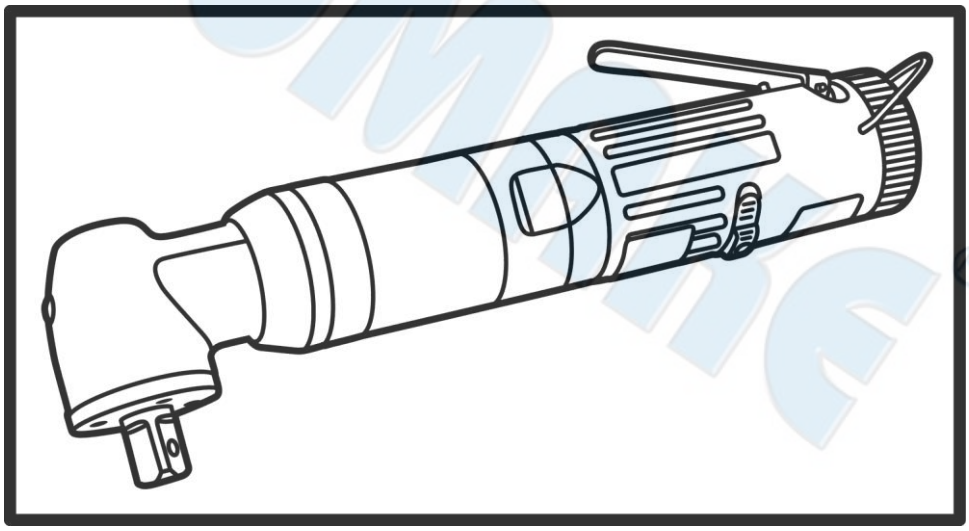
SUMAKE *PNEUMATIC TOOLS*



1/2" Square Drive Auto Shut Off Oil Pulse Wrench (Angle Type) -High Pressure Tool IPW-2450A

Specification:

Free Speed	5bar: 3,100 r/min 6bar: 3,300 r/min
Square	1/2
Bolt Capacity	10 mm
Torque	20.7~44.4 ft-lb (28~60 Nm)
Overall Length	11.42” (290mm)
Air Consumption	12.4 CFM (350 L/min)
Air Inlet (PT)	1/4” (6.35 mm)
Air Hose (I.D.)	8.0 mm
Air Pressure	72.5~ 87 psi (5~6 bar)
Net Weight	4.41 lbs (2.0 kg)

Noise and Vibration:

Vibration EN ISO 28927-2	**Noise** EN ISO 15744	**Remark**
Load: 3.0 m/s²	Sound Pressure Level load: 80 dB(A)	Please always wear ear protector at environment noise level > 80 dB(A) due to risk of impaired hearing!
	Sound power level load: 91 dB(A)	
Uncertainty K= 1.5 m/s²	Uncertainty K= 3dB	

SUMAKE INDUSTRIAL CO., LTD

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SUMAKE®

OIL PULSE TOOL

IPS(W)-I-1709D-C5

OIL PULSE TOOL & TORQUE MEASUREMENT EQUIPMENT

WARNING

Read and carefully observe these operating instructions before unpacking and operating the tool! The tool must be operated, maintained and repaired exclusively by persons familiar with the operating instructions. Local safety regulations regarding installation and maintenance must be followed.

INSTALLING TOOL

- For safety, performance and durability of parts, operate this tool at 90psi (6.3kg/cm³) maximum air pre-ssure at inlet with 3/8" (10mm) inside diameter air supply hose.
- For safety reasons, the tool must always be disconnected from the air supply during connection and adjustment work.
- Do not use damaged, frayed air houses and fittings.
- Before sure all hoses and fitting are the correct size and are tightly secured.
- Always use clean, dry air at 90psi (6.3kg/cm3)maximum air pressure. moisture can ruin the motor of an air tool.
- Do not lubricate loots with flammable or volatile liquids such as kerosene, diesel or jet fuel.
- Do not remove any labels, replace Any damaged label.

USING THE TOOL

- Never work without protective goggles
- Always wear hearing protection when operating this tool.
- Be aware of the direction of rotation when operating the throttle.
- Keep hands, loose clothing and long hair away from rotating end of tool.
- Keep body stay balanced and firm. Do not over reach when operating this tool. High reaction torque can be occur at or below the recommended air pressure.
- Use power sockets only, For safe and economic use-replace worn sockets.
- This tool, together with any attachments and accessories, must never be used for anything other than the designed purpose.

