

# STANLEY®

# IW12 HYDRAULIC IMPACT WRENCH



## **WARNING**

SERIOUS INJURY OR DEATH  
COULD RESULT FROM IM-  
PROPER REPAIR OR SERVICE  
OF THIS TOOL.

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

## **WARNING**

To avoid serious injury or death



Read the Manual



Wear Eye  
Protection



Wear Ear  
Protection



Wear a Dust Mask

47351

## SAFETY, OPERATION AND MAINTENANCE USER'S MANUAL



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**SERVICING THE STANLEY HYDRAULIC IMPACT WRENCH:** This manual contains safety, operation, and routine maintenance instructions. 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.

**CERTIFICATE OF CONFORMITY  
ÜBEREINSTIMMUNGS-ZERTIFIKAT  
CERTIFICAT DE CONFORMITE CEE  
CERTIFICADO DE CONFORMIDAD  
CERTIFICATO DI CONFORMITA**



**Hydraulic Tools**

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

**Burrows, James**

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

**hereby certify that the construction plant or equipment specified hereunder:  
bestätige hiermit, daß das im folgenden genannten Werk oder Gerät:  
certifies par ceci que l'usine ou l'équipement de construction indiqué cidessous:  
por el presente certifico que la fabrica o el equipo especificado a continuacion:  
certifico che l'impianto o l'attrezzatura sotto specificata:**

- Category: Impact Wrench  
Kategorie:   
Catégorie:   
Categoria:   
Categoria:
- Make/Ausführung/Marque/Marca/Marca **Stanley**
- Type/Typ/Type/Tipo/Tipo: IW1214001, IW1234001
- Serial number of equipment:  
Seriennummer des Geräts:   
Numéro de série de l'équipement:   
Numero de serie del equipo:   
Matricola dell'attrezzatura:
- Year of manufacture/Baujahr/année de fabrication/Año de fabricacion/Anno di fabbricazione **2004**

**All**

**Has been manufactured in conformity with - EEC Type examination as shown.  
Wurde hergestellt in Übereinstimmung mit - EEC Typ-Prüfung nach.  
Est fabriqué conformément - au(x) type(s) examiné(s) comme indiqué dans le tableau ci-après.  
Ha sido fabricado de acuerdo con - tipo examen EEC como dice.  
E' stata costruita in conformità con - le norme CEE come illustrato.**

Examen CEE de type				
Directive Richtlinie Directives particulières Directriz Direttiva	No. Nr Numéro No n.	Date Datum Date Fecha Data	Approved body Prüfung durch Organisme agréé Aprobado Collaudato	Date of expiry Ablaufdatum Date d'expiration Fecha de caducidad Data di scadenza
EN	792-6	1994	Self	NA
EN ISO	3744	1995	Self	NA
EN	28662-7	1997	Self	NA
Machinery Directive	98/37/EC	1998	Self	NA

- Special Provisions: None  
Spezielle Bestimmungen:  
Dispositions particulières:  
Provisiones especiales:  
Disposizioni speciali:
- Representative in the Union: Stanley Dubuis 17-19, rue Jules Berthonneau-BP 3406 41034 Blois Cedex, France.

Done at/Ort/Fait à/Dado en/Fatto a Stanley Hydraulic Tools, Milwaukie, Oregon USA Date/Datum/le/Fecha/Data 6/08/04

Signature/Unterschrift/Signature/Firma/Firma

Position/Position/Fonction/Puesto/Posizione Engineering Manager

Rev01 6/04 Rev 2 4/05

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# SAFETY SYMBOLS

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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 indicate an imminently hazardous situation which, if not avoided, will result in death or serious injury.



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



This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate 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

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

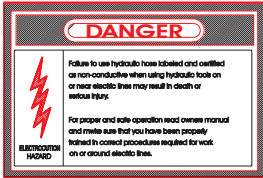
These safety precautions are given for your safety. Review them carefully before operating the tool and before performing general maintenance or repairs.

Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. If so, place the added precautions in the space provided on page 5.

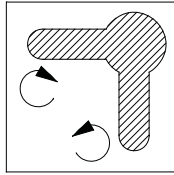
The model IW12 Hydraulic Impact Wrench will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hose before operation. Failure to do so could result in personal injury or equipment damage.

- The operator must start in a work area without bystanders. Flying debris can cause serious injury.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor. Establish a training program for all operators to ensure safe operation.
- Always wear safety equipment such as goggles, ear and head protection, and safety shoes at all times when operating the tool. Use gloves and aprons when necessary.
- The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Maintain proper footing and balance at all times.
- 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 and are in good condition.
- 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.
- Do not operate a damaged, improperly adjusted, or incompletely assembled impact wrench. Check for loose fasteners before operating the tool.
- Never wear loose clothing that can get entangled in the working parts of the tool.
- Keep all parts of your body away from the rotating parts. Long hair or loose clothing can become drawn into rotating components.
- Always use accessories that conform to the specifications given in the OPERATION section of this manual.
- Do not reverse impact wrench rotation direction by changing fluid flow direction.
- Release the trigger if the power supply has been interrupted.
- When working near electrical conductors, always assume that all conductors are energized and that insulation, clothing and hoses can conduct electricity. Use hose labeled and certified as non-conductive.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.

