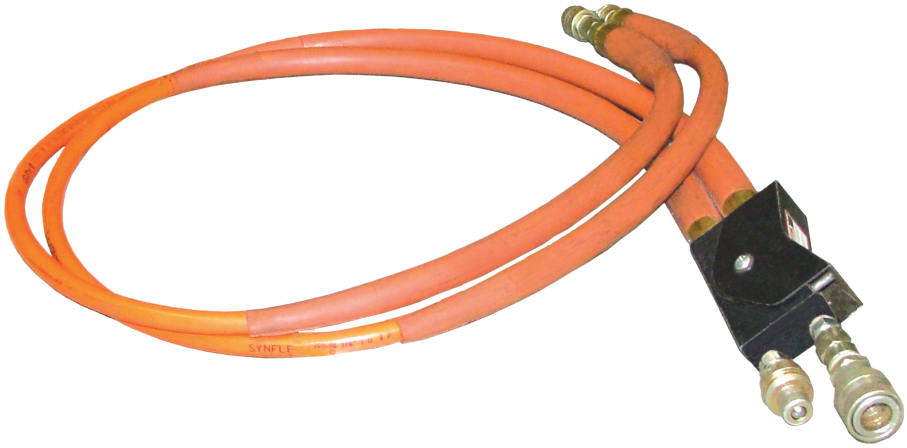
STANLEY®

RV06
HYDRAULIC
ROCKER VALVE



USER MANUAL
Safety, Operation and Maintenance

New Britain, CT 06053
U.S.A.
24056 9/2014 Ver. 3

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IMPORTANT

To fill out a Product Warranty Validation form, and for information on your warranty, visit Stanleyhydraulics.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 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.

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, could result in death or serious 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 or on the tool and hose(s).

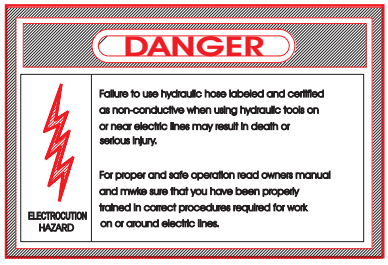
These safety precautions are for your safety. Review them carefully before operating the tool or performing any maintenance or repairs.

Supervising personnel may specify additional precautions for your work area to comply with company policies and local safety regulations. Enter any added precautions in the space provided in this manual.

The RV06 Rocker Valve will provide safe, dependable service if operated in accordance with the instructions given in this manual. Read and understand the manual any decals, labels, or tags attached to the tool and hose(s). Failure to do so can cause serious personal injury or damage to the equipment.

- 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 of the tool.
- Do not operate the tool unless thoroughly trained or under the supervision of the instructor.
- Always wear personal protection equipment (PPE) such as goggles, safety shoes, head, eye, breathing, and ear protection when operating the tool. Use gloves and aprons when necessary.
- All fittings, connectors, quick couplers, and hoses used in the high pressure circuit must be capable of 10,000 psi/690 bar operation.
- All fittings, connectors, quick couplers, and hoses must be leak-tight and free of cracks, dents and other damage.
- Do not operate the tool if it is damaged, improperly adjusted, or incompletely assembled.
- Use only hydraulic hoses labeled and certified non-conductive when using the rocker valve/intensifier on or near electric lines.
- Do not use tightly coiled or twisted hoses.
- Hoses should not be kinked, cut, swollen or heavily abraded at any point along their entire length.
- Damaged fittings, connectors, quick couplers, and hoses may fail at or below their rated working pressure, resulting in serious injury or death.
- Do not attempt to locate hydraulic leaks by feeling around hoses and fittings with bare hands OR gloved hands. Pin-hole leaks can penetrate the skin (oil injection). To inspect for leaks, de-pressurize the system (rocker valve, intensified, and power source), clean around the suspected area, pressurize the system and visually inspect for leaks. If possible, the above procedure should be performed behind some type of shield (Lexan®).
- Do not operate the tool at fluid 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.
- To avoid personal injury or equipment damage, all tool maintenance, repair, and service must be performed by properly trained personnel.

