

# CH15 HYDRAULIC CHIPPING HAMMER



USER MANUAL Safety, Operation and Maintenance



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# **DECLARATION OF CONFORMITY**

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

### Nuerenberg, David

Surname and First names/Familiennname 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: Kategorie: Catégorie: Categoria: Categoria:

I, the undersigned:

El abajo firmante:

Je soussiané:

Ich, der Unterzeichnende:

- 2. Make/Marke/Marque/Marca/Marca
- 3. Type/Typ/Type/Tipo/Tipo:
- Serial number of equipment: Seriennummer des Geräts: Numéro de série de l'équipement: Numero de serie del equipo: Matricola dell'attrezzatura:

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 conformitá con

### Chipping Hammer, Hydraulic

STANLEY

### CH1513101, CH1513101D, CH1533101, (CH1553101 – For Underwater Use Only)

All

Directive/Standards	No.	Approved body
Richtlinie/Standards	Nr	Prüfung durch
Directives/Normes	Numéro	Organisme agréé
Directriz/Los Normas	No	Aprobado
Direttiva/Norme	n.	Collaudato
EN ISO	4413:2010	Self
EN ISO	12100:2010	Self
EN ISO	11148-4:2012	Self
Noise Directive	2000/14/EC:2005	AkustikNet (Notified body ID 1585)
EN ISO	3744:2010	Bagsvard Hovedgade 141, 2880 Bagsvard, Denmark
		Certificate #863/2011/006 (Verification 2015-08-04) Valid: 12-31-2018
EN ISO	28927-10:2011	Self
EN ISO	13732-1:2008	Self
Machinery Directive	2006/42/EC:2006	Self
6 Special Provisions:	None	7 Measurements: Measured Sound Power Level 104 LwA

 Special Provisions: None Spezielle Bestimmungen: Dispositions particulières: Provisiones especiales: Disposizioni speciali: 
 Measurements:
 Measured Sound Power Level 104 LwA

 Messungen
 Guaranteed Sound Power Level 105 LwA

 Mesures
 Measured in accordance to Directive 2000/14/EC

 Mesuresioni
 Measured in accordance to Directive 2000/14/EC

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Infrastructure

8. 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 Infrastructure, Portland, Oregon USA Date/Datum/le/Fecha/Date 4-27-2018

Signature/Unterschrift/Signature/Firma/Firma

Position/Position/Fonction/Cargo/Posizione

marg North America Quality Manager



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# IMPORTANT

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

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

**SERVICING:** This manual contains safety, operation and routine maintenance instructions. STANLEY Infrastructure recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.

# **A**WARNING

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

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

For the nearest certified dealer, call STANLEY Infrastructure at (503) 659-5660 and ask for a Customer Service Representative.



# 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, <u>will</u> result in <u>death or serious injury</u>.

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

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

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

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

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

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 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.

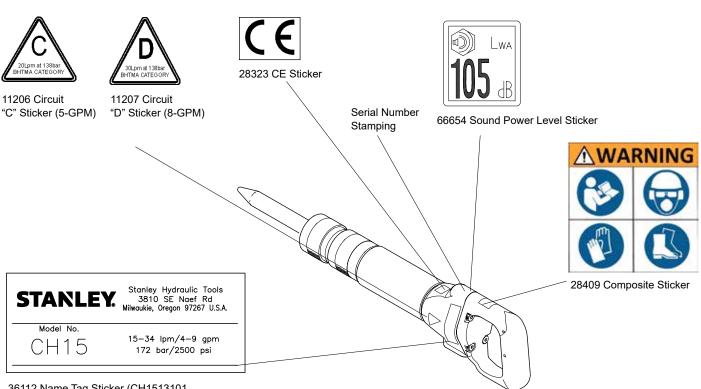
- Check entire hose for damage. If damaged, replace the hose immediately. Never use tape or any device to attempt to mend the hose.
- Do not use conductive hose on or near electric lines. This hose is not labeled or certified as nonconductive. Using this hose on or near electrical lines may result in 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 chemicallytreated lumber.

