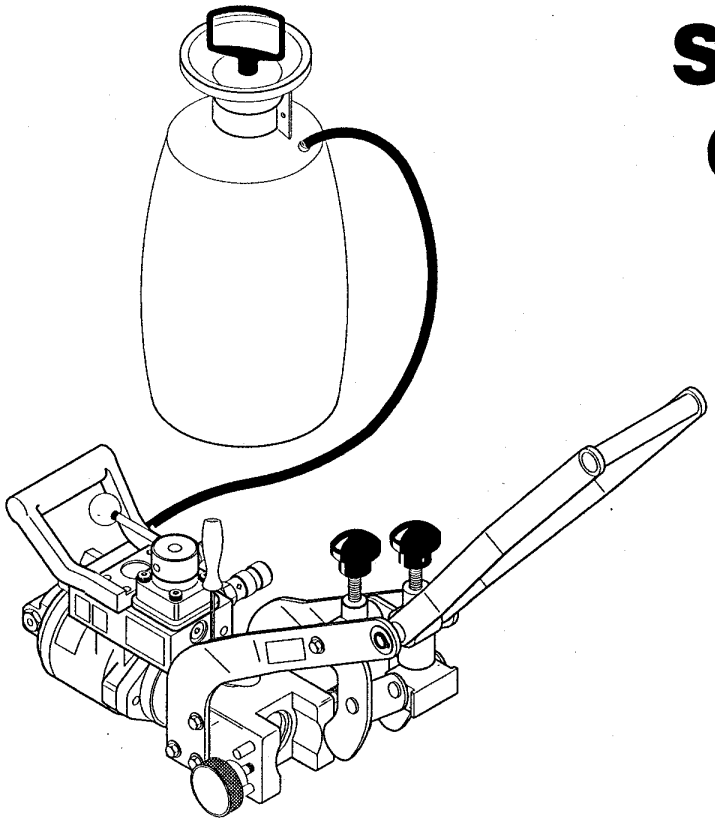
RD12

HYDRAULIC RAIL DRILL



Safety and Operation Manual

Focused on performance™

STANLEY® Hydraulic Tools

OPS USA & CE VERSION
Printed in U.S.A.
32515 Ver 1, 3/97

CE

IMPORTANT

Drill bits and carbide cutting inserts are not covered under any warranty. Operators must be careful to ensure the drill bit and carbide inserts are not damaged during handling of the tool. Stanley assumes no liability for damages to drill bits or the tool as a result of improper usage of the tool or usage of carbide cutting inserts not furnished by Stanley. Improper usage is defined as: failure to follow any of the instructions contained in this manual; storing or transporting the tool without taking care to protect the drill bit or cutting inserts; allowing the drill bit or cutting inserts to crash into the rail during setup or removal procedures; using the tool with the wrong templates or no templates; using the tool without drilling lubricate; exceeding flow and pressure requirements as defined in this manual.

INDEX

SERVICING THE RD12 RAIL DRILL: This manual contains safety, operation, and routine maintenance instructions. This manual does not contain detailed servicing instructions. A service manual (p/n 32514) may be ordered from your dealer. Stanley Hydraulic Tools recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.

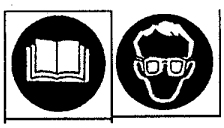
⚠ DANGER

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

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

A list of Stanley Hydraulic Tools Distribution Centers can be found on the back page of this manual.

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 3.

GENERAL SAFETY PRECAUTIONS

The RD12 Hydraulic Rail 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 drill and hose 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 overreach. Maintain proper footing and balance at all times.
- Do not inspect, replace the drill bit 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. Operation at higher temperatures can cause higher than normal temperatures at the tool which can result in operator discomfort.
- Never transport or carry the tool with the unit energized.
- Do not operate a damaged, improperly adjusted, or incompletely assembled tool.
- Never wear loose clothing that can get entangled in the working parts of the tool.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Keep hands and fingers away from rotating parts.

