

# STANLEY®

## CH15 HYDRAULIC CHIPPING HAMMER



### USER MANUAL Safety, Operation and Maintenance



CE UK  
CA

© STANLEY  
3810 SE Naef Road, Milwaukie, OR 97267  
U.S.A.  
36098 04/2024 Ver. 27

# CE DECLARATION OF CONFORMITY

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

**STANLEY®**



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

**Vervier, Patrick**

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:

1. Category: **Chipping Hammer, Hydraulic**

Kategorie:  
Catégorie:  
Categoria:  
Categoria:

2. Make/Marke/Marque/Marca/Marca

**STANLEY**

3. Type/Typ/Type/Tipo/Tipo:

**CH1513101, CH1513101D, CH1533101**

4. Serial number of equipment:  
Seriennummer des Geräts:  
Numéro de série de l'équipement:  
Numero de serie del equipo:  
Matricola dell'attrezzatura:

**All**

5. Mass/Masse/Masse/Masa/Massa 8 kg

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	4413:2010	Self
EN ISO	12100 :2010	Self
EN ISO	28927-10:2011	Self
Noise Directive	2000/14/EC:2005	TUV Rheinland (Notified body ID 0197)
EN ISO	3744:2010	Tillystraße 2, 90431 Nürnberg, Germany
		Certificate #JO601591840001 (Verification 09/11/2021) Valid: 8/11/2026
EN ISO	11148-4:2012	Self
EN ISO	13732-1:2008	Self
Machinery Directive	2006/42/EC:2006	Self

6. Special Provisions: **None**

Spezielle Bestimmungen:  
Dispositions particulières:  
Provisiones especiales:  
Disposizioni speciali:

7. Measurements: **Measured Sound Power Level 103 LwA**  
Messungen **Guaranteed Sound Power Level 105 LwA**  
Mesures **Measured in accordance to Directive 2000/14/EC**  
Mediciones  
Misurazioni

8. Representative in the Union: **Patrick Vervier, STANLEY Dubuis 17-19, rue Jules Berthonneau- CS 73406 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, Milwaukie, Oregon USA Date/Datum/le/Fecha/Data

Signature/Unterschrift/Signature/Firma/Firma

Position/Position/Fonction/Cargo/Posizione Engineering Manager

# UKCA DECLARATION OF CONFORMITY

## DECLARATION OF CONFORMITY

**STANLEY®**

**UK  
CA**

I, the undersigned:

**Vervier, Patrick**

Surname and First names

hereby declare that the equipment specified hereunder:

1. Category: **Chipping Hammer, Hydraulic**
2. Make: **STANLEY**
3. Type: **CH1513101, CH1513101D, CH1533101**
4. Serial number of equipment:

**All**

5. Mass : 8 kg

Has been manufactured in conformity with

Directive/Standards	No.	Approved body
EN ISO EN ISO EN ISO Noise Emission in the Environment by Equipment for Use Outdoors Regulations 2001 EN ISO	4413:2010 12100:2010 28927-10:2011 S.I. 2001/1701  3744:2010	Self Self Self TUV Rheinland (Notified body ID 0197) Tillystraße 2, 90431 Nürnberg, Germany Certificate #JO601591840001 (Verification 09/11/2021) Valid: 8/11/2026
EN ISO EN ISO Supply of Machinery (Safety) Regulations 2008	11148-4:2012 13732-1:2008 S.I. 2008/1597	Self Self Self

6. Special Provisions: **None**

7. Measurements: **Measured Sound Power Level 103 LwA**  
**Guaranteed Sound Power Level 105 LwA**  
Measured in accordance to Directive 2000/14/EC,  
Annex III, Part B, No 10, 15 kg<m< 30 kg

8. Representative in the Union: **Patrick Vervier, STANLEY Dubuis 17-19, rue Jules Berthonneau- CS 73406 41034 Blois CEDEX, France.**

Done at STANLEY, Milwaukie, Oregon USA Date \_\_\_\_\_

Signature

Position \_\_\_\_\_ Engineering Manager

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## IMPORTANT

To fill out a product warranty validation form, and for information on your warranty, visit [www.stanleyinfrastructure.com](http://www.stanleyinfrastructure.com) and select the Company tab > Warranty.

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

**SERVICING:** This manual contains safety, operation and routine maintenance instructions. STANLEY 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 certified dealer, call STANLEY at (503) 659-5660 and ask for a Customer Service Representative.

# OPERATION

## PREPARATION PROCEDURES

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 does not contain packing debris is all that is required.

### CHECK HYDRAULIC POWER SOURCE

1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source develops a flow of 7–9 GPM/26–34 LPM at 1000–2000 psi/70–140 bar for the 8 GPM models. Proper flow and pressure maintain proper tool speed.
2. Make certain the hydraulic power source is equipped with a relief valve set to open at 2100–2250 psi/145–155 bar minimum.
3. Check that the hydraulic circuit matches the tool for open-center (OC) operation.

