
	Hole in a piston.	Inspect and replace.
No lubricating oil pressure.	Air lock in oil pump.	Loosen oil gauge while compressor is running. When oil begins to flow from the fittings, tighten the gauge.
	No oil in crankcase.	Check oil level. Fill, if necessary. Keep within markings on the dip-stick.
	Pump suction blocked.	Remove oil intake plug and inspect intake and screen. Clear blockage.

SPECIFICATIONS

Weight	185 lb/82 Kg
Length	29 inchesi/74 cm
Width	22 inches/56 cm
Height	20 inches/51 cm
Compressed Air Capacity	24 SCFM*/11 lsec at 100 psi/7 bar at 8 gpm/30 lpm
Pressure Range	1000-2000 psi/70-140 bar
Flow Range	7-9 gpm/26-34 lpm
Optimum Flow	9 gpm/34 lpm
System Type	HTMA Type 2
Motor Porting	
Inlet	12 SAE o-ring
Outlet	16 SAE o-ring
Air Outlet	1/2 inch NPT Pipe

* SCFM means Standard Cubic Feet per Minute.

NOTE

Weights, dimensions and operating specifications listed are subject to change without notice. Where specifications are critical to your application, please consult the factory.

WARRANTY

Hand held tools and their parts are warranted against defects in materials and workmanship for a period of 12 months from the date of purchase. Exceptions are cutting parts, steels, and other parts not manufactured by Stanley (such as impact mechanisms, alternators, regulators, and hoses), and parts subject to normal wear and tear (such as o-rings, saw blades, and other parts that become worn through normal use of the tool).

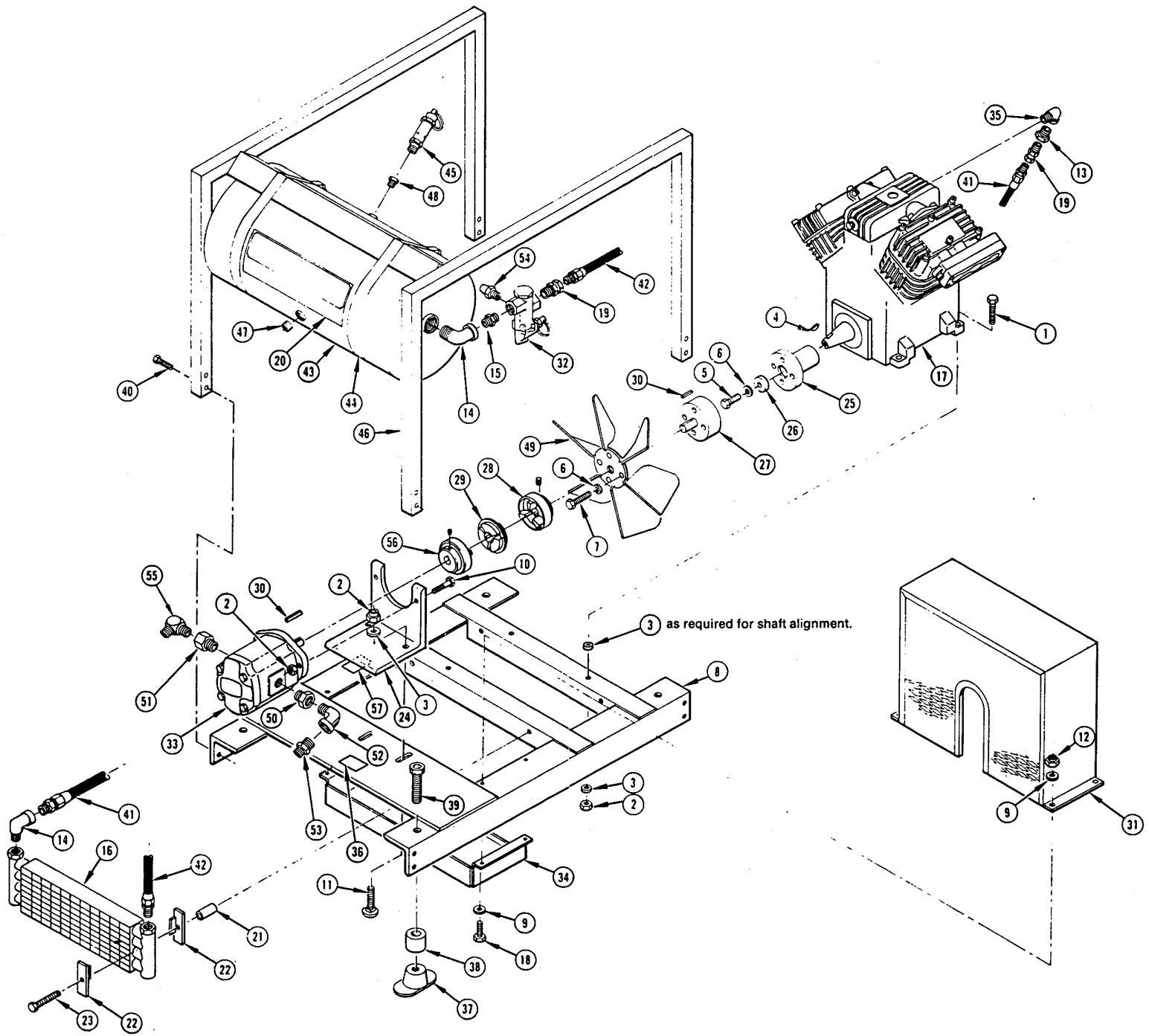
The Warranty Registration Card packed with the tool must be filled out and returned to Stanley upon receipt of the tool.

