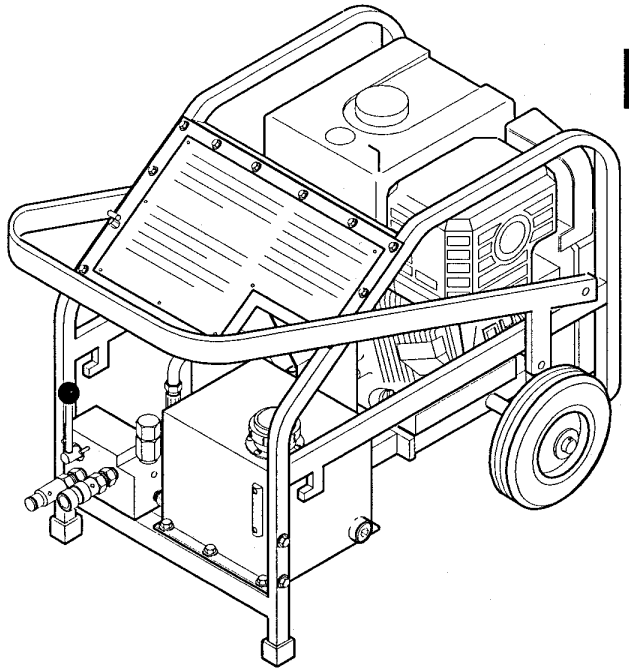
# HP08
# HYDRAULIC POWER UNIT

# Safety, Operation and Maintenance Manual



**⚠ DANGER**

**SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS TOOL.**

**REPAIRS AND / OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.**

*Focused on performance™*

STANLEY® Hydraulic Tools


OPS/MAINT USA & CE VERSION
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CE

# INDEX



**SERVICING THE HP08 POWER UNIT: This manual contains safety, operation, and maintenance instructions. Stanley Hydraulic Tools recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.**

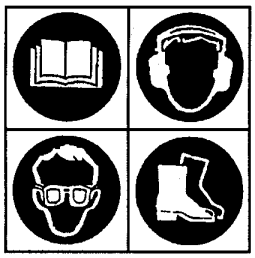
**⚠ DANGER**

**SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS EQUIPMENT.**

**REPAIRS AND / OR SERVICE TO THIS EQUIPMENT MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.**

**For the nearest authorized and certified dealer, call Stanley Hydraulic Tools, 1-503-659-5660 and ask for a Customer Service Representative.**

# SAFETY PRECAUTIONS



**⚠ DANGER**

**Do not operate this equipment or associated equipment until the following safety instructions have been thoroughly read and understood! Read this manual before installing, operating or maintaining this equipment.**

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 equipment.

These safety precautions are given for your safety. Review them carefully before operating the power unit and before performing general 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 3.

**In addition to this manual, read and understand safety and operating instructions in the Engine Operation Manual furnished with the power unit.**

## GENERAL SAFETY PRECAUTIONS

The HP08 Hydraulic Power Unit will provide 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 power unit. Read and understand the engine manual furnished with the unit. Failure to do so could result in personal injury or equipment damage.

- Operators must start in a work area without bystanders. The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Establish a training program for all operators to ensure safe operation.
- Do not operate the power unit unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, ear and head protection, and safety shoes at all times when operating the power unit and a hydraulic tool.
- Do not inspect or clean the power unit while the unit is running.
- Always use hoses and fittings rated at 2500 psi/172 bar with a 4 to 1 safety factor. Be sure all hose connections are tight.
- Make sure all hoses are connected for correct flow direction to and from the tool being used.
- Do not inspect hoses and fittings for leaks by using bare hands. "Pin-hole" leaks can penetrate the skin.
- **Never operate the power unit in a closed space.** Inhalation of engine exhaust can be fatal.
- Do not operate a damaged or improperly adjusted power unit.
- Never wear loose clothing that can get entangled in the working parts of the power unit.
- Keep all parts of your body away from the working parts of the power unit.

- Always wear appropriate safety equipment such as goggles, ear protection, and toe guards. Certain tools used in conjunction with the power unit may require other safety equipment such as breathing filters.
- Keep clear of hot engine exhaust.
- Do not add fuel to the power unit while the power unit is running or is still hot.
- Do not operate the power unit if gasoline odor is present.
- Do not use flammable solvents around the power unit engine.
- Do not operate the power unit within 3.3 ft/1 m of buildings, obstructions, or flammable objects.
- Allow the engine to cool before storing the power unit in an enclosure.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.

## LOCAL SAFETY REGULATIONS

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

## 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**

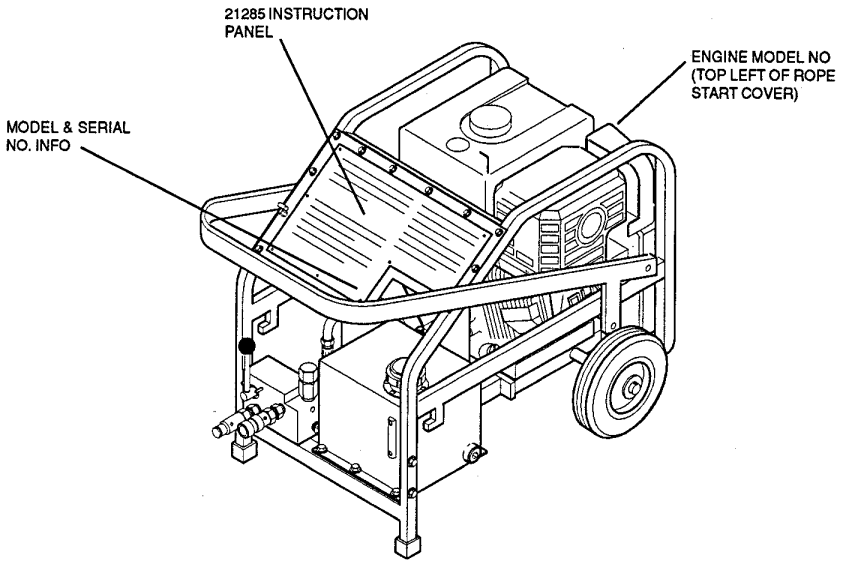
**This safety symbol appears in these instructions to identify an action that could cause bodily injury to the operator or other personnel.**

