

STANLEY®

GR30 HYDRAULIC GRINDER



USER MANUAL Safety, Operation and Maintenance



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New Britain, CT 06053
U.S.A.
49237 2/2015 Ver. 5

DECLARATION OF CONFORMITY

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ÜBEREINSTIMMUNGS-ERKLÄRUNG
DECLARATION DE CONFORMITE CEE
DECLARACION DE CONFORMIDAD
DICHIARAZIONE DI CONFORMITA

STANLEY.
Hydraulic Tools



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

Weisbeck, Andy

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

hereby declare that the equipment specified hereunder:
bestätige hiermit, daß erklaren Produkt genannten Werk oder Gerät:
déclare que l'équipement visé ci-dessous:
Por la presente declaro que el equipo se especifica a continuación:
Dichiaro che le apparecchiature specificate di seguito:

- Category: **Grinder, Hydraulic**
Kategorie:
Catégorie:
Categoria:
Categoria:
- Make/Marke/Marque/Marca/Marca **Stanley**
- Type/Typ/Type/Tipo/Tipo: **GR3070101**
- Serial number of equipment:
Seriennummer des Geräts:
Numéro de série de l'équipement:
Numero de serie del equipo:
Matricola dell'attrezzatura:
All

Has been manufactured in conformity with
Wurde hergestellt in Übereinstimmung mit
Est fabriqué conformément
Ha sido fabricado de acuerdo con
E' stata costruita in conformità con

Directive/Standards Richtlinie/Standards Directives/Normes Directriz/Los Normas Direttiva/Norme	No. Nr Numéro No n.	Approved body Prüfung durch Organisme agréé Aprobado Collaudato
EN ISO ISO ISO Machinery Directive	3744:2010 11148-7:2012 28927-4:2010 2006/42/EC:2006	Self Self Self Self

- Special Provisions: **None**
Spezielle Bestimmungen:
Dispositions particulières:
Provisiones especiales:
Disposizioni speciali:
- Representative in the Union: **Patrick Vervier, Stanley Dubuis 17-19, rue Jules Berthonneau-BP 3406 41034 Blois Cedex, France.**
Vertreter in der Union/Représentant dans l'union/Representante en la Union/Rappresentante presso l'Unione

Done at/Ort/Fait à/Dado en/Fatto a Stanley Hydraulic Tools, Milwaukie, Oregon USA Date/Datum/le/Fecha/Data 1-10-11

Signature/Unterschrift/Signature/Firma/Firma

Position/Position/Fonction/Cargo/Posizione Director of Product Development

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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 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 GR30 Hydraulic Grinder 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 this tool without first reading this manual.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, gloves, safety shoes, ear, breathing and head protection 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. Operation at higher temperatures can cause higher than normal temperatures at the tool which can result in operator discomfort and may cause damage to the tool.
- Do not operate a damaged, improperly adjusted, or incompletely assembled tool.
- 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 Hydraulic Tools.
- Check fastener tightness often and before each use daily.
- Do not tighten or loosen the wheel nut by impact. Hold the shaft with a second wrench on the flats behind the wheel and tighten securely.
- Do not overreach. Maintain proper footing and balance at all times.
- Always hold the tool with both hands when the unit is running. Use a firm grip.
- Keep all parts of your body away from the rotating wheel.
- Do not wear loose clothing or unbound long hair when operating the tool. Loose items can get entangled with the tool and cause serious injury.
- Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar.
- The hydraulic circuit control valve must be in the "OFF" position when coupling or uncoupling the tool. Wipe all couplers clear before connecting. Failure to do so may result in damage to the quick couplers and cause overheating. Use only lint-free cloths.
- 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.
- **Warning:** Use of this tool on certain materials during demolition could generate dust potentially containing a variety of hazardous substances such as asbestos, silica or lead. Inhalation of dust containing these or other hazardous substances could result in serious injury, cancer or death. 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.

SAFETY PRECAUTIONS

- Warning: Hydraulic fluid under pressure could cause skin injection injury. If you are injured by hydraulic fluid, get medical attention immediately.
- Keep the wheel off all surfaces when starting the grinder.
- Always carry the tool with the wheel stopped.
- Make sure the wheel has stopped before setting down the tool.
- Keep the handles clean and free of fluid at all times.
- Always inspect wheels for possible damage before installation.
- Never transport or store the tool with the wheel mounted on the grinder.
- Never cock, jam or wedge the wheel during operation.
- Never cause sparks in the vicinity of flammable materials.
- Do not operate the tool with the wheel guard removed.
- Do not start grinding until you have a clear work area and secure footing.
- Do not allow other persons near the tool when starting or cutting.
- Never operate the tool when you are tired or fatigued.
- Do not use a wheel that is cracked or otherwise damaged.
- Always use wheels that conform to the specifications given in the Operation section of this manual.
- Do not reverse wheel rotation direction by changing fluid flow direction.
- Always support and secure items being worked on.
- Caution when handling the work piece after grinding, object can be hot and have sharp edges, use your personal protection equipment.
- Keep your work area clean and clear of tripping hazards, oily surfaces and hoses laying about can be hazardous.
- Make sure adequate lighting is always available.
- 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 operate this tool in a potentially explosive environment. Do not grind on vessels containing combustible substances.
- Any use of this tool outside those stated in this manual are forbidden.