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

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

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

# **TOOL STICKERS & TAGS**



36112 Name Tag Sticker (CH1513101, CH1533101)

The safety tag (P/N 15875) at right is attached to the tool when shipped from the factory. Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the tool when not in use.

# DANGER

- FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTI-FIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.
- DEATH ON SERIOUS INJURY. BEFORE USING HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRIC LINES BE SURE THE HOSE IS MAINTAINED AS NON-CONDUCTVE THE HOSE SHOULD BE REGULARLY TESTED FOR ELECTRIC CURRENT LEXAGE IN ACCORDANCE WITH YOUR SAFETY DEPART-MENT 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. Α.
- B
- 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 DALLY FOR LEAKS. DO NOT FEEL FOR LEAKS WITH YOUR HANDS. CONTACT WITH A LEAK MAY RESULT IN SEVERE PERSONAL INJURY. C.

IMPORTANT

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

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

TAG TO BE REMOVED ONLY BY TOOL OPERATOR. SEE OTHER SIDE

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

# **STANLEY**

DANGER

DO NOT LIFT OR CARRY TOOL BY THE HOSES. DO NOT ABUSE HOSE. DO NOT USE KINKED, TORN OR DAMAGED HOSE.

DAMAGED HOSE. DATE OF DATE OF

DO NOT CONNECT OPEN-CENTER TOOLS TO CLOSED-CENTER HYDRAULC SYSTEMS. THIS MAY RESULT IN LOSS OF OTHER HYDRAULC FUNCTIONS POWERED BY THE SAME SYSTEMANDIOR SEVERE PERSONAL INJURY.

BYSTANDERS MAY BE INJURED IN YOUR WORK AREA. KEEP BYSTANDERS CLEAR OF YOUR WORK AREA.

WEAR HEARING, EYE, FOOT, HAND AND HEAD PRO-TECTION.

TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE, ALL TOOL REPAIR MAINTENANCE AND SERVICE MUST ONLY BE PERFORMED BY AUTHORIZED AND PROPERLY TRAINED PERSONNEL.

IMPORTANT

READ OPERATION MANUAL AND

SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.

USE ONLY PARTS AND REPAIR

PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE

# **HOSE TYPES**

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

**Certified non-conductive** — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *Hose labeled certified 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.* 

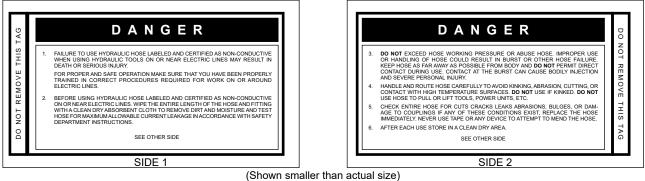
**Fabric-braided** (not certified or labeled non-conductive) — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *This hose is not certified non-conductive and must never be used near electrical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

### HOSE SAFETY TAGS

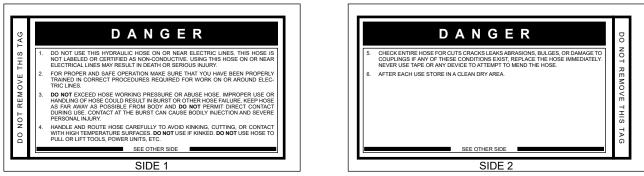
To help ensure your safety, the following DANGER tags are attached to all hose purchased from STANLEY. DO NOT REMOVE THESE TAGS.

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

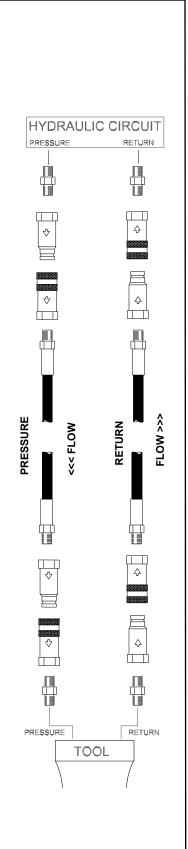


### THE TAG SHOWN BELOW IS ATTACHED TO "CONDUCTIVE" HOSE.



(Shown smaller than actual size)