SYMBOLS

	Caution				
This symbol identifies the potential for a hazardous situation. If this warning is not followed, a serious injury could occur.	This symbol identifies the potential for a damanging situation. If a caution note is not followed, the product or parts of the product could be damanged	Aviod direct skin contact when working with oil to prevent skin irrita-tions	Always wear eye protection when operating or performing maintance on this tool	Always wear hearing protection when operating this tool.	Recycling raw materials instead of disposing as waste.

CE

OIL PULSE TOOL & TORQUE MEASUREMENT EQUIPMENT

NOTICE

The use of other than genuine replacement parts may result in safey hazards, decreased tool performance, and increased maintenance, and may invalidate all warranties.
Repairs should be made only by authorized trained personnel.
For parts and service information, contact your local distributors.

PRODUCT DESCRIPTION

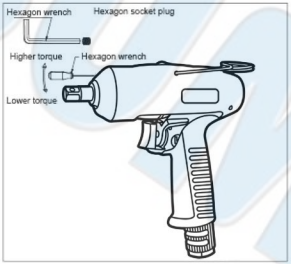
The pulse tool is a similar design to impact wrench, however with a integrated hydraulic oil pressure unit. Combination of torque control, forward/reverse operation. Low noise and low vibration.

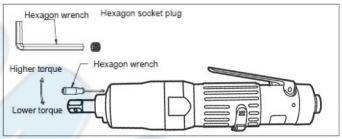
TORQUE ADJUSTMENT

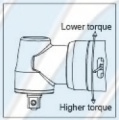
To adjust the torque on oil pulse tool, proceed as follows :

1. The cold weather could influence pulse oil quality. please reheat fastener 10-15times to warm up the oil then adjust torque screw.
2. Remove the adjustment hole plug.
3. Rotate the drive shaft until the torque adjustment screw is visible in the opening.
4. Use a hex wrench, rotate the adjustment crew clockwise to increase the torque output and counterclockwise to decrease the torque output. Do not rotate the oil plug. (with about 3-4 turns, set the desired torque)

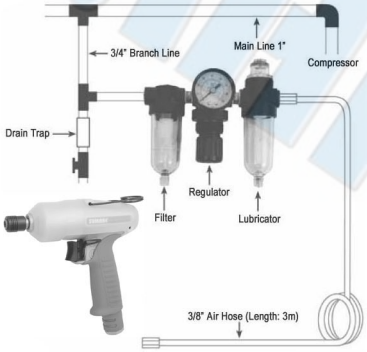
NOTICE PLEASE USE TORQUE TESTER FOR CALIBRATION AFTER TORQUE ADJUSTMENT







COMPRESSED AIR SCHEMATIC



RECOMMENDED COMPRESSED AIR SYSTEM

Caution

Lubrication

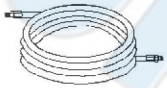
While installing air compressor system, be sure to have filters, separators for oil and water, regulators, and lubricators to increase work efficiency, prolong the life of air tools and reduce maintenance cost.

Suggestion air hose size :

Main Line : 3 times air tool inlet size
Branch Line : 2 times air tool inlet size

To keep the best performance of tool, please install the air hose size correctly

NOTICE



3/8" I.D Hose
Ideal for increasing working distance in high CFM applications.

Q&A

Q : What is the air pressure and air hose size that I should use with pulse tool ?

A : The tools should be run at 90psi dynamic （This means that the air pressure should be checked with the tool running free speed）. The inside diameter of your air hose should be one size larger than the size of the air inlet of the tool.

Example : 1/4" NPT air inlet should be run on a 3/8" inside diameter air hose.

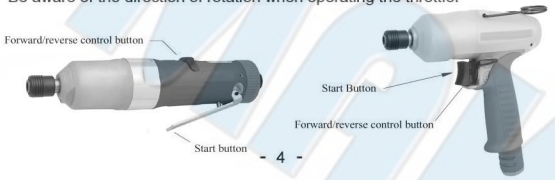
INSPECTION AND MAINTENANCE

Placing tool in service :

1. Please install line with R.F.L unit (R-REGULATOR, F-Filter, L-Lubricator)
2. Air hose must be 3/8" inside diameter, don't use coil hose, it may affect torque stability.
3. Please check the air pressure before using. The air pressure should be 90psi in dynamic.
4. Ensure the air supply is clean and does not exceed 90psi during operation. Too high an air pressure and unclean air will shorten the product life due to excessive wear, and may be dangerous causing damage and/or personal injury.
5. Please check compressed air system everyday and keep it clean and dry.
6. Use proper connector, coupling, coupling, threaded connections and accessories.