### CHECK TOOL

1. Make sure all tool accessories are correctly installed. Failure to install tool accessories properly can result in damage to the tool or personal injury.
2. There should be no signs of leaks.
3. The tool should be clean, with all fittings and fasteners tight.

### CHECK TRIGGER MECHANISM

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

### INSTALL TOOL BIT - FIG. 2

1. Remove the solid retainer.
  - a. Grasp the loop of the retainer spring and pull it from the retainer.

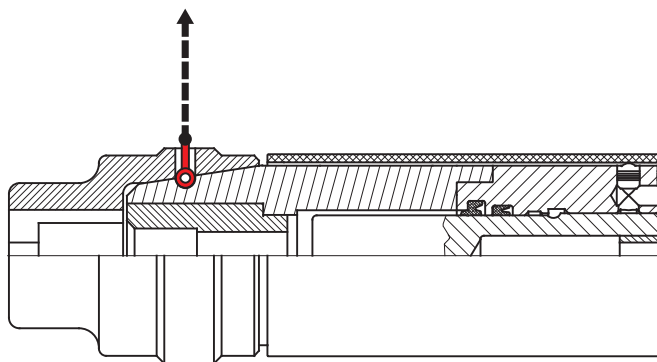
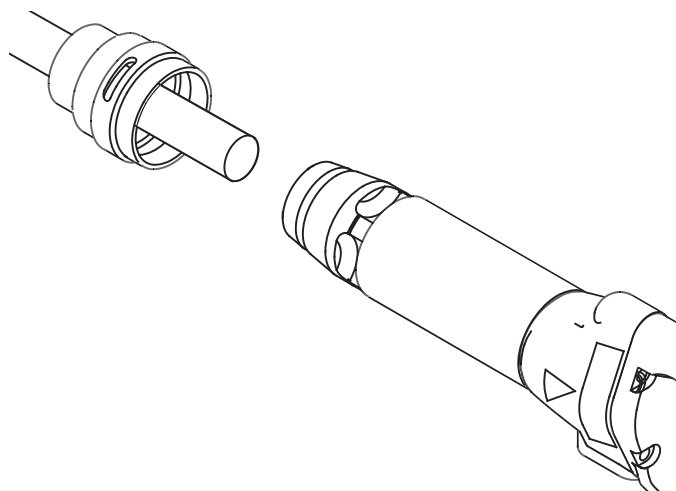


Figure 2 - Remove Retainer Spring

- b. Slip the solid retainer off the chuck end.
2. Insert the tool bit into the solid retainer. The hex shank must be toward the chuck end. Align the oval collar with the oval slot in the chuck end of the solid retainer.
  3. Insert the tool hex shank into the chuck end to engage the hex liner. Index the shank in the hex liner to get the desired bit orientation to the chipper.

# OPERATION



4. Slide the solid retainer on the chuck end, aligning the retainer spring slot with the groove.
5. Install the retainer spring.

**Note: Never use the tool if the bit is not locked in the tool retainer.**

6. Connect the hoses to the tool and the hydraulic power source.

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

## OPERATING PROCEDURES - FIG. 3

1. Observe all safety precautions.
2. Move the hydraulic circuit control valve to the "ON" position.
3. Place the tool bit firmly on the surface to be broken, at a 90° angle. Apply down pressure.
4. Squeeze the trigger to start the chipping hammer. Adequate down pressure is very important. Hold the tool correctly and be ready to counteract normal or sudden movements. Have both hands available.

**Note: Partially depressing the trigger allows the tool to operate at a slow speed, making it easy to start the tool bit into the surface to be broken.**

## COLD WEATHER OPERATION

If the tool 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.

## STORAGE

1. Disconnect the tool from the hydraulic power source.
2. Remove the tool bit and spray the chuck area with WD40 inside and out.
3. Wipe clean and store in a clean, dry place.

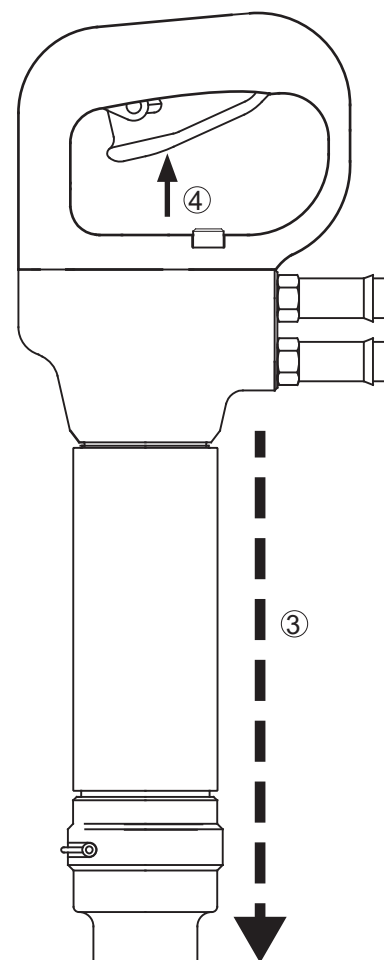


Figure 3 - Tool Use

# OPERATION

## UNDERWATER MODEL PREVENTATIVE MAINTENANCE

After each use, the movable portions of the tool that were exposed to water should be flushed with a water displacing oil such as WD40. Remove any remaining water and debris as follows:

