

WILSAWAY PNEUMATIC TUBE CLEANING MACHINE

MODEL 9502-0000 (1-1/2 HP, 0-3000 RPM)

OPERATING AND SERVICE INSTRUCTIONS

Thomas C. Wilson, Inc.

21-11 44th Avenue, Long Island City, New York 11101

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SAFETY RULES FOR POWER TOOLS

1. **KNOW YOUR POWER TOOL.** Read this service manual carefully. Learn its applications and limitations as well as the specific potential hazards peculiar to this tool.
2. **KEEP GUARDS IN PLACE** and in working order.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invites accidents.
4. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
5. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, high or locked-up place, out of reach of children.
6. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
7. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool.
8. **WEAR PROPER APPAREL.** No loose clothing or jewelry to get caught in moving parts.
9. **USE SAFETY GLASSES** with most tools. Also face or dust mask if cutting operation is dusty.
10. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
11. **DON'T OVERREACH.** Keep proper footing and balance at all times.
12. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

WARNINGS

1. This product is specifically designed for compressed air service, and use with any other fluid(liquid or gas) is a misapplication. Manufacturer assumes no responsibility for any resulting loss.
2. To prevent explosive hazard do not drive this machine with combustible gases. Injury and/or property damages will result.
3. Do not use kerosene or other combustible solvents to flush the motor in this machine.
4. Eye protection is required. Keep face away from exhaust port or muffler.
5. Foreign material exiting the air motor/exhaust can be hazardous.
6. Do not exceed 95 psig maximum air pressure.
7. Do not exceed 72 scfm air flow maximum at 100 psig.
8. Before servicing the machine, turn air supply off and vent air from the motor(depressurize the system).

CAUTIONS

1. Install a filter in the air line for maximum trouble-free operation.
2. Use clean, non-detergent oil, preferably SAE#10 or lighter, to lubricate air motor.
3. Recommended solvent for air motor: any nontoxic, nonflammable industrial cleaning solvent.
4. Do not drive the machine in excess of the recommended speed.

GETTING READY

1. Remove Twin Foot Pedal from storage compartment and insert tube ends into matching Tube Fitting marked 'A', 'B', 'C' & 'D' on the end panel. Foot Pedal controls the directions of the motor - left foot pedal for clockwise rotation and right foot pedal for counter-clockwise rotation.
2. The machine is supplied with a Quick-Connect Coupling. Screw the Coupling onto end of air supply hose(with 1/2NPT male fitting). Connect air supply hose to the machine by pulling back the outer-sleeve on the Coupling and inserting the Coupling onto the Air Inlet Fitting on the machine(see page 4).
3. A supply of minimum 30 scfm at 40 psig to a maximum of 72 scfm at 95 psig is required to operate the machine. A moisture trap and filter, a pressure regulator and an oil lubricator in the air line ahead of the machine is required for trouble free operation.
4. A rate of 5 drops of oil per minute is recommended for lubrication. Use only SAE#10 lubricating oil such as Wilson's Wilsolub #9047(1 gallon).
5. Turn Adjustment Knob on Speed Control Valve(see page 4) in the Storage Compartment clockwise for higher speed and counter-clockwise for lower speed.
6. Uncoil and stretch Flexible Shaft out to straighten it as much as possible. Pull male Square Coupling extending from large Aluminum Coupling out about an inch. Insert this square into coupling within Motor Connector on box end. Box may be set on opposite end to facilitate this process. Securely hand tighten large Aluminum Coupling onto Motor Connector Assembly.
7. Select a proper size Expanding Brush or cleaning tool for tubes to be cleaned and screw onto drive end of Flexible Shaft with adapter when necessary using open end wrench. Position Hose Clamp on outside of Flexible Shaft so that brush or cleaning head will be retained just within tube on opposite end.
8. Insert cleaning brush into tube and hold shaft with hands by the outer casing. Press foot pedal to turn machine on. Feed shaft into tube, allowing the rotating brush to loosen scales and debris.
9. The loosened debris may be simultaneously removed or flushed away by water through water hose attached to the Water Inlet on the machine(see page 4). Water will come out from the brush end of the Flexible Shaft only when the motor is running.

