

GD50 HYDRAULIC GROUND ROD DRIVER



USER MANUAL Safety, Operation and Maintenance



© 2014 Stanley Black & Decker, Inc. New Britain, CT 06053 U.S.A. 39234 8/2018 Ver. 11

TABLE OF CONTENTS

SAFETY SYMBOLS	4
SAFETY PRECAUTIONS	5
TOOL STICKERS & TAGS	6
HOSE TYPES	7
HOSE RECOMMENDATIONS	8
HTMA / EHTMA REQUIREMENTS	9
OPERATION	10
CHARGING THE ACCUMULATOR	12
TOOL PROTECTION & CARE	13
TROUBLESHOOTING	14
SPECIFICATIONS	15
SERVICE TOOLS	15
GD50 PARTS ILLUSTRATION	16
GD50 PARTS LIST	17

IMPORTANT

To fill out a product warranty validation form, and for information on your warranty, visit www.stanleyinfrastructure.com and select the Company tab > Warranty.

Note: The warranty validation record must be submitted to validate the warranty.

SERVICING: This manual contains safety, operation and routine maintenance instructions. Stanley Infrastructure recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following 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 certified dealer, call Stanley Infrastructure at (503) 659-5660 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.

This safety alert and signal word indicates an imminently hazardous situation which, if not avoided, <u>will</u> result in <u>death or serious injury</u>.

This safety alert and signal word indicates a potentially hazardous situation which, if not avoided, <u>could</u> result in <u>death or serious injury</u>.

This safety alert and signal word indicates a potentially hazardous situation which, if not avoided, <u>could</u> result in <u>death or serious injury</u>.

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

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

This signal word indicates a situation which, if not avoided, <u>may</u> result in <u>damage</u> to the equipment.

STANLEY

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 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. Place the added precautions in the space provided.

The GD50 Hydraulic Rod 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 operation.
- Do not operate the tool 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 tool.
- 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.
- Do not operate the tool at oil temperatures above 140 °F/60 °C. High temperatures can cause operator discomfort.
- Do not operate a damaged, improperly adjusted or incompletely assembled rod driver.
- Do not weld, cut with an acetylene torch or hardface the rod driver anvil or guide housing.
- To avoid personal injury or equipment damage,

all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.

- Always replace parts with replacement parts recommended by STANLEY.
- Check fastener tightness often and before each use daily.
- **WARNING:** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead-based paints,
 - crystalline silica from bricks and cement and other masonry products, and
 - arsenic and chromium from chemicallytreated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Protect yourself and those around you. Research and understand the materials you are cutting. Follow correct safety procedures and comply with all applicable national, state or provisional health and safety regulations relating to them, including, if appropriate arranging for the safe disposal of the materials by a qualified person.

TOOL STICKERS & TAGS



37425 Name Tag

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.

DANGER

FAILURE TO USE HYDRAULIC HOSE LABELED AND CER-TIFIED 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

CONDUCTIVE ON OR NEAR ELECTRIC LINES BE SURE THE HOSE IS MAINTAINED AS NON-CONDUCTIVE. THE HOSE SHOULD BE REGULARLY TESTED FOR ELECTRIC CUR-RENT LEAKAGE IN ACCORDANCE WITH YOUR SAFETY DEPARTMENT INSTRUCTIONS.

- A HYDRAULIC LEAK OR BURST MAY CAUSE OIL INJEC-TION INTO THE BODY OR CAUSE OTHER SEVERE PERSONAL INJURY.
- PERSUMAL INJURT:
 A DO NOT EXCEED SPECIFIED FLOW AND PRESSURE
 FOR THIS TOOL. EXCESS FLOW OR PRESSURE MAY
 CAUSE A LEAK OR BURST.
 DO NOT EXCEED RATED WORKING PRESSURE OF
 HYDRAULE 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

