



HD08

HYDRAULIC HAMMER DRILL

⚠ WARNING

SERIOUS INJURY OR DEATH
COULD RESULT FROM IM-
PROPER REPAIR OR SERVICE
OF THIS TOOL.

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



⚠ WARNING

To avoid serious injury or death



Read the Manual



Wear Eye
Protection



Wear Ear
Protection



Wear Dust Mask

47351

SAFETY, OPERATION AND MAINTENANCE USER'S MANUAL

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TABLE OF CONTENTS

CERTIFICATE OF CONFORMITY.....	4
SAFETY SYMBOLS.....	5
SAFETY PRECAUTIONS.....	6
TOOL STICKERS & TAGS	7
HYDRAULIC HOSE REQUIREMENTS.....	8
HTMA REQUIREMENTS.....	9
OPERATION.....	10
PREOPERATION PROCEDURES.....	10
CHECK POWER SOURCE.....	10
CHECK THE TOOL.....	10
CONNECT HOSES.....	10
DETERMINE TOOL MODEL.....	10
FORWARD/REVERSE.....	10
HAMMER DRILL OR DRILL ONLY.....	11
DEPTH GAUGE.....	11
SIDE HANDLE.....	11
BIT INSTALLATION.....	11
DRILL OPERATION.....	12
MODES OF OPERATION.....	12
DRILLING (NON-PERCUSSION).....	12
HAMMER DRILLING (PERCUSSION).....	12
CHISELLING.....	12
TOOL EQUIPMENT & CARE.....	14
TROUBLESHOOTING.....	15
SPECIFICATIONS.....	17
ACCESSORIES.....	17
SERVICE PARTS.....	17
PARTS ILLUSTRATION.....	18
PARTS LIST.....	19
WARRANTY.....	20

SERVICING THE STANLEY HYDRAULIC HAMMER DRILL. This manual contains safety, operation, and routine 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.

⚠ WARNING

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.

For the nearest authorized and certified dealer, call Stanley Hydraulic Tools at the number listed on the back of this manual and ask for a Customer Service Representative.

CERTIFICATE OF CONFORMITY

CERTIFICATE OF CONFORMITY
 ÜBEREINSTIMMUNGS-ZERTIFIKAT
 CERTIFICAT DE CONFORMITE CEE
 CERTIFICADO DE CONFORMIDAD
 CERTIFICATO DI CONFORMITA



Hydraulic Tools

I, the undersigned:
 Ich, der Unterzeichnende:
 Je soussigné:
 El abajo firmante:
 Io sottoscritto:

Burrows, James

Surname and First names/Familiennamen und Vornamen/Nom et prénom/Nombre y apellido/Cognome e nome

hereby certify that the construction plant or equipment specified hereunder:
 bestätige hiermit, daß das im folgenden genannten Werk oder Gerät:
 certifies par ceci que l' usine ou l' équipement de construction indiqué cidessous:
 por el presente certifico que la fabrica o el equipo especificado a continuacion:
 certifico che l'impianto o l'attrezzatura sotto specificata:

- Category: Hammer Drill, Hydraulic
 Kategorie:
 Catégorie:
 Categoria:
 Categoria:
- Make/Ausführung/Marque/Marca/Marca **Stanley**
- Type/Typ/Type/Tipo/Tipo: **HD0853101**
- Serial number of equipment:
 Seriennummer des Geräts:
 Numéro de série de l'équipement:
 Numero de serie del equipo:
 Matricola dell' attrezzatura:

All

- Year of manufacture/Baujahr/année de fabrication/Año de fabricacion/Anno di fabbricazione **2005**

Has been manufactured in conformity with - EEC Type examination as shown.
 Wurde hergestellt in Übereinstimmung mit - EEC Typ-Prüfung nach.
 Est fabriqué conformément - au(x) type(s) examiné(s) comme indiqué dans le tableau ci-après.
 Ha sido fabricado de acuerdo con - tipo examen EEC como dice.
 E' stata costruita in conformità con - le norme CEE come illustrato.

	Examen CEE de type			
Directive Richtlinie Directives particulières Directriz Direttiva	No. Nr Numéro No n.	Date Datum Date Fecha Data	Approved body Prüfung durch Organisme agréé Aprobado Collaudato	Date of expiry Ablaufdatum Date d'expiration Fecha de caducidad Data di scadenza
EN	292		Self	NA
EN ISO	8662-3	1992	Self	NA
EN	792-5	1994	Self	NA
EN ISO	3744	1994	Self	NA
Machinery directive	98/37/EC	1998	Self	NA

- Special Provisions: None
 Spezielle Bestimmungen:
 Dispositions particulières:
 Provisiones especiales:
 Disposizioni speciali:

Done at/Ort/Fait à/Dado en/Fatto a Stanley Hydraulic Tools, Milwaukie, Oregon USA Date/Datum/le/Fecha/Data 9/14/05

Signature/Unterschrift/Signature/Firma/Firma James O. Burrows

Position/Position/Fonction/Puesto/Posizione Engineering Manager

SAFETY SYMBOLS

Safety symbols and signal words, as shown below, 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.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

This safety alert and signal word indicate an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

This signal word indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTICE

This signal word indicates a situation which, if not avoided, will result in damage to the equipment.

IMPORTANT

This signal word indicates a situation which, if not avoided, may result in damage to the 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.

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.

