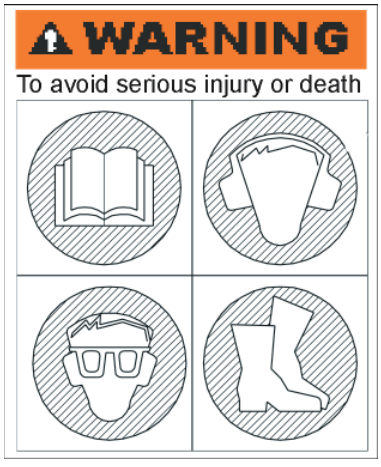
PD45
HYDRAULIC POST DRIVER

⚠ WARNING

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

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



SAFETY, OPERATION AND MAINTENANCE
USER'S MANUAL

Stanley Hydraulic Tools
3810 SE Naef Road
Milwaukie OR 97267-5698
503-659-5660
FAX 503-652-1780
www.stanley-hydraulic-tools.com

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SERVICING THE STANLEY HYDRAULIC Post Driver. This manual contains safety, operation, and routine maintenance instructions. Stanley Hydraulic Tools recommends that servicing of hydraulic tools, other than routine maintenance, 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.

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.**

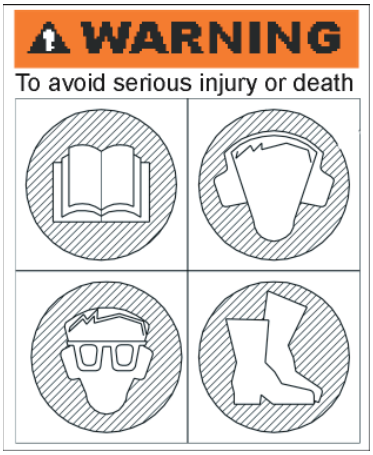
IMPORTANT — **This signal word indicates a situation which, if not avoided, may result in damage to the equipment.**

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 in this manual.

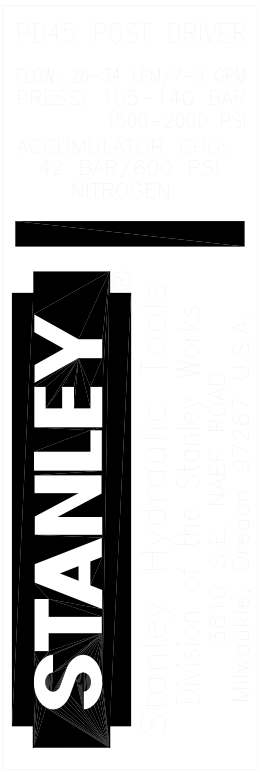
The models PD45 Hydraulic Post Driver will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hoses before operation. Failure to do so could result in personal injury or equipment damage.

- Operator 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 operations.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, head protection, and safety shoes at all times when operating the tool.
- Do not inspect or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Do not operate this tool without first reading the Operating Instructions.
- Do not install or remove this tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Never operate the tool if you cannot be sure that underground utilities are not present. Underground electrical utilities present an electrocution hazard. Underground gas utilities present an explosion hazard. Other underground utilities may present other hazards.
- Do not wear loose fitting clothing when operating the tool. Loose fitting clothing can get entangled with the tool and cause serious injury.
- Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar.
- Be sure all hose connections are tight.
- The hydraulic circuit control valve must be in the “OFF” position when coupling or uncoupling the tool. Wipe all couplers clean before connecting. Failure to do so may result in damage to the quick couplers and cause overheating. Use only lint-free cloths.
- Do not operate the tool at oil temperatures above 140° F/60° C. Operation at higher oil temperatures can cause operator discomfort and may cause damage to the tool.
- Do not operate a damaged, improperly adjusted, or incompletely assembled tool.

SAFETY PRECAUTIONS

- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Do not exceed the rated limits of the tool or use the tool for applications beyond its design capacity.
- Always keep critical tool markings, such as labels and warning stickers legible.
- Always replace parts with replacement parts recommended by Stanley Hydraulic Tools.
- Check fastener tightness often and before each use daily.

TOOL STICKERS & TAGS



15197
Name Tag

DANGER

LOCATE UNDERGROUND SERVICES BEFORE USING THIS TOOL. PERSONAL INJURY OR DEATH MAY RESULT FROM CONTACT WITH OR DAMAGE TO UNDERGROUND SERVICES SUCH AS ELECTRICAL, GAS, OR FLAMMABLE LIQUID LINES.