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

DANGER

- D. DO NOT LIFT OR CARRY TOOL BY THE HOSES. DO NOT ABUSE HOSE. DO NOT USE (INKED, TORN OR DAMAGED HOSE. MAKE SURE HYDRAULC HOSES ARE PROPERLY CON-NECTED TO THE TOOL BEFORE PRESSURING SYSTEM. SYSTEM PRESSURE HOSE MUST ALWAYS BE CON-NECTED TO TOOL 'IN' PORT. SYSTEM RETURN HOSE MUST ALWAYS BE CONNECTED TO TOOL 'OUT' PORT. REVERSING CONNECTED TO TOOL 'OUT' PORT. REVERSING CONNECTED TO TOOL 'OUT' PORT. PEVERSING CONNECTED TO TOOL 'OUT' PORT. DEVENTIONET OF A METALET TOOLS TO CONST. 3.
- 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 ANDIOR SEVERE PERSONAL INJURY.
- BYSTANDERS MAY BE INJURED IN YOUR WORK AREA. KEEP BYSTANDERS CLEAR OF YOUR WORK AREA. WEAR HEARING, EYE, FOOT, HAND AND HEAD PRO-TECTION. 6.
- 7
- TEOTION. 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



HOSE TYPES

The rated working pressure of the hydraulic hose must be equal to or higher than the relief valve setting on the hydraulic system. There are three types of hydraulic hose that meet this requirement and are authorized for use with STANLEY hydraulic tools. They are:

Certified non-conductive — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. Hose labeled certified nonconductive is the only hose authorized for use near electrical conductors.

Wire-braided (conductive) — constructed of synthetic rubber inner tube, single or double wire braid reinforcement, and weather resistant synthetic rubber cover. This hose is conductive and must never be used near electrical conductors.

Fabric-braided (not certified or labeled non-conductive) — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. This hose is **not certified non-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. 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.



(Shown smaller than actual size)

Tool to Hydraulic Circuit Hose	OilF	.low	Hose L	-engths	Inside D	liameter	USE	Min. Workir	ig Pressure
Recommendations	GPM	LPM	FEET	METERS	INCH	MM	(Press/Return)	PSI	BAR
The chart to the right shows recommended			Certified No	on-Conductive	Hose - Fibe	r Braid - for	Utility Bucket	Frucks	
minimum hose diameters for various	4-9	15-34	up to 10	up to 3	3/8	10	Both	2250	155
hose lengths based on gallons per minute		Conductiv	/e Hose - Wire	Braid or Fiber	r Braid -DO I	NOT USE NE	EAR ELECTRIC	AL CONDUCT	ORS
(GPM)/liters per minute (LPM). These	4-6	15-23	up to 25	up to 7.5	3/8	10	Both	2500	175
recommendations are intended to keep return	4-6	15-23	26-100	7.5-30	1/2	13	Both	2500	175
ine pressure (back pressure) to a minimum accentable level to ensure maximum tool	5-10.5	19-40	up to 50	up to 15	1/2	13	Both	2500	175
performance.	5-10.5	19-40	51-100	15-30	5/8	16	Both	2500	175
This chart is intended to he used for hvdraulic		07	000	00 00	5/8	16	Pressure	2500	175
tool applications only based on STANLEY tool	c.Ul-c	9-40	005-001	20-90	3/4	19	Return	2500	175
operating requirements and should not be	10-13	38-49	up to 50	up to 15	5/8	16	Both	2500	175
used for any other applications.		0,00		C C L	5/8	16	Pressure	2500	175
All hydraulic hose must have at least a	51-0L	30-4G	001-1.0	05-61	3/4	19	Return	2500	175
rated minimum working pressure equal to		07 00		20 60	3/4	19	Pressure	2500	175
the maximum hydraulic system relief valve	2-0-	00-40	002-001	00-00	-	25.4	Return	2500	175
setting.	0 7 7	10.00	10 - F	0 -1	5/8	16	Pressure	2500	175
All hydraulic hose must meet or exceed	0-	48-00	cz oj dn	o n dn	3/4	19	Return	2500	175
specifications as set forth by SAE J517.	4 7 7	10 60	001 90	0000	3/4	19	Pressure	2500	175
	00-	19-00	001-07	00-0	-	25.4	Return	2500	175

setting.