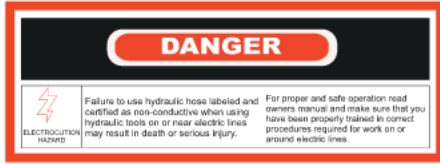
These safety precautions are given for your safety. Review them carefully before operating the tool and before performing general maintenance or repairs.

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 5.

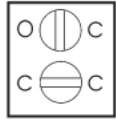
The model HD08 Hydraulic Hammer Drill will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hose before operation. Failure to do so could result in personal injury or equipment damage.

- The operator must start in a work area without bystanders. Flying debris can cause serious injury.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor. Establish a training program for all operators to ensure safe operation.
- Always wear safety equipment such as goggles, ear and head protection, and safety shoes at all times when operating the tool. Use gloves and aprons when necessary.
- The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Do not inspect, clean or replace any part(s) if the hydraulic power source is connected. Do not inspect or clean the tool 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 and are in good condition.
- Do not operate the tool at oil temperatures above 140°F/60°C. Operation at higher temperatures can cause higher than normal temperatures at the tool which can result in operator discomfort.
- Do not operate a damaged, improperly adjusted, or incompletely assembled hammer drill.
- Never wear loose clothing that can get entangled in the working parts of the tool.
- Keep all parts of your body away from the drill and maintain proper footing and balance at all times.
- When working near electrical conductors, always assume that all conductors are energized and that insulation, clothing and hoses can conduct electricity. Stay a safe distance away from electrical conductors.
- If the hydraulic power supply has been interrupted, place the hammer drill in the OFF position before restarting the hydraulic power supply.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.

TOOL STICKERS & TAGS



17160
Electrical Danger Decal



17162
OC/CC Decal

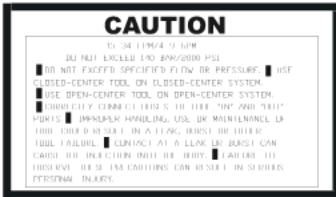


11207
Circuit D Decal



Stanley Hydraulic Tools
3810 SE Naef Road
Milwaukie, OR 97267

Model No.: **HD08**



17161
HD08 Name Tag/GPM Decal

NOTE

THE INFORMATION LISTED ON THE STICKERS SHOWN, MUST BE LEGIBLE AT ALL TIMES.

REPLACE DECALS IF THEY BECOME WORN OR DAMAGED. REPLACEMENTS ARE AVAILABLE FROM YOUR LOCAL STANLEY DISTRIBUTOR.

The safety tag (p/n 15875) at right is attached to the tool 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 tool when not in use.



17179
Stanley Decal

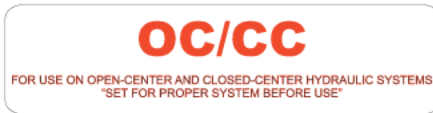


28323
CE Decal



105

22796
Sound Power Level Decal



11354
OC/CC Decal



28788
Manual Decal

DANGER

1. FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.

BEFORE USING HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRICAL LINES BE SURE THE HOSE IS MAINTAINED AS NON-CONDUCTIVE. THE HOSE SHOULD BE REGULARLY TESTED FOR ELECTRIC CURRENT LEAKAGE IN ACCORDANCE WITH YOUR SAFETY DEPARTMENT INSTRUCTIONS.

2. A HYDRAULIC LEAK OR BURST MAY CAUSE OIL INJECTION INTO THE BODY OR CAUSE OTHER SEVERE PERSONAL INJURY.

A. DO NOT EXCEED SPECIFIED FLOW AND PRESSURE FOR THIS TOOL. EXCESS FLOW OR PRESSURE MAY CAUSE A LEAK OR BURST.

B. DO NOT EXCEED RATED WORKING PRESSURE OF HYDRAULIC HOSE USED WITH THIS TOOL. EXCESS PRESSURE MAY CAUSE A LEAK OR BURST.

C. CHECK TOOL HOSE COUPLERS AND CONNECTORS DAILY FOR LEAKS. DO NOT FEEL FOR LEAKS WITH YOUR HANDS. CONTACT WITH A LEAK MAY RESULT IN SEVERE PERSONAL INJURY.

IMPORTANT

READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.

USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE

DANGER

D. DO NOT LIFT OR CARRY TOOL BY THE HOSES. DO NOT ABUSE HOSE. DO NOT USE KINKED, TORN OR DAMAGED HOSE.

3. MAKE SURE HYDRAULIC HOSES ARE PROPERLY CONNECTED TO THE TOOL BEFORE PRESSURING SYSTEM. SYSTEM PRESSURE HOSE MUST ALWAYS BE CONNECTED TO TOOL "IN" PORT. SYSTEM RETURN HOSE MUST ALWAYS BE CONNECTED TO TOOL "OUT" PORT. REVERSING CONNECTIONS MAY CAUSE REVERSE TOOL OPERATION WHICH CAN RESULT IN SEVERE PERSONAL INJURY.

4. DO NOT CONNECT OPEN-CENTER TOOLS TO CLOSED-CENTER HYDRAULIC SYSTEMS. THIS MAY RESULT IN LOSS OF OTHER HYDRAULIC FUNCTIONS POWERED BY THE SAME SYSTEM AND/OR SEVERE PERSONAL INJURY.

5. BYSTANDERS MAY BE INJURED IN YOUR WORK AREA. KEEP BYSTANDERS CLEAR OF YOUR WORK AREA.

6. WEAR HEARING, EYE, FOOT, HAND AND HEAD PROTECTION.

7. TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE, ALL TOOL REPAIR MAINTENANCE AND SERVICE MUST ONLY BE PERFORMED BY AUTHORIZED AND PROPERLY TRAINED PERSONNEL.