Note: Input air pressure must be higher than input water pressure to the machine in order for the piloted water valve to operate properly.

10. Machine may be run dry since its water seal will not damage under dry condition(up to 400 deg. F.).

OPERATION GUIDELINES

1. Only feed uncoiled Flexible Shaft into tubes.
2. Do not force cleaning brush within tube. If any resistance is felt, back off and re-feed shaft until it moves easily through the tube. If this fails, adjust the output speed of the machine or use a smaller cleaning brush.
3. Keep bends in shaft minimal and avoid sharp 'S' bend.

STORAGE

To store, disconnect power supply. Disconnect water supply hose and foot pedal. Disconnect Flexible Shaft from machine. Dry out the shaft with an air blast through a Hose Fitting(Optional, Cat. No. 9614) attached to large Aluminum Coupling. Store the machine in a dry, heated place.

MAINTENANCE

Periodically, grease Ball Bearing inside Motor Connector Housing through Grease Fitting, through an access hole at bottom of the machine(see page 4), usually every 200 operating hours.

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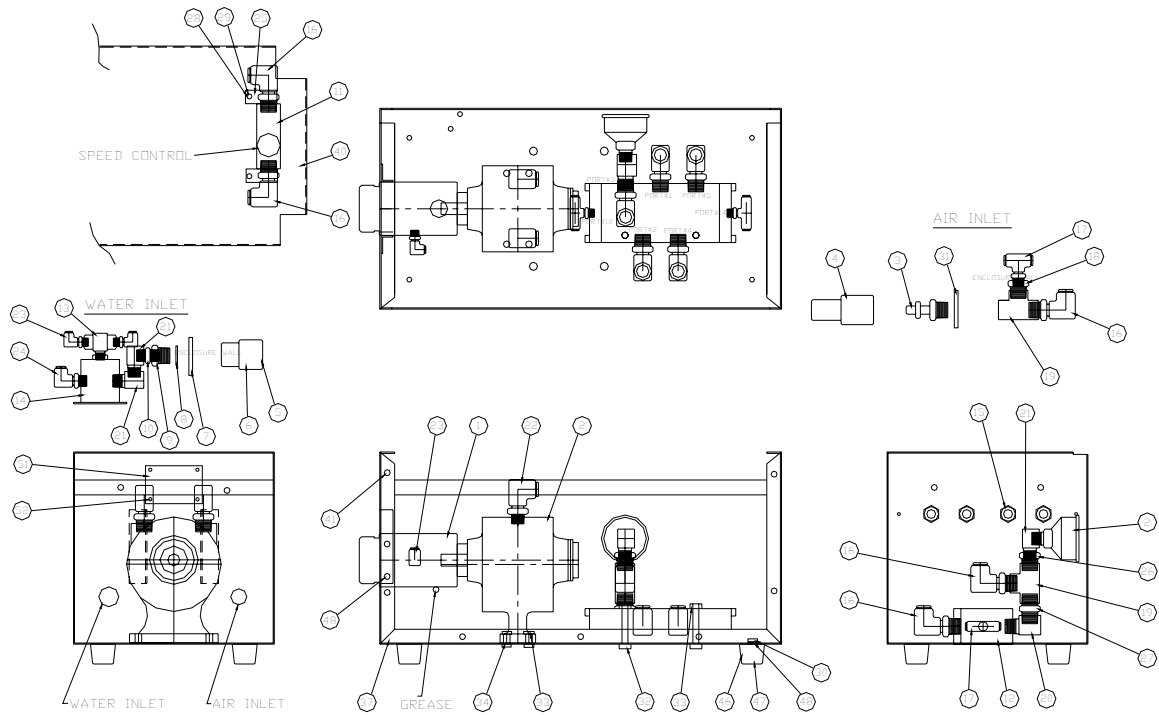
PARTS LIST