SAFETY SYMBOLS

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

DANGER

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

⚠ WARNING

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

IMPORTANT

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

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

LOCAL SAFETY REGULATIONS

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

TOOL STICKERS & TAGS

31049 EYE PROTECTION STICKER
(CE Models Only)

28788 MANUAL STICKER
(CE Models Only)

28322 CE STICKER
(CE Models Only)

11207 CIRCUIT "D" STICKER
(CE Models Only)

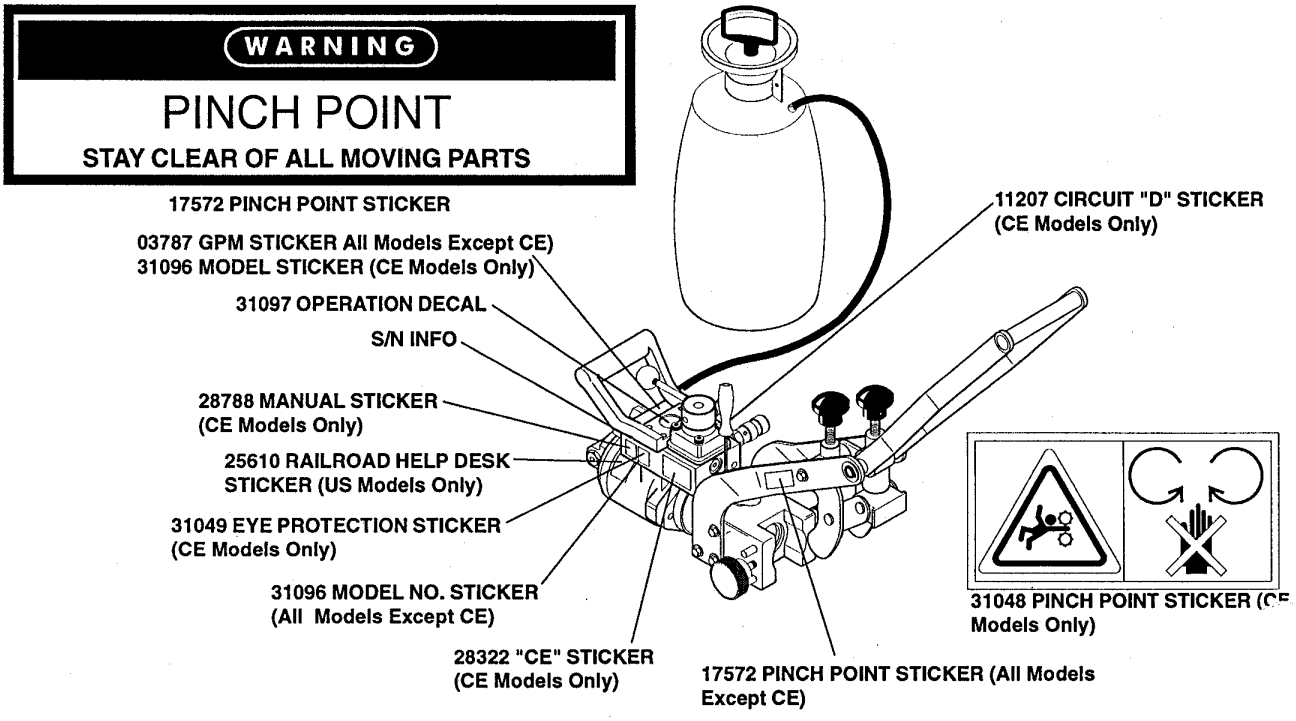
STANLEY RAILROAD HELP DESK
1-800-549-0517
FOR CUSTOMER SERVICE OR TECHNICAL QUESTIONS

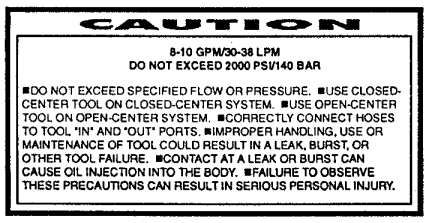
25610 RAILROAD HELP DESK STICKER
(US Models Only)

TOOL STICKERS & TAGS Cont. . .

The stickers and tags attached to the rail drill prior to shipment from the factory are shown on this page. The pressure and flow rate specified must never be exceeded. All stickers and tags must be read and understood prior to operating the tool.