**IMPORTANT**

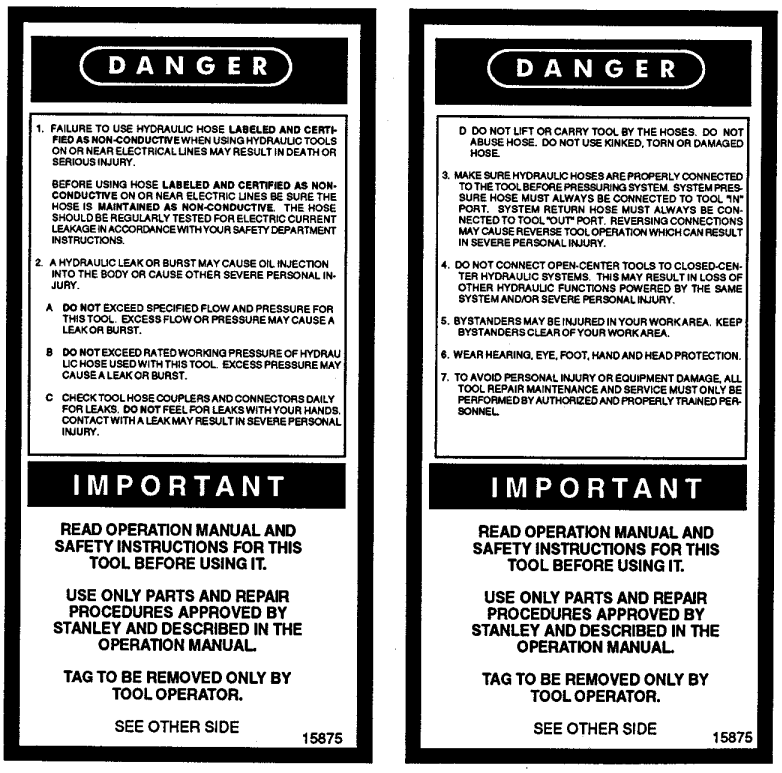
**This safety symbol appears in these instructions to identify an action or condition that could result in damage to the tool or other equipment.**

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

# IMPORTANT INFORMATION




The safety tag (p/n 15875) at right is attached to the power unit when shipped from the factory. Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the power unit when not in use.




**SAFETY TAG P/N 15875** (shown smaller then actual size)

# HYDRAULIC HOSE REQUIREMENTS

## HOSE TYPES

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

❶ Certified non-conductive

❷ Wire-braided (conductive)

❸ Fabric-braided (not certified or labeled non-conductive)

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

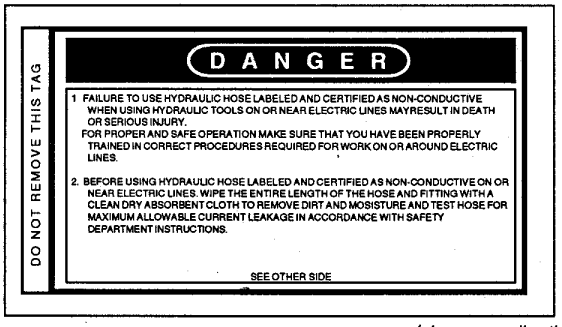
Hoses ❷ and ❸ listed above are **conductive** and **must never** be used near electrical conductors.

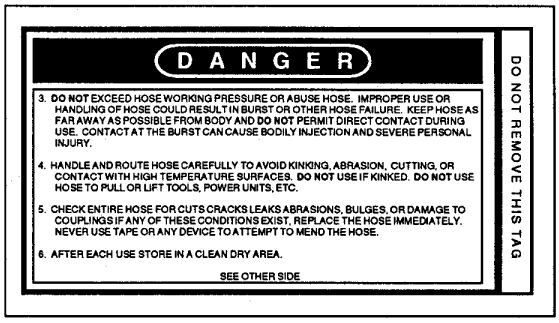
To help ensure your safety, the following DANGER tags are attached to all hose purchased from Stanley Hydraulic Tools. DO NOT REMOVE THESE TAGS.

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

## ❶ CERTIFIED NON-CONDUCTIVE HOSE

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

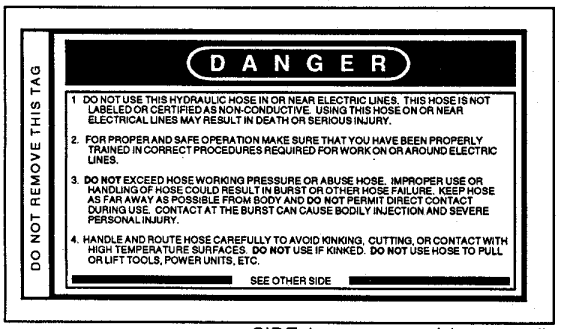


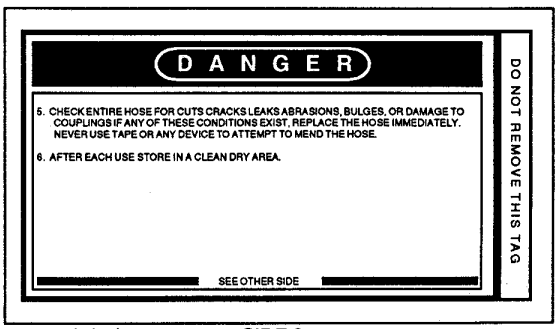




SIDE 1 (shown smaller than actual size) SIDE 2

## ❷ AND ❸ WIRE-BRAIDED AND FABRIC-BRAIDED (NOT CERTIFIED OR LABELED NON-CONDUCTIVE) HOSE

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




SIDE 1 (shown smaller than actual size) SIDE 2

## HOSE PRESSURE RATING

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

# OPERATING INSTRUCTIONS

## PREPARATION FOR USE

**Do not operate the power unit until you have read the *engine* operating and maintenance instructions manual furnished with the unit.**

### 1. ENGINE CRANKCASE OIL LEVEL

Always check the oil level before starting tne engine. Make sure the oil level is at the FULL MARK on the dipstick. Do not overfill. Use detergent oil classified "For Service SD, SE, SF, SG" as specified in the engine operating and maintenance manual.