IMPORTANT

READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.

USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE

SAFETY TAG P/N 15875 (shown smaller than 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.

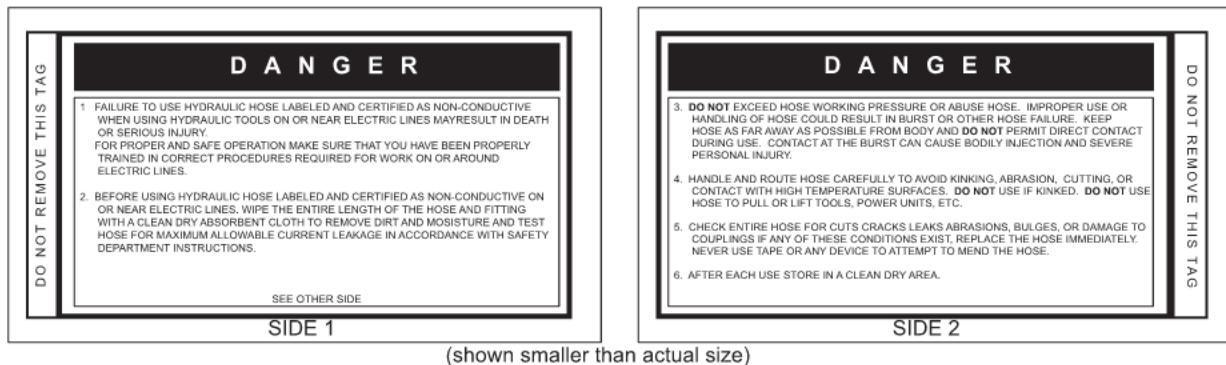
Hoses ❷ and ❸ listed above are **conductive** and **must never** be used near electrical conductors.

HOSE SAFETY TAGS

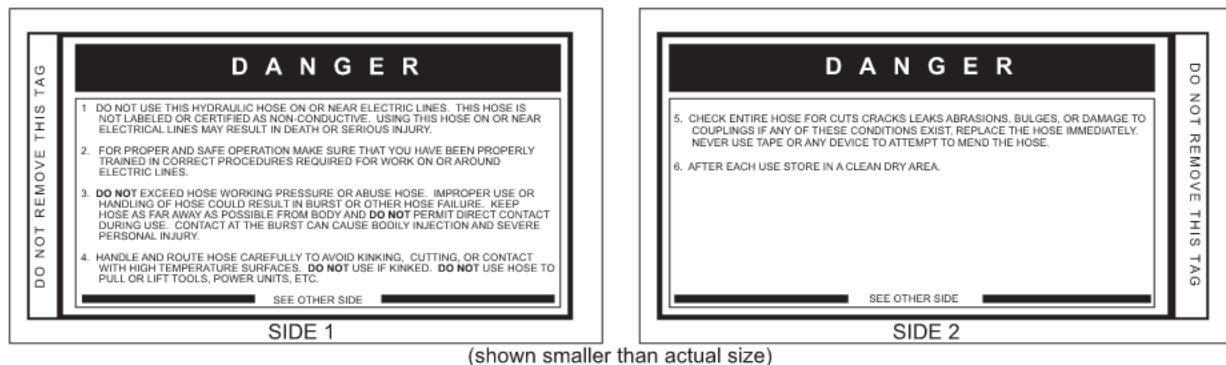
To help ensure your safety, the following DANGER tags are attached to all hose purchased from Stanley Hydraulic Tools. **DO NOT REMOVE THESE TAGS.**

If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained from your Stanley Distributor.

THE TAG SHOWN BELOW IS ATTACHED TO “CERTIFIED NON-CONDUCTIVE” HOSE



THE TAG SHOWN BELOW IS ATTACHED TO “CONDUCTIVE” HOSE.



HOSE PRESSURE RATING

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

HTMA REQUIREMENTS

TOOL CATEGORY



HYDRAULIC SYSTEM REQUIREMENTS

TYPE I

TYPE II

TYPE III

TYPE RR

FLOW RATE	4-6 gpm (15-23 lpm)	7-9 gpm (26-34 lpm)	11-13 gpm (42-49 lpm)	9-10.5 gpm (34-40 lpm)
TOOL OPERATING PRESSURE (at the power supply outlet)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)
SYSTEM RELIEF VALVE SETTING (at the power supply outlet)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2200-2300 psi (152-159 bar)
MAXIMUM BACK PRESSURE (at tool end of the return hose)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)
Measured at a max. fluid viscosity of: (at min. operating temperature)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)
TEMPERATURE Sufficient heat rejection capacity to limit max. fluid temperature to: (at max. expected ambient temperature)	140° F (60° C)	140° F (60° C)	140° F (60° C)	140° F (60° C)
Min. cooling capacity at a temperature difference of between ambient and fluid temps	3 hp (2.24 kW) 40° F (22° C)	5 hp (3.73 kW) 40° F (22° C)	7 hp (4.47 kW) 40° F (22° C)	6 hp (5.22 kW) 40° F (22° C)
NOTE: Do not operate the tool at oil temperatures above 140° F (60° C). Operation at higher temperatures can cause operator discomfort at the tool.				
FILTER Min. full-flow filtration Sized for flow of at least: (For cold temp. startup and max. dirt-holding capacity)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)
HYDRAULIC FLUID Petroleum based (premium grade, anti-wear, non-conductive) VISCOSITY (at min. and max. operating temps)	100-400 ssu*	100-400 ssu* (20-82 centistokes)	100-400 ssu*	100-400 ssu*
NOTE: When choosing hydraulic fluid, the expected oil temperature extremes that will be experienced in service determine the most suitable temperature viscosity characteristics. Hydraulic fluids with a viscosity index over 140 will meet the requirements over a wide range of operating temperatures.				