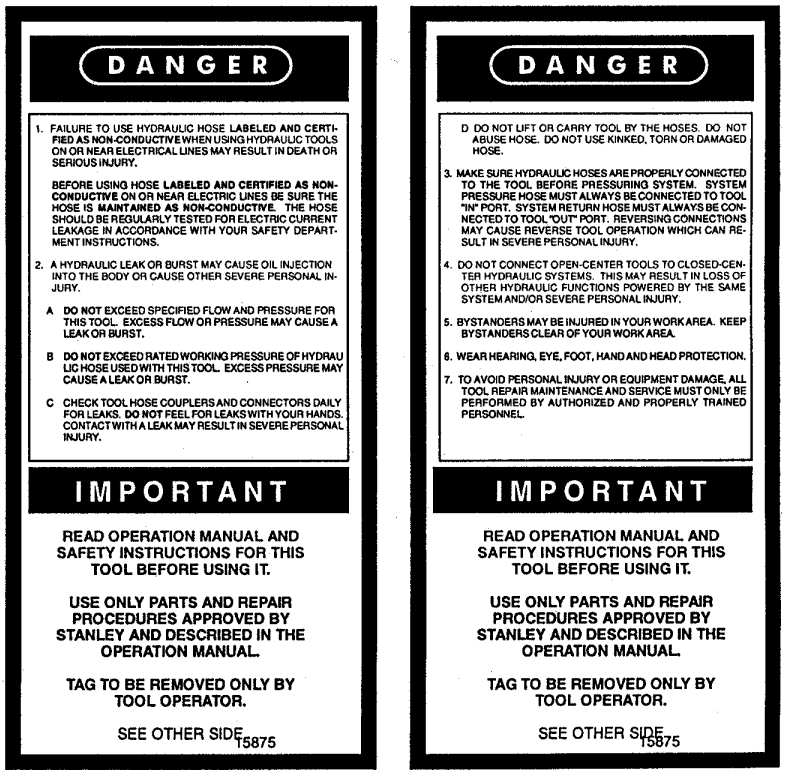
The information listed on stickers and tags must be legible at all times. Always replace stickers that have become worn or damaged. Replacements are available from your local Stanley distributor.





03787 GPM/PRESSURE STICKER

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



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

HYDRAULIC REQUIREMENTS

HOSE TYPES

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

❶ Certified non-conductive

❷ Wire-braided (conductive)

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

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

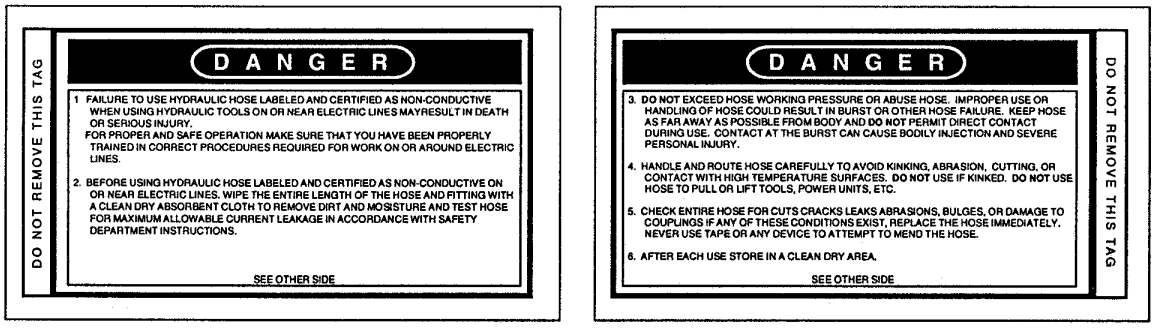
Hoses ❷ and ❸ listed above are **conductive** and **must never** be used near electrical conductors.