TOOL STICKERS & TAGS



12412
Electrical Warning Sticker

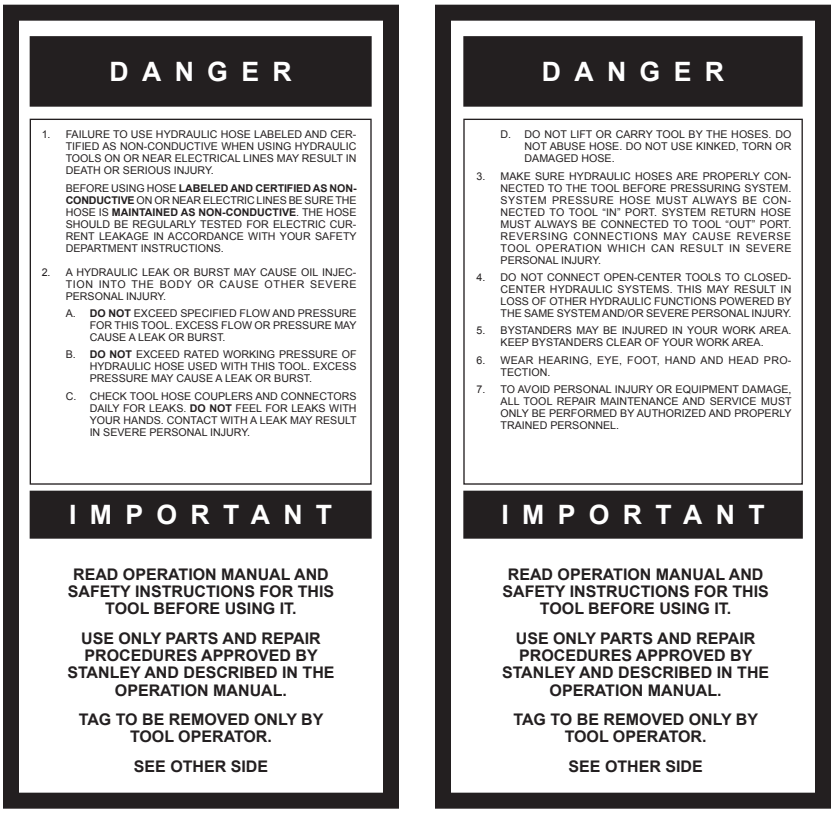
05153
Stanley Sticker

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.



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

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 non-conductive** 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.*

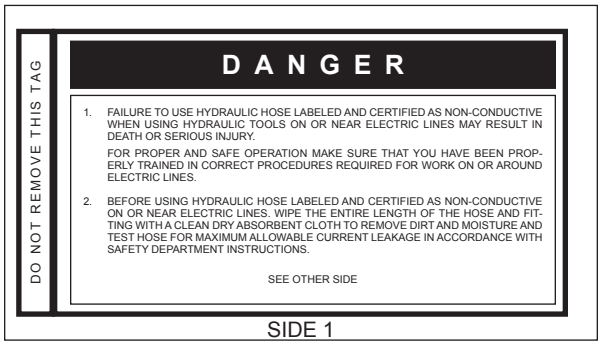
Fabric-braided (not certified or labeled non-conductive) — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *This hose is **not certified non-conductive** and must never be used near electrical conductors.*

HOSE SAFETY TAGS

To help ensure your safety, the following DANGER tags are attached to all hose purchased from Stanley 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