Figure 1. Typical Hose Connections

HOSE RECOMMENDATIONS

8 ► GD50 User Manual

HTMA / EHTMA REQUIREMENTS

HTMA / EHTMA REQUIREMENTS

	TOOL TYPE				
HTMA HYDRAULIC SYSTEM REQUIREMENTS	ΤΥΡΕ Ι	TYPE II	TYPE RR	TYPE III	
Flow range	4-6 GPM	7-9 GPM	9-10.5 GPM	11-13 GPM	
	(15-23 LPM)	(26-34 LPM)	(34-40 LPM)	(42-49 LPM)	
Nominal operating pressure	1500 psi	1500 psi	1500 psi	1500 psi	
(At the power supply outlet)	(103 bar)	(103 bar)	(103 bar)	(103 bar)	
System relief valve setting	2100-2250 psi	2100-2250 psi	2200-2300 psi	2100-2250 psi	
(At the power supply outlet)	(145-155 bar)	(145-155 bar)	(152-159 bar)	(145-155 bar)	
Maximum back pressure	250 psi	250 psi	250 psi	250 psi	
(At tool end of the return hose)	(17 bar)	(17 bar)	(17 bar)	(17 bar)	
Measured at a max fluid viscosity of:	400 ssu*	400 ssu*	400 ssu*	400 ssu*	
(At minimum operating temperature)	(82 centistokes)	(82 centistokes)	(82 centistokes)	(82 centistokes)	
Temperature: Sufficient heat rejection capacity to limit maximum fluid temperature to: (At maximum expected ambient temperature)	140° F (60° C)	140° F (60° C)	140° F (60° C)	140° F (60° C)	
Minimum cooling capacity at a temperature difference of between ambient and fluid temps	3 hp	5 hp	6 hp	7 hp	
	(2.24 kW)	(3.73 kW)	(5.22 kW)	(4.47 kW)	
	40° F	40° F	40° F	40° F	
	(22° C)	(22° C)	(22° C)	(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 minimum full-flow filtration	25 microns	25 microns	25 microns	25 microns	
Sized for flow of at least:	30 GPM	30 GPM	30 GPM	30 GPM	
(For cold temp startup and maximum dirt-holding capacity)	(114 LPM)	(114 LPM)	(114 LPM)	(114 LPM)	
Hydraulic fluid, petroleum based (premium grade, anti-	100-400 ssu	100-400 ssu	100-400 ssu	100-400 ssu	
wear, non-conductive) Viscosity (at minimum and maximum	(20-82	(20-82	(20-82	(20-82	
operating temps)	centistokes)	centistokes)	centistokes)	centistokes)	
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

		C	LASSIFICATIO	N	
EHTMA HYDRAULIC SYSTEM REQUIREMENTS	B 15Lpm at 138bar EHMA CATEGORY	20Lpm et 138ber EHTMA CATEGORY	Solarn et 138ber EHTMA CATEGORY	E HILMA CATEGORY	Folger at 138bor EHTMA CATEGORY
Flow range	3.5-4.3 GPM (13.5-16.5 LPM)	4.7-5.8 GPM (18-22 LPM)	7.1-8.7 GPM (27-33 LPM)	9.5-11.6 GPM (36-44 LPM)	11.8-14.5 GPM (45-55 LPM)
Nominal operating pressure (At the power supply outlet)	1870 psi (129 bar)	1500 psi (103 bar)	1500 psi (103 bar)	1500 psi (103 bar)	1500 psi (103 bar)
System relief valve setting (At the power supply outlet)	2495 psi (172 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)

Note: These are general hydraulic system requirements. See tool specification page for tool specific requirements.



OPERATION

PREPARATION PROCEDURES PREPARATION FOR INITIAL USE

Each unit as shipped has no special unpacking or assembly requirements prior to usage. Inspection to assure the unit was not damaged in shipping and does not contain packing debris is all that is required.