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

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

❶ CERTIFIED NON-CONDUCTIVE HOSE

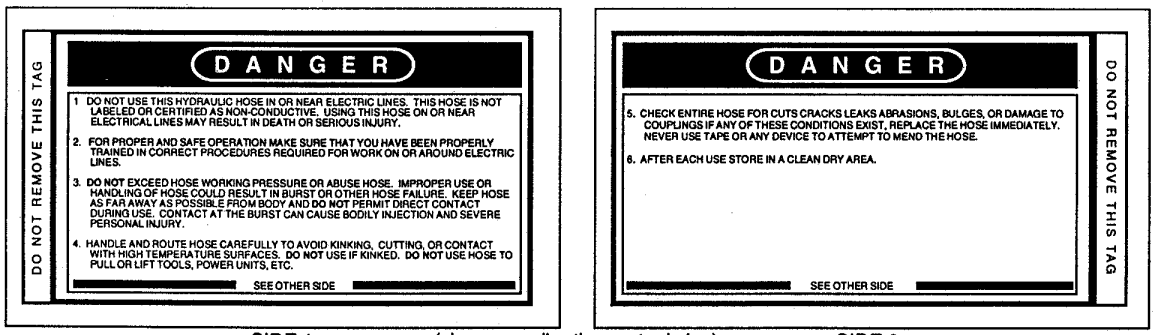
This tag is attached to all certified **non-conductive** hose.



SIDE 1 (shown smaller than actual size) SIDE 2

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

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



SIDE 1 (shown smaller than actual size) SIDE 2

HOSE PRESSURE RATING

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

OPERATION

IMPORTANT

In addition to the Safety Precautions on pages 1 thru 4 of this manual, observe the following for equipment protection and care.

- Always store the tool in a clean dry space, safe from damage or pilferage.

- Do not exceed the rated limits or use the tool for applications beyond its design capacity.

- Always keep critical tool markings, such as lables and warning stickers legible.

- Always replace hoses, couplings and other parts with replacement parts recommended by Stanley Hydraulic Tools. Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar.

- Permit only properly trained personnel to perform tool repair.

- Be sure to wipe all couplers clean before connecting. Use only lint-free cloths.

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

HYDRAULIC SYSTEM REQUIREMENTS

- The hydraulic system should provide a flow of 8-10 gpm/30-38 lpm at an operating pressure of 2000 psi/140 bar. Recommended relief valve setting is 2100-2250 psi/145-155 bar.

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

- The hydraulic system should have enough heat rejection capacity to limit the maximum oil temperature to 140°F/60°C at the maximum expected ambient temperature.

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

- The hydraulic fluid used should have a viscosity between 100 and 400 ssu at the maximum and minimum expected operating temperatures.

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

PREOPERATION PROCEDURES

PREPARATION FOR INITIAL USE

The tool as shipped has no special unpacking or assembly requirements prior to usage. Inspection to assure the tool was not damaged in shipping and that it does not contain packing debris is all that is required. Otherwise, the tool may be connected to a hydraulic source upon receipt.

CHECK HYDRAULIC POWER SOURCE

1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source develops a flow of 8-10 gpm/30-38 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/145-155 bar maximum.

3. Make certain that the power source return pressure does not exceed 250psi/17 bar.

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

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.

4. Observe the "IN" and "OUT port lettering on the valve block assembly to ensure that the hydraulic flow is in the proper direction. The "IN" port lettering indicates the inlet (pressure) side.

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.

USING COOLANT

The RD12 rail drill is equipped with a separate coolant can assembly that is used to deliver coolant to the drill bit. Follow the instructions below to use the coolant can assembly with the rail drill:

1. If operating the rail drill at temperatures above 32° F/0° C, fill the coolant can with ordinary tap water.

2. If operating the rail drill at temperatures below 32° F/0° C, fill the coolant can with a mixture of 50% ordinary tap water and 50% biodegradable antifreeze.

3. Pressurize the coolant can using the carrying handle/pump.

4. Connect the coolant can assembly to the rail drill using the supplied quick-disconnect coupler.

OPERATING PROCEDURES

1. Observe all safety precautions.

2. Make sure the drill bit you intend to use contains carbide inserts with good cutting surfaces. If the surfaces are worn or chipped, unscrew the retaining screw and rotate the insert to a good cutting surface. If the inserts do not contain a good cutting surface on one of the four sides, replace the inserts. Make sure the bit holder is not damaged.

3. Install the drill bit into the piston machining assembly (24) and then turn it clockwise until it stops.

RAIL TEMPLATES & HOLE GUIDES

NOTE: The RD12 must be used with rail templates and hole guides. See the chart at the end of this section for selections of rail templates and hole guides.

