UNITOR

Instruction manual

& spare parts list

IW-PRO SERIES

AIR DRIVEN IMPACT

WRENCHES

Wilhelmsen Ships Service

1. General Safety and Operation Instruction

1. Unpacking
   When unpacking this product, carefully inspect for any damage that may have occurred during transit. Make sure any loose fittings, bolts, etc, are tightened before putting this product into service.
2. This product is a part of a high pressure system and the following safety precautions must be followed at all times along with any other existing safety rules.
3. Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
4. Only persons well acquainted with these rules of safe operation should be allowed to use the air tool.

Do not exceed maximum operation pressure of the air tool (6.2BAR/90 PSI).
The air tool could explode and result in death or serious personal injury.

5. Do not exceed any pressure rating of any component in the system.
6. Disconnect the air tool from air supply before changing tools or attachments, servicing and during non-operation.
7. Always wear safety glasses during operation.
8. Do not wear loose fitting clothing, scarves, or neck ties. Loose clothing may become caught in moving parts and result serious personal injury.
9. Do not wear jewelry when operation any tool. Jewelry may become caught in moving parts and result in serious personal injury.
10. Do not depress trigger when connecting the air supply hose.
11. Always use attachments designed for use with air powered tools.
    Do not use damaged or worn attachments.

Do not use hand-tool sockets. Use impact-quality sockets only. Hand-tool socket are "Glass-Hard" and will shatter and can cause serious personal injury if used with air tools.

12. Never trigger the tool when not applied to a work object. Attachments must be securely attached. Loose attachments can cause serious injury.
13. Protect air lines from damage or puncture.
14. Never point an air tool at oneself or any other person. Serious injury could occur.

15. Check air hoses for weak or worn condition before each use. Make sure all connections are secured.

Release all pressure from the system before attempting to install, service, relocate or performs any maintenance.

16. Keep all nuts, bolts and screws tight and ensure equipment is in safe working condition.
17. Do not put hands near or under moving parts.
18. Speed Adjustment

    The impact wrench should never be used to set torque. Use a torque wrench to set the torque and equipped with regulators for speed adjustment. To remove nuts, set the regulator to the maximum setting. To install nuts, set the regulator to the minimum to medium setting. Do not over-tighten the nuts.
19. Air Hose

    Use a 3/8" air hose between the compressor and the tool. Compressed air is cooled and its water content separated, as soon as the air leaves the compressor. A portion of the water content, however, is condensed in the piping, and may cause trouble. So, install an air filter and an oiler between the compressor and the tool.

    Clean the hose with a blast of compressed air before connecting the hose to air tool. This will prevent both moisture and dust within the hose from entering the tool and causing possible rust or malfunction. To compensate for unusually long hose (over 25 ft), the line pressure should be increased accordingly.

    Never carry a tool by the hose or pull the hose to move the tool or a compressor. Keep hoses away from heat, oil and sharp edges. Replace any hose that is damaged, weak or worn.

20. Storage

    The scaling hammer must be lubricated before storing. Follow the air cylinder lubrication instructions with an exception to step 4. Only run the scaling hammer for 2 to 3 seconds instead of 20 to 30 seconds because more oil needs to remain in the scaling hammer when storing.

2. Particular Safety Instruction

1. Information of Noise Level

(1)The noise level at the operator's position is about:

Model No.:	A-weighted sound pressure level (Lpf)	A-weighted sound power level (Lw)	Uncertainty K_{wA}
AT-5348	103(dB)	114(dB)	3(dB)

(2)Reference standard :ISO 15744.

(3)Always wear ear protectors during operation.

2. Information of Vibration Level

(1)The vibration level at the handle is about :

Model No.:	Vibration Level (m/s^2)	Uncertainty K (m/s^2)
AT-5348	7.3	0.66

(2)Reference standard: EN 28927-2.

3. Warnings

(1)The power tools shall not be used in explosive atmospheres unless specially designed for that purpose.

(2)Unexpected tool movement due to reaction forces or breakage of inserted tool or reaction bar may cause injuries to hands or feet.

(3)The power tools shall be isolated from the energy source before changing or adjusting the inserted tool.

(4)Pay attention to the risk of crushing by torque between a reaction bar and the work piece.

(5)Pay attention to the risk of loose clothing, hair etc. being caught in the rotating spindle of the power assembly tool.

(6) Pay attention to the risk of being injured if hands are not kept away from the reaction bar, specially observed when unscrewing in confined work places.

(7) Pay attention to the risk of being injured if hands are not kept away from the nut runner sockets.

(8) Pay attention to the danger to persons from high speed splinters being emitted in the case of a nut-runner socket failure, in particular relevant of impact wrenches.