CHECK HYDRAULIC POWER SOURCE

- Using a calibrated flow meter and pressure gauge, check that the hydraulic power source develops a flow of 7–9 gpm/26–34 lpm for HTMA Type II tools/ EHTMA category D at 2000 psi/105–140 bar.
- 2. Make certain the hydraulic power source is equipped with a relief valve set to open at 2100–2250 psi/145– 155 bar minimum.
- 3. Check that the hydraulic circuit matches the tool for open-center (OC) operation.

CHECK TOOL

- Make sure the tool contains the correct anvil for the rod size to be driven. Use the 5/8 inch anvil (standard in the model GD50132RF Rod Driver) for 5/8 inch diameter rod. Use the 1 inch anvil (standard in the model GD50133RF Rod Driver) for 3/4 inch to 1 inch diameter rod. Failure to use the correct anvil with the appropriate rod size can result in damage to the tool or personal injury.
- 2. There should be no signs of leaks.
- 3. The tool should be clean, with all fittings and fasteners tight.

CHECK TRIGGER MECHANISM

1. Check that the trigger operates smoothly and is free to travel between the **ON** and **OFF** positions.

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 hose couplers on the tool. Connect the return hose first and disconnect it last to minimize or avoid trapped pressure within the rod driver.
- 3. Observe flow indicators stamped on hose couplers to be sure that oil will flow in the proper direction. The female coupler is the inlet coupler.

Note: The pressure increase in uncoupled hoses left in the sun may result in making them difficult to connect. When possible, connect the free ends of operating hoses together.

OPERATING PROCEDURES

- 1. Observe all safety precautions.
- 2. Move the hydraulic circuit control valve to the **ON** position.
- 3. Place the anvil of the rod driver over the rod to be driven.
- 4. Ensure adequate down pressure is applied to the rod driver before starting the rod driver. To start the rod driver, press the button on the control valve to the **ON** position. Adequate down pressure is very important. When you wish to stop the tool, press the button on the control valve to the **OFF** position.

INLINE CONTROL VALVE OPERATION

The 38632 Inline Control Valve is designed to provide the ON/OFF functions for a hydraulic tool connected to either an OPEN CENTER (OC) hydraulic system or an CLOSED CENTER (CC) hydraulic system. The valve is to be used with tools which do not have an ON/OFF trigger control. The 38632 Control Valve can be used on hydraulic systems producing up to 10 gpm/38 lpm with a maximum relief valve setting of 2500 psi/172 bar. The valve ports are -8 SAE (3/4-16 thread) O-ring ports.

SETTING FOR OPEN CENTER (OC) OR CLOSED CENTER (CC)

Set the valve to OC or CC before connecting it to the hydraulic system. To set the valve for open center operation, use a straight blade screw driver to turn the selector screw counter clockwise until it stops. To set the valve for closed center operation, turn the selector screw clockwise until it stops.



Be sure you know if you have an OPEN CENTER (OC) OR CLOSED CENTER (CC) hydraulic system, DO NOT attempt to install or operate the 38632 Valve until you do. Incorrect installation or operation of the valve can result in seal failures in the tool, cause excessive heat in the hydraulic system, and may damage the tool and hydraulic system. Understand which type of hydraulic system you are using before installing or operating this valve.

10 ► GD50 User Manual

OPERATION

INSTALLING THE VALVE

Connect the valve to the hydraulic system as shown in Figure 2.

OPERATING THE VALVE

Connect the valve to the tool using the illustration below as a guide. Make sure the valve spool on the valve is pushed **OFF** before connecting the valve to the hydraulic system. Make sure the hydraulic system is **OFF** before connecting the valve to the hydraulic system. Connect the valve to the hydraulic system. Turn **ON** the hydraulic system. Place the tool to be operated in its operating position. Push the valve spool **ON** to begin operating the tool. Push the valve spool **OFF** to stop operating the tool. Turn the hydraulic system **OFF** before disconnecting the valve.