4. Install a hole guide assembly onto the rail and position it where you want to drill.

5. Install templates onto the rail drillwith the rail size facing the rail.

NOTE: To avoid drill bit damage, make sure the drill bit/piston assy is fully retracted prior to placing the RD12 on the rail.

6. Set the rail drill over the hole guide on the rail so that the templates are nested between the ball and the base of the rail and the adjustment screw (52) fits in a hole in the hole guide.

7. Adjust the threaded shaft (44) until there is no movement of the rail drill as it sits on the rail and the hole guide. Wiggle the RD12 to remove all loosness. Then lift the handle (49) up and turn the threaded shaft (44) clockwise approximately 1/2 turn. Push the handle (49) down hard to firmly clamp the RD12 to the rail.

TO BEGIN DRILLING

1. Engage the control valve on the hydraulic power source to the "ON" position.

2. To begin drilling, move the control lever on the rail drill toward the "drill bit" symbol. The drill bit will turn and advance simultaneously. Make sure water is spraying from the bit.

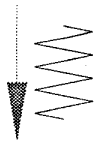
TO STOP DRILLING

Move the control lever to the "0" mark to stop the rail drill.

TO RETRACT THE DRILL BIT

Move the control lever to the "retract" symbol to

retract the drill bit.



RETRACT SYMBOL

REMOVING THE DRILL BIT

1. Uncouple the water hose from the rail drill.

2. Move the hydraulic circuit control valve to the "OFF" position and disconnect from the power supply.

3. From the bit end, turn the bit counter clockwise and pull it out.

STORAGE

Clean the tool thoroughly.

Remove the drill bit.

Advance the piston .250 in./6 mm.

Drain water from the tool.

Retract the piston

Store in a dry area.

COLD WEATHER OPERATION

Preheat the hydraulic fluid at low engine speed. When using the normally recommended fluids, fluid temperature should be at or above 50 degrees F / 10 degrees C before use.

Use a biodegradeable antifreeze solution such as windshield antifreeze in the spray can.

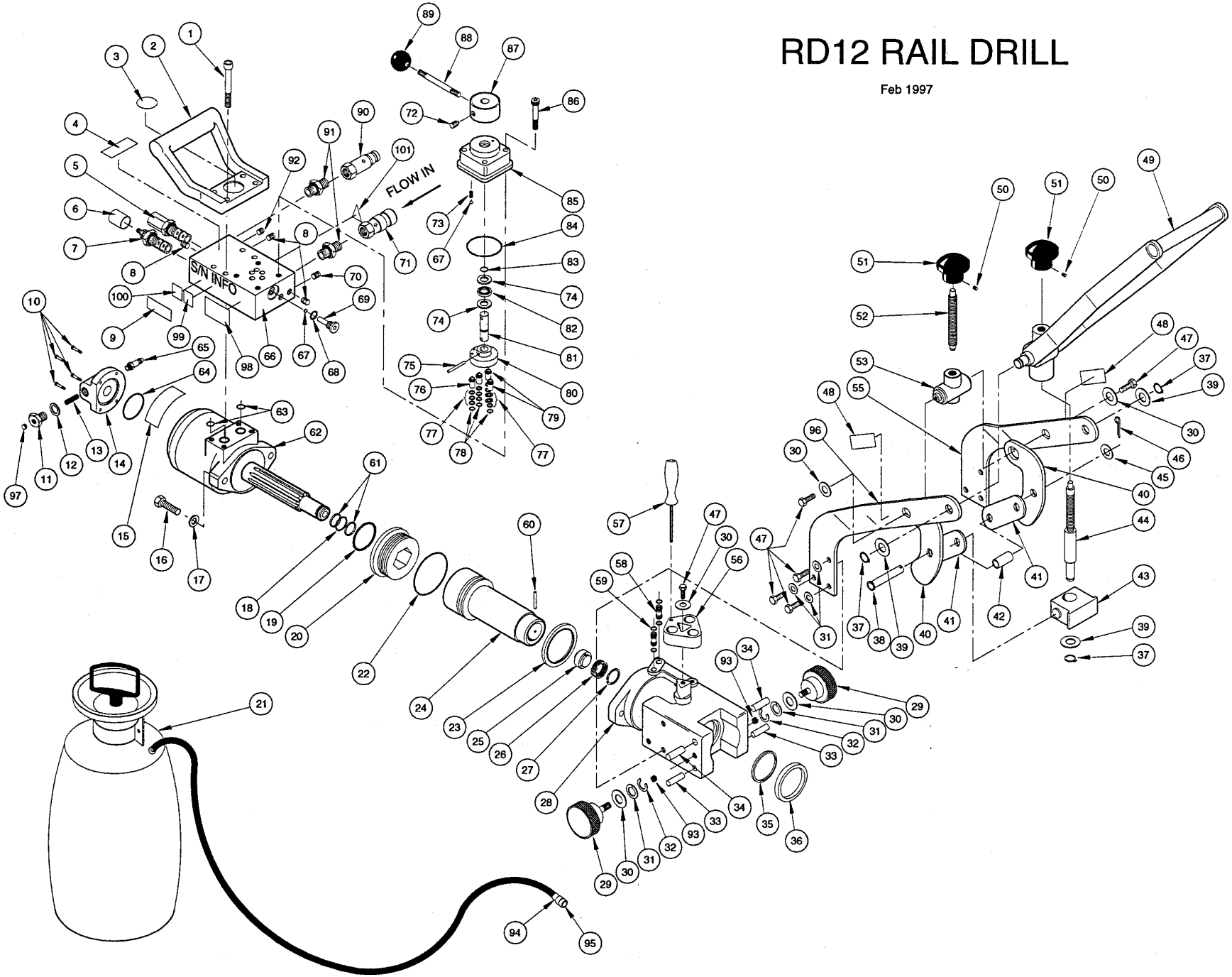
Drain water from the drill when finished using.