BE AWARE OF OVERHEAD HAZARDS. CONTACT WITH ENERGIZED LINES MAY CAUSE SEVERE PERSONAL INJURY OR DEATH. CONTACT WITH OBSTRUCTIONS MAY MAKE HANDLING OF THE TOOL DIFFICULT AND LOSS OF CONTROL MAY CAUSE INJURY.

19693
Danger Decal

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.

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 ELECTRIC 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

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.

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.

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.

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.

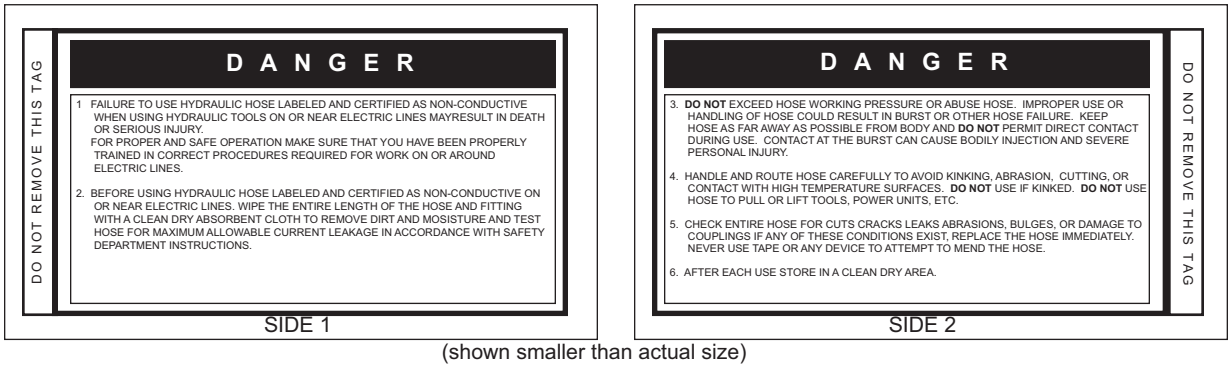
Hoses ❷ and ❸ listed above are **conductive** and **must never** be used near electrical conductors.

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



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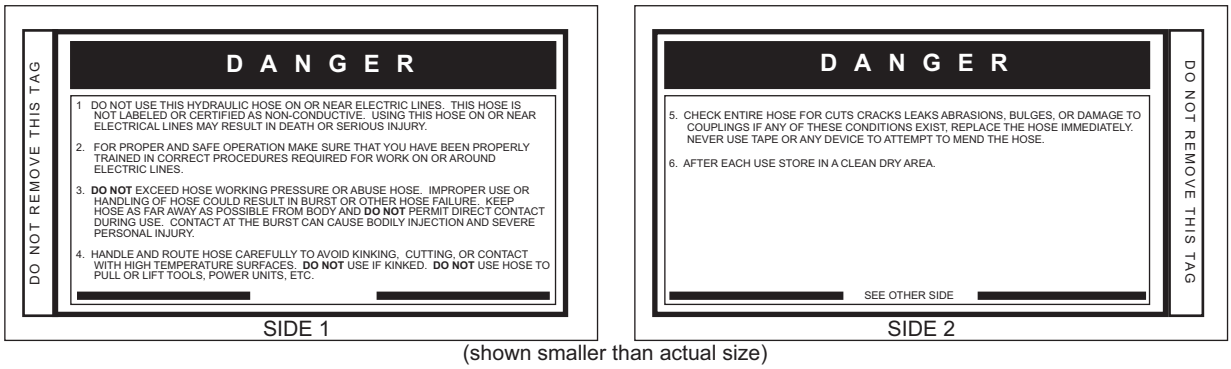
THE TAG SHOWN BELOW IS ATTACHED TO "CONDUCTIVE" HOSE.



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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

HYDRAULIC SYSTEM REQUIREMENTS	TOOL CATEGORY  TYPE 1	 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*	100-400 ssu* (20-82 centistokes)	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

PRE-OPERATION PROCEDURES

CHECK THE POWER SOURCE

1.Using a calibrated flowmeter and pressure guage, check that the hydraulic power source develops a flow of 7-9 gpm/26-34 lpm at 2000 psi/140 bar.