1. Turn the tool upside down (without the tool bit) and spray oil through the inside of the chuck and retainer including down inside the retainer spring, also spray any of the exposed piston area to displace any remaining water.
2. Spray oil into the On/Off valve trigger slot area.
3. Dip or spray the entire tool.
4. Cycle the tool hydraulically several times before storing away.

# 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. Supply hoses must have a minimum working pressure rating of 2500 psi/172 bar.
- Do not exceed the rated flow and pressure. Refer to “SPECIFICATIONS” on page 10 for correct flow and pressure rate. Rapid failure of the internal seals may result.
- Always keep critical tool markings, such as warning stickers and tags, legible.
- Do not force a small tool to do the job of a large tool.
- Keep tool bits sharp for maximum breaker performance. Make sure that tool bits are not chipped or rounded on the striking end.
- Never operate a chipper without a tool bit or without holding it against the work surface. This puts excessive strain on the retainer.
- Tool repair should be performed by experienced personnel only.
- Make certain that the recommended relief valves are installed in the pressure side of the system.
- Do not use the tool for applications for which it was not intended.



# TROUBLESHOOTING

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

When diagnosing faults in operation of the tool, always make sure the hydraulic power source is supplying the correct hydraulic flow and pressure as listed in the table. Use a flowmeter known to be accurate. Check the flow with the hydraulic fluid temperature at least 80 °F/27 °C.

PROBLEM	CAUSE	SOLUTION
Tool does not run.	Power unit not functioning.	Check power unit for proper flow and pressure 7–9 GPM/26–34 LPM, 2000 psi/140 bar for 8 GPM model. Proper flow and pressure maintain proper tool speed.
	Couplers or hoses blocked.	Remove restriction.
	Pressure and return line hoses reversed at ports.	Be sure hoses are connected to their proper ports.
	Mechanical failure of piston or shuttle valve.	Have inspected and repaired by authorized dealer.
Tool does not hit effectively.	Power unit not functioning.	Check power unit for proper flow and pressure 7–9 GPM/26–34 LPM, 2000 psi/140 bar for 8 GPM model.
	Couplers or hose blocked.	Remove restriction.
	Fluid too hot	Provide cooler to maintain proper fluid temperature. (Above 140 °F / 60 °C).
	Incorrect tool bit .	Ensure tool bit meets specifications.
Tool operates slow.	Low oil flow from power unit.	Check power source for proper flow.
	High back-pressure.	Check hydraulic system for excessive back-pressure and correct as required.
	Power unit not functioning.	Check power unit for proper flow and pressure 7–9 GPM/26–34 LPM, 2000 psi/140 bar for 8 GPM model. Proper flow and pressure maintain proper tool speed.

# SPECIFICATIONS

Oil Flow Range	
CH1513101, CH1533101, 8-GPM Model	4-9 GPM/15-34 LPM
Pressure Range	1000-2000 psi/69-140 Bar
Nominal Flow	8 GPM/30 LPM
Length	17 in./43 cm
Weight	16 lb./7.25 kg
Tool Bit Models CH1513101, CH1533101	.580 in. Hex Shank Oval Collar
Porting	-8 SAE O-ring
Couplers	HTMA/EHTMA Flush Face Type Male & Female
Connect Size and Type	3/8 in. Male Pipe Adapter
Hose Whips	Yes
Maximum Back Pressure	250 psi/17 bar
Maximum Fluid Temperature	140 °F/60 °C
HTMA/EHTMA Category	Type 1 and 2
Nominal Pressure	1500 psi/103 bar
Max Pressure	2500 psi/172 bar
Max Relief Pressure	2150 psi/148 bar

## CH15 SOUND AND VIBRATION DECLARATION:

Test conducted on CH15, operated at 30 LPM input

Measured A-weighted sound power level, Lwa (ref. 1pW) in decibels	104 dBA
Uncertainty, Kwa, in decibels	1.9 dBA
Guaranteed sound power level	105 dBA
Measured A-weighted sound pressure level, Lpa (ref. 20 µPa) at operator's position, in decibels	92 dBA
Uncertainty, Kpa, in decibels	3 dBA

Values determined according to noise test code given in ISO 15744, using the basic standard ISO3744. Test conducted by independent notified body to comply with 2000/14/EC:2005 requirements.