# TOOL STICKERS & TAGS



12412  
DANGER DECAL



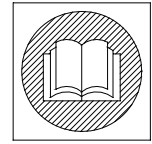
29083  
ROTATION DIRECTION  
DECAL



25610  
RAILROAD HELP DESK DECAL



29530  
SOUND POWER  
LEVEL DECAL (CE)



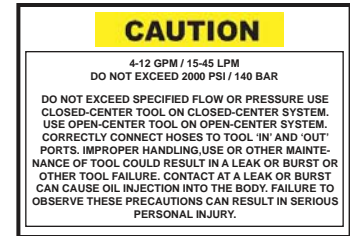
28788  
MANUAL DECAL (CE)



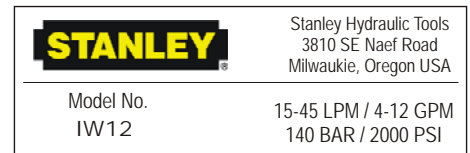
28322  
CE DECAL (CE)



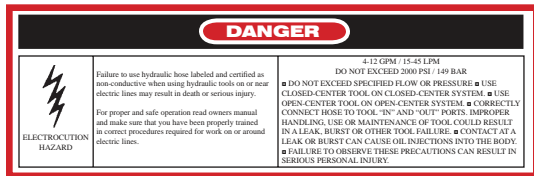
11207  
CIRCUIT TYPE D DECAL (CE)



03788  
GPM DECAL



08012  
IW12 NAME TAG (US & CE)



17275  
GPM/PRESSURE DANGER DECAL

**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.

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 ELECTRIC 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**

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

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

# HYDRAULIC HOSE REQUIREMENTS

## 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.*

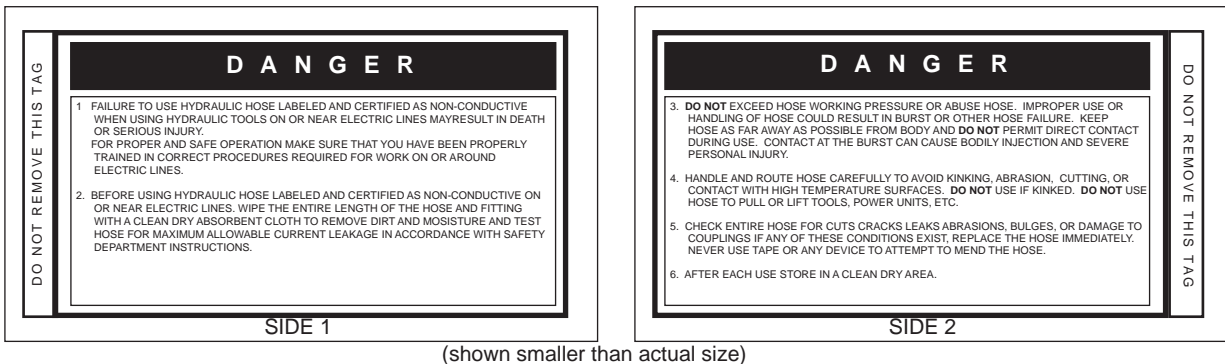
**Fabric-braided** (not certified or labeled non-conductive) - constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *This hose is **not certified non-conductive** and must never be used near electrical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

## HOSE SAFETY TAGS

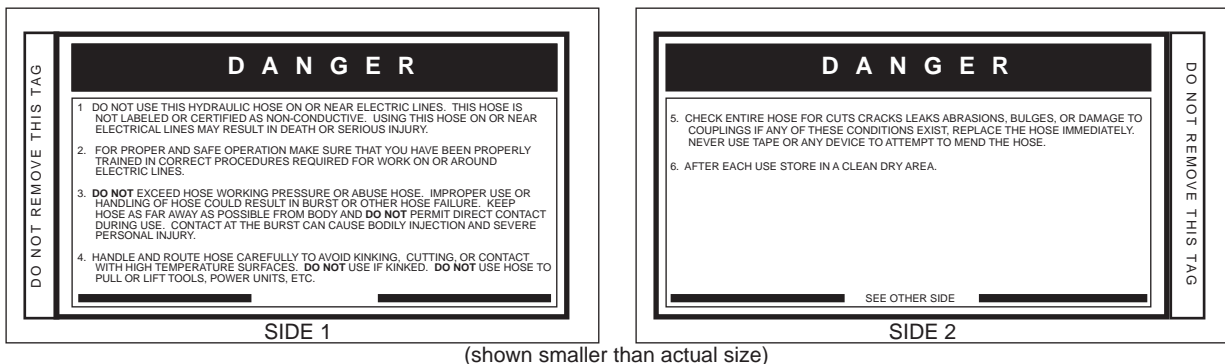
To help ensure your safety, the following DANGER tags are attached to all hose purchased from Stanley Hydraulic Tools. DO NOT REMOVE THESE TAGS.

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



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





## Tool to Hydraulic Circuit Hose Recommendations

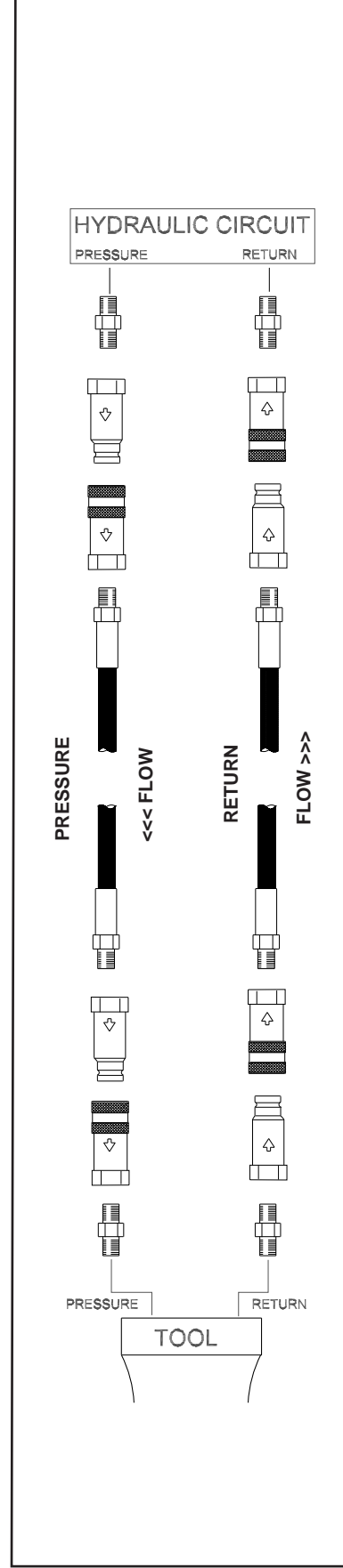
The chart to the right shows recommended minimum hose diameters for various hose lengths based on gallons per minute (gpm)/liters per minute (lpm). These recommendations are intended to keep return line pressure (back pressure) to a minimum acceptable level to ensure maximum tool performance.