TOOL STICKERS & TAGS

WHEEL SIZE:

RPM: SPINDLE:

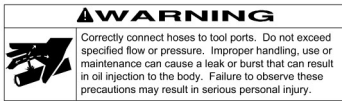
● PRESS: BAR: PSI: ●

FLOW: LPM: GPM:

28811
Information Plaque



28322
CE Decal



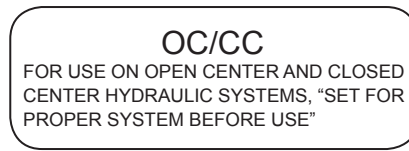
58862
Warning Pressure



58863
Warning Grinding Wheel



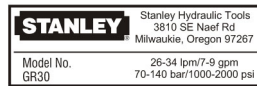
28409
Composite Decal



11354
OC/CC Sticker



11207
Circuit Type D Decal



60808
GR30 Model Sticker



25610
Railroad Help Desk

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.

D A N G E R

- FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.
BEFORE USING HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRICAL LINES BE SURE THE HOSE IS MAINTAINED AS NON-CONDUCTIVE. THE HOSE SHOULD BE REGULARLY TESTED FOR ELECTRIC CURRENT LEAKAGE IN ACCORDANCE WITH YOUR SAFETY DEPARTMENT INSTRUCTIONS.
- A HYDRAULIC LEAK OR BURST MAY CAUSE OIL INJECTION INTO THE BODY OR CAUSE OTHER SEVERE PERSONAL INJURY.
 - 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 HYDRAULIC HOSE USED WITH THIS TOOL. EXCESS PRESSURE MAY CAUSE A LEAK OR BURST.
 - 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.

I M P O R T A N T

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

D A N G E R

- DO NOT LIFT OR CARRY TOOL BY THE HOSES. DO NOT ABUSE HOSE. DO NOT USE KINKED, TORN OR DAMAGED HOSE.
- 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.
- 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.
- BYSTANDERS MAY BE INJURED IN YOUR WORK AREA. KEEP BYSTANDERS CLEAR OF YOUR WORK AREA.
- WEAR HEARING, EYE, FOOT, HAND AND HEAD PROTECTION.
- TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE, ALL TOOL REPAIR MAINTENANCE AND SERVICE MUST ONLY BE PERFORMED BY AUTHORIZED AND PROPERLY TRAINED PERSONNEL.

I M P O R T A N T

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

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

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE

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

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.*

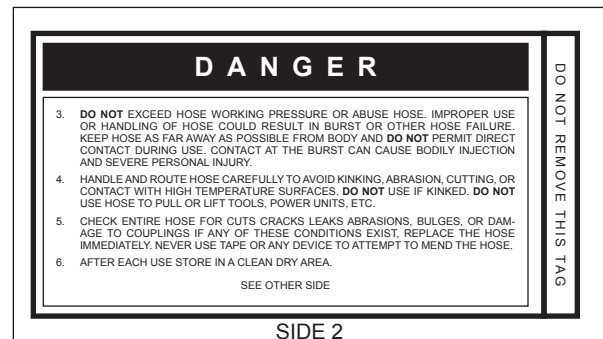
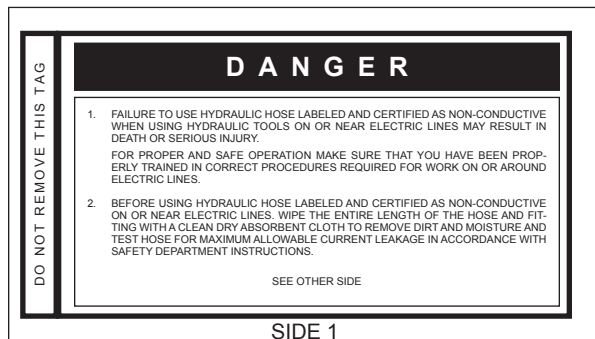
Fabric-braided (not certified or labeled non-conductive) — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *This hose is **not certified non-conductive** and must never be used near electrical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