(9) Pay attention to the risk of being injured by whipping air hoses.

4. Instructions
   (1) On the proper adaptation of the reaction bar to the application.
   (2) Use only sockets and adapters which are in good condition and are intended for use with power tools.
   (3) Ensure that the assembly power tool is securely fixed to suspension advice, if used.
   (4) Adopt a suitable postures to counteract normal or unexpected movement of the power tool due to reaction forces from the power assembly tool.
   (5) Ensure that the pressure of the air or fluid supply is not lower than the lowest pressure specified by the manufacturer for clutch controlled assembly tools and make sure that the air or fluid supply pressure does not fail after the clutch has been set.
   (6) Release the start and stop device in the case of an interruption of the energy supply.
   (7) Only lubricants recommended by the manufacturer shall be used.

5. Explanations of warning signs used for this tool

			
The operator's instruction must be read before work starts	**Warning: Risk of crushing (intended for open-ended spanners)**	**Warning: Risk of crushing (between the reaction bar and the working piece)**	**Direction of rotation**

6. Application

Rotary power tool, with a reversible spindle driving a hammer which periodically strikes an anvil which includes a drive adapter for the purpose of tightening or loosening nuts and bolts without producing any major torque reaction on the power tool.

7. The weight of this tools is about : 2.0 Kgs.

Note：If the weight of this tool exceeds 15 Kgs, the following attention shall be paid to：

(1) Be sure that you can afford the weight.

(2) Be sure to wear foot protection, to prevent the risk of impact due to the drop of tool.

8. Specifications：

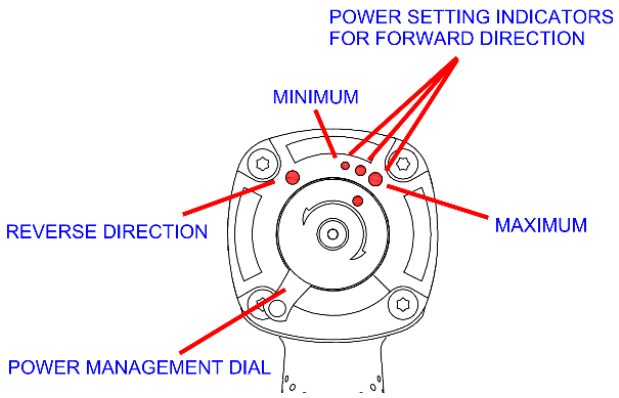
Model No.	Square Drive	Capacity Bolt Size		Free Speed RPM	Max. Torque		Overall Length		Air Inlet (PT)	Air Hose (ID)	Continuous Air Consumption		Net Weight	
		inch	mm		ft-lb	N.m.	inch	mm			scfm	l/min	lb	kg
AT-5348	1/2"	3/4	18	7500	600	814	7.83	199	1/4"	3/8"	13	368	4.4	2.0

Revision date 02/2016

3. USING THE POWER MANAGEMENT SYSTEM

Air impact wrenches are not torque control devices. Fasteners with specific torque requirements must be checked with suitable torque measuring devices after installation with an air wrench.

POWER MANAGEMENT SYSTEM



The Impact wrench incorporates a Power Management System that allows the operator to select 3 power output settings. These settings range from minimum power output through maximum power output in the forward direction only.

The air impact wrench will always operate at maximum power output in the reverse direction.

The 3 power setting indicators of increasing size on the rear of the housing indicate increasing power output levels, are for reference only and DO NOT denote a specific power output. The smallest power setting indicator designates minimum power output, the middle power setting indicators denote medium power outputs and the largest power setting indicator denotes maximum power output.

The power output can be further reduced in forward or reverse by using the variable throttle. Air supply systems which do not deliver adequate air pressure can affect power output at all settings.

3.Maintenance Instruction

1. Lubrication

   Proper lubrication is the owner's responsibility. Failure to lubricate the air tool

   Properly will dramatically shorten the life of the tool and will void the warranty.

This impact wrench requires lubrication before the initial use and before and after each additional use.

2. Impact wrench require lubrication throughout the life of the tool and must be lubricated in two separate areas : the air motor and the impact mechanism. Follow the outlined procedures and refer to Figure I for details.
3. Air Motor Lubrication The motor must be lubricated daily. An air motor cannot be oiled too often.

Disconnect the impact wrench from the air supply before lubricating.

1. Disconnect the impact wrench from the air supply.
2. Turn the impact wrench upside down.
3. Simultaneously (at the same time), pull the trigger and pour a teaspoon of oil in the air inlet. Then, push the forward and reverse button in both directions.