<b>Tool to Hydraulic Circuit Hose</b>	Oil Flow	low	Hose L	Hose Lengths	Inside Diameter	iameter	USE	Min. Workin	Min. Working Pressure
Recommendations	GPM	ГРМ	FEET	METERS	INCH	MM	(Press/Return)	PSI	BAR
The chart to the right shows recommended			Certified No	on-Conductive	Hose - Fiber	· Braid - for	Certified Non-Conductive Hose - Fiber Braid - for Utility Bucket Trucks	Trucks	
minimum hose diameters for various	4-9	15-34	up to 10	up to 3	3/8	10	Both	2250	155
hose lengths based on gallons per minute		Conductiv	re Hose - Wire	Braid or Fiber	Braid -DO N	IOT USE NE	Conductive Hose - Wire Braid or Fiber Braid -DO NOT USE NEAR ELECTRICAL CONDUCTORS	AL CONDUCT	ORS
(GPM)/liters per minute (LPM). These	4-6	15-23	up to 25	up to 7.5	3/8	10	Both	2500	175
recommendations are intended to keep return line presente (hack presente) to a minimum	4-6	15-23	26-100	7.5-30	1/2	13	Both	2500	175
acceptable level to ensure maximum tool	5-10.5	19-40	up to 50	up to 15	1/2	13	Both	2500	175
performance.	5-10.5	19-40	51-100	15-30	5/8	16	Both	2500	175
This chart is intended to be used for hvdraulic	E 10 E	07.07		00.02	5/8	16	Pressure	2500	175
tool applications only based on STANLEY tool	0.01-0	04-61	000-001	08-00	3/4	19	Return	2500	175
operating requirements and should not be	10-13	38-49	up to 50	up to 15	5/8	16	Both	2500	175
used for any other applications.	10	07 00	100	16 20	5/8	16	Pressure	2500	175
All hydraulic hose must have at least a	2-01	000	001-10	00-01	3/4	19	Return	2500	175
rated minimum working pressure equal to	10	07 00		30.60	3/4	19	Pressure	2500	175
the maximum hydraulic system relief valve	2-2-	00-49	002-001	00-00	-	25.4	Return	2500	175
setting.	91 01	10 60	10 JE	0 - 1 - 0	5/8	16	Pressure	2500	175
All hydraulic hose must meet or exceed	2 -2-	49-00	cz oj dn	o o o dn	3/4	19	Return	2500	175
specifications as set torth by SAE J517.	10 16	05.04	00 4 00	00 0	3/4	19	Pressure	2500	175
	2-2-	43-00	-07	000	-	25.4	Return	2500	175