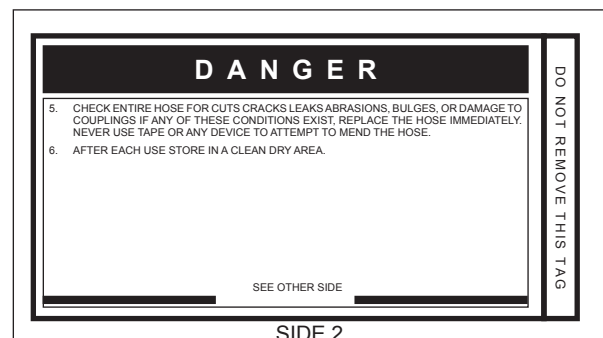
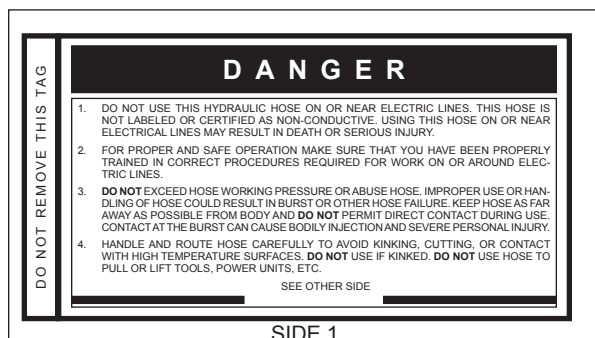
If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained from your Stanley Distributor.

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



(Shown smaller than actual size)

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



(Shown smaller than actual size)

HOSE RECOMMENDATIONS

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
10-13	38-49	up to 50	up to 15	3/4	19	Return	2500	175
10-13	38-49	51-100	15-30	5/8	16	Both	2500	175
10-13	38-49	100-200	30-60	3/4	19	Pressure	2500	175
13-16	49-60	up to 25	up to 8	5/8	16	Return	2500	175
13-16	49-60	26-100	8-30	3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175
				5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
				3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175

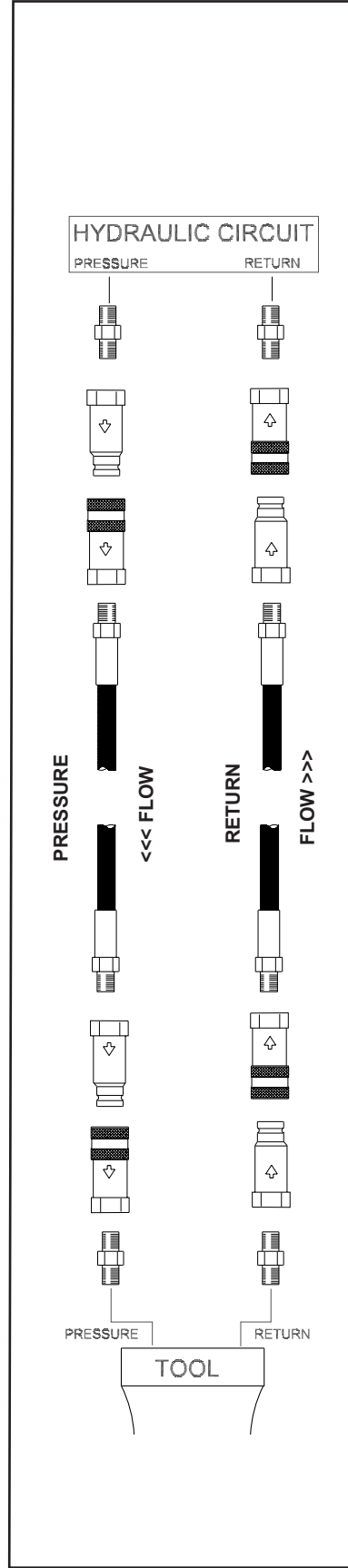


Figure 1. Typical Hose Connections

HTMA / EHTMA REQUIREMENTS

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 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.	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)
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

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

PRE-OPERATION PROCEDURES

The GR30 Hydraulic Grinder Requires minimum setup for operation. When the installation and operation instructions are carefully followed, the tool will provide years of efficient and reliable service.

GRINDING WHEEL REPLACEMENT

Always disconnect the hydraulic power source from the grinder before replacing the grinding wheel.

TOOLS, PARTS, AND MATERIALS

- Open-end or spanner wrenches (two sizes 5/8 in. and 1in.)
- Grinding wheel (refer to the Specifications section)
- Depressed-center wheel adapter, if required (refer to Parts List)

⚠ WARNING

Inspecting the tool or installing parts with the hydraulic hoses connected can result in severe personal injury or equipment damage.

To prevent accidental start-up, disconnect the hydraulic power before beginning any inspection or installation task.

1. If the hydraulic hoses are connected to the tool:
 - a. Turn the hydraulic system control valve OFF.
 - b. Disconnect first the hydraulic input (supply) hose, then the output (return) hose.
2. Remove the old grinding wheel, if any:
 - a. Place a 5/8 in. open-end wrench on the flats of the output shaft.
 - b. Remove the jam nut from the output shaft.
 - c. Unscrew the old grinding wheel.
3. Clean the surfaces of the tool to remove any dirt or grease.