TEMPLATES & HOLE GUIDES

RAIL SIZE	SINGLE SIDED TEMPLATE	DOUBLE SIDED TEMPLATE	GUIDE ASSY P/N	GUIDE ASSY HOLE SPACING	COUNTRY
90 RA	31984	31978	22631	2-11/16 X 5-1/2 X 5-1/2	USA
115 AREA	31985	31979/31980	22625	3-1/2 X 6 X 6	USA
119 AREA	31985	31979/31980	22625	3-1/2 X 6 X 6	USA
132 AREA	31986	31980/31981	22625	3-1/2 X 6 X 6	USA
133 AREA	31987	31979/31981	22625	3-1/2 X 6 X 6	USA
136 AREA	31986	31980/31981	22625	3-1/2 X 6 X 6	USA
140 AREA	31988	31978	22625	3-1/2 X 6 X 6	USA
50 KG N		31975	29437	77 X 150	CHINA
46 KG U 33		31973	29436	57.5 X 160	FRANCE
50 KG U 50		31974	29434	60 X 170	FRANCE
LP48		31973	29435	65 X 120 X 160	FRANCE
60 KG UIC		31974	29434	60 X 170	FRANCE
S49	31982	31976	31772	46 X 165	GERMANY
S54	31982	31976	31772	46 X 165	GERMANY
60 KG UIC/UNI	31983	31976	31772	46 X 165	GERMANY
50 KG UNI **	31982	31976	30675	47 X 165	ITALY
60 KG UIC/UNI	31983	31976	30675	47 X 165	ITALY
60 KG		31975	29963	70 X 130 X 130	JAPAN
50 KG N		31975	29437	77 X 150	JAPAN
50 KG N		31975	29437	77 X 150	TAIWAN
BS 95 B.H.R.		31977	31780	60.32 X 114.3	UK
BS 113A		31977	31779	60.32 X 127 X 203	UK