**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.**

Measured vibration emission value: 3-Axis (Trigger Handle)	19.4 m/sec <sup>2</sup>
Measured vibration emission value: 3-Axis (Lower Grip)	14.3 m/sec <sup>2</sup>
Uncertainty: K	3.4 m/sec <sup>2</sup>

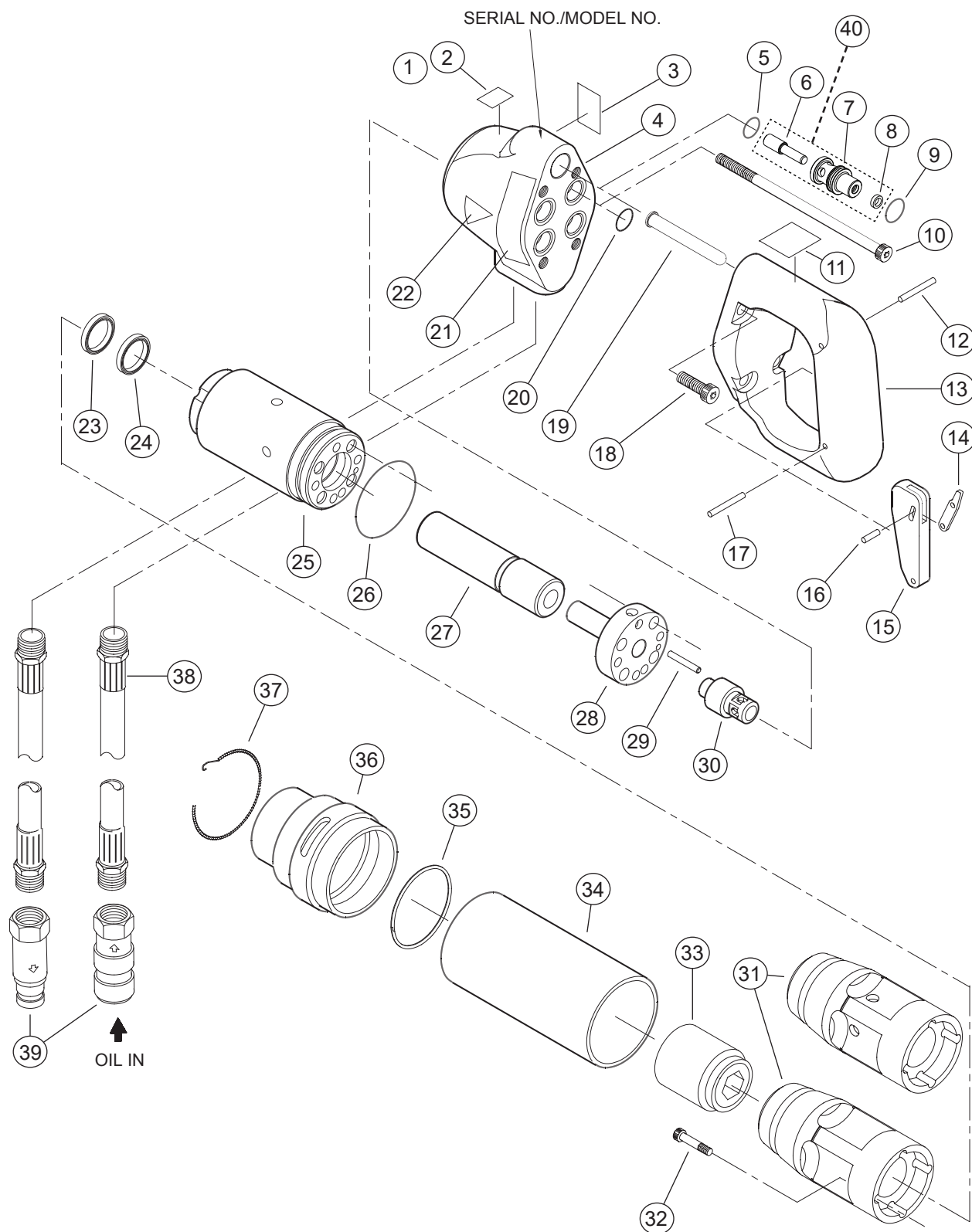
Values determined according to EN ISO 28927-10

## ACCESSORIES

Description	Part No.
Parker Bruning Flush Face Coupler Set, 3/8 NPT	03971
Parker Bruning Flush Face Coupler Set, 1/2 NPT	03974
Hose, 50 ft. × 1/2 in. ID, wire braid, dual, with couplers	31848
Hose, 25 ft. × 1/2 in. ID, wire braid, dual, with couplers	31972
Seal Kit	35979
Point, 9 in., Oval, .580 Hex	66256
Narrow Chisel, 9 in., Oval, .580 Hex	66257

# CH15 PARTS ILLUSTRATION

**Note:** If you have a 5-GPM CH15 tool, the 3 parts that are required to make it a 5-GPM tool are no-longer available as of July 2015. If you need to replace any one of items 29, 31 or 32 you must purchase all 3 items to convert the tool to an 8-GPM tool, the tool will still work at 5-GPM if needed.