IMPORTANT

Never use a chipped, damaged, or worn grinding wheel.

4. Check the grinding wheel:
 - a. Make sure the correct wheel is selected for the job. The wheel must conform to the specifications listed in this manual.
 - b. Make sure the wheel is free of dirt and other foreign particles, especially the surfaces that contact the tool and jam nut.
 - c. Check the wheel for damage or wear.
5. If the wheel does not include an integral thread, use a depressed-center wheel adapter in the hole on the wheel.

IMPORTANT

Never over-tighten the grinding wheel jam nut by impacting either wrench with a mallet or hammer. Sufficient torque is attained by hand tightening the nut with two open-end wrenches.

6. Install the grinding wheel:
 - a. Thread the grinding wheel or adapter on the shaft and tighten using appropriate wrenches.
 - b. Screw the jam nut on the output shaft.
 - c. Tighten the nut securely using two open-end wrenches. Place one wrench on the flats of the output shaft and the other on the jam nut.

HYDRAULIC HOSE CONNECTION

Proper installation of the hydraulic hoses is extremely important for safe, reliable operation of the tool. Make sure the hoses are securely attached to the tool before turning on the hydraulic power.

NOTE:

If possible, connect the free ends of the hoses together when not in use. The pressure increase in uncoupled hoses left in the sun may make them difficult to connect.

⚠ WARNING

Connecting hydraulic hoses to the tool while the hydraulic power source is ON can cause personal injury or damage to the equipment.

Make sure the hydraulic power source is OFF before connecting or disconnecting the hydraulic hoses.

OPERATION

1. Make sure the hydraulic system control valve is in the OFF position when coupling or uncoupling the hoses. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.
2. Before installing the hoses, wipe the fittings with a clean, dry lint-free cloth to remove any dirt or moisture. Dirty connections can contaminate the hydraulic fluid, causing rapid wear and early failure of internal parts.

⚠ WARNING

Reversing the direction of hydraulic flow to the tool can cause severe personal injury or damage to the equipment.

Make sure the input and output hoses are connected to the correct port on the tool.

3. If hose couplers are used, check the flow indicators (arrows) stamped on the couplers to ensure oil flows in the proper direction. The female coupler on the tool is the inlet coupler.
4. It is a good practice to connect the output (return) hose first and disconnect it last to minimize or avoid trapped pressure within the tool.
 - a. Connect the output hose to the **OUT** port on the tool.
 - b. Connect the input hose to the **IN** port.
 - c. Be sure all hose connections are tight.

TEST

Test the grinder to verify the hoses are connected correctly.

1. Move the hydraulic system control valve to ON.
2. Squeeze the grinder trigger momentarily. If the tool operates properly, move the hydraulic system control valve to OFF.

OPERATION

PRE-OPERATION CHECKOUT

Careful inspection of the tool and hydraulic system before startup is important for safe, reliable operation of the tool.

DAILY INSPECTION

The following items should be checked daily at the start and the end of each work shift.

⚠ WARNING

Maintaining or repairing the tool with the hydraulic system before startup is important for safe, reliable operation of the tool.

To prevent accidental startup while maintaining or servicing the tool, disconnect the hydraulic power before beginning task.

Make sure the hydraulic system control valve is in the OFF position and the hoses are disconnected before inspecting the grinder.

1. Inspect the grinding wheel and guard:
 - a. Make sure the correct grinding wheel is installed for the job. If not, follow the instructions for the Grinding Wheel Replacement. Refer to the Specifications Section for the grinding wheel requirements.
 - b. Inspect the wheel for chips, cracks, or other damage. For maximum tool performance, replace the wheel if it is worn or defective.
 - c. Inspect the wheel guard for cracks or other structural damage and replace if necessary.
 - d. If necessary, adjust the position of the wheel guard by loosening the clamp.
 - e. Check the capscrew(s) on the wheel guard for tightness.
2. Inspect the cross handle:
 - a. Make sure the cross handle is screwed tightly into the main body housing.
 - b. Clean any oil from the cross handle to ensure a firm grip.
3. Check the trigger mechanism:
 - a. Make sure the trigger operates smoothly and is free to travel between the **ON** and **OFF** positions.
 - b. Make sure the grinder stops when the trigger is released.
4. The tool should be clean, with all fittings and fasteners tight.

OPERATION

5. Check the tool for oil leaks. If leaks are observed, do not use the tool; have the equipment serviced before use.

IMPORTANT

Check the speed of the motor output shaft after every 100 hours of operation.