Figure 2. Connecting the Valve

COLD WEATHER OPERATION

If the rod driver 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 $^{\circ}$ F/10 $^{\circ}$ C (400 ssu/82 centistokes) before use.

CHARGING THE ACCUMULATOR

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

- Charge kit (Part Number 31254) Includes the following:
 - Accumulator tester (P/N 02835).
 - Charge assembly (P/N 15304). Includes a liquidfilled gauge with snub valve, hose and fittings.
- NITROGEN bottle with a 800 psi/56 bar minimum charge (not a part of 31254 kit).
- Holding the chuck end of the STANLEY tester (P/N 02835), turn the gauge fully counterclockwise to ensure the stem inside the chuck is completely retracted.
- 2. Thread the tester onto the charging valve of the tool accumulator (do not advance the gauge-end into the chuck end. Turn as a unit). Seat the chuck on the accumulator charging valve by hand tightening only.
- 3. Advance the valve stem by turning the gauge-end clockwise.
- 4. Connect the charging assembly to the valve on the tester.
- 5. Adjust the regulator on the nitrogen bottle to 600 psi/42 bar.

Note: It may be necessary to set the regulator at 650–700 psi/41–48 bar to overcome any pressure drop through the charging system.

- 6. Open the valve on the charging assembly hose. When the tester gauge reads 600–700 psi/41–48 bar, close the valve on the charging assembly hose and remove the charging assembly.
- 7. Turn the gauge end of the tester fully counterclockwise to retract the plunger in the chuck. Remove the tester from the charge valve.
- 8. Replace the valve cap.

TESTING THE ACCUMULATOR PRESSURE

- 1. Follow Steps 1 through 3 under CHARGING THE ACCUMULATOR.
- 2. Read the pressure on the gauge. It should be between 500–700 psi/35–48 bar.
- 3. If the pressure is low, recharge the tool.



Figure 3. Charging the Accumulator

TOOL PROTECTION & CARE

NOTICE

In addition to the safety precautions found 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 couples 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. Supply hoses must have a minimum working pressure rating of 2500 psi/172 bar.

- Do not exceed the rated flow. Rapid failure of the internal seals may result. See "SPECIFICATIONS" on page 15 for correct flow rate and model number.
- 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 spike driver, always check that the hydraulic power source is supplying the correct hydraulic flow and pressure to the spike driver as listed in the table. Use a flow meter known to be accurate. Check the flow with the hydraulic oil temperature at least 80 °F/27 °C.

PROBLEM	CAUSE	SOLUTION
Rod driver does not run.	Power unit not functioning.	Check power unit for proper flow and pressure (7–9 gpm/26–34 lpm at 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.	Have inspected and repaired by an authorized dealer.
Rod driver does not hit effectively.	Power unit not functioning.	Check power unit for proper flow and pressure (7–9 gpm/26–34 lpm at 2000 psi/140 bar).
	Couplers or hoses blocked.	Remove restriction.
	Low accumulator charge (pressure hose will pulse more than normal).	Have recharged by an authorized dealer.
	Fluid too hot (above 140 °F/60 °C).	Provide cooler to maintain proper fluid temperature.
	Rod anvil is not sliding freely in the anvil guide.	Remove, clean and replace as necessary.
Rod driver operates slow.	Low oil flow from power unit.	Check power source for proper flow.
	High back pressure.	Check hydraulic system for excessive back pressure and correct as required.

SPECIFICATIONS

SERVICE TOOLS

DESCRIPTION

PART NUMBER

O-ring Tool Kit: General Service of Seals	.04337
Split Rings: Used with 04910	.04908
Flow Sleeve Removal Tool	.04919
Flow Sleeve Removal Tube: Used with 04908 & 05508	.04910
Bearing Puller Kit: General Bearing Pulling	.05064
Accumulator Disassembly Tool: Used with 04910	.05508
Tamper Sleeve Tool: Used to Pull Porting Block from Valve Block	. 01120
Accumulator Cylinder Puller: An Aluminum Disk (handy for protecting parts when using an arbor press	.05640

