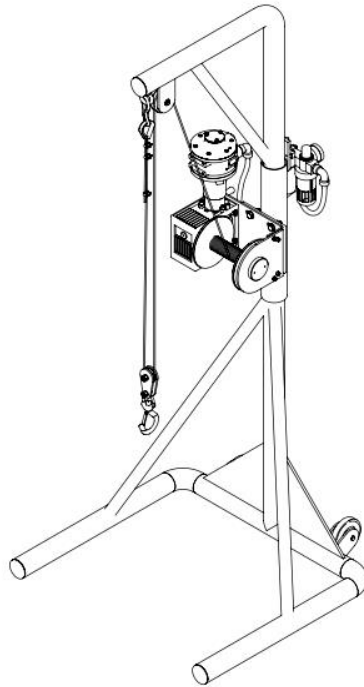


Operation and Maintenance Guide



TMCW-200

Air Driven Mucking Winch

Models	Descriptions	IMPA Code
TMCW200	Air driven mucking winch, 200Kg	59 06 05

Read this manual carefully before installing, operating or servicing this equipment. It's the responsibility of the employer to ensure this manual is read by the operator. Please preserve this manual.

This document is issued with Product Serial No

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Introduction

Pneumatic Mucking Winches are pneumatically driven, specially designed for tank cleaning purposes. They have a Galvanized non spinning cable and a non- sparking safety hook. The mucking winch has a powerful air motor and worm gear box control handle, all designed for easy operation.

Technical Data

Teryair Model No	IMPA Code	Lifting Capacity	Wire Rope Diameter	Wire Rope Length	Air Hose Diameter	Air Inlet
TMCW200	59 06 04	150	4 mm	33 mtr	12	1/2" NPT
TMCW200	59 06 05	200	4 mm	44 mtr	12	1/2" NPT

Intended Use

- Pneumatic Winches are ideal for tank cleaning purpose. They are compressed air operated driven.

Prohibitive use

- Use by an underage, untrained or person who is under the influence of drugs or alcohol.
- Use with non genuine spare parts or accessories is prohibited.

Safety Instructions

Following symbols are used through out this manual.

Warning

If not followed could cause personal injuries

Caution

If not followed could result in damage to equipment.

Warning

This manual must be read and the operating instructions carefully followed.

Caution

Operators under 18 not allowed to operate this equipment. Operators must be made familiar with the instructions in this manual before at-

tempting to operate the equipment. Ensure that job site is clear of bystanders. Ensure that no loose items of clothing etc come in the vicinity of the winch.



Caution

Use only genuine or approved accessories.



Warning

Safety and protective clothing, eyewear, headgear, ear protection, gloves and footwear to be worn during operation of this equipment.



Warning

This equipment is not designed for use in an explosive environment.

Operating instructions

Safety checks before and after operating the Winch

Check list before starting the Winch

- Check safety wear mentioned earlier in warnings.
- Check Hose fittings are secure.
- Do not wear loose clothing etc around the winch.
- Unlock the hook from the wire.
- Connect supply hose correctly.
- Make sure the the pneumatic valve is in off condition.

Air Supply

- The Mucking winch work best at 8 to 12 bar air pressure. The air should be clean, dry and lubricated.
- The maximum distance of Mucking winch working place should be 20mtrs. From air supply source & above that distance cfm received by Mucking winch will reduce and will effect the efficiency.
- Always top up the Lubricator with specified lubricants.

Maintenance

Shut off air supply and allow residual Pressure to bleed off.

Disconnect air supply from the FRL.

1. Keep wire rope properly oiled.
2. If air motor is dis-mantled for any repair work or maintenance, examine all components for wear after washing in suitable solvent. Replace any worn or damaged components. Coat parts with light oil and re-assemble carefully.

Disassembly and Re assembly

- Shut off air supply and allow residual Pressure to bleed off.
- Disconnect air supply from the FRL.

Disassembly of Air motor

Remove the PU tubes from the air motor.