HYDRAULIC POWER SOURCE CHECK

1. Connect the hydraulic hoses in accordance with the instructions for Hydraulic Hose Connection. Wipe all hose couplers with a clean, lint-free cloth before making connections. Dirty couplers can contaminate the hydraulic circuit and prevent a good seal at the connection.
2. Using a calibrated flowmeter and pressure gauge, check the hydraulic power source at the tool's input port. Make sure the system provides the following flow requirements:
 - a. Operating flow of 7–9 gpm / 26–34 lpm
 - b. At 2000 psi/140 bar pressureThe hydraulic fluid temperature should be at least 80 °F/27 °C for this test. Refer to the Hydraulic System Requirements section for more information.
3. Make sure the hydraulic power source has a relief valve set at a minimum of 2100 psi/145 bar.
4. Check the tool and hydraulic system for proper operation and performance. If the equipment does not appear to operate properly, have it serviced before use.

COLD WEATHER OPERATION

IMPORTANT

Use an oil with the recommended specifications listed. Using oil that is too viscous (thick) can damage the hydraulic system or tool.

Before using the tool in cold weather, preheat the hydraulic fluid by operating the power unit at a low speed. The oil should be at or above 50 °F/10 °C with a viscosity of 400 SSU/82 cs before operating the tool.

OPEN CENTER/ CLOSED CENTER SETUP (OC/CC)

This tool can be configured to run on both open center and closed center systems. Set for proper system before use.

1. Determine system type.
2. Remove hex plug (78) from spring cap using a 3/16 in. hex.

CLOSED CENTER: Using a 3/16 in. Hex, reach through the hole in the spring cap and turn the selector screw fully clockwise. When the selector screw bottoms, closed center operation is selected.

OPEN CENTER: Using a 3/16 in. Hex, reach through the hole in the spring cap and turn the selector screw counter-clockwise until meeting resistance (from the retaining ring). Turn the selector clockwise and then counter-clockwise to be sure the selector is being stopped by the retaining ring. Do not force the selector screw. Open center Operation is now selected.

3. Reinstall hex plug. Failure to install plug may introduce contaminants to the spool bore resulting in replacement of the valve spool and main housing.

CAUTION

To prevent damage to the retaining ring, do not attempt to force the selector screw counter-clockwise beyond the point of initial resistance.

TOOL OPERATION

WARNING

Improper operation of this tool can cause severe personal injury, death, or equipment damage.

Read the safety guidelines and instructions in this manual before operating the tool.

Observe all safety precautions when operating the tool. Read the Safety and the HTMA Requirements sections before operating the tool for the first time. Failure to do so can result in severe eye injury or injury to other parts of the body.

OPERATION

STARTUP

At the beginning of each shift, or after a new wheel is installed, run the grinder at operating speed for at least one minute before starting work.

- Move the hydraulic system control valve to the **ON** position.
- Slowly squeeze the trigger.
- Run the grinder at least one minute.
- Release the trigger.

If excessive vibration or any other defect is detected, stop the tool immediately and determine the cause. Do not use the tool until the problem is corrected.

GENERAL PROCEDURE

1. Grip the tool with both hands at all times during start-up and operation.
2. Always start the grinder with the wheel away from the work surface.
3. Make sure you have full balance before starting the grinder's plane of rotation.

SHUTDOWN

1. Move the hydraulic system control valve to the **OFF** position.
2. Disconnect the hydraulic hoses from the tool: first the input (supply) hose, then the output (return) hose.
3. Place dust plugs on the couplers, as applicable.
4. Wipe the tool thoroughly with a clean dry cloth.
5. Clean any foreign matter from the grinding wheel surfaces.

CARE AND STORAGE

Clean and inspect the wheel and tool before storing.

GRINDING WHEELS

All grinding wheels are breakable. Exercise care in handling and storage to prevent damage.

1. Clean used wheels to remove any dirt, debris, or grease.
2. Inspect the wheel for chips, cracks, or other damage. For maximum tool performance, replace the wheel if it is worn or defective.

TOOL

1. Clean the tool to remove any dirt, debris, or grease. Dry with compressed air or clean dry cloths.
2. Replace any damaged or missing safety labels and tags before storing the tool. Otherwise, the tool might be improperly used by someone who is not familiar with the safety requirements.
3. Store the tool in a clean, dry, safe place.

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 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) page in this manual for correct flow rate and model number. Rapid failure of the internal seals may result.
- Always keep critical tool markings, such as warning stickers and tags legible.
- Tool repair should be performed by experienced personnel only.
- Make certain that the recommended relief valves are installed in the pressure side of the system.
- Do not use the tool for applications for which it was not intended.

TROUBLESHOOTING

This section describes how to find and resolve problems users may experience. If a situation occurs that is not covered, call your Stanley Customer Service representative for assistance.

⚠ WARNING

Inspecting the tool or installing parts with the hydraulic hoses connected can result in severe personal injury or equipment damage.

To prevent accidental startup, disconnect the hydraulic power before beginning any inspection or installation task.