SIDE 1

SIDE 2

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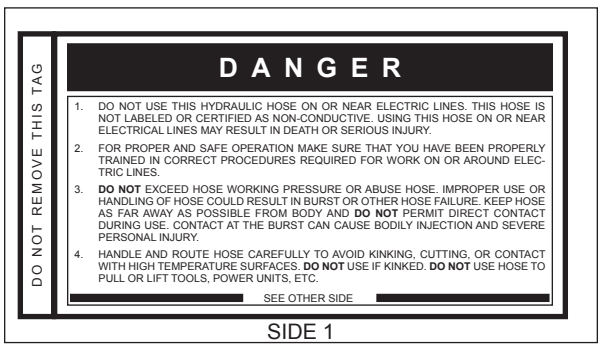
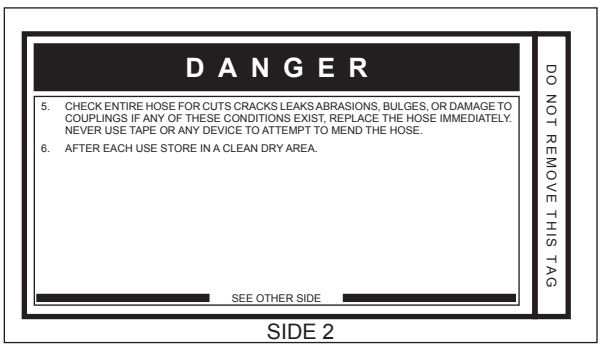
THE TAG SHOWN BELOW IS ATTACHED TO "CONDUCTIVE" HOSE.



SIDE 1



SIDE 2

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Tool to Hydraulic Circuit Hose Recommendations

The chart to the right shows recommended minimum hose diameters for various hose lengths based on gallons per minute (gpm)/ liters per minute (lpm). These recommendations are intended to keep return line pressure (back pressure) to a minimum acceptable level to ensure maximum tool performance.

This chart is intended to be used for hydraulic tool applications only based on Stanley Hydraulic Tools tool operating requirements and should not be used for any other applications.

All hydraulic hose must have at least a rated minimum working pressure equal to the maximum hydraulic system relief valve setting.

All hydraulic hose must meet or exceed specifications as set forth by SAE J517.

Oil Flow		Hose Lengths		Inside Diameter		USE (Press/Return)	Min. Working Pressure	
GPM	LPM	FEET	METERS	INCH	MM		PSI	BAR
Certified Non-Conductive Hose - Fiber Braid - for Utility Bucket Trucks								
4-9	15-34	up to 10	up to 3	3/8	10	Both	2250	155
Conductive Hose - Wire Braid or Fiber Braid -DO NOT USE NEAR ELECTRICAL CONDUCTORS								
4-6	15-23	up to 25	up to 7.5	3/8	10	Both	2500	175
4-6	15-23	26-100	7.5-30	1/2	13	Both	2500	175
5-10.5	19-40	up to 50	up to 15	1/2	13	Both	2500	175
5-10.5	19-40	51-100	15-30	5/8	16	Both	2500	175
5-10.5	19-40	100-300	30-90	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
10-13	38-49	up to 50	up to 15	5/8	16	Both	2500	175
10-13	38-49	51-100	15-30	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
10-13	38-49	100-200	30-60	3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175
13-16	49-60	up to 25	up to 8	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
13-16	49-60	26-100	8-30	3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175