- a. Unscrew the bolts (44) from adaptor (13).
- b. Remove the adaptor (13) from the gear box (3).
- c. Now remove the air motor (5) with love joy coupling (20).
- d. Remove the grub screw (36) to remove the Love joy coupling (20)

Suggested Lubricants

Brand	Above 27oC / 80oF	5oC to 27oC / 41oF to 80oF	Below 5oC / 80oF
Shell	Toona R 72	Toona R 41	Toona R 27
Mobil	Almo 529	Almo 527	Almo 525
Esso	--	Arox EP.65	Arox EP.45
Caltex	Rando Oil 100	Rando Oil 100	Rando Oil 46
Cp	--	--	Airolene Tool Oil
Texaco	Regal Oil F (R&O)	Regal Oil PE(P&E)	Regal Oil PE(R&O)
Daltron	Silkolene 881	Silkolene 548/T	Silkolene 733
Burmah Castrol	Castrol RD Oil 3	Castrol RD Oil Light	Megna SPX
Duckham	Garnet 7	Garnet 6	Zero Fio 5
Sternol	Merlin 87	Merlin 71	Merlin 54
Petrofina	Purifoc 53	Purifoc 46	Purifoc 32
Chevron	Vistac Oil 18X	Vistac Oil 19X	Vistac Oil 9X
Indoil	Servo Sbyn -22	--	--

Diassembly and Re-assembly for TMCW-200

- a. Shut off air supply and allow residual Pressure to bleed off.

Replacement of FRL and Tube

- a. Loose the hose clip (48) and remove all hoses (18) from fitting elbow (23) & hose nipple (22)