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 check that the hydraulic power source is supplying the correct hydraulic flow and pressure to the tool as listed in the table. Use a flowmeter known to be accurate. Check the flow with the hydraulic oil temperature at least 80° F/27° C.

Symptom	Possible Cause	Solution
Tool does not operate.	Hydraulic control valve OFF.	Turn the hydraulic system control valve ON.
	Hydraulic hoses not connected properly.	Make sure the hoses are connected and the couplers are tight.
	Hydraulic system not functioning.	Check power unit for proper flow and pressure (7–9 gpm/26–34 lpm, 1000–2000 psi/70–140 bar).
	Couplers or hoses blocked.	Remove restriction.
	Mechanical failure.	Disassemble and inspect for damage.
Tool operates in reverse.*	Hoses connected to wrong ports on tool.	Connect input (supply) line to IN port. Connect output (return) to OUT port.
Low performance	Incorrect hydraulic flow.	Check power unit for proper flow and pressure (7–9 gpm/26–34 lpm, 1000–2000 psi/70–140 bar).
	Defective quick disconnects.	Check quick disconnects.
Fluid leak at motor cap face.	Capscrews loose.	Contact an authorized Stanley distributor to seal and tighten to recommended torque value.
	Face O-ring worn or missing.	Replace as required.
	Motor cap or main body assemblies damaged.	Replace as required.
Fluid leaks.	Damaged O-rings	Contact an authorized Stanley distributor.
	Wrong hydraulic fluid. Circuit too hot.	See HTMA Requirements section.
	Hoses connected to wrong ports on tool.	Connect input (supply) line to IN port. Connect output (return) to OUT port.
Trigger difficult to operate.	Hoses connected to wrong ports on tool.	Connect input (supply) line to IN port. Connect output (return) to OUT port.
	Excessive back pressure.	If back pressure is greater than 250 psi /17 bar, correct the return line obstruction or restriction.

TROUBLESHOOTING

Symptom	Possible Cause	Solution
Fluid gets hot, power unit working hard.	Open-center tool on closed-center circuit.	Tool designed for open-center hydraulic system.
	Too much fluid going through tool.	Adjust flow for 9 gpm/34 lpm maximum.
	Circuit generating high heat with flow controls, open relief valve, etc.	Use pump and rpm for producing needed flow only.
	Circuit contaminants caused pump and valve wear, and high heat operation.	Contact your authorized Stanley distributor for pump and valve replacement. Install large clean filter and keep circuit fluid clean.
Grinding wheel comes to abrupt stop after release of trigger.	Porting spool incorrectly installed.	Contact your authorized Stanley distributor.
	Mechanical failure.	Contact your authorized Stanley distributor.

* Grinding wheel should rotate CCW when viewed from the shaft end.

SPECIFICATIONS

Flow Range	7–9 gpm/26–34 lpm
LPM Optimum flow	8 gpm/30 lpm
Pressure	1000–2000 psi/70–140 bar
RPM.....	5800 at 8 gpm/5800 at 30 lpm
HTMA Class I.....	4–6 gpm @2000 psi
EHTMA Category	20 lpm @ 138 bar
HTMA Class II.....	7–9 gpm @ 2000 psi
EHTMA Category	30 lpm @ 138 bar
Porting Size	#8 SAE
Weight (with Wheel Guard)	10 lbs/4.5 kg
Length.....	8 in/20.3 cm
Width	10 in/25.4 cm