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
<b>Certified Non-Conductive Hose - Fiber Braid - for Utility Bucket Trucks</b>								
4-9	15-34	up to 10	up to 3	3/8	10	Both	2250	155
<b>Conductive Hose - Wire Braid or Fiber Braid -DO NOT USE NEAR ELECTRICAL CONDUCTORS</b>								
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	Pressure	2500	175
13-16	49-60	26-100	8-30	3/4	19	Return	2500	175



Typical Hose Connections

# HTMA REQUIREMENTS

## TOOL CATEGORY



## HYDRAULIC SYSTEM REQUIREMENTS

TYPE 1

TYPE II

TYPE III

TYPE RR

FLOW RATE	4-6 gpm (15-23 lpm)	7-9 gpm (26-34 lpm)	11-13 gpm (42-49 lpm)	9-10.5 gpm (34-40 lpm)
TOOL OPERATING PRESSURE (at the power supply outlet)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)
SYSTEM RELIEF VALVE SETTING (at the power supply outlet)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2200-2300 psi (152-159 bar)
MAXIMUM BACK PRESSURE (at tool end of the return hose)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)
Measured at a max. fluid viscosity of: (at min. operating temperature)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)
TEMPERATURE Sufficient heat rejection capacity to limit max. fluid temperature to: (at max. expected ambient temperature)	140° F (60° C)	140° F (60° C)	140° F (60° C)	140° F (60° C)
Min. cooling capacity at a temperature difference of between ambient and fluid temps	3 hp (2.24 kW) 40° F (22° C)	5 hp (3.73 kW) 40° F (22° C)	7 hp (4.47 kW) 40° F (22° C)	6 hp (5.22 kW) 40° F (22° C)
NOTE: Do not operate the tool at oil temperatures above 140° F (60° C). Operation at higher temperatures can cause operator discomfort at the tool.				
FILTER Min. full-flow filtration Sized for flow of at least: (For cold temp. startup and max. dirt-holding capacity)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)
HYDRAULIC FLUID Petroleum based (premium grade, anti-wear, non-conductive) VISCOSITY (at min. and max. operating temps)	100-400 ssu*	100-400 ssu* (20-82 centistokes)	100-400 ssu*	100-400 ssu*
NOTE: When choosing hydraulic fluid, the expected oil temperature extremes that will be experienced in service determine the most suitable temperature viscosity characteristics. Hydraulic fluids with a viscosity index over 140 will meet the requirements over a wide range of operating temperatures.				

\*SSU = Saybolt Seconds Universal

### NOTE:

These are general hydraulic system requirements. See tool Specification page for tool specific requirements.

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# OPERATION

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## WRENCH TORQUE INFORMATION

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### FACTORS THAT AFFECT TORQUE

An impact wrench is a rotary hammer that impacts the head of a bolt or nut. It does not apply a slow steady torque as a standard torque wrench. Therefore, several factors affect the result of torque when using impact wrenches:

1. **LONG BOLTS.** Long bolts having high-friction threads with lubrication under the bolt head or associated nut can twist when impacted, then untwist before the next impact. This will especially happen if there is low friction between the bolt head or nut and the mating surface.
2. **HEAVY, LOOSE OR MULTIPLE ADAPTERS.** Heavy, loose or multiple adapters between the wrench and socket can dissipate the intensity of the impact to the bolt head or nut.
3. **AMOUNT OF IMPACT.** Maximum torque results can be obtained by allowing continuous impacting of the socket against the bolt head or nut for at least 10 seconds.
4. **HYDRAULIC FLOW RATE.** If the flow rate to the tool is too low, the hammer (or impact) speed is reduced. If the flow is correct, a change in the relief pressure does not affect the impact force. Poorly designed hydraulic circuits can result in lower flow rates and reduced impact speeds when pressure is required during impacting.

### BOLT GRADE AND THREAD RECOMMENDATIONS

Allowable bolt torque is limited by both bolt thread diameter and grade of steel in the bolt. The IW12 Impact Wrench is recommended for use on the following bolt grade and thread sizes:

SAE Grade 2	1 to 1-1/2 inch / 25/38 mm
SAE Grade 5	3/4 to 1-1/4 inch / 19-32 mm
SAE Grade 8	5/8 to 1 inch / 16-25 mm

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## PREOPERATION PROCEDURES

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### CHECK POWER SOURCE

1. Using a calibrated flow meter and pressure gauge, check that the hydraulic power source develops a flow of 4-12 gpm/15-45 lpm at 1000-2000 psi/70-140 bar.