Stanley reserves the right to replace or repair only those parts which under our examination prove to have been defective at the time of purchase.

Shipping charges are prepaid by the customer unless otherwise authorized by Stanley.

The warranty is void if maximum flow and pressure ratings are exceeded.

There is no other warranty expressed or implied.


3 as required for shaft alignment.

PARTS LIST

Item No.	Part No.	Qty.	Description
1	05570	4	Capscrew 3/8-16 x 1-3/4 Hex Head
2	04353	8	Locknut 3/8
3	04585	10	Washer 3/8 Type A
4	06458	1	Woodruff Key #506 5/32 x 3/4
5	05731	1	Capscrew 5/16-24 x 1-1/4 Hex Head
6	03031	5	Lockwasher 5/16
7	03032	4	Capscrew 5/16-18 x 2 Hex Head
8	06489	1	Base Weldment
9	04539	8	Washer 1/4 Type A
10	05732	2	Capscrew 3/8-16 x 1-1/2 Hex Head
11	06490	2	Carriage Bolt 3/8-18 x 1-1/2 Round Head, Square Neck
12	00719	4	Locknut 1/4-20
13	02151	1	Pipe Reducer 3/4 Male Pipe to 1/2 Female Pipe
14	04025	2	Street Elbow 90°, 1/2 Pipe
15	04192	1	Hex Nipple, 1/2 Pipe
16	05735	1	Cooler
17	05728	1	Air Compressor Smith No. V360
18	02199	4	Capscrew 1/4-20 x 1 Hex Head
19	04023	2	Adapter 1/2 Pipe Swivel
20	04650	1	Stanley Sticker
21	06491	2	Cooler Spacer
22	06492	4	Cooler Bracket
23	05905	2	Capscrew 3/8-16 x 2-1/2 Hex Head
24	06493	1	Motor Foot
25	06494	1	Compressor Shaft Adaptor
26	06495	1	Washer
27	06496	1	Drive Hub
28	06488	1	Coupling Flange
29	06498	1	Drive Element
30	00635	2	Square Key 3/16 x 3/4
31	06499	1	Fan Guard Assembly
32	05534	1	Unloader Valve
33	06500	1	Hydraulic Motor Webster No. M116YC001701-5L
34	06501	1	Lower Fan Guard
35	06502	1	Street Elbow 90°, 3/4 Pipe-Black Iron
36	03786	1	GPM Sticker 7-9, 2000 psi
37	05249	4	Isolator
38	06503	4	Spacer
39	01322	4	Capscrew 1/2-20 x 2 Hex Socket Head
40	03760	8	Capscrew 5/16-18 x 1-1/2 Hex Head
41	06504	1	Hose Assembly 15"
42	06505	1	Hose Assembly 12-3/4"
43	06506	1	Reservoir
44	06507	2	T-Bolt Band Clamp
45	03904	1	Relief Valve
46	06508	1	Frame Weldment
47	01212	1	Pipe Plug 3/8 Pipe Hex Socket
48	06509	1	Pipe Bushing 3/8 Male Pipe to 1/4 Female Pipe
49	06510	1	Fan
50	05851	1	Adapter 3/4 Male SAE to 3/4 Female Pipe
51	04547	1	Adapter 5/8 Male SAE to 1/2 Female Pipe
52	02148	1	Street Elbow, 90°, 3/4 Pipe
53	02137	1	Hex Nipple 3/4 Male Pipe to 1/2 Male Pipe
54	05535	1	Muffler
55	02219	1	Elbow 90°, 1/2 Male Pipe
56	06497	1	Coupling Flange
57	06940	1	Name Tag
	06967		Seal, Motor Shaft (Not Illustrated)
	15659		Repair Kit, Motor (Not Illustrated)

NOTE Use part number and name when ordering.

STANLEY®

helps you do things right

Stanley Hydraulic Tools
Division of the Stanley Works
3810 S.E. Naef Road
Milwaukie, OR 97267-5698
Tel: (503) 659-5660
Fax: (503) 652-1780
Telex: 360771

Stanley Power Tools
Nelson Park
Cramlington
Northumberland,
NE 23 9 BL
England
Tel: (44) (670) 713399
Fax: (44) (670) 712701

Stanley Svenska AB
Box 1054
Datavagen 51
S-436 22 Askim, Sweden
Tel: (46) (31) 289774
Fax: (46) (31) 288099

Stanley Tools SPA
Via Trieste 1
22060 Figino Serenza (CO),
Italy
Tel: (30) (31) 785111
Fax: (39) (31) 781766

Stanley Hydraulic Tools Asia
PO Box 425
12 Gul Drive
Jurong Town
Singapore 9161
Tel: (65) 8620833
Fax: (65) 8610901
or (65) 8610901
Telex: RS23945 STANLEY