2. Make certain the hydraulic power source is equipped with a relief valve set to open at 2100-2250 psi/140 bar.

INSTALLING ADAPTERS

1. The post hammer is designed to drive No. 1 thought No. 4 sign post, 2-1/2 inch square and up to 2-5/8 inch diameter round post without requiring adapters. If you are driving one of these types of post, orient the post into the tightest fit in the post driver foot.

2. If you are driving smaller square or round post, insert the adapter to the post driver foot using two ½-hex head capscrews.

CONNECTING 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. It is a good practice to connect return hoses first and disconnect them last to minimize or avoid trapped pressure within the tool.

3. If hose couplers are used, observe the arrow on the coupler to ensure that the flow is in the proper direction. The female coupler on the tool hose is the inlet (pressure) coupler.

4. Move the hydraulic power source On/Off control valve to the ON position to operate the tool.

Note:
If uncoupled hoses are left in the sun. pressure increase inside the hoses may make them difficult to connect. When possible, connect the free ends of the operating hoses together.

TOOL OPERATION

1. Observe all safety precautions.

2. Install the appropriate adapter as required.

3. Place the post driver foot firmly on the surface to be driven.

4. Press the lever assembly on handle to start the post driver.

Note:
On Remote ON/OFF Valve Models Place the post driver on/off control valve in The “ON” position to start the post driver.

Note:
Adequate down pressure is very important.

5. When the post is fully set in the ground, release the lever assembly on handle.

COLD WEATHER OPERATION

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

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

CHARGING THE ACCUMULATOR

ACCUMULATOR TESTING PROCEDURE

To check or charge the accumulator the following equipment is required:

Accumulator tester (Part Number 02835).

Charging kit assembly (Part Number 31254) (includes a regulator, hose and fittings).

NITROGEN bottle with an 800 psi/56 bar minimum charge.

A. Remove the charging valve plug from the post driver.

B. Holding the chuck end of Stanley tester (Part Number 02835), turn the gauge fully counter-clockwise to ensure the stem inside the chuck is completely retracted.

C. Thread the tester onto the charging valve of the tool accumulator, (Do not advance the guage-end into the chuck end. Turn as a unit.) Seat the chuck on the accumulator charging valve and hand tighten only.

D. Advance the valve stem by turning the guage-end clockwise until pressure is read on the guage (charging pressure should be 500-700 psi/34-38 bar).

E. If pressure is OK unscrew the gauge-end from the chuck to retract the stem, then unscrew the entire tester assembly from the tool accumulator charging valve. If pressure is low, charge the accumulator as described in the following section.

F. Install the charging valve cap (or plug).

ACCUMULATOR CHARGING PROCEDURE

A. Perform steps A through D of the accumulator testing procedure above.

B. Connect the chuck of the charging assembly to the charging valve on the accumulator tester or, if preferred, remove the tester from the tool charging valve and connect the charging assembly chuck directly to the tool charging valve.

C. Adjust the regulator to the charging pressure of 600 psi/42 bar.

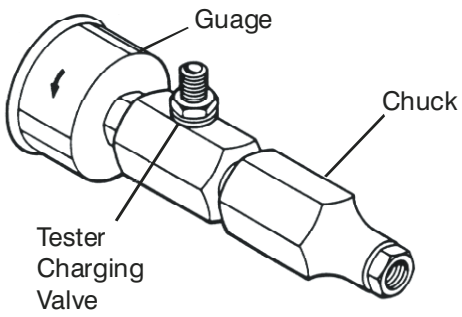
Note:
It may be necessary to set the regulator at 650 to 700 psi/45-48 bar to overcome any pressure drop through the charging system.

D. Open the valve on the charging assembly hose.

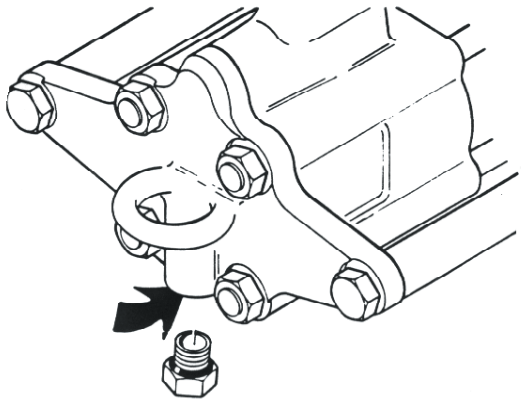
E. When the accumulator is fully charged close the valve on the charging assembly hose and remove the charging assembly chuck from the accumulator tester of tool charging valve.