### 2. ENGINE FUEL LEVEL

Check the fuel level. If low, fill with un-leaded gasoline with a minimum of 85 octane. Do not mix oil with gasoline.

### 3. HYDRAULIC FLUID

Check the sight gauge on the hydraulic fluid reservoir for the proper fiuid level. If the sight gauge indicates the fluid level is low, add hydraulic fluid. Use fluids meeting the following specifications.

**Viscosity (Fluid Thickness)**

| U.S. | METRIC |
|---|---|
| 50°F 450 SSU Maximum | 10°C 95 Centistokes |
| 100°F 130-200 SSU | 38°C 27-42 C.S. |
| 140°F 85 SSU Minimum | 60°C 16.5 C.S. Minimum |

**PourPoint** -10°F/-23°C Minimum (for cold startup)

**Viscosity Index** (ASTM D-2220) 140 Minimum

**Demulsibility** (ASTM D-1401) 30 Minutes Maximum

**Flash Point** (ASTM D-92) 340°F/171°C Minimum

**Rust Inhibition** (ASTM D-665 A & B) Pass

**Oxidation** (ASTM D-943) 1000 Hours Minimum

**Pump Wear Test** (ASTM D-2882) 60 mg Maximum

The following fluids work well over a wide temperature range, allow moisture to settle out and resist biological growth that may occur in cool operating hydraulic circuits. These fluids are recommended by Stanley. Other fluids that meet or exceed the specifications of these fluids may also be used.

**Chevron AW-MV-32**

**Exxon "Univis" J-26**

**Mobil D.T.E. 13**

**Gulf "Harmony" AW-HVI-150-32**

**Shell "Tellus" T-32**

**Texaco "Rando" HD-AZ**

**Union "Unax" AW-WR-32**

### 4. HYDRAULIC CONNECTIONS

Facing the control valve, the left-hand male quick disconnect fitting is the pressure (FLUID OUT) fitting. The right-hand female quick disconnect fitting is the return (FLUID IN) fitting.

The recommended hose length is 25 ft/8 m with a 1/2 inch/12.7 mm inside diameter. The hoses must have a working pressure rating of at least 2500 psi/175 bar. Each hose end must have male thread ends compatible with E.H.T.M.A./H.T.M.A. (HYDRAULIC TOOL MANUFACTURERS ASSOCIATION) quick disconnect fittings (NPT type threads). (see next page)

Longer hoses are not recommended. If small diameter or long hoses are used, or if restrictive fittings are connected to the supply and return ports, the pressure required to push the fluid through the system and back to the hydraulic tank will be higher. If the pressure is too high, this may cause the engine to stall. Also see "HYDRAULIC HOSE REQUIREMENTS" earlier in this manual.

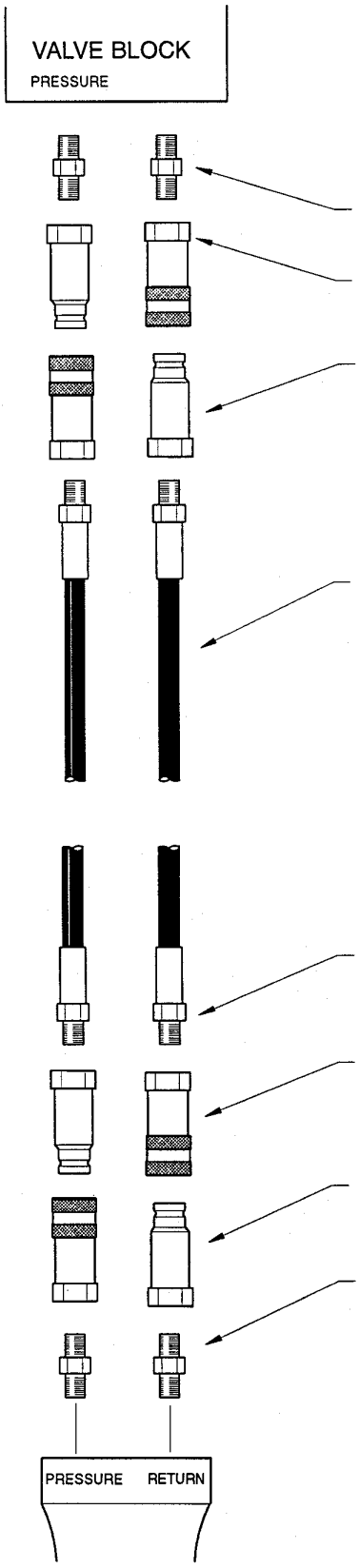
### QUICK DISCONNECT COUPLERS

E.H.T.M.A./H.T.M.A. approved quick disconnect couplings are installed to hydraulic hoses so that the direction of oil flow is always from the male to the female quick disconnect as shown on the next page. Quick disconnect couplings and hose fittings are selected so that additional fittings such as reducer or adapter fittings are not required.

If adapter fittings are used, they must be approved steel hydraulic fittings meeting a minimum operating pressure rating of 2500 psi/172 bar. Do not use galvanized pipe fittings or black pipe fittings.

Use thread sealant compound when installing quick disconnect couplings to hose or tool fittings. Follow the instructions furnished with the selected thread sealant. DO NOT OVERTIGHTEN THE FITTINGS.