*SSU = Saybolt Seconds Universal

NOTE:

These are general hydraulic system requirements. See tool Specification page for tool specific requirements.

OPERATION

PREOPERATION PROCEDURES

CHECK POWER SOURCE

1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source develops a flow of 4-9 gpm/15-34lpm at 950-2000 psi/66-140 bar.
2. Make certain that the hydraulic power source is equipped with a relief valve set to open at 2100-2250 psi/145-155 bar.
3. Check that the hydraulic circuit matches the tool for open-center (OC) or closed-center (CC) operation.

CHECK THE TOOL

1. Make certain all tool accessories are correctly installed. Failure to install tool accessories properly can result in damage to the tool or personal injury.
2. There should be no signs of leaks.
3. The tool should be clean and dry with all fittings and fasteners tight.

CONNECT HOSES

1. Wipe all hose couplers with a clean lint-free cloth before making connections.
2. Connect the hoses from the hydraulic power source to the tool fittings or quick disconnects. Connect the return hose first and disconnect it last to eliminate or reduce trapped pressure for easier quick-connect fitting attachment.

Note:

If uncoupled hoses are left in the sun, pressure increase within the hoses can make them difficult to connect. Whenever possible, connect the free ends of hoses together.

3. Observe the flow indicators stamped on the hose couplers to ensure that the flow is in the proper direction. The female coupler on the tool's "IN" port is the inlet coupler. See illustration in back of this manual for tool port identification.

4. Squeeze the drill trigger momentarily. If the drill does not operate, the hoses might be reversed. Verify correct connection of the hoses before continuing.

DETERMINE TOOL MODEL

Open-center or Closed-center Models

Closed-center models have a closed-center decal on the bottom of the handle.

If you are in doubt about the type, test the tool by connecting it to an open-center circuit with the trigger released. If pressure rises more in the circuit with the trigger released than when the trigger is pulled, the tool is closed-center.

Open-center/Closed-center Selectable Models

The open-center/closed-center selectable model has a decal on the trigger strut to remind you of the knob positions to select.

IMPORTANT

Failure to set this spool correctly can cause a mismatch with the hydraulic circuit. This can result in rapid tool heating, seal failure, and poor tool performance.

Note:

All models have a knurled knob on the spool. This knob cannot be rotated on single-circuit type tools.

CONTROLS

FORWARD/REVERSE

Forward/Reverse rotation is selected by the lever on the left-hand side of the tool, as shown in Figure 1.

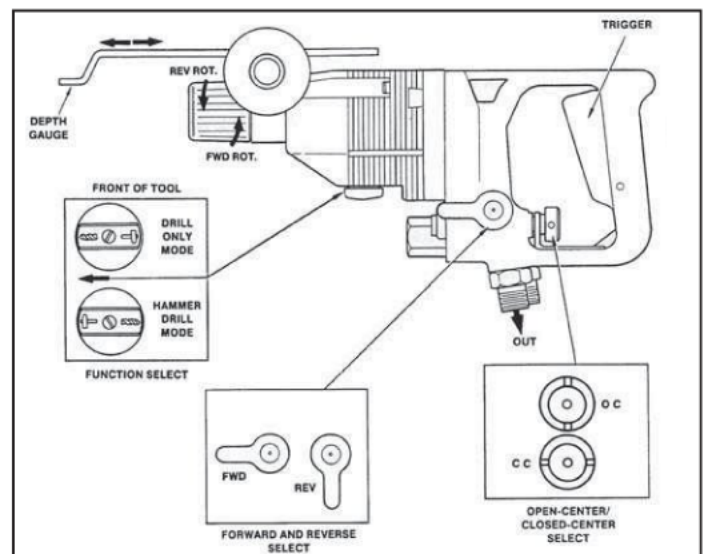


Figure 1. Operator Controls

OPERATION

HAMMER DRILL OR DRILL ONLY

Most HD08 operations will be to drill holes in brittle materials such as rock, concrete, or other aggregate. This mode of operation is selected at the knob below the tool nose by aiming the picture of the hammer toward the SDS chuck. For light drilling, the hammering action is turned off by turning the knob so the picture of a drill bit aims at the chuck. In both cases the tool must not be operated without the knob pointing straight front-to-back.

There is no setting for hammering only, however, Figure 2 shows a bull-point chisel bit that can be inserted to chip while the chuck is turning in the hammer drill mode.

IMPORTANT

Do not operate the tool unless the hammer/drill knob is set to one of the positions described above.

OPEN-CENTER CLOSED-CENTER OC/CC

The OC/CC selectable model has a knurled knob on the spool end holding the trigger strut and has two opposing set screws showing the circuit setting. If the set screws are horizontal (cross-wise), the setting is for closed-center circuits. If the set screws are on a vertical line, the setting is for open-center circuits. The knob can be twisted to change and should be checked to avoid a wrong setting. A decal on the trigger strut helps remind you of the knob positions to select.

Note:

Single circuit type tools now have a knob on the spool but it cannot be rotated.

DEPTH GAUGE

Drilling depth can be set using the depth gauge shown in Figure 1. To set the gauge, loosen the side handle, slide the gauge to the desired position, and tighten the locking knob. Be sure the side handle is tight before operating the tool.