F. If the accumulator tester has been used, be sure to turn the gauge-end fully counterclockwise before removing the tester from the charging valve of the tool.

G. Replace the o-ring plug.



Accumulator Tester (P/N 02835)



Location Of Charging Valve

EQUIPMENT PROTECTION & CARE

NOTICE

In addition to the Safety Precautions 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 (see Specifications) 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.
- Do not use the tool for applications it was not designed for.
- 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 tool, always make sure the hydraulic power source is supplying the correct hydraulic flow and pressure as listed in the table. Use a flowmeter know to be accurate. check the flow with the hydraulic fluid temperature at least 80° F/27° C.

PROBLEM	CAUSE	SOLUTION
Tool does not run.	Power unit not functioning.	*Check power source for proper flow and pressure (7-9 gpm / 26-34 lpm, 2000 psi / 140 bar).
	Couplers or Hoses blocked.	.Remove restriction.
	Pressure and return line hoses reversed at ports.	Be sure hoses are connected to their proper ports.
	Mechanical failure of piston or automatic valve.	Disassemble post driver and inspect for damaged parts.
Tool does not hit effectively.	Low accumulator charge (pressure hose will pulse more than normal).	Recharge accumulator. Replace diaphragm if charge loss continues
	Power unit not functioning.	*Check power unit for proper flow and pressure (7-9 gpm / 26-34 lpm, 2000 psi / 140 bar).
	Couplers or hoses blocked.	Remove restriction.
	Fluid too hot (above 140°F / 60°C)	Provide cooler to maintain proper oil temperature (130°F / 55°C maximum).
	The anvil is not sliding freely in the post driver foot.	Remove, clean, lubricate and replace anvil as required
Tool operates slow.	Low gpm supply from power unit	*Check power source for proper flow (7-9 gpm / 26-64 lpm).
	High backpressure.	Check hydraulic system for excessive backpressure (over 250 psi / 17 bar).
	Couplers or hoses blocked.	Remove restriction.
	Orifice blocked.	Remove restriction.
	Fluid too hot (above 140°F / 60°C) or too cold (below 60°F / 16°C).	Check power source for proper fluid temperature. Bypass cooler to warm fluid up or provide cooler to maintain proper temperature.
	Relief valve set too low.	Adjust relief valve to 2100-2250 psi / 145-155 bar.
	The anvil is not sliding freely in the post driver foot.	Remove, clean, lubricate and replace as required.
Tool gets hot.	Hot fluid going through tool.	Check power unit. Be sure flow rate is not too high causing part of the fluid to go through the relief valve. Provide cooler to maintain proper fluid temperature (140°F / 60°C max).
		Check relief valve setting.
		Eliminate flow control devices.
Oil Leakage on post.	Lower piston seal failure.	Replace seal.

SPECIFICATIONS

Weight (Standard)	65 lbs / 29.5 kg
Weight (Extended anvil)	71 lbs / 32 kg.
Pressure Range	2000 psi / 140 bar
Flow Range	7-9 gpm / 26-34 lmp
Optimum Flow	8 gpm / 30 lpm
HTMA Class II	7-9 gpm @ 2000 psi
Couplers	HTMA Flush Face Per NFPA T3.20.15/ISO 16028
Connect Size	3/8 female pipe
Length	30 in. / 76 cm
Width (Across Handles)	10-1/8 in./25.7 cm
System Type	open center
Port Size	SAE 8 O-Ring
Hose Whips	Yes
Capacity	#2, #3 and #4 lb/ft. “U” Channel Sign Post #3 and #4 Strong Back (Heavy Duty) “U” Channel Sign Post #1 Delineator Post 2-1/2 in. / 63.5 mm Square Post 2-5/8 in. / 67 mm Round Post