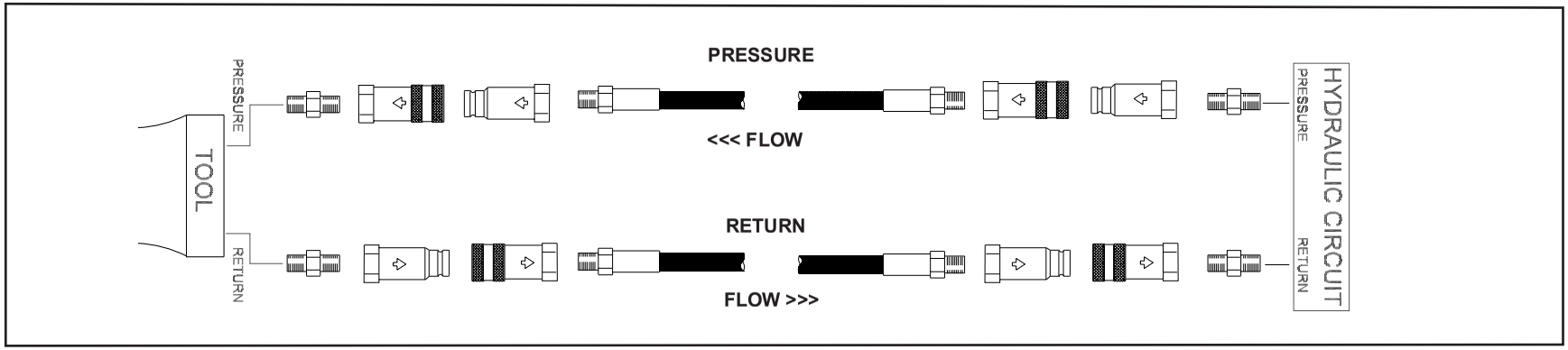


Figure 1. Typical Hose Connections

HTMA / EHTMA REQUIREMENTS

HTMA HYDRAULIC SYSTEM REQUIREMENTS	TOOL TYPE TYPE I	TYPE II	TYPE RR	TYPE III
Flow Range	4-6 gpm (15-23 lpm)	7-9 gpm (26-34 lpm)	9-10.5 gpm (34-40 lpm)	11-13 gpm (42-49 lpm)
Nominal Operating Pressure (at the power supply outlet)	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)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2200-2300 psi (152-159 bar)	2100-2250 psi (145-155 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)	6 hp (5.22 kW) 40° F (22° C)	7 hp (4.47 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				

EHTMA HYDRAULIC SYSTEM REQUIREMENTS	CLASSIFICATION B (15Lpm at 138bar EHTMA CATEGORY)	C (20Lpm at 138bar EHTMA CATEGORY)	D (30Lpm at 138bar EHTMA CATEGORY)	E (40Lpm at 138bar EHTMA CATEGORY)	F (50Lpm at 138bar 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

PREOPERATION PROCEDURES

CONNECT HOSES

1. If the RV06 is to be used on or near electrical lines, both of the hoses used to connect the RV06 to the intensifier must be labeled and certified non-conductive (see Hose Recommendations). Both pressure and return hoses must be rated for a minimum working pressure of 10,000 psi/690 bar.
2. Make certain that all fittings, connectors, and quick couplers used to make connections with the RV06 and the intensifier are rated for 10,000 psi/690 bar.
3. It is a good practice to connect return hoses first and disconnect them last to minimize or avoid trapped pressure within the tool or hoses.
4. Wipe all hoses and couplers with a clean, lint-free cloth before making connections.
5. Connect the hoses on the RV06 to the high-pressure outlet and return port of the intensifier.
6. Observe the marking on the end of the RV06 and the intensifier: **P** is the pressure inlet port of the RV06 and should be connected to the **P** (pressure outlet) port of the intensifier. The **T** (tank or return) port of the RV06 should be connected to the **T** port of the intensifier.
7. Tighten all connections securely.

CONNECTING A TOOL TO THE RV06

The RV06 can be used to control the actuation of both single and double-acting compression and crimping tools, cutters, high-pressure lifting devices and rebar benders. Tool connection to the RV06 can be accomplished in three ways:

1. A combination of high-pressure (10,000 psi/690 bar) hose and couplers.
2. High-pressure (10,000 psi/690 bar) couplings only.

NOTE:

In order to use couplings only, it is necessary that the spacing of the pressure and return ports of a double-acting tool align exactly with the pressure and return ports of the RV06.

3. High-pressure (10,000 psi/690 bar) hose only.

The RV06 is ported at both ends with a 1/4 in. female NPT ports. When using Teflon® tape as a sealant be careful not to allow the tape to enter the intensifier, RV06, or tools connected to the RV06. Contamination may disable the intensifier, RV06, or the tool.