The spacing between lines on the gauge is approximately 10 mm. The depth gauge can be removed when not in use.

SIDE HANDLE

The side handle assembly, including the depth gauge, fits over the front housing of the hammer drill to assist the operator in maneuvering the tool.

To adjust the side handle to a comfortable position, twist the handgrip in a counterclockwise direction and reposition the handle assembly. Once in position, tighten the handle

assembly by twisting the handgrip in a clockwise direction. Do not clamp the side handle to the black chuck collar. Clamp the handle only to the housing, against the body shoulder. The side handle should be securely attached to the hammer drill during operation.

BIT INSTALLATION

Bits with SDS Plus shanks are mounted directly into the tool holder of the hammer drill. It is a good practice to slightly grease or oil the bit shanks before inserting them.

To install SDS Plus shanked bits or the bull-point chisel bit, insert the shank into the tool holder at the nose of the hammer drill. Then slightly turn the bit until it can be pushed into the socket. To remove the bit, turn the tool holder sleeve clockwise (while looking from the handle of the drill to the bit holder) until it stops. Then pull the bit out of the tool.

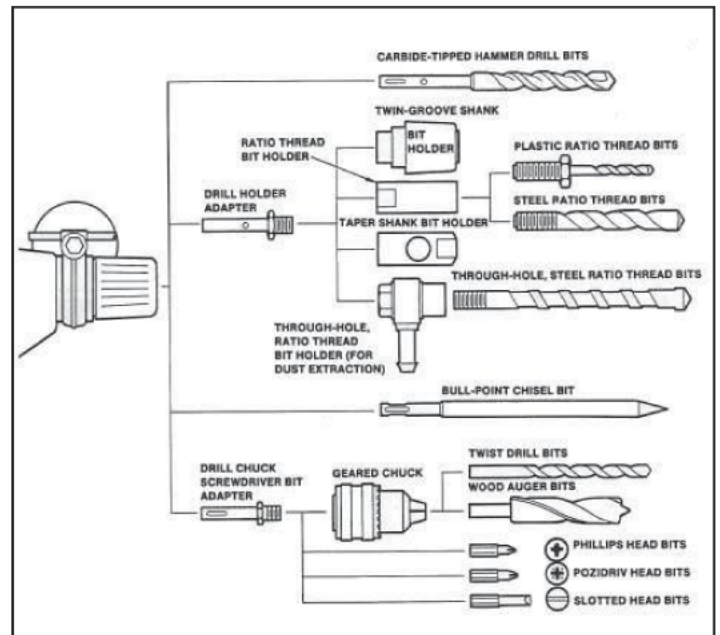


Figure 2. Hammer Drill Accessories

OPERATION

To install twin-groove shank, ratio thread shank, taper shank, or through-hole shank bits, install the Drill Holder Adapter as described above. Then simply screw the appropriate bit holder onto the drill holder adapter. Figure 2 illustrates these adapters and bit holders.

To install the Geared Chuck for use with standard drill bits and screwdriver bits in non-percussion drill mode, install the Drill Chuck/Screwdriver Bit Adapter as described above. Then install the appropriate bit into the Geared Chuck and tighten with the chuck key. Figure 2 illustrates the adapter, Geared Chuck, and various standard bits.

DRILL OPERATION

Operate the HD08 Hammer Drill as follows:

1. Observe all safety precautions.
2. Install the appropriate adapters and/or bits into the hammer drill. Refer to the BIT INSTALLATION for details.
3. Set the hammer drill controls, side handle, and depth gauge. Refer to the CONTROLS section for details.

IMPORTANT

When operating the hammer drill in hammer mode, always use drill bits and accessories designed for impact type applications. **DO NOT USE STANDARD DRILL BITS OR ACCESSORIES. THESE CAN CRACK OR FRACTURE DURING OPERATION.**

4. Move the hydraulic circuit control valve to the "ON" position.
5. Squeeze the trigger to activate the drill.
6. Release the trigger to stop the drill.

MODES OF OPERATION

The hammer drill can operate in either drill only mode (without percussion) or hammer drill mode (with percussion). In drill only mode, the hammer drill can be used for periodic

light duty drilling. For extended use or heavy duty drilling use the Stanley DLO7 Hydraulic Drill.

The following sections provide operational guidelines for drilling, hammer drilling or chiseling.

DRILLING (NON-PERCUSSION)

Use the Drill Chuck/Screwdriver Bit Adapter and the Geared Chuck for periodic, light-duty drilling applications.

With the Geared Chuck mounted on the tool, loosen the chuck first with the chuck key, and then turn the chuck sleeve counterclockwise (looking at the chuck end of the tool) by hand. Loosen until the bit shank fits into the hole for the shank. Insert the appropriate bit shank into the chuck and tighten the chuck sleeve clockwise by hand. Tighten further by applying the chuck key successively to all three guide holes of the chuck.

The chuck key must not be attached to the tool with a chain, cord, or similar means.

When drilling into small work pieces, secure the piece (by clamping in a vise or otherwise securing it to the work surface) so that the piece is not turned by the drill bit during drilling.

IMPORTANT

When drilling into a structure that might contain electrical wiring, be sure to know the location of the wiring and avoid drilling into it. The housing can carry electrical current from live electrical wires into which the drill is accidentally drilled resulting in injury or death.

HAMMER DRILLING (PERCUSSION)

Press the hammer drill bit against the work surface before squeezing the trigger. Do not operate the drill before contacting the work surface.