- b. Unscrew Tube fitting elbow (23) & Coupler (24) from FRL (4). Unscrew Allen bolt (39) with Plain washer (40) from FRL (4) and replace it with new one. (If found damaged/worn-out)
- c. Remove FRL (4) from Tubular frame (1)

Replacement of Wire Rope

- a. Loosen Wire rope Lock (14) to remove Wire rope (21) from Shackle (11), Limb for Hook & Pulley (2).
- b. Unwind Wire rope (21) from Rope drum (8) & unscrew Grub screw (37) from Rope drum (8) to replace with new one. (If found damaged/worn-out)

Replacement of Love Joy Coupling

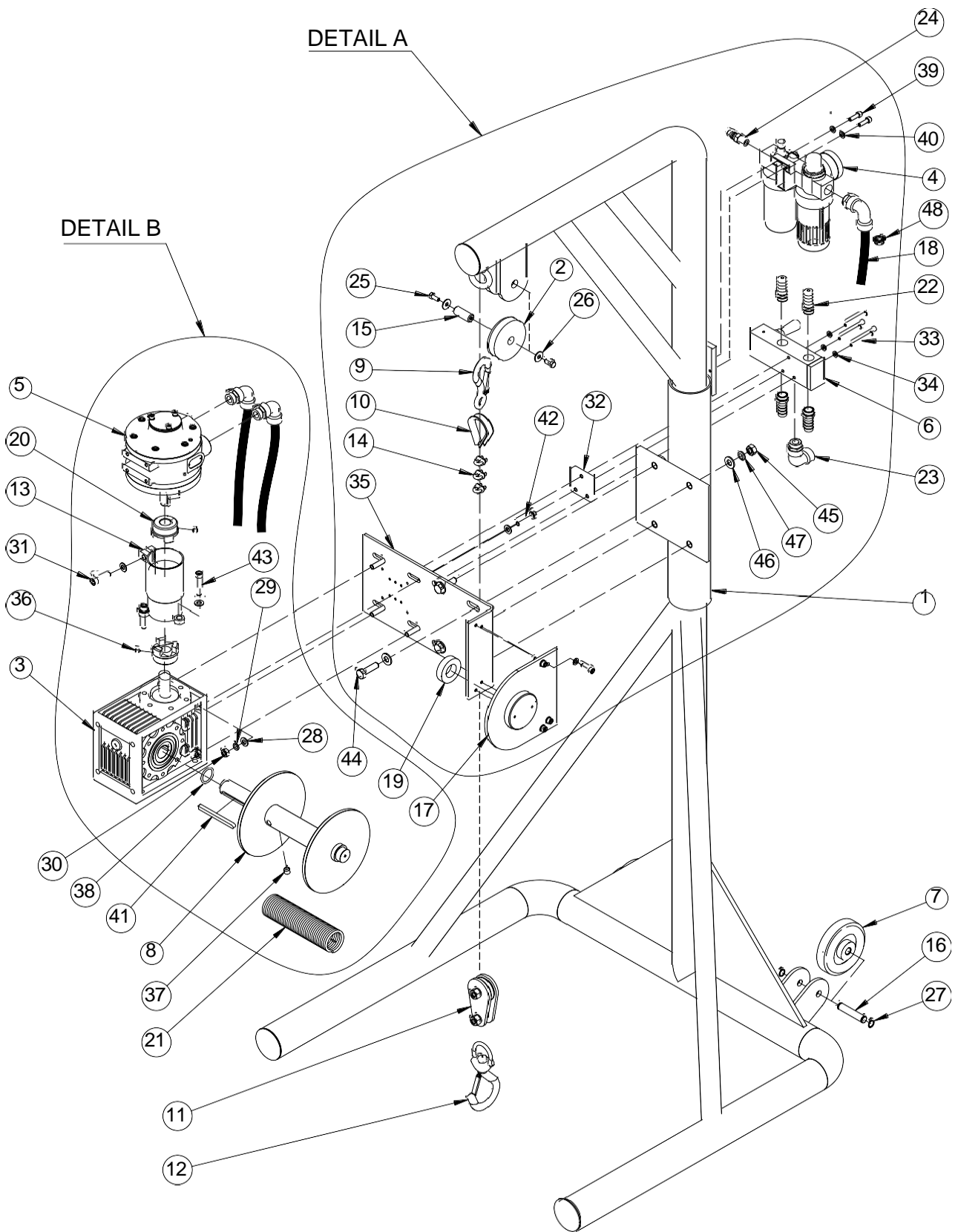
- a. Unscrew Allen bolt (43) with Plain washer (28) from Adaptor for gear box (13) to replace with new one. (If found damaged/worn-out)
- b. Unscrew Allen bolt (31) with Plain washer (28) from Adaptor for gear box (13) to replace with new one. (If found damaged/worn-out)
- c. Remove Adaptor for gear box (13) with Air motor (5) from Gear Box (3).
- d. Unscrew Grub Screws (36) from both Love joy couplings (20) to remove Love joy couplings (20) from Air motor (5) & Gear box (3) and replace with new one.