Using tool in service :

1. Please lubricate tool daily to avoid wearing and rustiness. Running tool for 2-3 seconds after lubrication.
2. Always wear eye and ears protection when operating the tool
3. the bearing needs to be lubricated with LDS18 every 3 months.
4. Please follow the instruction for assembly or disassembly this tool
5. Please do not make any adjustment during operation. Please disconnect the air hose from air supply.
6. The use of other than genuine replacement parts may cause the damage of the tools.
7. Ues only impact socket and accessories. Do not use hand (chrome) sockets or accessories.
8. Be aware of the direction of rotation when operating the throttle.



FLUID CHANGE

In order to avoid the costs of malfunction or maintenance increase, routine inspections are necessary.
When tighten fasteners, used in different ways can cause the time of change oil difference, so we recommend that user should assess the self-condition to adjust the time of change oil.

For example: Tighten hard joint fasteners about spending 0.5~1 second (pulse), tighten soft joint fasteners exceeds more than 1 second (pulse), the time of change oil will be different.

Pulse number: It means when the screws are exposed to tighten the object surface, the number of strokes that driven by hydraulic cylinder.

When tool spends less time to tighten the object; quickly achieve the required torque, the time of change oil (number) will be extended.
When tool spends more time to tighten the object; to reach the required torque, the time of change oil (number) will be increased.

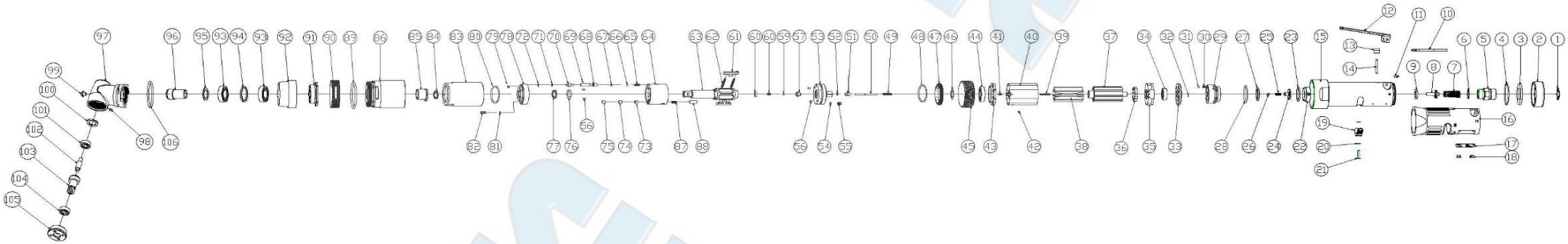
When tool is used for high torque (less number of pulses), the time of change oil will be extended.
When tool is used for low torque (more number of pulses), the time of change oil will be increased.

NOTICE

On the narrative, we reserve the right to change, without prior notice.