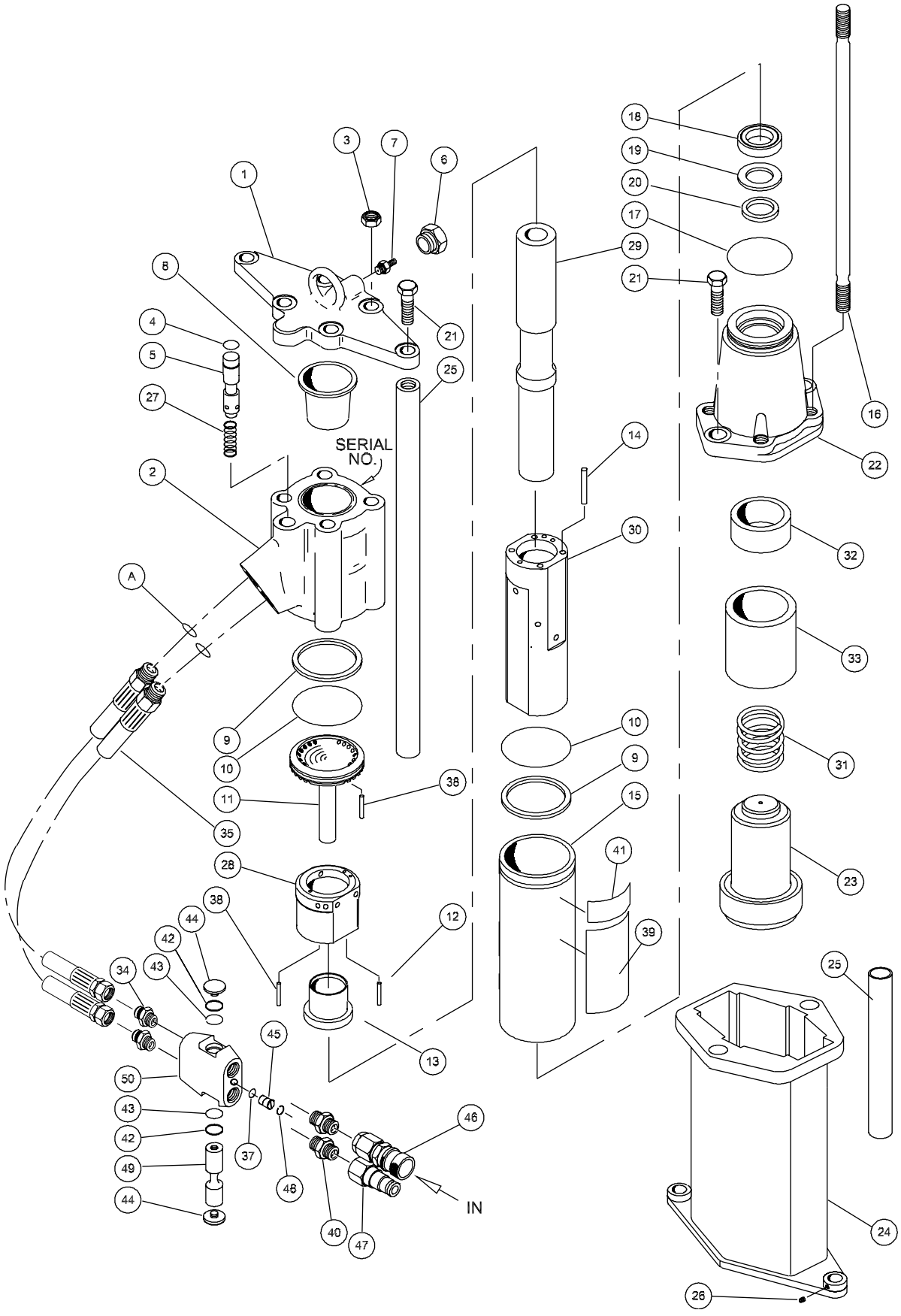
ACCESSORIES

Adapter, 1-3/4 in. Square Post	15184
Adapter, 2 in. Round Pipe	15185
Adapter, 2-1/4 in. Square Post	15186
Adapter, 2 in. Square Post	15187

SERVICE TOOLS

Tamper Sleeve Tool	01120
O-Ring Tool Kit	04337
Flow Sleeve Removal Tube	04910
Flow Sleeve Removal Tool	04919
Accumulator Cylinder Puller	05640