# Figure 1. Typical Hose Connections

# **HOSE RECOMMENDATIONS**

STANLEY

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# HTMA / EHTMA REQUIREMENTS

### HTMA / EHTMA REQUIREMENTS

TOOL TYPE				
HTMA HYDRAULIC SYSTEM REQUIREMENTS	ΤΥΡΕ Ι	TYPE II	TYPE RR	TYPE III
Flow range	4-6 GPM	7-9 GPM	9-10.5 GPM	11-13 GPM
	(15-23 LPM)	(26-34 LPM)	(34-40 LPM)	(42-49 LPM)
Nominal operating pressure	1500 psi	1500 psi	1500 psi	1500 psi
(At the power supply outlet)	(103 bar)	(103 bar)	(103 bar)	(103 bar)
System relief valve setting	2100-2250 psi	2100-2250 psi	2200-2300 psi	2100-2250 psi
(At the power supply outlet)	(145-155 bar)	(145-155 bar)	(152-159 bar)	(145-155 bar)
Maximum back pressure	250 psi	250 psi	250 psi	250 psi
(At tool end of the return hose)	(17 bar)	(17 bar)	(17 bar)	(17 bar)
Measured at a max fluid viscosity of:	400 ssu*	400 ssu*	400 ssu*	400 ssu*
(At minimum operating temperature)	(82 centistokes)	(82 centistokes)	(82 centistokes)	(82 centistokes)
Temperature: Sufficient heat rejection capacity to limit maximum fluid temperature to: (At maximum expected ambient temperature)	140° F (60° C)	140° F (60° C)	140° F (60° C)	140° F (60° C)
Minimum cooling capacity at a temperature difference of between ambient and fluid temps	3 hp	5 hp	6 hp	7 hp
	(2.24 kW)	(3.73 kW)	(5.22 kW)	(4.47 kW)
	40° F	40° F	40° F	40° F
	(22° C)	(22° C)	(22° C)	(22° C)
<b>Note:</b> Do not operate the tool at oil temperatures above 140° discomfort at the tool.	° F (60° C). Operat	ion at higher tempe	eratures can cause	operator
Filter minimum full-flow filtration	25 microns	25 microns	25 microns	25 microns
Sized for flow of at least:	30 GPM	30 GPM	30 GPM	30 GPM
(For cold temp startup and maximum dirt-holding capacity)	(114 LPM)	(114 LPM)	(114 LPM)	(114 LPM)
Hydraulic fluid, petroleum based (premium grade, anti-	100-400 ssu	100-400 ssu	100-400 ssu	100-400 ssu
wear, non-conductive) Viscosity (at minimum and maximum	(20-82	(20-82	(20-82	(20-82
operating temps)	centistokes)	centistokes)	centistokes)	centistokes)
<b>Note:</b> When choosing hydraulic fluid, the expected oil tempe suitable temperature viscosity characteristics. Hydraulic fluid range of operating temperatures.				

### \*SSU = Saybolt Seconds Universal

		C	LASSIFICATIO	N	
EHTMA HYDRAULIC SYSTEM REQUIREMENTS	B B Bitpm at 138bar Brittia Category	20Lpm at 138bar EHTMA CATEGORY	Solpm et 138ber Ernm category	E HOLEPT at 138br EHTIMA CATEGORY	Solom 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.



# **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

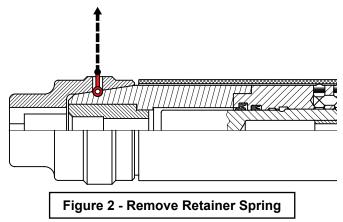
- 1. Make sure all tool accessories are correctly installed. Failure to install tool accessories properly can result in damage to the tool or personal injury.
- 2. There should be no signs of leaks.
- 3. The tool should be clean, with all fittings and fasteners tight.

### **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**

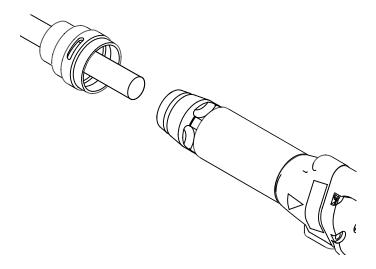
- 1. Remove the solid retainer.
  - a. Grasp the loop of the retainer spring and pull it from the retainer.



- 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.

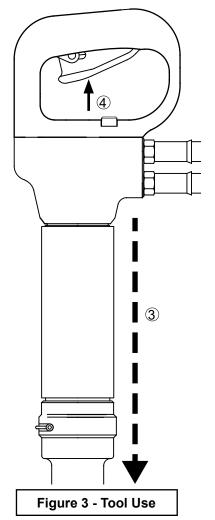
Note: Partially depressing the trigger allows the tool to operate at a slow speed, making it easy to start the tool bit into the surface to be broken.

### **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  $^{\circ}$ F/10  $^{\circ}$ 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.