CONNECTING A DOUBLE-ACTING TOOL

A double-acting tool is any tool using hydraulic power for both the advance and retract modes. Connect the advance port of the tool to the advance port (marked **A**) of the RV06. Connect the retract port of the tool to the retract port (marked **B**) of the RV06.

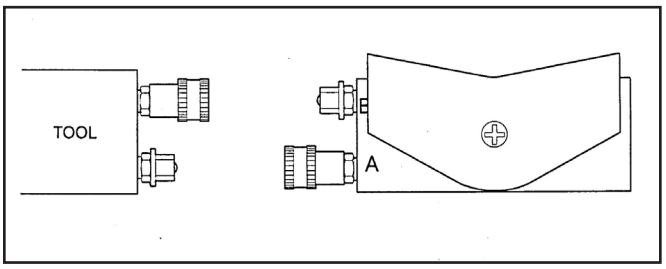


Figure 2. Connecting the RV06 to a Double-Acting Tool

A single-acting tool is any tool using hydraulic power for the advance mode and a spring for the retract modes. Single-acting tools use a single connection to the RV06.

Single-acting tools connect to the RV06 in a way similar to double-acting tools. Only the advance port (marked **A**) of the RV06 is used to connect to the tool. The return port (marked **B**) is plugged with a 1/4 in. male NPT plug.

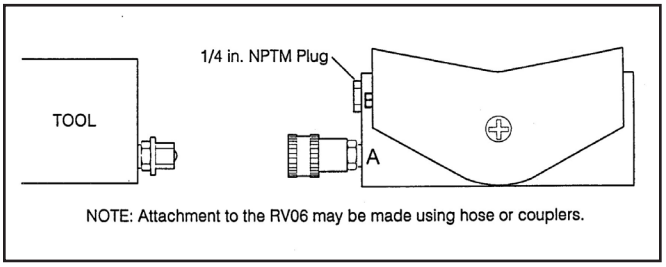


Figure 3. Connecting the RV06 to a Single-Acting Tool

STANLEY

OPERATION

OPERATING PROCEDURES

- Observe all safety precautions given in this manual.
- Refer to the applicable manual for the tool connected to the RV06.
- Activate the parent circuit to provide power to the intensifier. Pressure will now be available at the pressure port of the RV06.
- To advance the ram of the connected tool, press the forward end of the rocker arm.
- When the crimp or cut is complete, release the rocker arm and the RV06 will go to a “neutral” or “hold” position. The tool ram will remain stationary.
- To retract the tool ram, press the rear of the rocker arm. If the RV06 is connected to a double-acting tool, the ram will retract under power. If the tool is single-acting, the ram will retract somewhat more slowly due to its spring return.

COLD WEATHER OPERATION

If the RV06 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 RV06 can result from use with fluid that is too viscous or thick.

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 critical tool markings, such as labels and warning decals, are securely in place and legible. Replace any that are damaged or missing.
- The rated working pressure of the hoses must be equal to (or greater than) the relief-valve setting on the hydraulic system.
- Always store an idle tool in a clean dry space, safe from damage or pilferage.
- Operate the tool within its rated capacity.
- Do not use the tool for applications for which it was not designed.
- Never connect or disconnect couplers or port connections with hydraulic pressure in the hose.
- Make sure the compression tool, cutter or lifting device attached to the rocker valve is capable of operation at 10,000 psi/690 bar.
- If the operating pressure of the compression tool, cutter or lifting device attached to the rocker valve is below 10,000 psi/690 bar, DO NOT USE IT.
- The intensifier used to power the rocker valve can usually be adjusted for lower operating pressures. This work should only be performed by a qualified hydraulic technician.
- Always replace hoses, couplings, and other parts with replacement parts recommended by Stanley Hydraulic Tools. The hydraulic hoses to the rocker valve must have a minimum working pressure of 10,000 psi/690 bar.
- All hoses must have oil resistant inner surface and an abrasion resistant outer covering. Whenever near electrical conductors, only hoses labeled and certified as non-conductive should be used.
- The hydraulic circuit control valve must be in the OFF position when coupling or uncoupling the tool. Wipe all couplers clean before connecting. Use only lint-free cloths. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.