PD45131 PARTS ILLUSTRATION

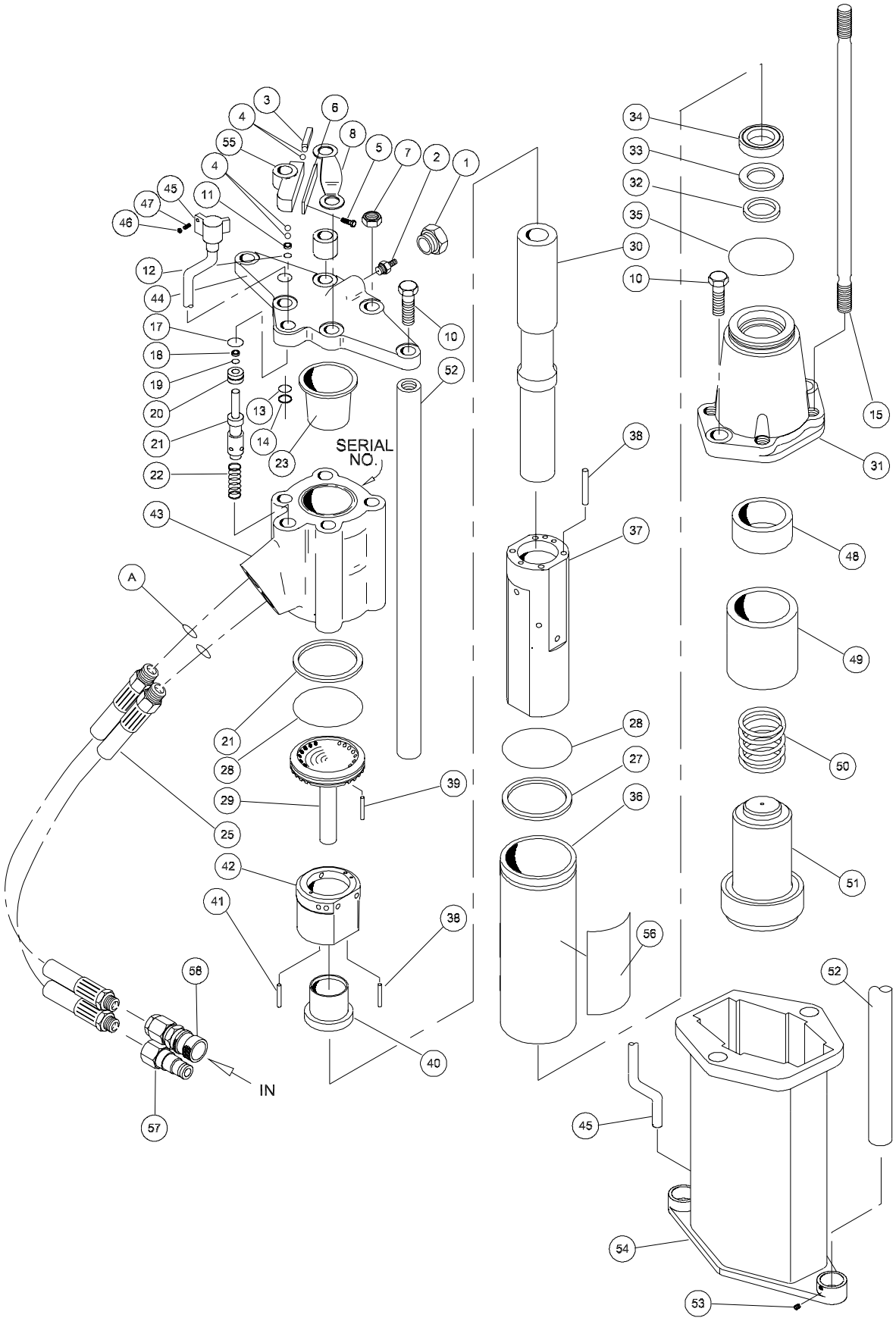


PD45131 PARTS LIST

Item No.	Part No.		Description
1	15190	1	Top Plate
2	11588	1	Accumulator Valve Block
3	04374	4	Locknut 5/8-18
4	00293	1	O-ring
5	15188	1	Valve Spool
6	07493	1	Male O-ring Plug
7	20499	1	Charge Valve
8	7479	1	Accumulator Diaphragm
9	4381	2	Back Up Ring
10	4379	2	O-Ring
11	4378	1	Porting Block
12	4571	2	Push Pin
13	4382	1	Automatic Valve
14	4605	4	Push Pin
15	4383	1	Flow Sleeve Tube
16	12139	4	Side Rod
17	2022	1	O-Ring
18	4386	1	Cup Seal
19	4780	1	Washer
20	4387	1	Rod Wiper
21	370351	4	Capscrew
22	15191	1	Adapter Block
23	15189	1	Anvil
24	15170	1	Post Driver Foot
25	15182	2	Handle Bar
26	15194	2	Set Screw, 3/8-16 x ½
27	4058	1	Spring
28	7480	1	Automatic Valve Body
29	7481	1	Piston
30	7485	1	Flow Sleeve
31	12146	1	Spring
32	12143	1	Upper Anvil Stop
33	15183	1	Anvil Bushing
34	00856	2	1/2 inch SAE to 1/2 inch Tube
35	15195 35784	2	Hose Assy. PD45131 & PD4513103 Hose Assy. PD45131J
36	----	---	No Item
37	00026	1	O-ring
38	2900	2	Roll Pin

Item No.	Part No.		Description
39	15197	1	Name Tag
40	00936	2	Adapter, 1/2 inch SAE to 3/8 NPT Male
41	19693	1	Danger Sticker
42	13568	2	Back Up Ring
43	13567	2	O-ring
44	1003	2	On-Off Valve Button
45	10536	1	Selector Screw
46	03972	1	Female Coupler 3/8 NPT
47	03973	1	Male Coupler 3/8 NPT
48	16070	1	Retaining Ring
49	38631	1	Valve Spool
50	38629	1	Valve Body Assy
51	11499	2	Adaptor 1/2 inch SAE to 3/8 NPTF
	04595		SEAL KIT

PD45132 PARTS ILLUSTRATION



PD45132 PARTS LIST

Item No.	Part No.	Qty.	Description
1	07493	1	O-Ring Plug-Male
2	20499	1	Charge Valve
3	20387	1	Plunger