When hammer drilling, do not exert heavy pressure on the tool. Applying heavy pressure does not increase the drilling speed. You need only press lightly. When the drill is withdrawn from the work surface, the percussion action of the hammer drill stops.

CHISELLING

Use the Bull-point Chisel Bit for light-duty chiselling work. Press the hammer drill chisel bit against the work surface

OPERATION

before squeezing the trigger. As with hammer drilling, do not exert heavy pressure on the tool. Press lightly.

The rotary motion of the hammer drill does not stop when chiselling. The bull-point chisel turns during chiselling. When the chisel is withdrawn from the work surface, the percussion action of the hammer drill stops.

Bull-point chisels that become blunt can be sharpened on a grinding machine.

COLD WEATHER OPERATION

If the drill is to be used during cold weather, preheat the hydraulic fluid at low engine speed. When using the normally recommended fluids, fluid temperature should be at or above 50°F/10°C (400 SSU/ 82 centistokes) before use.

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

TOOL EQUIPMENT & CARE

NOTICE

In addition to the Safety Precautions on page in this manual, observe the following for equipment protection and care.

- 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.
- Always store the tool in a clean dry space, safe from damage or pilferage.
- Make sure the circuit PRESSURE hose (with male quick disconnect) is connected to the “IN” port. The circuit RETURN hose (with female quick disconnect) is connected to the opposite port. Do not reverse circuit flow. This can cause damage to internal seals.
- 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/172 bar.
- Do not exceed the rated flow. Refer to the Specifications page in this manual for correct flow rate and model number. Rapid failure of the internal seals may result.
- Always keep critical tool markings, such as warning stickers and tags legible.
- Tool repair should be performed by experienced personnel only.
- Make certain that the recommended relief valves are installed in the pressure side of the system.
- Do not use the tool for applications for which it was not intended.

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 hammer drill, always check that the hydraulic power source is supplying the correct hydraulic flow and a pressure to the tool as

listed in the table. Use a flowmeter known to be accurate. Check the flow with the hydraulic fluid temperature at least 80° F / 27° C.

PROBLEM	CAUSE	SOLUTION
Drill will not start	Power not being supplied.	Check to make certain that both hoses are connected. Turn hydraulic circuit control valve ON.
	Defective quick-disconnect.	Check each disconnect separately. Replace as necessary.
	Jammed motor and/or parts.	Separate modules and inspect. See Service Instructions. Do not force parts together.
	Flow reversed through hoses.	Correct the power source control valve position. Prevent reverse flow by using only one port from the valve for pressure, the return tool hose to the cooler and the filter line. Correct the quick-disconnect male/female routing per instructions and arrows on the fittings.
Low hammer impact or drilling torque.	Incorrect hydraulic flow.	Check that the hydraulic power source is producing 4-9 gpm / 15-34 lpm at 750-2000 psi / 53-140 bar.
	Defective quick-disconnect.	Check each disconnect separately.
	Worn impact mechanism.	Separate modules and repair or replace impact mechanism. See Service Instructions.
	Incorrect grease.	Metabo (forward module) mechanism is full of fluid or contaminants or is improperly greased. "Clean out, re-lubricate, and/or repair per Metabo instructions. See instructions for separating the rear module to supply Metabo portion to the dealer for service".
	Reversing spool incorrectly installed.	Reversing spool upside down. Do not separate modules. See Service Instructions.
	Hydraulic circuit relief set too low, hoses too restrictive or the hydraulic fluid is too thick.	Set relief valve at 2100 psi / 145 bar. See Service Instructions.
	Fluid restriction in hose or valve. Excess back pressure.	Locate and remove restriction.
		Use correct fluid.
		Fluid not warmed-up. Preheat system.
		Hoses too long for hose ID. Use shorter hose.
	Priority flow control valve or reverse check valve is malfunctioning.	Do not separate modules. See Service Instructions.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Low hammer impact or drilling torque. <i>(continued)</i>	Flow reversed through hoses.	Correct the power source control valve position. Prevent reverse flow by using only one port from the valve for pressure, the return tool hose to the cooler and the filter line. Correct the quick-disconnect male/female routing per instructions and the arrows on the fittings.
Drill operates in only one direction. Forward or reverse.	Reverse spool incorrectly installed.	Do not separate modules. Reassemble. See Service Instructions.
	Reverse spool faulty.	Do not separate modules. Replace reverse spool. See Service Instructions.
	Tool hose flow is reversed.	Tool must not be reversed by reversing hose flow. The tool is only designed for flow as indicated by the designations cast on the housing.
Drill runs too fast. Impact mechanism or screws broken.	Incorrect hydraulic flow.	Check the hydraulic power source is not producing over 9 gpm / 34 lpm at 750-2000 psi / 53-140 bar.
	Hydraulic flow reversed.	Correct the tool hoses. IN and OUT per instructions and if the power supply valve is reversible, reconnect the tool return hose to the oil cooler or to the filter directly.
	Priority valve faulty.	Do not separate modules. Remove, inspect and replace priority valve if necessary. See Service Instructions.
Trigger operation erratic. Control difficult.	Trigger mechanism and strut area blocked by debris.	Do not separate modules. Clean trigger area. See Service Instructions.
Fluid leaks at housing seam.	Motor screws loose.	Separate modules. Tighten to recommended torque.
	Motor cap seal worn or missing.	Separate modules. Replace as required.
	Motor cap/main housing damaged.	Separate modules. Replace as required.
Fluid leaks at reversing spool.	Damaged o-rings.	Do not separate modules. Replace them as required.
	Wrong hydraulic fluid. Circuit too hot.	See Operating Instructions for correct fluid/circuit specifications.
	Hydraulic pressure and return hoses reversed.	Correct hose connections.
Fluid leak at air gap between module.	Oil leak at motor shaft seal.	Repair or replace. See Service Instructions.
Fluid gets hot. Power unit working hard.	Open center tool on a closed center circuit or vice versa.	Use tools to match circuit.
	Circuit relief set too low.	Adjust relief valve to 2100-2250 psi / 135-155 bar.
	Too much fluid going through tool.	Adjust flow for 9 gpm / 34 lpm maximum.
	Circuit is generating high heat with flow controls.	Use pump size and rpm for producing needed flow only. Eliminate circuit heating causes.
	Circuit has contaminants that have caused wear and high heat generation.	Replace worn pump and valves. Install a large clean filter and keep the fluid clean.