2. Make certain that the hydraulic power source is equipped with a relief valve set to open at 2100 psi/145 bar minimum.

### CONNECT HOSES

1. Wipe all hose couplers with a clean, lint-free cloth before making connections.
2. Connect hoses from the hydraulic power source to the tool fittings or quick disconnects. It is good practice to connect the return hose first and disconnect it last to minimize or eliminate trapped pressure within the wrench.
3. Observe the flow indicators stamped on the main body assembly and the hose couplers to ensure that the flow is in the proper directions. The female couple on the tools "IN" port is the inlet (pressure) coupler.

**Note:**

**If the uncoupled hoses are left in the sun, pressure increase within the hoses can make them difficult to connect. Whenever possible, connect the free ends of hoses together.**

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## WRENCH OPERATION

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The IW12 is designed for 3/4-inch square sockets and accessories. Adapter part number 06790 or equivalent will permit the use of 5/8-inch quick change drive attachments.

Normal applications include installation or removal of fasteners requiring torque in the range of 300-1200 ft lb/407-1627 Nm and auger bit wood boring. DO NOT use the wrench as a hammer drill for metal drilling.

During normal operation it is common to see some grease leakage from around the anvil during hard use. Refer to the IW12 Service Manual for the correct lubrication procedures.

1. Observe all Safety Precautions.
2. Move the hydraulic circuit control valve to the "ON" position to operate the wrench.

### **WARNING**

Always use sockets and accessories designed for impact type applications. DO NOT USE STANDARD SOCKETS OR ACCESSORIES. THESE CAN CRACK OR FRACTURE DURING OPERATION.

---

# OPERATION

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3. Select the direction of impact desired using the rotary reversing valve located on the left side of the wrench. To select clockwise direction, move the lever toward the front (drive end) of the wrench. To select counterclockwise direction, move the lever to the rear (handle end) of the wrench.

**Note:**

**To more accurately tighten bolts, lubricate threads, check with a torque wrench and duplicate time of impacting for other bolts of the same length and thread size.**

4. Squeeze the trigger to activate the wrench.

5. Release the trigger to stop the wrench.

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## COLD WEATHER OPERATION

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If the wrench is to be used during cold weather, preheat the hydraulic fluid at low engine speed. When using the normally recommended fluids, fluid temperature should be at or above 50° F/10° C (400 ssu/82 centistokes) before use.

Damage to the hydraulic system or wrench can result from use with fluid that is too viscous or too thick.

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## POST OPERATION UNDERWATER MODELS ONLY

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The wrench impact mechanism must be cleaned and greased with waterproof grease after every day of use. The main housing valve and motor are sealed and do not require maintenance unless they are malfunctioning.

Remove, clean, grease and assemble the impact mechanism as described in the IW12 Service Manual.

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# EQUIPMENT PROTECTION & CARE

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## NOTICE

In addition to the Safety Precautions 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) 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

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

PROBLEM	CAUSE	SOLUTION
Low performance or impact.	Incorrect hydraulic flow.	Check that the hydraulic power source is producing 4-12 gpm/15-45 lpm at 1000-2000 psi/70-140 bar.
	Defective quick disconnects.	Check each quick disconnect.
	Worn impact mechanism.	Repair or replace the impact mechanism. See Service Mechanism Removal Cleaning and Installation procedure to extend mechanism life.
	Hammer pins broken.	Replace with integral frame (with pins). Check relief adjustment screw setting. Job may require a larger wrench.
	Incorrect grease or periodic maintenance of the impact mechanism is not being performed.	See Service Instructions.
	Spools incorrectly installed.	Valve(s) incorrectly reassembled. See Service Instructions.
	Sockets or adapters too heavy or loose.	Use the correct impact type sockets or adapters.
	Long bolt with lubricated head.	Lubricate threads only.
Wrench runs too fast. Impact mechanism or screws broken.	Incorrect hydraulic flow (too high).	Check that hydraulic power source is producing 4-12 gpm/15-45 lpm at 1000-2000 psi/70-140 bar.
	Supply and return hoses reversed.	Install hoses correctly. Refer to Operation Instructions in this manual.
	Relief sleeve or spring damaged.	Remove and replace spool assembly.
	Adjusting screw is in too far.	Adjust correctly.
Grease leaks at anvil bushing, wrench warm.	Hard duty cycle and heat forces grease out.	Normal unless greasing instructions in Service Instructions are not followed.
Grease leaks at anvil bushing, wrench cold.	Main shaft O-ring leaking.	Replace as required.
Oil leak at motor cap face.	Fasteners loose.	Tighten to recommended torque.
	Face O-ring worn or missing.	Replace as required.
	Motor cap/main housing damaged.	Replace as required.
Oil leaks at reversing spool.	Damaged O-rings.	Replace as required. Check Service Instructions to avoid cutting O-rings on cross holes in the spool bore.
	Wrong hydraulic fluid. Circuit too hot.	Refer to Operation Instructions for correct fluid/circuit specifications.

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# SPECIFICATIONS

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Drive Size .....	3/4-inch Square Drive, 5/8-inch Hex Quick Change
Weight .....	14 lbs/6 kg
Overall Length .....	9-1/2-inch/24 cm
Width .....	4-inch/10 cm
Pressure Range.....	1000-2000 psi/70-140 bar
Flow Range .....	4-12 gpm/15-45 lpm
Optimum Flow .....	5-10 gpm/20-38 lpm
System Type.....	Open and Closed Center, HTMA Type II or III
Porting .....	8 SAE O-Ring
Output Speed (free spin) .....	2000 rpm at 5 gpm/19 lpm
Input Speed .....	1200 Impacts per Minute
Connect Size and Type .....	3/8-inch Male Pipe Adapter
Torque.....	250-1200 ft. lb/340-1632 Nm
Sound Power Level .....	108dBA
Vibration Level.....	2.8 m/sec
Sound Pressure Level @1m .....	100 dBA