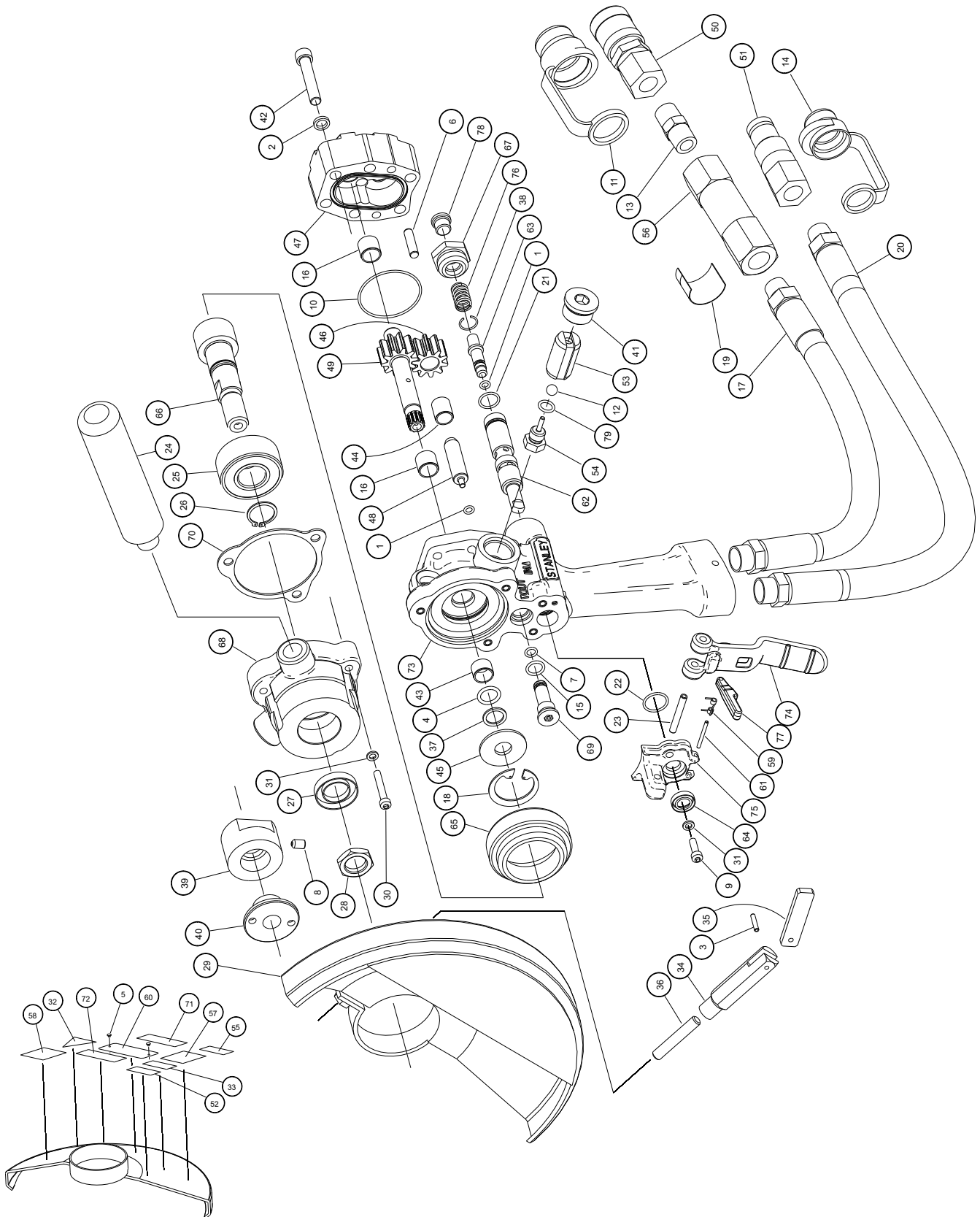
This tool is for land use only. Contact your authorized Stanley distributor for information about the GR29 underwater model.

SOUND POWER AND VIBRATION DECLARATION	
Test conducted on GR3070101, operated at 8 gpm input	
Measured A-weighted sound power level, Lwa (ref. 1pW) in decibels	113 dBA
Uncertainty, Kwa, in decibels	3 dBA
Measured A-weighted sound pressure level, Lpa (ref. 20 µPa) at operator's position, in decibels	105.3 dBA
Uncertainty, Kpa, in decibels	3 dBA
Values determined according to noise test code given in ISO 15744, using the basic standard ISO 3744 NOTE: The sum of a measured noise emission value and its associated uncertainty represents an upper boundary of the range of values which is likely to occur in measurements.	
Declared vibration emission value in accordance with EN 12096	
Measured vibration emission value (Main Handle): a	3.6 m/sec ²
Uncertainty: K	1.2 m/sec ²
Measured vibration emission value (Assist Handle): a	2.6 m/sec ²
Uncertainty: K	1.0 m/sec ²
Values determined according to ISO 7505, ISO 8662-4, ISO 5349-1,2	

ACCESSORIES

DESCRIPTION	PART NUMBER
Grinding Wheel for Metal: 9 in. Diameter × 5/8-11 THD Arbor	02587
Grinding Wheel for Masonry: 9 in. Diameter × 5/8-11 THD Arbor	02588
Grinding Wheel: 7 in. Diameter × 5/8-11 THD Arbor	03691
Depressed Center Wheel Adapter.....	05194