4	12100	4	Steel Ball 3/8 Dia. G
5	00899	2	HHCS 1/4-20 UNC x ½ G
6	20386	1	Cover Plate
7	04374	4	Lock Nut 5/8-18
8	20390	1	Lift Strap
9	20384	1	Spacer
10	370351	4	HHCS 5/8-11 UNC x 1-3/4
11	20385	1	Pilot Ring
12	02003	1	O-Ring
13	20398	1	Support Washer 3/4 Tr
14	08016	1	Retaining Ring-3/4 Ex
15	12139	2	Side Rod
16	08087	2	Side Rod
17	00293	1	O-Ring
18	04056	1	Rod Wiper 5/16 x 9/16
19	01362	1	O-Ring
20	04057	1	Bushing
21	04077	1	Valve Spool OC
22	04058	1	Spring
23	07479	1	Accumulator Diaphragm
24	---	---	No Item
25	09546	2	Hose Assy-15 in.
26	---	---	No Item
27	04381	2	Back-Up Ring
28	04379	2	O-Ring
29	04378	1	Porting Block
30	07481	1	Piston
31	15191	1	Adaptor Block
32	04387	1	Rod Wiper
33	04780	1	Back up Washer
34	04386	1	Cup Seal
35	02022	1	O-Ring
36	04383	1	Flow Sleeve Tube
37	07485	1	Flow Sleeve
38	04605	4	Push Pin
39	02900	2	Roll Pin
40	04382	1	Automatic Valve
41	04571	2	Push Pin
42	07480	1	Automatic Valve Body

Item No.	Part No.	Qty.	Description
43	11588	1	Accumulator Valve Block
44	20396	1	Valve Top Plate
45	20392	1	Trigger Assy
46	00038	1	Nut 1/4-20 Plain
47	20399	1	Oval Pt. Set Screw 1/4
48	12143	1	Upper Anvil Stop
49	15183	1	Anvil Bushing
50	12146	1	Spring
51	15189	1	Anvil
52	15182	2	Handle Bar
53	15194	2	Set Screw
54	15170	1	Post Driver Foot
55	20388	1	Valve Actuator Housing
56	15197	1	Decal, Name Tag
57	03973	1	Male Coupler
58	03972	1	Female Coupler
	04595	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 matter 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.

Stanley Hydraulic Tools
3810 SE Naef Road
Milwaukie, Oregon
503-659-5660 / Fax 503-652-1780
www.stanley-hydraulic-tools.com