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# ACCESSORIES

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## DESCRIPTION

## PART NUMBER

3/4-inch Square Anvil to 3/4-inch Jacobs Chuck .....	01857
7/16-inch Hex Shank x 1/2-inch Square Male Adapter.....	05117
5/8-inch Hex Shank x 1/2-inch Square Male Adapter.....	05080
3/4-inch Square Anvil to 5/8-inch Hex Quick Change Adapter .....	06790

### Auger Drill Bits - Lineman's Style

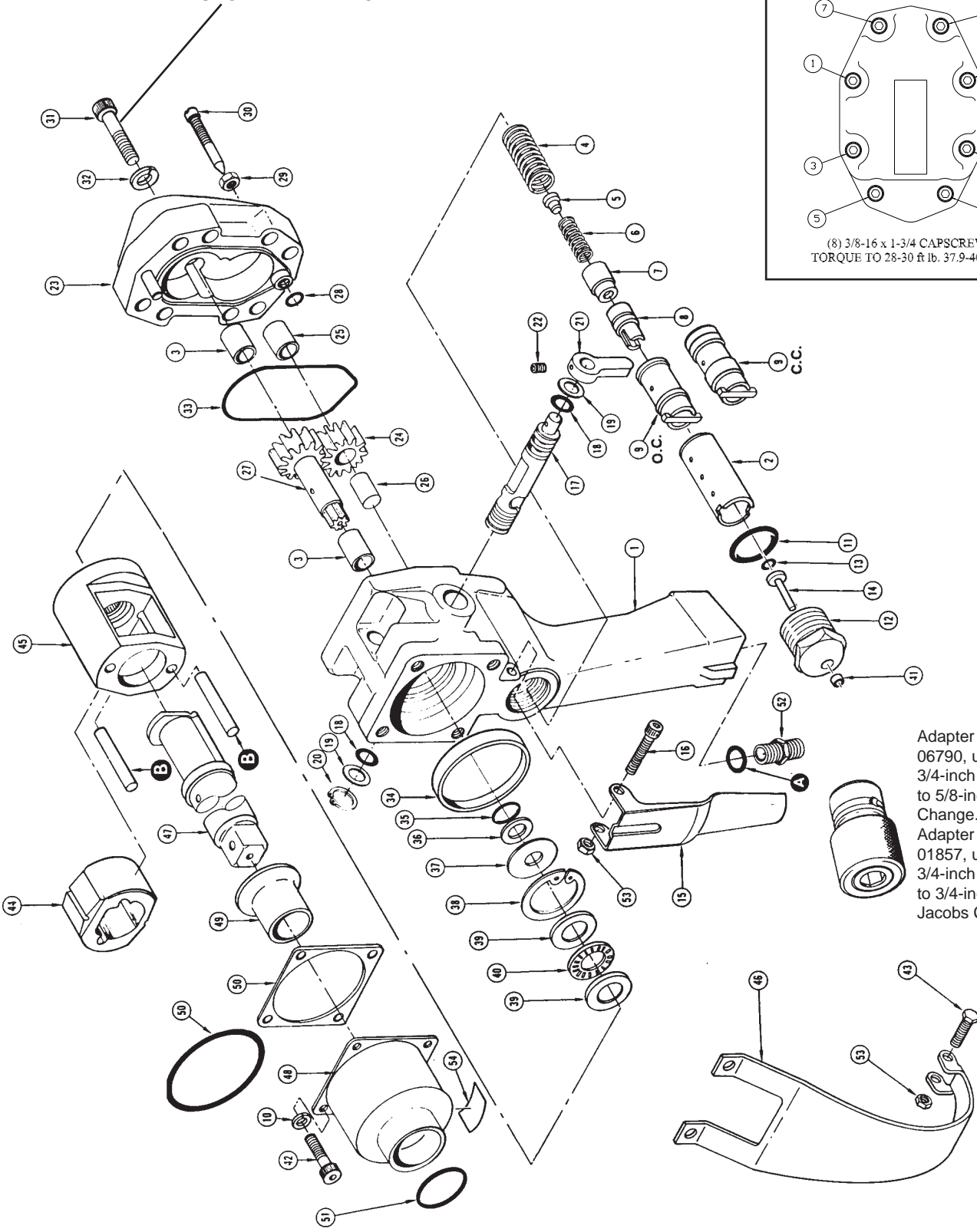
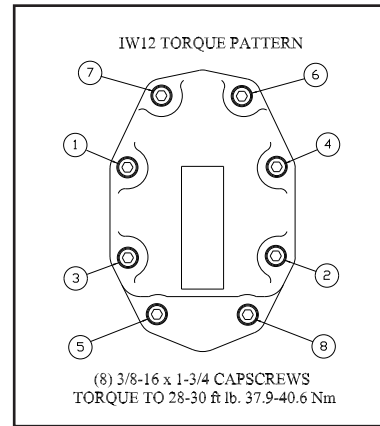
#### 5/8-inch Hex Shank use with Hex Adapter 06790

5/8 Hex Pole Bit, 9/16 x 18 x 22 Overall Length.....	27845
5/8 Hex Pole Bit, 13/16 x 18 x 22 Overall Length.....	27847

# IW12 PARTS ILLUSTRATION

## STANDARD IMPACT MECHANISM MODEL

CLEAN, APPLY 242 LOCTITE AND TORQUE (8) CAPSCREWS TO 28-30 ft lb / 37.9-40.6 Nm. USING THE TORQUE PATTERN SHOWN AT THE RIGHT.