# HYDRAULIC HOSE & FITTING CONNECTIONS




ADAPTER, 1/2 INCH MALE PIPE x -10 SAE O-RING
*(STANLEY P/N 07882 ADAPTER)*

E.H.T.M.A./H.T.M.A. 1/2 INCH MALE QUICK DISCONNECT COUPLER
*(STANLEY P/N 24061 COUPLER NOSE or STANLEY P/N 03974 COUPLER SET - nose & body)*

E.H.T.M.A./H.T.M.A. 1/2 INCH FEMALE QUICK DISCONNECT COUPLER
*(STANLEY P/N 24060 COUPLER BODY or STANLEY P/N 03974 COUPLER SET - nose & body)*

1/2 INCH I.D. HOSE, 25 FT LONG.
***(FOR 25 FEET,** STANLEY P/N 05008 HYDRAULIC HOSES)*

1/2 INCH MALE PIPE HOSE END

E.H.T.M.A./H.T.M.A. 1/2 INCH MALE QUICK DISCONNECT COUPLER
*(STANLEY P/N 24061 COUPLER NOSE or STANLEY P/N 03974 COUPLER SET - nose & body)*

E.H.T.M.A./H.T.M.A. 1/2 INCH FEMALE QUICK DISCONNECT COUPLER
*(STANLEY P/N 24060 COUPLER BODY or STANLEY P/N 03974 COUPLER SET - nose & body)*

ADAPTER, 3/8 INCH MALE PIPE x -8 SAE O-RING
*(STANLEY P/N 00936 ADAPTER)* ***NOTE:*** *ADAPTERS OR HOSE WHIPS ARE INCLUDED WITH TOOLS.*

# GENERAL

The HP08 Power Unit provides one hydraulic tool circuit with an oil flow of 5 gpm/19 lpm up to 2000 psi/140 bar. Oil flow is regulated by sliding the throttle lever to the full throttle position.

# STARTING

Before starting the engine make sure the hydraulic control lever is in the "OFF" position. Turn the fuel shut-off valve 1/4 turn to "OPEN" position. Move the choke control to the "CHOKE" position and push the rocker "ON/OFF" switch to the "ON" position. Grasp the starter grip and pull rapidly. When the engine starts, open the choke gradually. When the engine is warmed up the throttle may be advanced.

# TOOL OPERATION

Connect the hoses and the tool (SEE "HYDRAULIC HOSE & FITTING CONNECTIONS" earlier in this manual. After the engine is warm and running, set the throttle control to "FAST" and move the circuit control lever to the right to activate the circuit.

# ENGINE SHUTDOWN

1. Place the circuit control lever in the "OFF" position. Move the throttle control to the "SLOW" position. Allow the engine to idle for approximately one minute and then push the rocker "ON/OFF" switch to the "OFF" position. Turn the fuel shut-off 1/4 turn to the "CLOSED" position.

# COLD WEATHER STARTING

1. Use the procedures described under "STARTING" and then follow the procedure below.

2. Hydraulic fluids are thicker in cold weather, therefore, it is recommended that the engine be run at low idle long enough to bring the fluid temperature up to a minimum of 50°F/10°C or until the hydraulic filter feels warm.

3. If the tools and tool hoses are cold, it is recommended to allow hydraulic fluid to circulate through the tool hoses until warm before using the tools.

**For more detailed information on starting and stopping the engine, consult the engine manual.**

# ENGINE MAINTENANCE

Follow the maintenance schedule and general maintenance instructions in the engine maintenance and operation manual furnished with the power unit. Normal maintenance includes:

- Service pre-cleaner every 25 hours of operation.
- Service air cleaner cartridge every 100 hours of operation.
- Replace in-line fuel filter every 50 hours or sooner if required.
- Replace the spark plug every 100 hours of operation.
- Change engine oil after first 5 hours of operation, then after every 50 hours of operation. If engine has been operating under heavy load or in high ambient temperature, change the oil every 25 hours of operation.
- Check oil level daily.
- Remove dirt and debris from engine with a cloth or brush daily. Do not use water spray.

# HYDRAULIC SYSTEM MAINTENANCE

Observe the following for maximum performance and service life from the hydraulic system.

- Always keep hydraulic system and fluids clean.
- Keep water out of fluid. (See paragraph b. below.)
- Keep air out of hydraulic lines. Hydraulic system overheating and foam at the hydraulic tank breather indicate air is present in the lines. Keep all suction line fittings and clamps tight.
- Hydraulic system wear is noted by increased heat during tool operation, reduced tool performance and eventual system breakdown.
- Operate with the fluid temperature at 50 - 140 F/

10 - 60 C for improved seal and hose life, and maximum efficiency.

### a. FILLING THE RESERVOIR

Make sure the engine is stopped before opening the filler cap. Fill slowly with the recommended fluid. Fluid must be visible in the sight gauge at all times. Add fluid as needed. Stop filling when the sight gauge indicates a full reading. Secure the filler cap before restarting the engine.

### b. REMOVING CONDENSED MOISTURE FROM HYDRAULIC FLUID

Condensation is a frequent problem with cool mobile hydraulic circuits. This condition occurs in moist or cold climates. When warm air in the hydraulic tank draws moisture from the cooler air outside, water accumulates in the tank.

To remove water from the hydraulic system, use the "PRESSURE" hose without the quick-disconnect coupler attached. Run the engine at the idle setting and pump the fluid into a clean 5 gal./20 ltr container.

Turn the engine "OFF" as soon as the hydraulic tank (reservoir) is empty. DO NOT operate the engine with an empty hydraulic tank as pump damage may occur.

- Allow the fluid to sit long enough for the water to settle to the bottom of the container. Slowly pour the fluid back into the hydraulic tank, avoiding the water at the bottom of the container.
- Check hydraulic lines and fittings for leaks, kinks, etc. daily. Do not use your hand to perform this check.
- Change the hydraulic filter element every 200 hours of operation. Change more often if cold, moist or dusty conditions exist.
- Check oil cooler for debris. Remove debris with air pressure.

### c. CHECKING SUCTION HOSE

Make sure the suction hose (from the hydraulic tank to the pump inlet) is not kinked and is clamped securely. This reduces the risk of pump cavitation and sucking air into the system. All pump fittings should be tight.

### d. CHECKING HYDRAULIC LINES AND FITTINGS

Check for loose fittings, leaks, etc., throughout the hydraulic circuit.

## STORAGE

- Clean the unit thoroughly before storage. Do not use water pressure.
- Always store the unit in a clean and dry facility.
- If the unit will be stored for a prolonged period (over 30 days), add a fuel additive to the fuel tank to prevent the fuel from gumming. Run engine for a short period to circulate the additive.
- Replace crankcase oil with new oil.
- Remove the spark plug and pour approximately 1 ounce (30 ml) of engine oil into the cylinder. Replace the spark plug and crank the engine slowly to distribute the oil.
- Check hydraulic reservoir for water. If water is found, change the oil and circulate it through the tool hose and tool. (See "HYDRAULIC SYSTEM MAINTENANCE" earlier in this section).
- Disconnect tool hoses. Allow the water to settle from the fluid overnight. Install a new filter (if dirty).