# CH15 PARTS LIST

ITEM	P/N	QTY	DESCRIPTION
1	88724	1	UKCA STICKER
2	28323	1	CE STICKER
3	66654	1	SOUND PWR LEVEL STICKER
4	73310	1	BODY
5	00016	1	O-RING * Δ
6	81110	1	VALVE SPOOL
7	81111	1	VALVE SLEEVE
8	81109	1	CUP SEAL Δ
9	01211	1	O-RING * Δ
10	24871	4	CAPSCREW 5/16-18UNC × 3
11	28409	1	COMPOSITE STICKER
12	07492	1	SPIROL PIN
13	62209	1	HANDLE
14	62197	1	TRIGGER ROD
15	62198	1	TRIGGER
16	00878	1	DOWEL PIN, 3/16 × 1/2 SS
17	31602	1	SPIROL PIN 5/32 × 1.2
18	13815	4	CAPSCREW 5/16-18UNC × 1
19	31582	1	TRIGGER PIN
20	01211	4	O-RING * Δ
21	36112	1	NAME TAG
22	11207	1	CIRCUIT "D" DECAL
23	31607	1	SCRAPER * Δ
24	31606	1	CUP SEAL * Δ
25	36111	1	CYLINDER
26	07572	1	O-RING * Δ
27	33520	1	PISTON
28	33521	1	TUBE
29	35546	1	DOWEL PIN, 5/32 × 1.500
30	31592	1	SHUTTLE VALVE
31	65835	1	CHUCK END
	66258	1	CHUCK END (CH1533101 U/W ONLY)
32	35976	4	CAPSCREW 1/4 × 1.500
33	03210	1	RETAINING NOSE LINER
34	33294	1	FOAM GRIP
35	38597	1	RETAINING RING – U/W MODEL ONLY
36	65836	1	SOLID RETAINER
37	65837	1	RETAINER SPRING
38	01412	2	PIGTAIL HOSE ASSY 12
39	03971	1	FLUSH FACE COUPLER SET
40	81112	1	VALVE ASSEMBLY (PURCHASE ASSEMBLY TO REPLACE ANY VALVE COMPONENTS ON MODELS PRIOR TO S/N 110917173)
SK1	35979	1	* SEAL KIT (MODELS PRIOR TO S/N 110917173)

ITEM	P/N	QTY	DESCRIPTION
SK2	81139	1	Δ SEAL KIT (MODELS AFTER S/N 110917173)

MODEL DESIGNATIONS	
CH1513101	8 GPM MODEL
CH1533101	8 GPM MODEL, UNDERWATER

# SAFE SYMBOLS

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



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



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



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



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



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



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



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.

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# SAFETY PRECAUTIONS

Tool operators and maintenance personnel must comply with the safety precautions in this manual and on stickers and tags attached to the tool and hose.

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

Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. Place these precautions in the space provided.

The CH15 Hydraulic Chipping Hammer 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.



- Ensure work piece is securely fixed. Be aware that failure of the work piece or accessories may generate high velocity projectiles.
- Operator must start in a work area without bystanders and must assess the risk to bystanders.
- The operator must be familiar with all prohibited work areas, such as excessive slopes and dangerous terrain conditions.
- Operators and maintenance personnel shall be able to physically handle the bulk, weight and power of the tool.
- 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, gloves, ear protection, head protection, breathing protection and safety shoes at all times.
- Do not inspect, carry, clean or change the tool bit if the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Hoses must have a minimum working pressure rating of 2500 psi/175 bar. Do not exceed rated working pressure. Excess pressure may cause a leak or burst.
- Be sure all hose connections are tight.
- The hydraulic circuit control must be set to "OFF" when coupling or uncoupling the tool. Wipe all couplers clean before connecting. Use lint-free cloths. Failure to do so may damage the couplers and cause overheating.
- Do not operate the tool at oil temperatures above 140 °F/60 °C. Operation at high oil temperatures can cause operator discomfort and damage the tool. Never touch the tool bit, which can get hot.
- When using a non-rotary percussive tool to perform work related activities, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
- If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the tool. Tell your employer and consult a physician.
- Do not operate a damaged, improperly adjusted or incompletely assembled tool.
- Do not weld, cut with an acetylene torch or hard-face the tool bit.
- All tool repair, maintenance and service must be performed by authorized and properly trained personnel.
- Do not exceed the rated limits of the tool or use the tool for applications beyond its design capacity.
- Inspect the tool before each use and ensure all decals are legible. Contact STANLEY if replacements are needed.
- Replace parts with parts recommended by STANLEY.
- Check fastener tightness often and before each use.
- Do not operate the tool if you are uncertain about the presence of underground utilities.
- Do not wear loose fitting clothing during operation.
- Keep all body parts away from the working tool.
- Be observant of hydraulic hoses lying about the work area. They can be a tripping hazard.
- Never use the tool in an explosive atmosphere. Sparks could ignite explosive gas.
- Never operate the tool if you cannot be sure that underground utilities are not present, such as electrical cables, gas pipes, etc. These can cause a hazard if damaged with the tool.
- The tool is not insulated against coming into contact with electric power.
- Use proper lifting techniques when handling the tool. Get help and do not over-reach.
- Use proper protection from falling or flying debris.
- Failure to use hydraulic hose labeled and certified as non-conductive when using hydraulic tools on or near electric lines may result in death or serious injury.
- Handle hose carefully to avoid kinking, abrasions,