SPECIFICATIONS

Rotation Speed at 6 gpm	1175 rpm
Blows per Minute at 6 gpm	4500 blows
Weight	6 lbs / 2.7 kg
Length.....	13.8 in. / 35 cm
Height	5.5 in. / 14 cm
Pressure	750-2000 psi / 50-114 bar
Flow Range	3-9 gpm / 11-34 lpm
Optimum Flow	6 gpm / 22.8 lpm
Porting	-8 SAE O-Ring
Connect Size and Type	-8 SAE O-Ring
Motor	Integral
Bit Type.....	SDS Plus

SOUND POWER AND VIBRATION DECLARATION	
Measured A-weighted sound power level, Lwa (ref. 1pW) in decibels	102 dBA
Uncertainty, Kwa, in decibels	3 dBA
Measured A-weighted sound pressure level, Lpa (ref. 20 µPa) at operator's position, in decibels	94 dBA
Uncertainty, Kpa, in decibels	3 dBA
Values determined according to noise test code given in ISO 15744, using the basic standard ISO3744 NOTE- The sum of a measured noise emission value and its associated uncertainty represents an upper boundry of the range of values which is likely to occur in measurements.	
Declared vibration emission value in accordance with EN 12096	
Measured vibration emission value: a	10.3 m/sec ²
Uncertainty: K	0.8 m/sec ²
Values determined according to ISO 8662-3	

ACCESSORIES

Part Number	Description
16769.....	1/2-inch Geared Chuck (requires chuck adapter p/n 16770)
16770.....	Chuck Adapter (used with geared chuck p/n 16769)

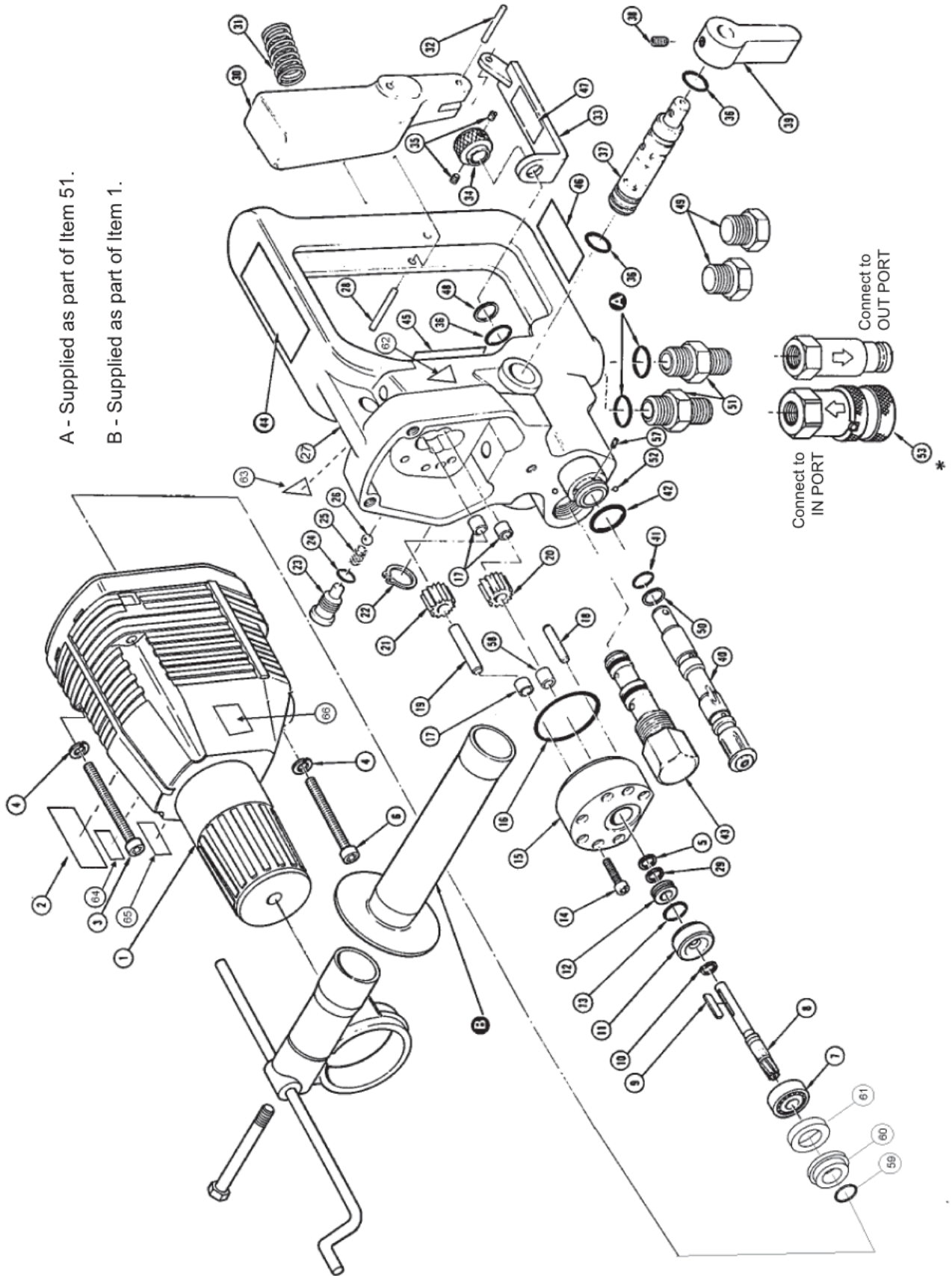
Figure 2 illustrates the hammer drill accessories listed above.