# SERVICE INSTRUCTIONS

## GENERAL

Service instructions in this section are limited to parts and components manufactured by Stanley Hydraulic Tools. Other major components such as the engine and hydraulic pump should be serviced by representatives of the respective manufacturers as follows:

### ENGINE

Briggs and Stratton Model 185432 Type 0035

The engine should be serviced only by *Briggs & Stratton Industrial and Construction Equipment Dealers. Lawn and Garden Dealers* may not be able to offer warranty work for this application. It is recommended to contact a *Central Sales & Service Distributor* for the nearest authorized Briggs and Stratton representative or contact Briggs and Stratton at 1-800-233-3723.

### HYDRAULIC PUMP

Sunstrand SP2-250

## SERVICING THE ENGINE and RELATED COMPONENTS

### ENGINE

Most engine servicing can be performed without removing the engine. Consult with your Briggs and Stratton Dealer regarding engine repairs.

1. The engine can be removed by first removing 4 capscrews and nuts (22 & 45). Slide the engine straight back from the blower housing (14) being carefull to not damage the blower wheel (17).

### BLOWER WHEEL, INLET RING, & BLOWER HOUSING

1. Remove the engine as described earlier in this section.

2. To remove the blower wheel, remove the coupling (35) from the engine shaft by loosening the set screw (34).

3. Remove the blower wheel (17) by loosening the two set screws (18).

4. Remove the four capscrews and nuts (12 & 46) holding the blower housing (14) to the frame and remove the housing.

5. Remove the inlet ring (10) by first removing four screws (11).

6. Reverse the procedure to reinstall the above components and observe the following added procedures.

- Position the blower wheel on the engine shaft so that the back face (engine side) of the blower wheel aligns with the back face (engine side) of the blower housing.

- Loosen the set screw on the coupling on the pump shaft to adjust the coupling and coupling spline after the engine and blower have been installed.

**NOTE: Ensure the coupling sleeve has .03-.06 in./.80-1.60 mm end play.**

### OIL COOLER

1. Disconnect the hoses (4).

2. Remove the capscrews and nuts (12 & 16) to remove the oil cooler.

3. Reverse the procedure to reinstall the above components. If the fittings (6 & 8) were removed, re-install them using PST pipe thread sealant.

### HYDRAULIC PUMP

1. Disconnect the pressure (61) and supply (37) hoses at the pump and tie them in a position to minimize fluid loss.

2. Remove the 2 capscrews (53) and then remove the pump.

3. Reverse the above procedure to reinstall the pump.

**NOTE: Ensure the coupling sleeve has .03-.06**

**in./.80-1.60 mm end play.**

## HYDRAULIC TANK

1. First remove the hydraulic fluid from the tank by draining it into a container.

2. Remove the hose (4) by loosening the hose clamp.

3. Disconnect the hose (37) at the pump.

4. Remove the capscrews and nuts (21 & 46) to remove the tank.

5. The filter (24) can be removed from the filter head (25) by spinning it off counter clockwise.

6. Reinstall the above components by reversing the removal procedure.

## VALVE ASSY

1. Disconnect the hose (4) by loosening the hose clamp.

2. Disconnect the hose (61) by unscrewing the fitting.

3. Remove the capscrews (48 & 59) and lift out the valve assembly.

4. To remove the valve spool (75), first remove the control lever rod (76).

5. Remove the retaining rings (72) and push the valve spool out the back of the valve body.

6. Inspect the finish of the valve spool and bore of the valve block. If scored or scratched, replace the part(s).

7. Reverse the above procedure to reinstall the above components using new o-rings (74) and back-up rings (73).

**NOTE: Install the capscrews (48 & 59) with Loctite™ 242.**

## RELIEF VALVE

**DESCRIPTION:** The relief valve allows oil to by-pass to the reservoir when the system pressure reaches a pre-set value. The relief valve is set to by-pass at a "cracking" pressure of 2100-2200 psi/ 148-155 bar.

While adjustments can be made to the relief setting (see TESTING THE HYDRAULIC CIRCUIT), the parts of the relief valve are not serviceable.

# TESTING THE HYDRAULIC CIRCUIT

## GENERAL

Tests and adjustments should be performed periodically to ensure the power unit is operating at maximum efficiency. Stanley Circuit Tester (Part Number 04182) is recommended. This tester can be used to isolate problems in both the engine and hydraulic system prior to any power unit disassembly.

## TESTING THE HYDRAULIC CIRCUIT.

The following tests can be performed to ensure that the hydraulic pump is supplying the correct flow and pressure and that the system relief valve is operating properly.

During these tests, make sure the engine is warm and operating smoothly. If test results are not as specified, refer to the troubleshooting table given in this section for possible causes.

1. Set the circuit control lever to the OFF position.

2. Connect the Stanley Circuit Tester across the two hose ends of the circuit.

3. Fully open the tester restrictor valve (counter clockwise).

4. Start the engine and allow it to run until warm.

5. Set the engine throttle to the fast position.

6. Place circuit control lever to the ON position.

7. With the engine at high speed, the test flow gauge should read 5 gpm/19 lpm.

8. Slowly turn the restrictor valve on the circuit tester clockwise until the gauge indicates 2000 psi./140 bar and check the flow rate. If the flow rate is not 5 gpm/19 lpm, then the engine governor requires adjustment. Refer to the engine manual for adjusting the governor setting.

### CHECKING THE RELIEF SETTING

9. Slowly turn the restrictor valve clockwise. The flow rate should stay at 5 gpm/19 lpm as the pressure gauge reaches 2100-2200 psi/148-155 bar. At 2100-2200 psi/148-155 bar the relief valve should open (crack open) and the flow rate should start to drop while the engine remains at high speed. A small movement of the needle on the pressure gauge can be observed when this happens. The relief valve is set at cracking pressure or less when fluid flows through it. If the pressure is not within the above range, the relief valve must be reset as follows:

a. Remove the cap of the relief valve with the tester connected. The relief valve is adjusted using a screw under the cap. Turn the screw clockwise to raise the pressure and counterclockwise to reduce the pressure.

b. Adjust the relief setting (cracking pressure) to 2100-2200 psi/148-155 bar. Replace the cap when finished.