Adapter part number 06790, used to adapt 3/4-inch Square Drive to 5/8-inch Hex Quick Change.  
Adapter part number 01857, used to adapt 3/4-inch Square Drive to 3/4-inch 3-Jaw Jacobs Chuck.



# IW12 PARTS LIST

## STANDARD IMPACT MECHANISM

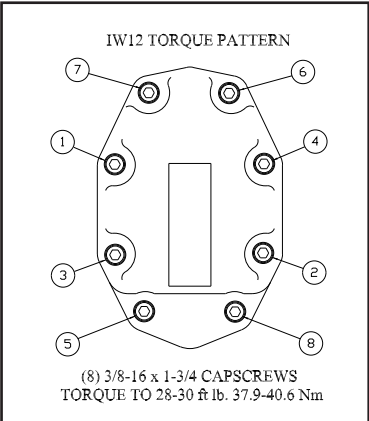
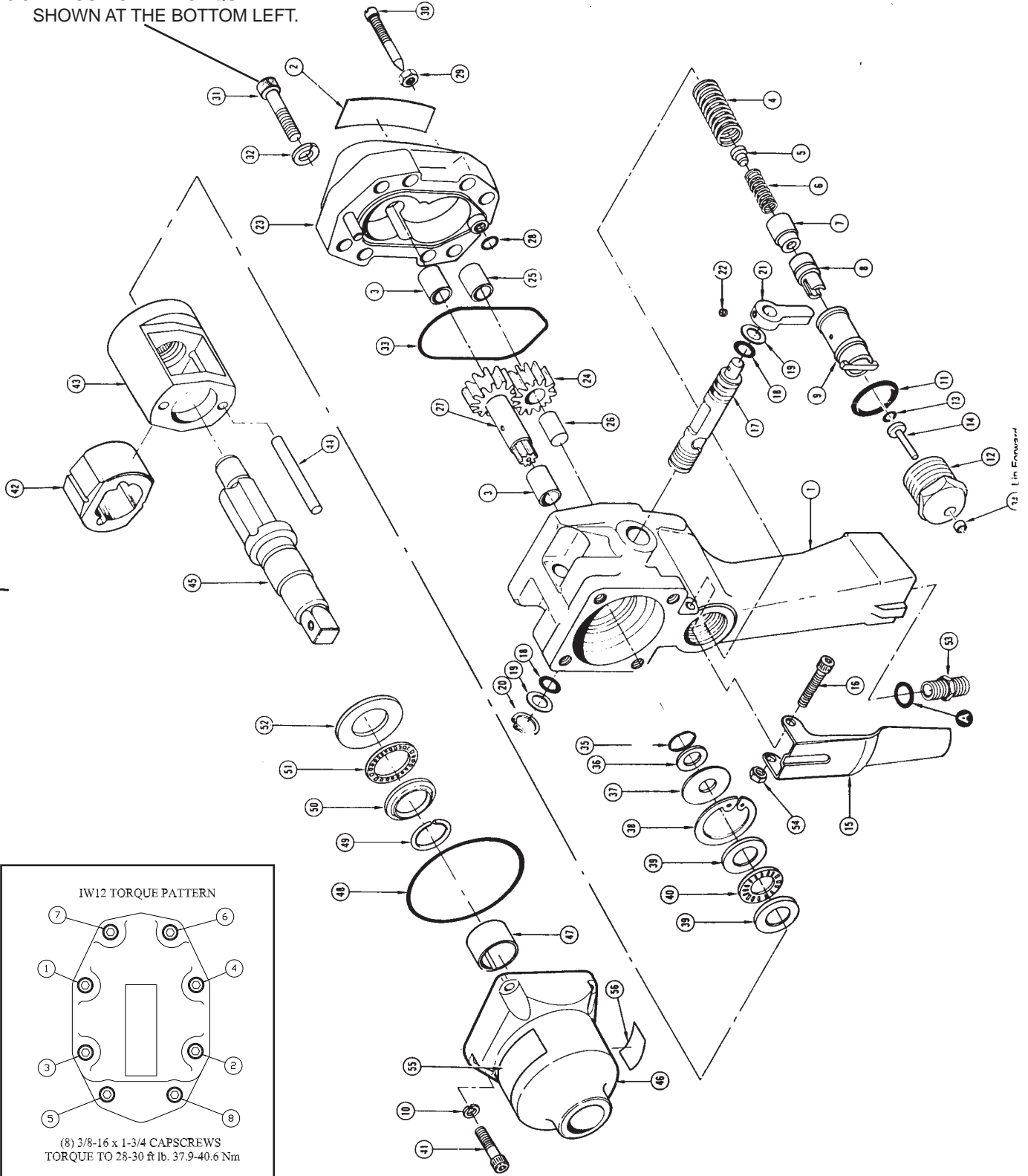
Item No.	Part No.	Qty	Description
1	07999	1	Main Housing Assy - Incl. Items 2 & 3
2	24847	1	Valve Sleeve
3	08014	2	Du Bushing - Garlock 14Du12
4	07988	1	Spring
5	07982	1	Spring Rest
6	07985	1	Spring
7	07993	1	Relief Poppet
8	07986	1	Relief Seat
9	07998	1	Valve Spool - Open Center
10	00145	4	Lockwasher, 5/16-in.
	00231	4	Lockwasher, 5/16-in. (Stainless Steel)
11	06533	1	O-Ring*
12	22063	1	Spool Cap (Underwater)
13	00026	1	O-Ring*
14	23678	1	Headed Push Pin (Underwater)
15	07996	1	Trigger
	12283	1	Trigger (Underwater)
	28536	1	Trigger (CE)
16	00025	1	Capscrew, 10-24 x 1-3/4 Hex Socket Hd
	00786	1	Capscrew, 10-24 x 1-3/4 Hex Socket Hd (Stainless Steel)
17	08002	1	Reversing Spool
18	01211	2	O-Ring*
19	08015	2	Back-Up Ring*
20	08016	1	Retaining Ring
21	04939	1	Lever
22	00720	1	Setscrew, 1/4-20 x 3/8
	00580	1	Setscrew, 1/4-20 x 1/4 (Stainless Steel, Underwater)
23	07997	1	Motor Cap Assy - Incl. Item 3
24	07989	1	Idler Gear Assy - Inc. Item25
25	07978	1	Idler Gear Bushing
26	07991	1	Idler Shaft
27	08001	1	Main Shaft
28	00717	1	O-Ring*
29	00429	1	Nut, 5/16-18
	09277	1	Nut, 5/16-18 (Stainless Steel, Underwater)
30	19453	1	Relief Adjustment Screw
31	00682	8	Capscrew, 3/8-16 x 1-3/4 Hex Socket Hd (Stainless Steel, Underwater)
	01870	8	Capscrew, 3/8-16 x 1-3/4 Hex Socket Hd
32	01459	8	Lockwasher, 3/8
	00812	8	Lockwasher, 3/8, (Stainless Steel, Underwater)
33	08023	1	O-Ring*
34	07980	1	Pilot Ring
35	08017	1	O-Ring*
36	09396	1	Back-Up Ring*
37	07987	1	Back-Up Washer
38	00166	1	Retaining Ring
39	08019	2	Thrust Race
40	08020	1	Thrust Bearing
41	22064	1	Rod Wiper (Underwater)*
42	00682	4	Capscrew, 3/8-16 x 1-3/4 Hex Socket Hd
	01870	4	Capscrew, 3/8-16 x 1-3/4 Hex Socket Hd (Stainless Steel, Underwater)
43	12287	1	Capscrew, 10-24 x 1 Hex Socket Hd (Stainless Steel, Underwater)