QTY	PART NO.	DESCRIPTION	UNIT
1	9500-0100	NOFDE CONNCTGDE &ASSEMBLY	1
2	9500-0102	BLE NOFDE	1
3	35254-0000	INLET FITTING	1
4	35799-0000	COUPLER	1
5	9578-0000	STRAINER	1
6	9600-0007	HOSE COUPLING	1
7	38377-0000	WASHER	1
8	9600-0061	LOCK WUP	2
9	9500-0131	BUSHING	1
10	9539-0000	PIPE FITTING	1
11	9500-0103	FLOW CONTROL VALVE	1
12	9500-0106	BLE VALVE	1
13	9500-0107	SHUFFLE VALVE	1
14	9500-0108	BLE/WASTE VALVE	1
15	9500-0111	UNION	4
16	9500-0113	SWIVEL CLEW	8
17	9600-0031	SWIVEL TEE	3
18	9500-0115	BUSHING	1
19	9500-0116	TEE	2
20	9500-0117	ST. CLEW	1
21	9600-0032	ST. CLEW	3
22	9500-0119	SWIVEL CLEW	2
23	9600-0011	SWIVEL CLEW	3
24	9500-0121	SWIVEL CLEW	1
25	9500-0122	STEEP	2
26	6701-0000	BUSHING	1
27	9564-0000	WIPPLE	1
28	9609-0000	BOLT	4
29	25000-0000	WUP	2
30	25000-0019	LOCK WUP	4
31	8543-0000	WASHER	1
32	39644-0000	BOLT	2
33	21117-0000	WUP	6
34	9629-0000	BOLT	4
35	9626-0001	WFLOW FUSING, 1/2"	6
36	9533-0001	WFLOW FUSING, 3/8"	6
37	9500-0001	SSC	1
38	9500-0002	RIGHT COUCC	1
39	9500-0003	LEFT COUCC	1
40	9500-0004	FLATE	1
41	9600-0037	SCREW	22
42	9500-0124	FOOT SWITCH &ASSEMBLY	1
43	9500-0109	BLE VALVE	1
44	9500-0110	CONNCTGDE	4
45	9500-0112	ORBD-FUSING	23
46	9500-0123	SCURCE	4
47	20163-0000	C&P SCREW	4
48	35833-0000	LOCK WASHER	8
49	22006PLUG	COPLUG	1
50	9649-0000	WARNING LABEL	1
51	9600-0093	W&RFLGFC	1
52	9661-0000	EIVER	4
53	9500-0126	LABEL	1
54	80243	SCERVICE MANUAL	1
55	8000000000		
56	9500-0125	BLE NOFDE SCERVICE CIP	1
57	9600-0121	OPCE&FING HOSE, 1/2", 30FF.	1
58	8906-0373	BLE C&DP	1
59			

AIR MOTOR #9500-0102

Key	Description	Qty	Part No.	
*	1	Shaft Seal	1	9500-0401
*	2	Bearing, Dead & Drive	2	9500-0402
	3	End Plate, Drive	1	9500-0403
	4	Rotor Assembly	1	9500-0404
*	5	Vane	4	9500-0405
*	6	Push Pin	4	9500-0406
*	7	Vane Spring	2	9500-0407
	8	Body	1	9500-0408
*	9	Body Gasket	2	9500-0409
	10	End Plate, Dead	1	9500-0410
*	11	End Cap, Gasket	1	9500-0411
	12	End Cap, Dead	1	9500-0412
	13	Muffler Assembly	1	9500-0413
*	14	Muffler Felt	1	9500-0414
		Service Kit	1	9500-0125

* Denotes parts included in the Service Kit.



PNUMATIC TUBE CLEANER #9502-0000