### TESTING BACK-PRESSURE

Back-pressure results from resistance to oil flow returning to the reservoir. All hydraulic systems contain some back-pressure because of friction the oil encounters from hoses, fittings, elbows, etc. as the oil flows to the reservoir. However, incorrectly designed hydraulic systems or faulty hydraulic systems can cause excessive back-pressure which can affect tool performance.

1. Connect the circuit tester across the two hose ends of the hydraulic circuit. A tool should not be installed on the circuit during this test.

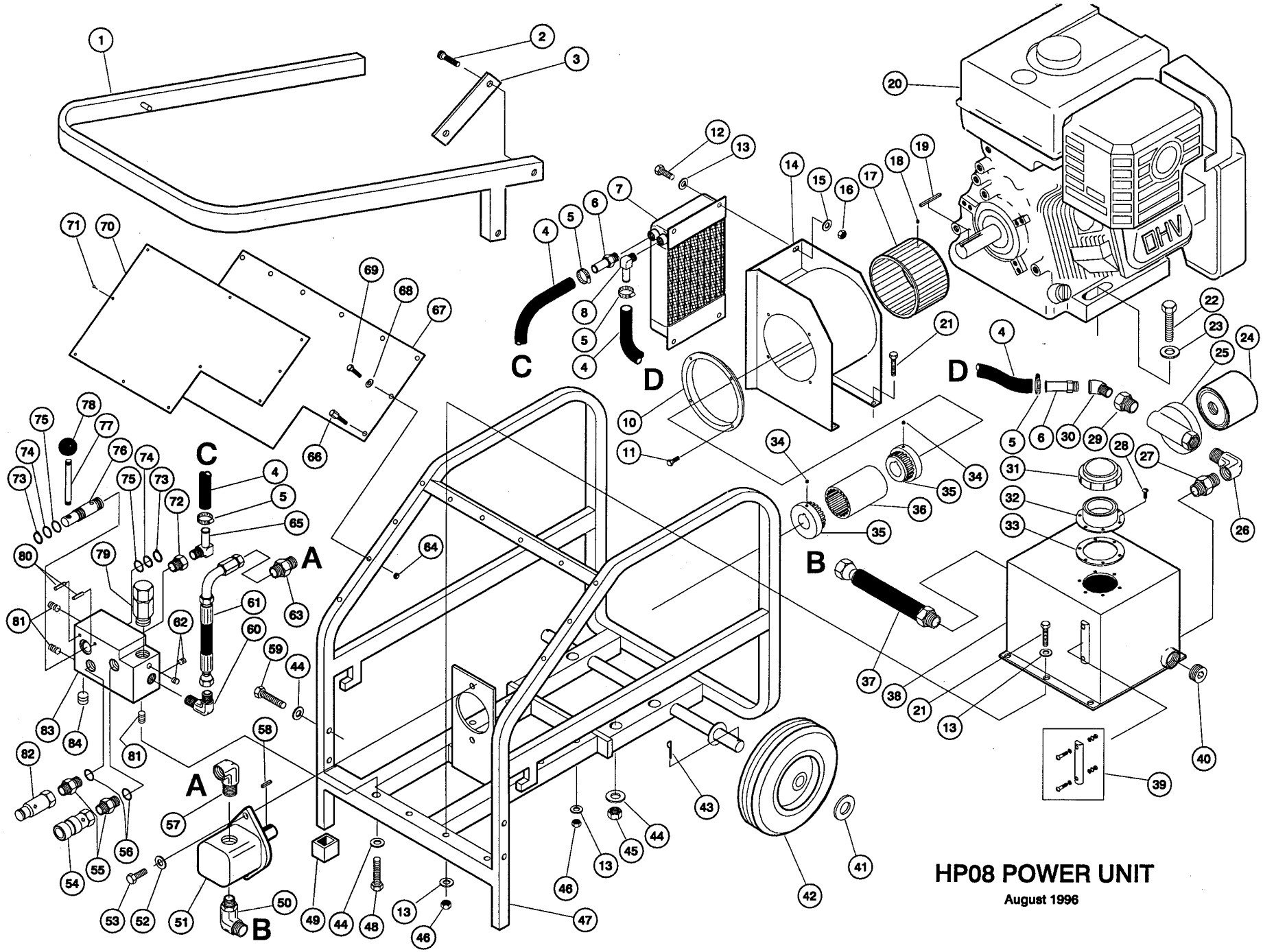
2. Fully open the tester restrictor valve. Start the engine. When warm, run the engine at full throttle.

3. Turn the hydraulic circuit control valve to the "ON" position. The oil should be at operating temperature.

4. Observe the pressure reading on the "low" pressure gauge. The gauge reading will be the amount of resistance the oil is encountering as it flows from the gauge to the oil reservoir. With 25 feet of 1/2 in. I.D. hose, the reading may be approximately 150 psi/10 bar or less. A reading taken directly from the valve (no tool hoses installed) may be approximately 80 psi/5.5 bar or less. Readings higher than these may indicate a problem such as a dirty oil filter, blockages or too high viscosity oil. At no time, should the back-pressure read higher than 250 psi/17 bar.