RD12 RAIL DRILL

Feb 1997



RD12 PARTS LIST

Item No	Part No	Qty	Description
1	24871	4	CAPSCREW
2	24844	1	CARRY HANDLE
3	31097	1	OPERATION DECAL
4	03787	1	GPM STICKER
5	25773	1	PRESSURE RELIEF VALVE
6	25774	1	TAMPER RESISTANT COVER
7	24868	1	FLOW CONTROL
8	00955	4	1/8" PIPE PLUG
9	31096	1	RD12 MODEL NO. STICKER
10	15909	4	CAPSCREW
11	31100	1	END CAP
12	31099	1	GASKET •
13	31098	1	SCREEN
14	30533	1	COVER
15	25610	1	RAILROAD HELP DESK STICKER
16	370251	2	CAPSCREW
17	03061	2	LOCK WASHER
18	02003	1	O-RING 2-113 R16 •
19	24878	1	FACE SEAL
20	30912	1	PLUG ASSY
21	24783	1	SPRAY CAN
	24774	1	SPRAY CAN ASSY (INCL ITEMS 21, 94 & 95)
22	04054	1	O-RING 2-233 R17
23	31744	1	PISTON RING (2 PIECE)
24	31286	1	PISTON MACHINING ASSY
25	29303	1	WATER VALVE
26	29302	1	WAVE SPRING
27	29301	1	RETAINING RING
28	31723	1	CYLINDER MACHINING ASSY
29	31828	2	KNOB
30	02690	5	FLAT WASHER
31	01459	12	LOCK WASHER
32	30652	2	RETAINING RING
33	29126	2	DOWEL PIN
34	29125	2	DOWEL PIN
35	07287	1	QUAD RING •
36	24881	1	WIPER SEAL •
37	17904	3	RETAINING RING
38	29197	1	CLEVIS PIN
39	28228	3	WASHER
40	28902	2	PLATE
41	29136	2	LINK
42	31069	1	SPACER
43	29075	1	STOP
44	28955	1	THREADED SHAFT
45	04786	2	WASHER
46	01924	1	COTTER PIN
47	06173	9	CAPSCREW
48	17572	2	PINCH POINT WARNING STICKER (All models except CE)
	31048	2	PINCH POINT STICKER (CE models only)
49	29072	1	HANDLE WELDMENT
50	24874	2	SETSCREW
51	24873	2	PLASTIC KNOB
52	28956	1	ADJUSTMENT SCREW
53	676	1	ADJUSTMENT NUT
55	29070	1	CLAMP ARM L.H.
56	28867	1	GROMMET
57	29123	1	TORX SCREWDRIVER
58	24818	2	OIL TUBE
59	00055	4	O-RING 2-012 R17 •
60	29127	1	DOWEL PIN
61	08928	2	BACK-UP RING 9/16 X 3/32 •
62	29134	1	HYDRAULIC MOTOR
63	19095	2	O-RING 2-114 R17 •
64	00253	1	O-RING 2-038 R16 •
65	22521	1	QUICK DISCONNECT NIPPLE
66	24571	1	VALVE BLOCK
67	20145	2	STEEL BALL
68	01411	1	O-RING 3-906 R17 •
69	24289	1	PLUG
70	04119	1	PIPE PLUG
71	24058	1	FEMALE COUPLER BODY
72	24300	1	SET SCREW
73	24876	1	SPRING
74	20761	2	BEARING RACE
75	07890	1	ROLL PIN
76	25763	1	GROMMET
77	24305	12	SPRING WASHER
78	01362	4	O-RING 2-011 R16 •
79	24231	3	GROMMET
80	24877	1	ROTOR ASSY.
81	24233	1	SHAFT
82	20762	1	BEARING
83	17924	1	O-RING 2-012 R24 •
84	02177	1	O-RING 2-137 R17 •
85	24313	1	HOUSING ASSY
86	26297	4	CAPSCREW
87	17527	1	VALVE CAP
88	24291	1	ROD
89	02633	1	KNOB
90	24059	1	MALE COUPLER BODY
91	00936	2	ADAPTER
92	12233	1	LEE PLUG (NOT SERVICEABLE)
93	00698	2	HELICOIL
94	22748	1	HOSE CLAMP 9/16
95	24784	1	QUICK DISCONNECT COUPLER
96	29071	1	CLAMP ARM R.H.
97	00961	1	PIPE PLUG
98	28322	1	CE STICKER
99	31049	1	EYE PROTECTION STICKER
100	28788	1	MANUAL
101	11207	1	CIRCUIT "D" STICKER

SEAL KIT P/N 32031

Includes Motor Seal Kit p/n 28658

• Denotes part in seal kit

NOTE: Use Part Number and Part Name when ordering.