## SAFETY PRECAUTIONS

cutting or contact with high temperature surfaces.  
Do not use hose to pull or lift tool.

- Check entire hose for damage. If damaged, replace the hose immediately. Never use tape or any device to attempt to mend the hose.
- Do not use conductive hose on or near electric lines. This hose is not labeled or certified as non-conductive. Using this hose on or near electrical lines may result in death or serious injury.
- **WARNING:** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
  - Lead from lead-based paints,
  - crystalline silica from bricks and cement and other masonry products, and
  - arsenic and chromium from chemically-treated lumber.

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

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

**Warning:** Hydraulic fluid under pressure could cause skin injection injury. If you are injured by hydraulic fluid, get medical attention immediately.

# TOOL STICKERS & TAGS



11206 Circuit  
"C" Sticker (5-GPM)



11207 Circuit  
"D" Sticker (8-GPM)



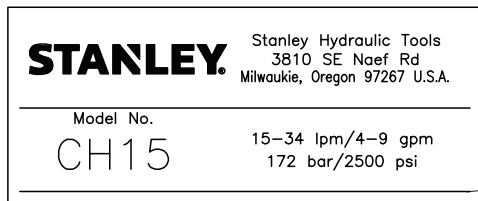
28323 CE Sticker  
88724 UKCA Sticker



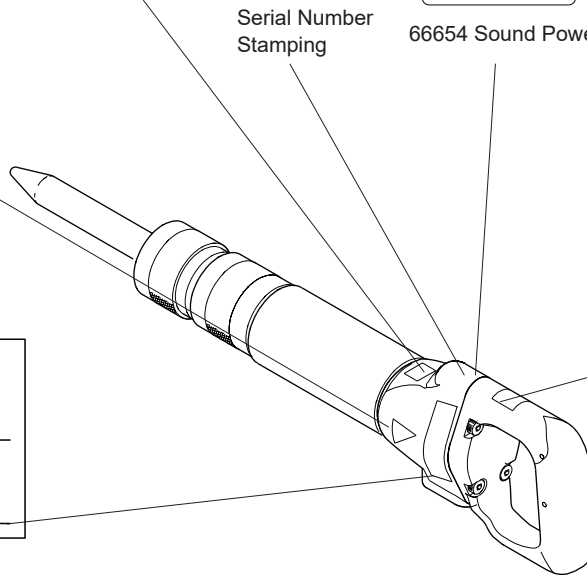
66654 Sound Power Level Sticker



28409 Composite Sticker



36112 Name Tag Sticker (CH1513101,  
CH1533101)



## DANGER

1. FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.  
BEFORE USING HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR 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.
2. A HYDRAULIC LEAK OR BURST MAY CAUSE OIL INJECTION INTO THE BODY OR CAUSE OTHER SEVERE PERSONAL INJURY.
  - A. DO NOT EXCEED SPECIFIED FLOW AND PRESSURE FOR THIS TOOL. EXCESS FLOW OR PRESSURE MAY CAUSE A LEAK OR BURST.
  - B. DO NOT EXCEED RATED WORKING PRESSURE OF HYDRAULIC HOSE USED WITH THIS TOOL. EXCESS PRESSURE MAY CAUSE A LEAK OR BURST.
  - C. CHECK TOOL HOSE COUPLERS AND CONNECTORS DAILY FOR LEAKS. DO NOT FEEL FOR LEAKS WITH YOUR HANDS. CONTACT WITH A LEAK MAY RESULT IN SEVERE PERSONAL INJURY.