# TROUBLE SHOOTING CHART

| PROBLEM | CAUSE | REMEDY |
|---|---|---|
| Engine will not run. | Ignition switch off. | Set the switch to "ON" before pulling the starter grip. |
| | Fuel Shut-Off Not Open. | Open Fuel Shut-Off. |
| | No fuel. | Add Fuel. |
| | Fuel filter plugged. | Replace fuel filter. |
| | Defective spark plug. | Remove plug, check gap, clean or replace. |
| Fluid blowing out of fluid reservoir vent. | Defective pump seal. | Replace pump seal. |
| | Hydraulic tank overfilled. | Correct the fluid level. |
| Hydraulic tool won't operate. | Control lever setting incorrect. | Set control lever to "TOOL ON". |
| | Incorrect hose connection to tool. | Make sure the tool hose circuit goes from right (pressure) fitting to tool and back to the left fitting (return). Fluid always flows from the male to female fittings. |
| | Quick disconnect fittings defective. | Detach from hose, connect set together and check for free flow. |
| | Hydraulic fluid level low. | Check for correct fluid level. Fill using the recommended fluid. |
| | Pump coupling defective. | Check coupling between pump and blower. The coupler should slide only ..03-.06 in./.80-1.60 mm inches between blower and pump. |
| | Relief valve stuck open. | Adjust or replace valve. |
| | Suction hose kinked. | Make sure suction hose from fluid reservoir to pump inlet has a smooth curve. |




# HP08 POWER UNIT

August 1996

# HP08 PARTS LIST

| Item No | Part No | Qty | Description |
|---|---|---|---|
| 1 | 21292 | 1 | Handle |
| 2 | 19212 | 4 | Screw, Hex Socket Button Head, 10-24 x 3/8 |
| 3 | 21295 | 2 | Brace |
| 4 | 16325 | 2 | Hose |
| 5 | 04889 | 4 | Hose Clamp |
| 6 | 07822 | 2 | Adaptor, 1/2 NPT x 1/2 Hose |
| 7 | 21322 | 1 | Cooler |
| 8 | 07821 | 1 | Elbow, 1/2 NPT x 1/2 Hose |
| 9 | ----- | -- | NO ITEM |
| 10 | 21296 | 1 | Inlet Ring |
| 11 | 20998 | 4 | Screw, Hex Head, Thread Forming, 1/4 x 20 x 1/2 |
| 12 | 00899 | 4 | Capscrew, 1/4 x 20 x 1/2 |
| 13 | 04539 | 12 | Washer |
| 14 | 21311 | 1 | Blower Housing |
| 15 | 01298 | 4 | Lock Washer, 1/4 |
| 16 | 00038 | 4 | Nut, 1/4 |
| **17** | **21332** | **1** | **Blower Wheel Assy (Incld Item 18)** |
| 18 | ----- | 2 | Set Screw (Incld with Item 17) |
| 19 | 07818 | 1 | Key, 1/4 x 2 |
| **20** | **27550** | **1** | **Engine Assy, Briggs & Stratton 9.5 hp** |
| 21 | 21319 | 8 | Capscrew, 1/4 x 20 x 1-1/2 |
| 22 | 20872 | 4 | Capscrew, 5/16-18 UNC x 2-1/2 |
| 23 | 04585 | 4 | Washer, 3/8 |
| 24 | 25417 | 1 | Spin-on Filter Element, Zinga AE-10 |
| 25 | 21326 | 1 | Filter Head |
| 26 | 02148 | 1 | Street Elbow, 3/4 |
| 27 | 04314 | 1 | Pipe Nipple, 3/4 |
| 28 | 02473 | 6 | Machine Screw, 10-24 x 1/2 |
| 29 | 21333 | 1 | Reducer, 3/4 x 1/2 |
| 30 | 21329 | 1 | Street Elbow, 1/2 |
| **31** | **21323** | **1** | **Breather Cap Assy (Incld Items 31 thru 33)** |
| 32 | ----- | -- | Neck (Incld with Item 31) |
| 33 | ----- | -- | Gasket (Incld with Item 31) |
| 34 | ----- | 2 | Set Screw (Incld with Item 35) |
| **35** | **25424** | **2** | **Coupling Assy (Incld Items 34 thru 36)** |
| 36 | ----- | 1 | Coupling Sleeve (Incld with Item 35) |
| 37 | 21297 | 1 | Hose Assy |
| 38 | 21314 | 1 | Tank |
| **39** | **21324** | **1** | **Sight Glass Assy** |
| 40 | 21331 | 1 | Pipe Plug, 3/4 NPT |
| 41 | 04786 | 2 | Washer, .688 x 1.324 x .085 |
| 42 | 21317 | 2 | Wheel |
| 43 | 06985 | 2 | Cotter Pin |
| 44 | 12175 | 4 | Washer |
| 45 | 03906 | 4 | Nut, ESNA, 5/16-18 |
| 46 | 00719 | 8 | Nut, ESNA, 1/4-20 |

| Item No | Part No | Qty | Description |
|---|---|---|---|
| 47 | 21312 | 1 | Frame |
| 48 | 03760 | 1 | Capscrew, 5/16-18 x 1-1/2 |
| 49 | 05351 | 2 | Foot |
| 50 | 21335 | 1 | Elbow, -12 |
| 51 | 21325 | 1 | Pump, Sunstrand SP2 250 |
| 52 | 04585 | 2 | Washer |
| 53 | 370151 | 2 | Capscrew |
| 54 | 03972 | 1 | Coupler Body, Female |
| 55 | 00936 | 2 | Adapter, 1/2 SAE x 3/8 NPT |
| 56 | 01605 | 2 | O-ring, -908 |
| 57 | 21328 | 1 | Elbow |
| 58 | ----- | -- | Key (Incld with Item 51) |
| 59 | 21315 | 2 | Capscrew, 5/16-18 x 1-1/4 |
| 60 | 02107 | 1 | Elbow, 1/2 NPT x 1/2 Tube |
| 61 | 21286 | 1 | Hose Assy |
| 62 | 00961 | 2 | Pipe Plug, 1/8 NPT |
| 63 | 21334 | 1 | Male Connector |
| 64 | 06971 | 11 | Nut, ESNA, 10-24 |
| 65 | 04868 | 1 | Elbow, 3/8 NPT x 1/2 Hose |
| 66 | 21287 | 2 | Post |
| 67 | 21313 | 1 | Dash Panel |
| 68 | 03014 | 11 | Washer |
| 69 | 17687 | 9 | Capscrew, 10-24 x 1-1/4 |
| 70 | 21285 | 1 | Instruction Panel |
| 71 | 21336 | 10 | Pop Rivet |
| 72 | 21306 | 1 | Adaptor |
| 73 | 07820 | 2 | Retaining Ring |
| 74 | 21307 | 2 | Back-up Ring |
| 75 | 19095 | 2 | O-ring, 5/8 x 13/16 x 3/32, -114 |
| 76 | 21305 | 1 | ON/OFF Spool |
| 77 | 11405 | 1 | Rod |
| 78 | 02633 | 1 | Knob |
| 79 | 05043 | 1 | Relief valve |
| 80 | 05965 | 2 | Roll Pin |
| 81 | 01410 | 3 | Helicoil, 5/16-18 x .312 |
| 82 | 03973 | 1 | Coupler Body, Male |
| 83 | 21303 | 1 | Valve Block |
| -- | **21308** | **1** | **Valve Block Assy (Incld Items 54-56, 60, 62, 65, 72-81, 83, 84)** |
| 84 | 01212 | 1 | Pipe Plug, 3/8 NPT |

NOTE: Use Part Number and Part Name when ordering.