GR30 PARTS ILLUSTRATION



GR30 PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
1	00026	2	O-RING 3/16 × 5/16 × 1/16 -008
2	00231	6	LOCKWASHER 5/16" ID
3	00285	1	ROLL PIN 1/8 OD × .625 LG (GR3070101 ONLY)
4	00354	1	O-RING 1/2 × 11/16 × 3/32 -112
5	00358	2	RIVET 1/8 #42 (GR3070101 ONLY)
6	00713	2	DOWEL PIN
7	00717	1	O-RING 1/4 × 3/8 × 1/16 -010
8	00720	1	SETSCREW 1/4-20 × 3/8 (GR3070101 ONLY)
9	00803	2	HSHCS 10-24 × 5/8
10	01262	1	O-RING 1-3/4 × 1-7/8 × 1/16 -031
11	02324	1	CAP & PLUG 1/2" (GR30701SUP ONLY)
12	02436	1	STEEL BALL 5/16
13	03044	1	HEX NIPPLE 3/8NPT
14	03288	1	CAP & PLUG 3/8" (GR30701SUP ONLY)
15	03364	1	O-RING .441 × .558 × .072 -905
16	05207	2	BUSHING
17	56726	1	HOSE ASSY 12.5"
18	06635	1	RETAINING RING
19	06693	1	FLOW CONTROL LABEL
20	56725	1	HOSE ASSY 18"
21	07626	1	O-RING 1/2 × 5/8 × 1/16 -014
22	07627	1	O-RING 5/8 × 3/4 × 1/16 -016
23	07970	1	SPIROL PIN 3/16 OD × 1-3/8 LDP
24	08130	1	HANDLE
25	08175	1	BEARING
26	08176	1	RETAINING RING
27	08177	1	SHAFT SEAL
28	08319	1	HEX JAM NUT 5/8-11UNC (GR30701, GR30701S, GR30701SUP ONLY)
29	08322	1	WHEEL GUARD (GR30701, GR30701S, GR30701SUP ONLY)
	11937	1	WHEEL GUARD CE (GR3070101 ONLY)
30	09622	3	HSHCS #10-24 × 1-1/4 SST
31	09623	5	LOCKWASHER #10 SST
32	11207	1	CIRCUIT TYPE D STICKER (GR3070101 ONLY)
33	11354	1	OC/CC STICKER
34	12290	1	CLAMP SCREW (GR3070101 ONLY)
35	12291	1	THUMB PLATE (GR3070101 ONLY)
36	12786	1	STUD 5/16-18UNC × 1.750 (GR3070101 ONLY)

ITEM	PART NO.	QTY	DESCRIPTION
37	13995	1	TEFLON BACK-UP RING 1/2 × 3/32
38	16070	1	RETAINING RING
39	16494	1	DRIVE FLANGE (GR3070101 ONLY)
40	16495	1	HUB NUT (GR3070101 ONLY)
41	16607	2	HOLLOW HEX PLUG -10 SAE
42	18206	6	HSHCS 5/16-18UNC × 1-3/4 SST
43	20758	1	BUSHING
44	20760	1	BUSHING
45	20767	1	SEAL BACK-UP WASHER
46	20769	1	IDLER GEAR ASSY (INCL ITEM 44)
47	20770	1	MOTOR CAP ASSY (INCL ITEMS 6, 16)
48	20782	1	IDLER SHAFT
49	20788	1	MAIN SHAFT
50	03972	1	3/8 FLUSHFACE COUPLER BODY 3/8NPT (PART OF 03971)
51	03973	1	3/8 FLUSHFACE COUPLER NOSE 3/8NPT (PART OF 03971)
52	60808	1	GR30 MODEL NO. STICKER
53	24384	1	CHECK VALVE HOUSING
54	24385	1	CHECK VALVE PLUG
55	25610	1	RAILROAD HELP DESK STICKER (GR30701S, GR30701SUP ONLY)
56	26542	1	FLOW CONTROL 8.5 GPM
57	28322	1	STICKER CE 25MM (GR3070101 ONLY)
58	28409	1	COMPOSITE STICKER
59	28808	1	TORSION SPRING
60	28811	1	INFORMATION PLAQUE (GR3070101 ONLY)
61	29051	1	ROLL PIN 3/16 OD × 1.000 LG
62	48986	1	VALVE SPOOL ASSY
63	48990	1	SELECTOR SCREW
64	49139	1	SEAL WIPER
65	49179	1	THRUST SUPPORT
66	49184	1	OUTPUT SHAFT ASSY
67	56758	1	SPRING CAP
68	58458	1	GEAR HOUSING MACHINING
69	58462	1	RELIEF CARTRIDGE PLUG ASSY (INCL ITEMS 7, 15)
70	58635	1	SEAL GASKET
71	58862	1	WARNING STICKER – PRESSURE (GR3070101, GR30701S, GR30701SUP ONLY)
72	58863	1	WARNING STICKER – GRINDING WHEEL (GR3070101, GR30701S, GR30701SUP ONLY)

GR30 PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
73	59049	1	MAIN HOUSING ASSY (INCL ITEMS 16, 43)
74	60677	1	TRIGGER CASTING
75	60678	1	TRIGGER MOUNT CASTING
76	65480	1	SPRING
77	60681	1	TRIGGER LOCK CASTING
78	350041	1	HOLLOW HEX PLUG -4 SAE
79	350770	1	O-RING .351 × .393 × .072 -904
	60793	1	SEAL KIT

STANLEY®

Stanley Hydraulic Tools
3810 SE Naef Road
Milwaukie, Oregon 97267-5698 USA
(503) 659-5660 / Fax (503) 652-1780
www.stanleyhydraulics.com