## IMPORTANT

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

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

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE

## DANGER

- D. DO NOT LIFT OR CARRY TOOL BY THE HOSES. DO NOT ABUSE HOSE. DO NOT USE KINKED, TORN OR DAMAGED HOSE.
3. MAKE SURE HYDRAULIC HOSES ARE PROPERLY CONNECTED TO THE TOOL BEFORE PRESSURING SYSTEM. SYSTEM PRESSURE HOSE MUST ALWAYS BE CONNECTED TO TOOL "IN" PORT. SYSTEM RETURN HOSE MUST ALWAYS BE CONNECTED TO TOOL "OUT" PORT. REVERSING CONNECTIONS MAY CAUSE REVERSE TOOL OPERATION WHICH CAN RESULT IN SEVERE PERSONAL INJURY.
4. DO NOT CONNECT OPEN-CENTER TOOLS TO CLOSED-CENTER HYDRAULIC SYSTEMS. THIS MAY RESULT IN LOSS OF OTHER HYDRAULIC FUNCTIONS POWERED BY THE SAME SYSTEM AND/OR SEVERE PERSONAL INJURY.
5. BYSTANDERS MAY BE INJURED IN YOUR WORK AREA. KEEP BYSTANDERS CLEAR OF YOUR WORK AREA.
6. WEAR HEARING, EYE, FOOT, HAND AND HEAD PROTECTION.
7. TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE, ALL TOOL REPAIR MAINTENANCE AND SERVICE MUST ONLY BE PERFORMED BY AUTHORIZED AND PROPERLY TRAINED PERSONNEL.

## IMPORTANT

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

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

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE

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 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.*

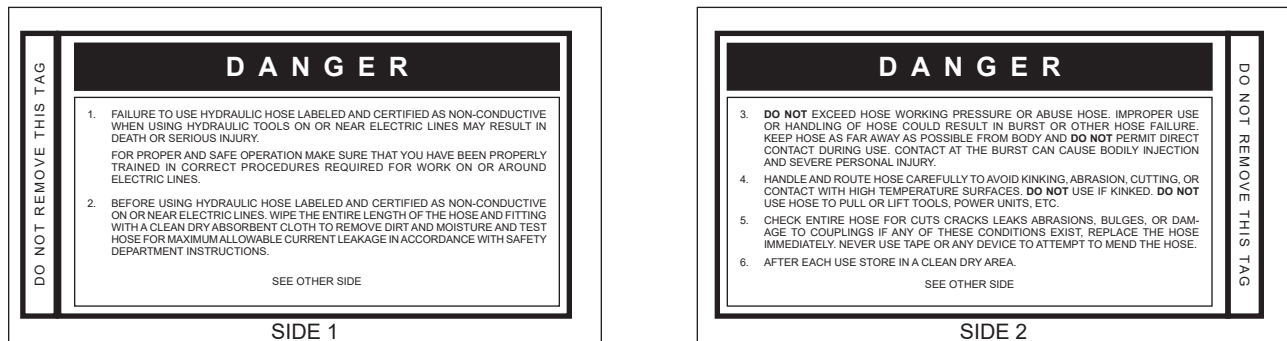
**Fabric-braided** (not certified or labeled non-conductive) — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *This hose is **not certified non-conductive** and must never be used near electrical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

## HOSE SAFETY TAGS

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

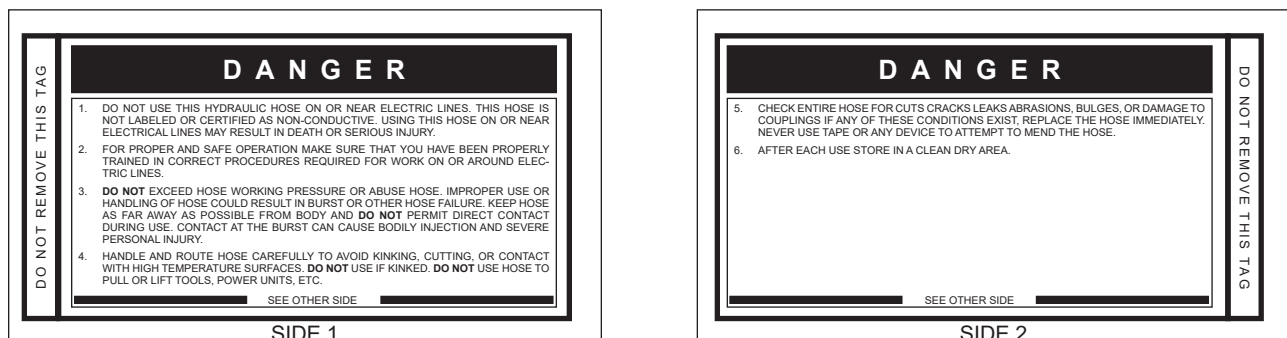
If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained from your STANLEY Distributor.