# SPECIFICATIONS

Capacity ..... One 19 lpm / 5 gpm circuit
Pressure Range ..... 70-140 bar / 1000-2000 psi
Engine RPM ..... 3600
Couplers ..... EHTMA/HTMA Flush Face Type Male & Female

Weight (with oil) ..... 54.4 kg / 120 lbs

Overall Length ..... 71 cm / 28 in.
Overall Width ..... 48 cm / 19 in.
Overall Height ..... 71 cm / 28 in.
Engine ..... Vanguard 9.5 hp
Fuel Tank Capacity ..... 9 ltr / 2.5 gal
Oil Reservoir Capacity ..... 3 ltr / .80 gal

..... 20 lpm @ 138 bar

Sound Power Level ..... Lwa 98

# ACCESSORIES

| PART NO. | DESCRIPTION |
|---|---|
| 25417 | Spin-on Filter |
| 05008 | 25 feet of dual hydraulic hose (less couplers) |
| 24069 | HTMA Flush Face Coupler Set with 3/8 NPTF threads (male & female) |
| 24070 | HTMA Flush Face Coupler Set with 1/2 NPTF threads (male & female) |
| 04182 | Flow & Pressure Tester |
| 28317 | Flow & Pressure Tester with Digital Flow & Temperature Readout |

# WARRANTY

Stanley Hydraulic Tools (hereinafter called "Stanley"), subject to the exceptions contained below, warrants new hydraulic tools for a period of one year from the date of sale to the first retail purchaser, or for a period of 2 years from the shipping date from Stanley, whichever period expires first, to be free of defects in material and/or workmanship at the time of delivery, and will, at its option, repair or replace any tool or part of a tool, or new part, which is found upon examination by a Stanley authorized service outlet or by Stanley's factory in Milwaukie, Oregon to be DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP.

## EXCEPTIONS FROM WARRANTY

**FREIGHT COSTS:** Freight costs to return parts to Stanley, if requested by Stanley for the purpose of evaluating a warranty claim for warranty credit, are covered under this policy if the claimed part or parts are approved for warranty credit. Freight costs for any part or parts which are not approved for warranty credit will be the responsibility of the individual.

**SEALS & DIAPHRAGMS:** Seals and diaphragms installed in new tools are warranted to be free of defects in material and/or workmanship for a period of 6 months after the date of first usage, or for a period of 2 years from the shipping date from Stanley, whichever period expires first.

**CUTTING ACCESSORIES:** Cutting accessories such as breaker tool bits are warranted to be free of defects in material and or workmanship at the time of delivery only.

**ITEMS PRODUCED BY OTHER MANUFACTURERS:** Components which are not manufactured by Stanley and are warranted by their respective manufacturers.

a. Costs incurred to remove a Stanley manufactured component in order to service an item manufactured by other manufacturers.

**ALTERATIONS & MODIFICATIONS:** Alterations or modifications to any tool or part. All obligations under this warranty shall be terminated if the new tool or part is altered or modified in any way.

**NORMAL WEAR:** any failure or performance deficiency attributable to normal wear and tear such as tool bushings, retaining pins, wear plates, bumpers, retaining rings and plugs, rubber bushings, recoil springs, etc.

**INCIDENTAL/CONSEQUENTIAL DAMAGES:** To the fullest extent permitted by applicable law, in no event will STANLEY be liable for any incidental, consequential or special damages and/or expenses.

**FREIGHT DAMAGE:** Damage caused by improper storage or freight handling.

**LOSS TIME:** Loss of operating time to the user while the tool(s) is out of service.

**IMPROPER OPERATION:** Any failure or performance deficiency attributable to a failure to follow the guidelines and/or procedures as outlined in the tool's operation and maintenance manual.

**MAINTENANCE:** Any failure or performance deficiency attributable to not maintaining the tool(s) in good operating condition as outlined in the Operation and Maintenance Manual.

**HYDRAULIC PRESSURE & FLOW:** Any failure or performance deficiency attributable to excess hydraulic pressure, excess hydraulic back-pressure, or excess hydraulic flow.

**REPAIRS OR ALTERATIONS:** Any failure or performance deficiency attributable to repairs by anyone which in Stanley's sole judgement caused or contributed to the failure or deficiency.

**MIS-APPLICATION:** Any failure or performance deficiency attributable to mis-application. "Mis-application" is defined as usage of products for which they were not originally intended or usage of products in such a matter which exposes them to abuse or accident, without first obtaining the written consent of Stanley.

**WARRANTY REGISTRATION:** STANLEY ASSUMES NO LIABILITY FOR WARRANTY CLAIMS SUBMITTED FOR WHICH NO TOOL REGISTRATION IS ON RECORD. In the event a warranty claim is submitted and no tool registration is on record, no warranty credit will be issued without first receiving documentation which proves the sale of the tool or the tools' first date of usage. The term "DOCUMENTATION" as used in this paragraph is defined as a bill of sale, or letter of intent from the first retail customer. A WARRANTY REGISTRATION FORM THAT IS NOT ALSO ON RECORD WITH STANLEY WILL NOT BE ACCEPTED AS "DOCUMENTATION".

## NO ADDITIONAL WARRANTIES OR REPRESENTATIONS

This limited warranty and the obligation of Stanley thereunder is in lieu of all other warranties, expressed or implied including merchantability or fitness for a particular purpose except for that provided herein. There is no other warranty. This warranty gives the purchaser specific legal rights and other rights may be available which might vary depending upon applicable law.

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