SERVICE PARTS

Part Number	Description
17183	Service Kit, Includes Shaft Keeper and Knob
18142	Seal Kit

PARTS ILLUSTRATION

**Model HD08531G
HD0835101 (CE Only)**



A - Supplied as part of Item 51.

B - Supplied as part of Item 1.

Connect to
IN PORT

Connect to
OUT PORT

34 *

PARTS LIST

Item	Part No.	Qty	Description
1	47450	1	Hammer Drill Mechanism
2	17179	1	Stanley Decal
3	56713	2	Capscrew
4	00341	3	Lockwasher, #8
5	00179	1	Motor Seal Washer
6	00068	1	Capscrew
	47451	1	Main Housing Assembly (Includes Items 17 & 23 thru 27)
7	15905	1	Bearing
8	56711	1	Motor Shaft
9	15896	1	Key
10	00224	1	Retaining Ring
11	15893	1	Back-up Washer
12	23327	1	Seal Liner
13	00106	1	O-Ring
14	15909	7	Capscrew
15	23330	1	Motor Cap Assembly (Includes Items 17, 18 & 59)
16	00621	1	O-Ring
17	05205	3	Busing
18	00289	2	Dowel Pin
19	15890	1	Idler Shaft
20	15895	1	Drive Gear
21	15894	1	Idler Gear
22	17904	1	Retaining Ring
23	15956	1	Check Plug
24	350792	1	O-Ring
25	01602	1	Compression Coil Spring
26	15966	1	Steel Ball
27	35541	1	Main Housing
28	17668	1	Roll Pin, 3/16 x 1-1/4
29	00112	1	Quad Ring
30	16598	1	Trigger
31	16647	1	Compression Coil Spring
32	16648	1	Roll Pin, 5/32 x 5/8
33	17815	1	Trigger Strut
34	17817	1	Knob
35	02837	2	Set Screw

Item	Part No.	Qty	Description
36	07626	3	O-Ring, 1/2 x 5/8 x 1/16
37	15904	1	Reversing Spool
38	17897	1	Set Srew
39	04939	1	Lever
40	17899	1	On-Off Spool OC/CC
41	17924	1	O-Ring, 3/8 x 1/2 x 1/16
42	350810	1	O-Ring, 9/16 x 3/4 x 3/32
43	15908	1	Priority Valve, 6 gpm
44	17160	1	Electrical Danger Decal
45	17161	1	Name Tag/Caution Decal
46	11354	1	OC/CC Decal (OC/CC Models Only)
47	17162	1	OC/CC Decal (OC/CC Models Only)
48	07224	1	Back-up Ring, 1/2 x 1/16
49	06345	2	Plastic Plug
50	07223	1	Back-up Ring, 3/8 x 1/16
51	00936	2	Adapter Fitting
52	21338	2	Ball, 5/32 SST (OC/CC Only)
53	03971	1	Coupler Set
54	--	-	No Item
55	--	-	No Item
56	--	-	No Item
57	22668	1	Set Screw
58	23328	1	Bushing
59	18660	1	O-Ring, Metabo
60	56712	1	Slinger, Metabo
61	66380	1	Spacer
62	11206	1	Circuit Type C Decal (CE Only)
63	11207	1	Circuit Type D Decal (CE Only)
64	28323	1	CE Decal (CE Only)
65	28788	1	Manual Decal (CE Only)
66	22796	1	Sound Power Decal (CE Only)
	26428	1	Lock-Out Kit (Shipped Un-Installed)
	18142	1	Seal Kit

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

NEW PARTS: New parts which are obtained individually are warranted, subject to the exceptions herein, to be free of defects in material and/or workmanship at the time of delivery and for a period of 6 months after the date of first usage. Seals and diaphragms are warranted to be free of defects in material and/or workmanship at the time of delivery and for a period of 6 months after the date of first usage or 2 years after the date of delivery, whichever period expires first. Warranty for new parts is limited to replacement of defective parts only. Labor is not covered.

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, HEAT, TYPE OF FLUID: Any failure or performance deficiency attributable to excess hydraulic pressure, excess hydraulic back-pressure, excess hydraulic flow, excessive heat, or incorrect hydraulic fluid.

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 manner which exposes them to abuse or accident, without first obtaining the written consent of Stanley. PERMISSION TO APPLY ANY PRODUCT FOR WHICH IT WAS NOT ORIGINALLY INTENDED CAN ONLY BE OBTAINED FROM STANLEY ENGINEERING.

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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