GD50 PARTS ILLUSTRATION



GD50 PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
1	35770	2	HANDLE BAR
2	370351	4	CAPSCREW
3	07493	1	O-RING PLUG-MALE
4	05243	1	ORIFICE PLUG (INCL W/ ITEM 13)
5	20499	1	CHARGE VALVE
6	04374	4	LOCK NUT
7	15190	1	TOP PLATE
8	00720	4	SET SCREW
9	07479	1	DIAPHRAGM
10	00293	1	O-RING
11	15188	1	VALVE SPOOL
12	04058	1	SPRING
13	11588	1	ACCUMULATOR VALVE BLOCK
16	10536	1	SELECTOR SCREW
17	04381	2	BACK-UP RING
18	04379	2	O-RING
19	04378	1	PORTING BLOCK
20	35784	2	HOSE ASSY
21	07480	1	AUTOMATIC VALVE BODY
22	16070	1	RETAINING RING
23	56749	2	SEAL CAP (NEW INLINE VALVE)
23A	01003	2	VALVE BUTTON (OLD INLINE VALVE)
24	07224	2	BACK-UP RING (NEW INLINE VALVE)
24A	13568	2	BACK-UP RING (OLD INLINE VALVE)
25	07626	2	O-RING (NEW INLINE VALVE)
25A	13567	2	O-RING (OLD INLINE VALVE)
26	67008	1	VALVE SPOOL (NEW INLINE VALVE)
26A	38631	1	VALVE SPOOL (OLD INLINE VALVE)
27	00936	2	ADAPTOR
28	03973	1	MALE COUPLER BODY
29	03972	1	FEMALE COUPLER BODY
30	04382	1	AUTOMATIC VALVE
31	04571	2	PUSH PIN
32	02900	2	ROLL PIN
33	37425	1	NAME TAG
34	04383	1	FLOW SLEEVE TUBE
35	04384	1	FLOW SLEEVE
36	04605	4	PUSH PIN
37	04954	1	PISTON
38	02022	1	O-RING
39	04387	1	WIPER RING
40	04780	1	BACK-UP WASHER
41	04386	1	CUP SEAL
42	12139	4	SIDE ROD
43	43527	1	ADAPTOR BLOCK

ITEM	PART NO.	QTY	DESCRIPTION
44	72592	1	ADAPTOR BLOCK ASSY (INCLUDES UPPER ANVIL STOP)
45	12146	1	SPRING
46	36106	1	ROD ANVIL, 5/8 INCH RODS (MODEL GD50132RF)
	35751	1	ROD ANVIL, 3/4 TO 1 IN. RODS (MODEL GD50133RF)
47	65812	1	ANVIL GUIDE
48	35753	1	GUIDE HOUSING
49	67007	1	VALVE BODY ASSY. (NEW INLINE VALVE)
49A	38629	1	VALVE BODY ASSY. (OLD INLINE VALVE)
50	00026	1	O-RING
51	65813	1	BUMPER
52	371071	2	WASHER
53	01604	2	O-RING (NEW INLINE VALVE)
54	56747	2	SEAL WIPER (NEW INLINE VALVE)
55	00856	2	ADAPTOR
56	72264	1	INLINE VALVE ASSEMBLY

Model GD50132RF—1/2 and 5/8 inch rods. Model GD50133RF—3/4 and 1 inch rods. Verify the correct model number before ordering. Seal Kit GD50 Rapid Fire Model—04595

All Other GD50 Models—13552

Read Before Ordering Inline Valve Parts:

Inline Valve Assembly (OC-CC) - 72264

Includes Items (16, 22 thur 26, 49, 50, 53, and 54)

The inline valve changed around June 2011. To determine if you have the old or new inline valve, see parts illustration.

Note: Individual parts are still available for the older inline valve but if replacing the entire inline valve assy, you must order the new inline valve assy P/N-72264.

STANLEY_®

STANLEY Infrastructure 6430 SE Lake Road Portland, Oregon 97222 USA (503) 659-5660 / Fax (503) 652-1780 www.stanleyinfrastructure.com