Item No.	Part No.	Qty	Description
44	08067	1	Hammer
45	19456	1	Hammer Frame Assy - Incl. Hammer Pins
46	12285	1	Trigger Guard (Underwater)
47	22728	1	Anvil - 3/4 in. Square Drive
	08070	1	Anvil (Underwater) Model IW1234001
48	08071	1	Hammer Case Assy - Incl. Item 49
	12785	1	Hammer Case Assy (Underwater) Model IW1234001
49	20258	1	Hammer Case Bushing
	35445	1	Hammer Case Bushing (Underwater)
50	00149	1	O-Ring* (Land & Underwater)
51	00294	1	O-Ring* (Underwater)
52	00936	2	Adapter, 1/2 SAE to 3/8 NPT Male
53	06971	2	Locknut, 10-24
54	03693	1	Decal, Closed-Center
	22729		Impact Mechanism - 3/4 Square
	35451		Impact Mechanism - 3/4 Square (Underwater)
	08073	1	SEAL KIT - LAND MODEL
	13695	1	SEAL KIT - UNDERWATER MODEL

# IW12 PARTS ILLUSTRATION

## HEAVY DUTY IMPACT MECHANISM MODEL

CLEAN, APPLY 242 LOCTITE AND TORQUE  
 (8) CAPSCREWS TO 28-30 ft lb / 37.9-  
 40.6 Nm. USING THE TORQUE PATTERN  
 SHOWN AT THE BOTTOM LEFT.



# IW12 PARTS LIST

## HEAVY DUTY IMPACT MECHANISM

Item No.	Part No.	Qty	Description
1	07999	1	Main Housing Assy
2	08012	1	Name Tag
3	08014	2	Du Bushing - Garlock 14Du12
4	07988	1	Spring
5	07982	1	Spring Rest
6	07985	1	Spring
7	07993	1	Relief Poppet
8	07986	1	Relief Seat
9	07998	1	Valve Spool - Open Center
10	00145	4	Lockwasher, 5/16-in.
11	06533	1	O-Ring*
12	22063	1	Spool Cap (Underwater)
13	00026	1	O-Ring*
14	23678	1	Headed Push Pin
15	07996	1	Trigger
16	00025	1	Capscrew, 10-24 x 1-3/4 Hex Socket Hd
17	08002	1	Reversing Spool
18	01211	2	O-Ring*
19	08015	2	Back-Up Ring*
20	08016	1	Retaining Ring
21	04939	1	Lever
22	00720	1	Setscrew, 1/4-20 x 3/8
23	07997	1	Motor Cap Assy - Incl. Item 3
24	07989	1	Idler Gear Assy - Inc. Item25
25	07978	1	Idler Gear Bushing
26	07991	1	Idler Shaft
27	08001	1	Main Shaft
28	00717	1	O-Ring*
29	00429	1	Nut, 5/16-18
30	19453	1	Relief Adjustment Screw
31	00682	8	Capscrew, 3/8-16 x 1-3/4 Hex Socket Hd (Stainless Steel, Underwater)
32	01459	8	Lockwasher, 3/8
33	08023	1	O-Ring*
34	22064	1	Wiper*
35	08017	1	O-Ring*
36	09396	1	Back-Up Ring*
37	07987	1	Back-Up Washer
38	00166	1	Retaining Ring
39	08019	2	Thrust Race
40	08020	1	Thrust Bearing
41	00682	4	Capscrew, 3/8-16 x 1-3/4 Hex Socket Hd
42	08067	1	Hammer
43	20257	1	Hammer Frame
44	08069	1	Hammer Pin
45	22728	1	Anvil - 3/4 in. Square Drive Standard
	20263	1	Anvil - 3/4 in. Square Drive 12-in. Extnd
46	29087	1	Hammer Case Assy
	22729	1	Impact Mechanism Standard
47	20258	1	Hammer Case Bushing
48	00149	1	O-Ring* (Land & Underwater)
49	20262	1	Retaining Ring
50	21408	1	Thrust Bearing Race
51	09878	1	Thrust Bearing
52	20259	1	Retainer
53	00936	2	Adapter, 1/2 SAE to 3/8 NPT Male
54	06971	2	Locknut, 10-24