After an air tool has been lubricated, oil will discharge through the exhaust port during the first few seconds of operation. Thus, the exhaust port must be covered with a towel before applying air pressure. Failure to cover the exhaust port can result in serious injury.

4. Connect the impact wrench to the air supply and cover the exhaust port with a towel. Run the impact wrench in both the forward and reverse directions for 20 to 30 seconds. Oil will discharge from the exhaust port when air pressure is applied.
5. Impact mechanism lubrication

   The impact wrench should be lubricated monthly.

Disconnect the impact wrench from the air supply before lubricating.

1. Disconnect the impact wrench from the air supply.
2. Remove the slotted screw or allen head screw from the oil port hole on the right side of the tool that has "**OIL**" stamped below the hole for.
3. Put three teaspoons of air tool oil in the oil port hole. Replace the screw.

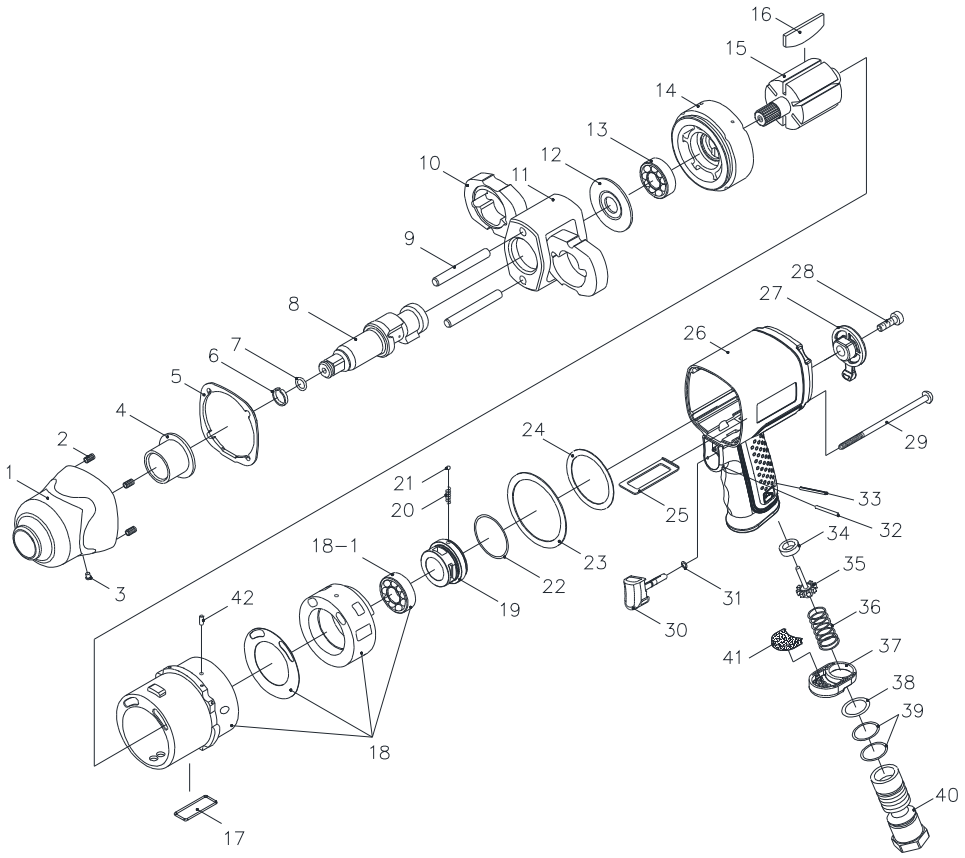
4. Reconnect the air supply to the impact wrench and run for 20 to 30 seconds.
   Lubricate the entire impact mechanism by rotating the tool upside down and sideways while running the tool.
5. Remove the screw and hold the oil port hole over a suitable container to allow excess oil to drain.
6. If the oil is dirty, repeat the procedure above until the oil comes out clear. Install the screw and tighten. The residual oil remaining in the impact mechanism chamber is all that is needed for proper lubrication.

General Troubleshooting Guide

Symptom	Possible Cause(s)	Corrective Action
Tool runs slowly or will not operate	1. Grit or gum in tool.	1.Flush the tool with air tool oil, gum solvent, or an equal mixture of SAE # 10 motor oil and kerosene. Lubricate the tool after cleaning.
	2. No oil in tool.	2.Lubricate the tool according to the lubrication instructions in this manual.
	3. Low air pressure.	3.Adjust the compressor regulator to tool maximum while the tool is running free.
	4. Air hose leaks.	4.Tighten and seal hose fittings if leaks are found.
	5. Pressure drops.	5-1.Be sure the hose is the proper size. Long hoses or tools using large volumes of air may require a hose with an I.D. of 12.7 mm (1/2") or larger depending on the total length of the hose. 5-2.Do not use a multiple number of hoses connected together with quick connect fittings. This causes additional pressure drops and reduces the tool power Directly connect the hoses together.
	6. Worn ball bearing in motor.	6.Remove and inspect bearing for rust, dirt and grit or worn race. Clean and regress bearing with bearing grease.