IPW-2450A

1/2" SQUARE DRIVE AUTO SHUT OFF OIL PULSE WRENCH (ANGLE TYPE) -HIGH PRESSURE TOOL



IPW-2450A

1/2" SQUARE DRIVE AUTO SHUT OFF OIL PULSE WRENCH (ANGLE TYPE) -HIGH PRESSURE TOOL

PARTS LIST

No.	Parts No.	Description	Q'ty
1	IP40900157032	Snap	1
2	IP30800790160	Exhaust Block Set	1
3	IP30800820000	Muffler	1
4	IP40300062010	O-Ring	1
5	IP30460770030	Connect Set Fast 18NPT	1
	IP30460780030	Connect Set Fast 19NPT	1
6	IP40300001010	O-Ring	1
7	IP30461190030	Spring	1
8	IP30461200210	Air Inlet Valve	1
9	IP30461270020	Washer	1
10	IP35562370030	After The Rings	1
11	IP41230260030	Pin	1
12	IP30260510110	Handle	1
13	IP35040660000	Switch Place	1
14	IP35520650030	Valve Axle Of The Switch	1
15	IP35520170000	Straight Housing	1
16	IP35521830000	Rubber Grip	1
17	IP35912410000	The Positive Plate	1
18	IP42117002000	Rivet	4
19	IP30800640010	R.L Switch	1
20	IP30460740030	Washer	1
21	IP30460750030	Screw	1
22	IP35040970210	Rear Balanced Switch	1
23	IP40330015010	O-Ring	1
24	IP30490940030	Piston	1
25	IP30890930000	Spring	1
26	IP40504000000	Ball	1
27	IP30490920210	Washer	1
28	IP40340013011	O-Ring	1
29	IP35520910000	Equilibrate The Switch	1
30	IP30080710000	Spring	1
31	IP40503000000	Ball	1
32	IP40300018010	O-Ring	1
33	IP35520960230	Wind Direction Plate	1
34	IP40800001001	Bearing	1
35	IP35520500110	Front Plate	1
36	IP35361680000	Rubber Plug	9
37	IP35480560000	Rotor	1
38	IP35480490000	Rotor Blade	9
39	IP41220160030	Pin	1
40	IP35520550110	Cylinder	1
41	IP41220050030	Pin	1
42	IP41220040030	Pin	1
43	IP35480430110	Rear Plate	1
44	IP40800015000	Bearing	1
45	IP35480390030	Connexion Sets	1
46	IP35602430000	Driving Seat Gasket	1
47	IP35480350030	Pressure Plate	1
48	IP40340013011	O-Ring	1
49	IP35360950000	Spring	1
50	IP35522390000	Transmission Plate Piston Pole	1
51	IP35241050030	Transmission Plate Piston	1
52	IP40340020011	O-Ring	1
53	IP35480340000	Transmission Plate	1

No.	Parts No.	Description	Q'ty
54	IP40300010010	O-Ring	1
55	IP35602440030	Pulse Screw	1
56	IP41329550000	Pin	4
57	IP35242400030	Oil Return Valve	1
58	IP35242750000	Oil Return Valve Piston	1
59	IP35242730000	Oil Return Spring	1
60	IP35242380030	Oil Return Valve At	1
61	IP35480320000	Drive Blade	2
62	IP35480330000	Blade Spring	2
63	IP35480310000	Main Shaft-D	1
64	IP35480290000	Oil Hydraulic Cylinder	1
65	IP35361070000	Spring	1
66	IP40503000000	Ball	1
67	IP40300011010	O-Ring	1
68	IP35481080000	Control Core	1
69	IP41320044000	Pin	1
70	IP35871220030	Adjust Screw	1
71	IP40300018010	O-Ring	1
72	IP35601330000	Spacer Sleeve	1
73	IP35602710000	Pressure Relief Valve Two	1
74	IP35602700000	Pressure Relief Valve	1
75	IP35483410000	Jam	1
76	IP30881250000	Xo-Ring	1
77	IP30301260210	Xo-Washer	1
78	IP35480280000	Liner Plate	1
79	IP41330060000	Pin	1
80	IP40300107010	O-Ring	1
81	IP40300040010	O-Ring	1
82	IP30221210030	Oil Screw	1
83	IP35480260030	Linet Casing	1
84	IP30300360000	Washer	1
85	IP35600090000	Bushing	1
86	IP35910020220	Front Casing	1
87	IP35482470000	The Pressure Relief Spring	1
88	IP35482720000	Pressure Relief Valve Three	1
89	IP40320012010	O-Ring	1
90	IP35910630030	Lever Bushing	1
91	IP35911420030	Plate	1
92	IP35912050030	Packing Nut	1
93	IP40800025000	Bearing	2
94	IP30980100030	Washer	1
95	IP30981440030	Washer	1
96	IP35911450000	Drive Gear	1
97	IP30981400100	90°Bending	1
98	IP40204040030	Screw	1
99	IP41805050034	Screw	1
100	IP30981530030	Washer	1
101	IP40800008001	Bearing	1
102	IP30981460001	Bushing Protector	1
103	IP30981480000	Turning Shaft Gear	1
104	IP40800026000	Bearing	1
105	IP30981510030	Bearing Cover	1
106	IP40300045010	O-Ring	1

EC DECLARATION OF CONFORMITY

We: **SUMAKE INDUSTRIAL CO., LTD.**

4F, No. 351, Yangguang St., Neihu District, Taipei City, Taiwan

declare in sole responsibility that the equipment

Equipment： 1/2" SQUARE DRIVE AUTO SHUT OFF OIL PULSE WRENCH (ANGLE TYPE) -HIGH PRESSURE TOOL

Model/ Serial No.： IPW-2450A

to which this declaration applies, complies with these normative documents:

- **Machinery Directive: 2006/42/EC**

and conforms to the following EN standard,

- **EN ISO 12100: 2010**
- **EN ISO 11148-6:2012**

Name and Signature/Position

Mike Su – Managing Director

Date and Place

2022/3/14

Taipei, Taiwan

NOTE