TROUBLESHOOTING

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

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

PROBLEM	CAUSE	REMEDY
Drill does not run.	Hydraulic power source not functioning.	Check power source for proper flow and pressure (8 to 10 gpm/30 to 38 lpm, 2000 psi/140 bar.)
	Couplers or hoses blocked.	Locate and remove restriction.
	Hydraulic motor failure.	Inspect and repair.
	Hydraulic lines not connected.	Connect lines.
Drill bit dulls quickly.	Incorrect oil flow.	Check that 8 to 10 gpm/30 to 38 lpm at 2000 psi/140 bar is available at the rail drill.
		Increased wear rates will be encountered when drilling hard rail.
	Using insufficient amount of coolant.	Rotate or replace insert. Increase flow of coolant. Make sure pressure tank is fully pumped up. Check for plugged water port in drill bit. Check for a clogged inlet filter. Remove pipe plug in end cap and flush with water. Remove end cap and clean filter.
Drill moves on Rail during drilling operation	Not clamped properly	See clamping instructions
	Wrong templates	Use correct templates and verify fit to rail
	Template knob(s) not tight	Tighten knobs securely
	Incorrect template	Use correct template and verify fit
Drill vibrates during drilling	Inserts dull or damaged	Rotate or replace inserts
	Template knob(s) loose	Tighten knobs securely
	Not clamped properly	See clamping instructions
Inserts chipped	Some chipping is normal, particularly on the inside insert	Rotate or replace if poor hole finish is noted
	Incorrect template	Use correct template and verify fit
	Using insufficient amount of coolant.	Rotate or replace insert. Increase flow of coolant. Make sure pressure tank is fully pumped up. Check for plugged water port in drill bit. Check for a clogged inlet filter. Remove pipe plug in end cap and flush with water. Remove end cap and clean filter.
	Not clamped properly	See clamping instructions
	Template knob(s) loose	Tighten knobs securely
	Handling damage	Make sure drill bit is retracted when installing the drill on the rail. Avoid insert contact with hard objects.
Insert screw difficult to remove	Not assembled with lubricant	Install screw with antisieze lubricant on the threads

SPECIFICATIONS

Bit Capacity ..... up to 1-7/16 in. diameter/36 mm diameter
Bit Type ..... Carbide Inserts (2) on Insert Holder
Pressure ..... 2000 psi/140 bar
Flow Range ..... 8 - 10 gpm/30 - 38 lpm
Porting ..... -8 SAE O-ring
Connect Size and Type ..... 3/8 in. Flush Face Couplers

Weight (with couplers) (w/o templates & bit) ..... 59 lb/26.75 kg
Length (handle extended to maximum) ..... 33 inches/84 cm
Width ..... 8.5 inches/21.6 cm
Height (w/o templates) (maximum) ..... 21 inches/53.35 cm

EHTMA Category ..... "D" (30 lpm @ 138 bar)

Noise Level ..... Less than 70dBA at operator's position
Vibration Level ..... N/A

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

ACCESSORIES

RAIL TEMPLATES & HOLE GUIDES

See "TEMPLATES & HOLE GUIDES" under the "OPERATION" section of this manual.

31969 Ten Piece Carbide insert Kit (includes the following)
Carbide Insert Package (10 inserts per package)
Flat Head Capscrew (Torx 5.40 x 1/4)

DRILL BITS

29471 1" - Drill Bit
29470 1-1/16" Drill Bit
29469 1-1/8 in. Drill Bit
29468 1-3/16 in. Drill Bit
29467 1-1/4 in. Drill Bit
29461 1-5/16 in. Drill Bit
29465 1-3/8 in. Drill Bit
29466 1-7/16 in. Drill Bit

29475 23mm Drill Bit
30563 24mm Drill Bit
31674 25mm Drill Bit
31619 26mm Drill Bit
31622 27mm Drill Bit
29474 28mm Drill Bit
31623 29mm Drill Bit
29473 30mm Drill Bit
31693 30.5mm Drill Bit
31675 31mm Drill Bit
31624 32mm Drill Bit
29472 33mm Drill Bit
31647 36mm Drill Bit

SERVICE TOOLS

31879 Piston Seal Installation Kit
28868 Piston Wrench

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 cutting inserts 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.

SALES & SERVICE DIRECTORY

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