Symptom	Possible Cause(s)	Corrective Action
Moisture blowing out of tool	1.Water in tank. 2.Water in the air lines/hoses.	1.Drain tank. (See air compressor manual). Oil tool and run until no water is evident. Oil tool again and run 1-2 seconds. 2-1.Install a water separator/filter. Note: Separators only work properly when the air passing through the separator is cool. Locate the separator/filter as far as possible from the compressor. 2-2.Install an air dryer.
Impacts slowly or Will not impact	1.Lack of lubrication. 2.Tool regulator set in wrong position. 3.In-line regulator or compressor regulator set too low.	1.Lubricate the air motor and the impact mechanism.(See lubrication section of this manual) 2.Adjust the regulator setting of the tool. 3.Adjust regulators in the air system.
Impacts rapidly But will not remove bolts	1.Worn impact mechanism.	1-1 Replace impact mechanism. 1-2 Return impact wrench to your supplier for repair.
Does not impact	1.Worn impact mechanism.	1-1 Replace impact mechanism. 1-2 Return impact wrench to your supplier for repair.

1/2" AIR IMPACT WRENCH / AT-5348



REF NO.	PARTS NO.	DESCRIPTION	Q'TY
1	T5348A-01	HAMMER CASE	1
2	T5348A-02	INSERTS RECOIL	4
3	T5348A-03	GREASE FITTING	1
4	T5348A-04	ANVIL BUSHING	1
5	T5348A-05	FRONT GASKET	1
6	T5348A-06	ANVIL COLLAR	1
7	T5348A-07	"O" RING (d6.8xW1.9)	1
8	T5348A-08	ANVIL	1
9	T5348A-09	HAMMER PIN	2
10	T5348A-10	HAMMER	2
11	T5348A-11	HAMMER CAGE	1
12	T5348A-12	REAR WASHER	1
13	T5348A-13	BALL BEARING (R8)	1
14	T5348A-14	FRONT END PLATE	1
15	T5348A-15	ROTOR	1
16	T5348A-16	ROTOR BLADE	6
17	T5348A-17	SQUARE RING	1
18	T5348A-18	CYLINDER ASS'Y	1 SET
18-1	T5348A-18-1	BALL BEARING (6001)	1
19	T5348A-19	REGULATOR	1
20	T5348A-20	SPRING	1
21	T5348A-21	STEEL BALL (Ø1/8")	1
22	T5348A-22	"O" RING (d31.0xW1.5)	1
23	T5348A-23	REAR GASKET	1
24	T5348A-24	WASHER	1
25	T5348A-25	AIR CHANNEL GASKET	1

REF NO.	PARTS NO.	DESCRIPTION	Q'TY
26	T5348A-26	MOTOR HOUSING	1
27	T5348A-27	REGULATOR KNOB	1
28	T5348A-28	CAP SCREW	1
29	T5348A-29	SCREW	4
30	T5348A-30	TRIGGER	1
31	T5348A-31	"O" RING (d3.0xW1.0)	1
32	T5348A-32	SPRING PIN (Ø2x22L)	1
33	T5348A-33	SPRING PIN (Ø3x20L)	1
34	T5348A-34	BUSHING	1
35	T5348A-35	VALVE STEM	1
36	T5348A-36	SPRING	1
37	T5348A-37	EXHAUST DEFLECTOR	1
38	T5348A-38	"O" RING (d15.8xW2.4)	1
39	T5348A-39	"O" RING (d17.0xW1.5)	2
40	T5348A-40A	AIR INLET (1/4" PF)	1
40	T5348A-40B	AIR INLET (1/4" PT)	1
40	T5348A-40C	AIR INLET (1/4" NPT)	1
41	T5348A-41	MUFFLER	1
42	T5348A-42	PIN	1
**K01	779002	TUNE-UP KIT(6,7,16,17,22,31,34,35,36,38,39)	1 SET
**K02	779003	BALL BEARING OVERHAUL KIT (13,18-1)	1 SET
**K03	779004	HAMMER OVERHAUL KIT (6,7,8,9,10,11)	1 SET
**K04	779005	AIR MOTOR OVERHAUL KIT(13,14,16,17,18,20,21)	1 SET