### 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 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	Min. Working Pressure	
GPM	LPM	FEET	METERS	INCH	MM	(Press/Return)	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

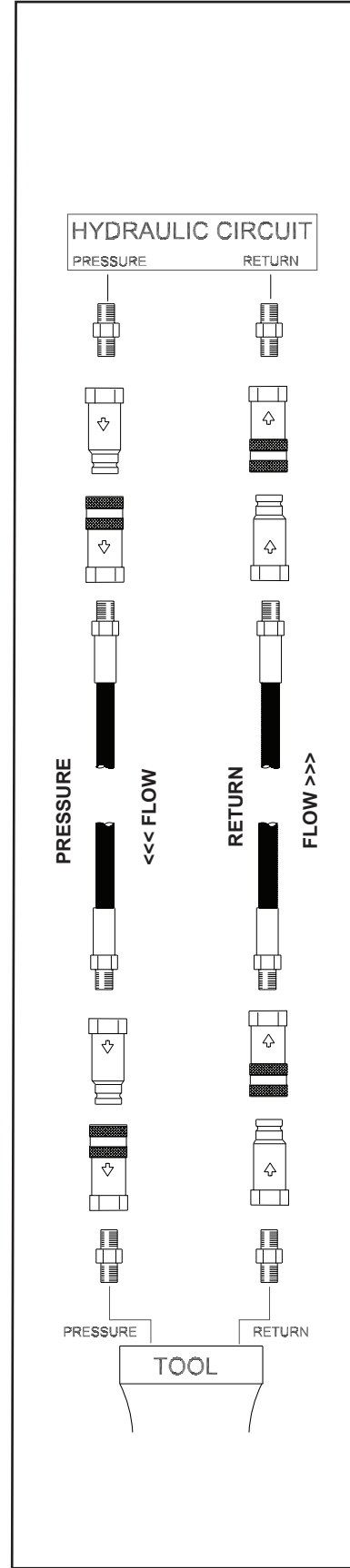


Figure 1. Typical Hose Connections

# HTMA / EHTMA REQUIREMENTS

## HTMA / EHTMA REQUIREMENTS

### TOOL TYPE

HTMA HYDRAULIC SYSTEM REQUIREMENTS	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 minimum 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 maximum fluid temperature to: (At maximum expected ambient temperature)	140° F (60° C)	140° F (60° C)	140° F (60° C)	140° F (60° C)
Minimum cooling capacity at a temperature difference of between ambient and fluid temps	3 hp (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)
<b>Note:</b> Do not operate the tool at oil temperatures above 140° F (60° C). Operation at higher temperatures can cause operator discomfort at the tool.				
Filter minimum full-flow filtration Sized for flow of at least: (For cold temp startup and maximum 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 minimum and maximum operating temps)	100-400 ssu (20-82 centistokes)	100-400 ssu (20-82 centistokes)	100-400 ssu (20-82 centistokes)	100-400 ssu (20-82 centistokes)
<b>Note:</b> 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				

### CLASSIFICATION

EHTMA HYDRAULIC SYSTEM REQUIREMENTS					
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.

# UNDERWATER TOOLS DEPTH GUIDELINE

## UNDERWATER MODELS ONLY

### ⚠ CAUTION

Do not use hydraulic tools underwater that are not designated as an “underwater” model, or this will result in damage to the tool.

For underwater hydraulic tools the applications are broken down into four quadrants depending on type of tool and method of operation.

The types of tools are percussive and rotational, each with different characteristics allowing for different depth operation. With percussive tools, the nitrogen accumulator PSI must counter the increase in ambient pressure found at lower depths. Since there is a maximum PSI for percussive tools they are limited to certain depths. Rotational tools do not have accumulators and thus are capable of deeper depths.

The methods are broken into diver operated or remote operated vehicle (ROV). ROV's can reach lower depths and with an onboard hydraulic power source that is depth compensated, can operate hydraulic tools at depths of thousands of feet. ROV operation is still limited to the tool, for example a percussive tool has the same depth limitation whether ROV or diver operated.

## OPERATION OVERVIEW

	PERCUSSIVE	ROTATIONAL
DIVER	Tools: Breakers, Hammer Drills and Chipping Hammers  Max Depth: 500' - limitations due to accumulator PSI max (increase 40 PSI for every 100')	Tools: Grinders, Saws, Chain Saws  Max Depth: 1000' - Reference hose sizing guide below
ROV	Tools: Breakers, Hammer Drills and Chipping Hammers  Max Depth: 500' - limitations due to accumulator PSI max (increase 40 PSI for every 100')	Tools: Grinders, Saws, Chain Saws  Max Depth: 1000' - Reference hose sizing guide below

## RECOMMENDED HOSE DIAMETERS

DEPTH (FT)	8 GPM	12 GPM
100	5/8"	5/8"
300	3/4"	1"
600	1"	1"
1000	1"	1-1/4"









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