Item No.	Part No.	Qty	Description
55	17275	1	Decal, GPM
56	03693	1	Decal, Closed-Center
	06345	2	Plastic Plug (Not Illustrated)
	08073	1	SEAL KIT - LAND MODEL
	22729	1	Impact Mechanism Standard

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# WARRANTY

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Stanley Hydraulic Tools (hereinafter called "Stanley"), subject to the exceptions contained below, warrants new hydraulic tools for a period of one year from the date of sale to the first retail purchaser, or for a period of 2 years from the shipping date from Stanley, whichever period expires first, to be free of defects in material and/or workmanship at the time of delivery, and will, at its option, repair or replace any tool or part of a tool, or new part, which is found upon examination by a Stanley authorized service outlet or by Stanley's factory in Milwaukie, Oregon to be DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP.

## EXCEPTIONS FROM WARRANTY

**NEW PARTS:** New parts which are obtained individually are warranted, subject to the exceptions herein, to be free of defects in material and/or workmanship at the time of delivery and for a period of 6 months after the date of first usage. Seals and diaphragms are warranted to be free of defects in material and/or workmanship at the time of delivery and for a period of 6 months after the date of first usage or 2 years after the date of delivery, whichever period expires first. Warranty for new parts is limited to replacement of defective parts only. Labor is not covered.

**FREIGHT COSTS:** Freight costs to return parts to Stanley, if requested by Stanley for the purpose of evaluating a warranty claim for warranty credit, are covered under this policy if the claimed part or parts are approved for warranty credit. Freight costs for any part or parts which are not approved for warranty credit will be the responsibility of the individual.

**SEALS & DIAPHRAGMS:** Seals and diaphragms installed in new tools are warranted to be free of defects in material and/or workmanship for a period of 6 months after the date of first usage, or for a period of 2 years from the shipping date from Stanley, whichever period expires first.

**CUTTING ACCESSORIES:** Cutting accessories such as breaker tool bits are warranted to be free of defects in material and or workmanship at the time of delivery only.

**ITEMS PRODUCED BY OTHER MANUFACTURERS:** Components which are not manufactured by Stanley and are warranted by their respective manufacturers.

- a. Costs incurred to remove a Stanley manufactured component in order to service an item manufactured by other manufacturers.

**ALTERATIONS & MODIFICATIONS:** Alterations or modifications to any tool or part. All obligations under this warranty shall be terminated if the new tool or part is altered or modified in any way.

**NORMAL WEAR:** any failure or performance deficiency attributable to normal wear and tear such as tool bushings, retaining pins, wear plates, bumpers, retaining rings and plugs, rubber bushings, recoil springs, etc.

**INCIDENTAL/CONSEQUENTIAL DAMAGES:** To the fullest extent permitted by applicable law, in no event will STANLEY be liable for any incidental, consequential or special damages and/or expenses.

**FREIGHT DAMAGE:** Damage caused by improper storage or freight handling.

**LOSS TIME:** Loss of operating time to the user while the tool(s) is out of service.

**IMPROPER OPERATION:** Any failure or performance deficiency attributable to a failure to follow the guidelines and/or procedures as outlined in the tool's operation and maintenance manual.

**MAINTENANCE:** Any failure or performance deficiency attributable to not maintaining the tool(s) in good operating condition as outlined in the Operation and Maintenance Manual.

**HYDRAULIC PRESSURE & FLOW, HEAT, TYPE OF FLUID:** Any failure or performance deficiency attributable to excess hydraulic pressure, excess hydraulic back-pressure, excess hydraulic flow, excessive heat, or incorrect hydraulic fluid.

**REPAIRS OR ALTERATIONS:** Any failure or performance deficiency attributable to repairs by anyone which in Stanley's sole judgement caused or contributed to the failure or deficiency.

**MIS-APPLICATION:** Any failure or performance deficiency attributable to mis-application. "Mis-application" is defined as usage of products for which they were not originally intended or usage of products in such a manner which exposes them to abuse or accident, without first obtaining the written consent of Stanley. PERMISSION TO APPLY ANY PRODUCT FOR WHICH IT WAS NOT ORIGINALLY INTENDED CAN ONLY BE OBTAINED FROM STANLEY ENGINEERING.

**WARRANTY REGISTRATION:** STANLEY ASSUMES NO LIABILITY FOR WARRANTY CLAIMS SUBMITTED FOR WHICH NO TOOL REGISTRATION IS ON RECORD. In the event a warranty claim is submitted and no tool registration is on record, no warranty credit will be issued without first receiving documentation which proves the sale of the tool or the tools' first date of usage. The term "DOCUMENTATION" as used in this paragraph is defined as a bill of sale, or letter of intent from the first retail customer. A WARRANTY REGISTRATION FORM THAT IS NOT ALSO ON RECORD WITH STANLEY WILL NOT BE ACCEPTED AS "DOCUMENTATION".

## NO ADDITIONAL WARRANTIES OR REPRESENTATIONS

This limited warranty and the obligation of Stanley thereunder is in lieu of all other warranties, expressed or implied including merchantability or fitness for a particular purpose except for that provided herein. There is no other warranty. This warranty gives the purchaser specific legal rights and other rights may be available which might vary depending upon applicable law.



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