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 control valve, always check that the high-pressure hydraulic power source is supplying the correct hydraulic flow and pressure to the control valve. Use a pressure gauge known to be accurate. Check the flow with the hydraulic fluid temperature at least 80 °F/27 °C.

Problem	Cause	Solution
Not automatically returning to the NEUTRAL position.	Return or tank hose from control valve to the intensifier may be restricted	If hose is kinked, replace it.
		If the hose has some obstruction in it, clear the hose or replace it.
		If hose coupler is obstructed, clean the coupler or replace it.
		Hose size may be too small for application. Replace with larger hose.
	If tool is equipped with an equalizing valve, valve setting is lower than control valve unloading valve setting.	Test and reset tool equalizing valve.
	Dirt of debris causing push rod(s) to bind.	Clean thoroughly.
Tool will not advance.	High-pressure hydraulic system is not providing flow.	Inspect high-pressure hydraulic system for proper operation.
	Control valve reverse plumbed to high-pressure hydraulic system.	Check for proper connection.
	Transfer disc installed 180° out of correct position.	Inspect transfer disc installation and correct it, if necessary.

SPECIFICATIONS

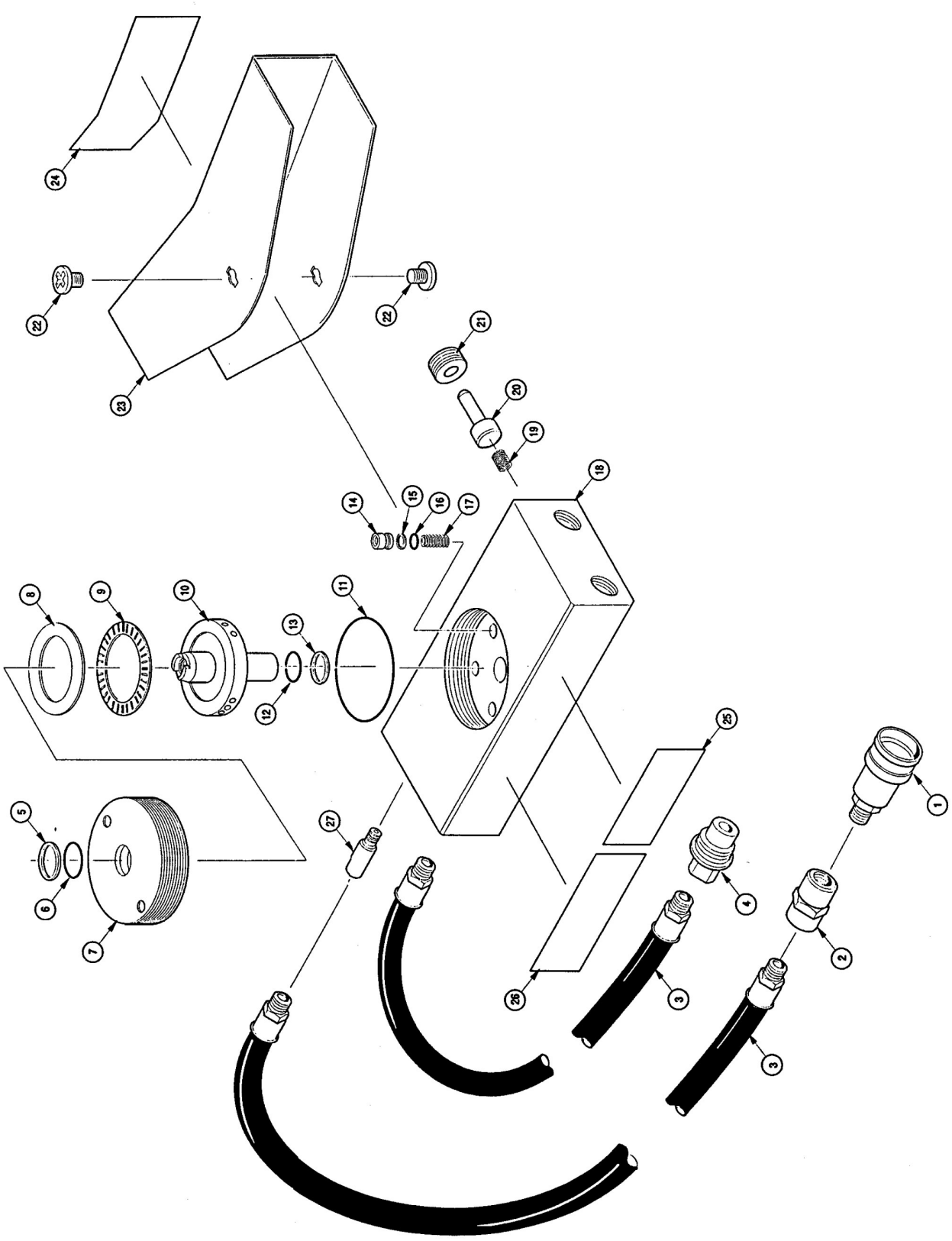
Weight	2.6 lb/1.18 kg
Length	5 1/8 in/130 mm
Width	2 in/51 mm
Pressure	10,000 psi/690 bar
Porting	1/4 in. Female NPT