# **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 16 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 re- versed 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	
, , ,	
Pressure Range Nominal Flow	
Length	
Weight	
Tool Bit Models CH1513101, CH1533101	
Porting	8 SAE O-ring
Couplers	
Connect Size and Type	
Hose Whips	
Maximum Back Pressure	
Maximum Fluid Temperature	

HTMA/EHTMA Category	Type 1 and 2
Nominal Pressure	
Max Pressure	•
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. 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	
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>

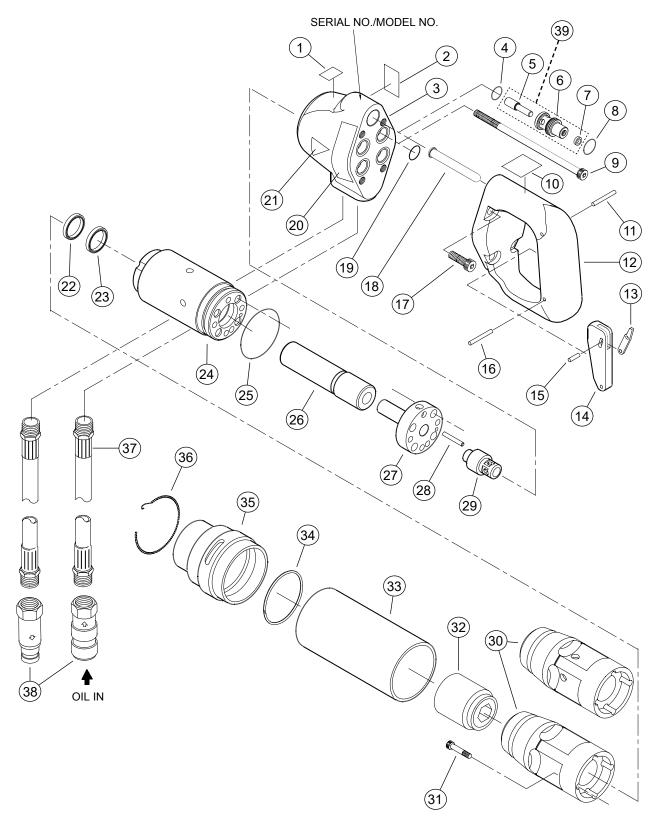
Values determined according to EN ISO 28927-10

### ACCESSORIES

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

# **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	28323	1	CE STICKER
2	66654	1	SOUND PWR LEVEL STICKER
3	73310	1	BODY
4	00016	1	O-RING <sup>*</sup> Δ
5	81110	1	VALVE SPOOL
6	81111	1	VALVE SLEEVE
7	81109	1	CUP SEAL Δ
8	01211	1	O-RING <sup>*</sup> Δ
9	24871	4	CAPSCREW 5/16-18UNC × 3
10	28409	1	COMPOSITE STICKER
11	07492	1	SPIROL PIN
12	62209	1	HANDLE
13	62197	1	TRIGGER ROD
14	62198	1	TRIGGER
15	00878	1	DOWEL PIN, 3/16 × 1/2 SS
16	31602	1	SPIROL PIN 5/32 × 1.2
17	13815	4	CAPSCREW 5/16-18UNC × 1
18	31582	1	TRIGGER PIN
19	01211	4	O-RING *Δ
20	36112	1	NAME TAG
21	11207	1	CIRCUIT "D" DECAL
22	31607	1	SCRAPER * Δ
23	31606	1	CUP SEAL* Δ
24	36111	1	CYLINDER
25	07572	1	O-RING *Δ
26	33520	1	PISTON
27	33521	1	TUBE
28	35546	1	DOWEL PIN, 5/32 × 1.500
29	31592	1	SHUTTLE VALVE
30	65835	1	CHUCK END
	66258	1	CHUCK END (CH1533101 U/W ONLY)
31	35976	4	CAPSCREW 1/4 × 1.500
32	03210	1	RETAINING NOSE LINER
33	33294	1	FOAM GRIP
34	38597	1	RETAINING RING-U/W MODEL ONLY
35	65836	1	SOLID RETAINER
36	65837	1	RETAINER SPRING
37	01412	2	PIGTAIL HOSE ASSY 12
38	03971	1	FLUSH FACE COUPLER SET
39	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)
SK2	81139	1	Δ SEAL KIT (MODELS AFTER S/N 110917173)

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

# **UNDERWATER TOOLS DEPTH GUIDELINE**

### UNDERWATER MODELS ONLY

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



# **STANLEY**<sub>®</sub>

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