HYDRAULIC SYSTEM REQUIREMENTS

The RV06 Rocker Valve hydraulic system requirements are determined by the hydraulic pressure rating of the tool being controlled by the RV06. The following general rules apply when choosing a tool to match up with the RV06.

- Whenever possible, Stanley Hydraulic Tools recommends that you use the Stanley IP16 Intensapress intensifier to power the RV06 and tools attached to it.
- Make sure the compression tool, cutter, or lifting device attached to the rocker valve is capable of operation at 10,000 psi/690 bar.
- If the operating pressure of the compression tool, cutter, or lifting device attached to the rocker valve is **below** 10,000 psi/690 bar, DO NOT USE IT with an intensifier or hydraulic supply adjusted to deliver 10,000 psi/690 bar.
- The intensifier used to power the rocker valve can usually be adjusted for lower operating pressures. This work should only be performed by a qualified hydraulic technician.
- If the intensifier pressure cannot be lowered to match the tool you are using, you must either use a tool rated at the available operating pressure or utilize an intensifier with the correct output pressure.
- If you are in doubt about the tool or intensifier you intend to use with the RV06, please contact Stanley Hydraulic Tools for assistance.

RV06 PARTS ILLUSTRATION



RV06 PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
1	05338	1	BODY
2	12838	1	PIPE COUPLING 1/4 NPT
3	23128	2	HOSE ASSY
4	05337	1	NIPPLE
5	15399	1	BACK-UP RING
6	00018	1	O-RING 7/16 × 9/16 × 1/16 •
7	12227	1	MANIFOLD CAP
8	08019	1	BEARING RACE
9	08020	1	NEEDLE BEARING
10	18092	1	TRANSFER DISC
11	12254	1	O-RING 1-3/4 × 1-7/8 × 1/16 •
12	12253	1	O-RING 3/8 × 1/2 × 1/16 •
13	15398	1	BACK-UP RING
14	12224	3	MANIFOLD GROMMET
15	12280	3	BACK-UP RING
16	12252	3	O-RING 1/8 × 1/4 × 1/16 •
17	12255	3	SPRING
18	20239	1	MANIFOLD
19	12251	2	SPRING
20	21027	2	PUSH ROD
21	12221	2	ADJUSTING NUT
22	19592	2	PHILLIPS HD SCREW 1/4-20 × 1/4
23	20294	1	ROCKER ARM
24	12412	1	ELECTRICAL DANGER STICKER
25	05183	1	STANLEY STICKER
26	12891	1	DANGER STICKER
27	12241	1	UNLOADING VALVE ASSY

• Denotes part in Seal Kit P/N 14787

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