Bill of Materials for TMCW-200

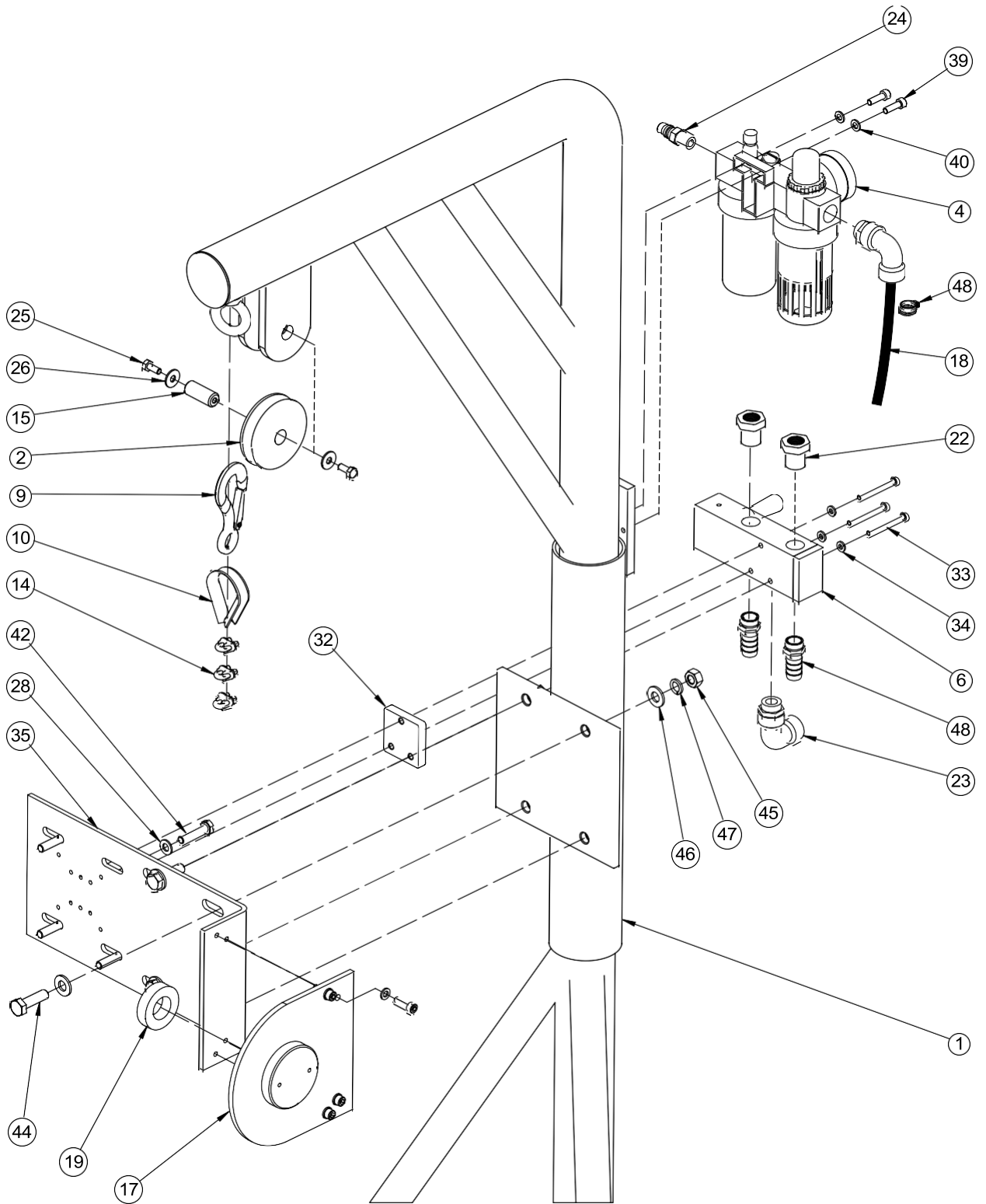
Illu No	Part Number	Description	MCW-100
1	5679701	TUBULAR FRAME	1 Set
2	5662103	PULLEY	1
3	5675001	GEAR BOX	1
4	5665015	1/2" FRL UNIT	1
5	8050000	AIR MOTOR	1
6	5675006	DEADMAN'S VALVE	1
7	5665003	WHEEL	2
8	5673303	ROPE DRUM	1
9	5665014	EYE HOOK	1
10	5665013	LIMB FOR HOOK	1
11	5665008	SHACKLE	1
12	5665007	HOOK	1
13	5673304	ADAPTOR FOR GEAR BOX	1
14	5665009	WIRE ROPE LOCK	3
15	5662101	PIN FOR PULLEY	1
16	5662102	PIN FOR WHEEL	2
17	5673101	BEARING PLATE	1
18	5665018	RUBBER HOSE	1 Mtr.
19	5675005	BALL BEARING	1
20	5675002	LOVE JOY COUPLING	1
21	5665005	WIRE ROPE	41 Mtr.
22	5665017	HOSE NIPPLE	8
23	5665016	FITTING ELBOW	4
24	35.13.55	COUPLER	1
25	5669001	HEX BOLT	2
26	5669012	PLAIN WASHER	2

Illu No	Part Number	Description	MCW-100
27	5669002	EXTERNAL CIRCLIP	4
28	5679005	PLAIN WASHER	12
29	5679006	SPRING WASHER	4
30	5679003	HEX NUT	4
31	5669004	ALLEN BOLT	1
32	5663103	SPACER PLATE	1
33	5669022	ALLEN BOLT	3
34	5669015	PLAIN WASHER	3
35	5673301-13	GEAR BOX MOUNTING PLATE	1
36	5669006	GRUB SCREW	2
37	5669014	GRUB SCREW	1
38	5674001	O-RING	1
39	5679001	ALLEN BOLT	6
40	5669020	PLAIN WASHER	6
41	5672202	KEY	1
42	5679002	HEX BOLT	4
43	5679004	ALLEN BOLT	3
44	5669008	HEX BOLT	4
45	5669010	HEX NUT	4
46	5669018	PLAIN WASHER	8
47	5669017	SPRING WASHER	4
48	8085001	HOSE CLIP	6

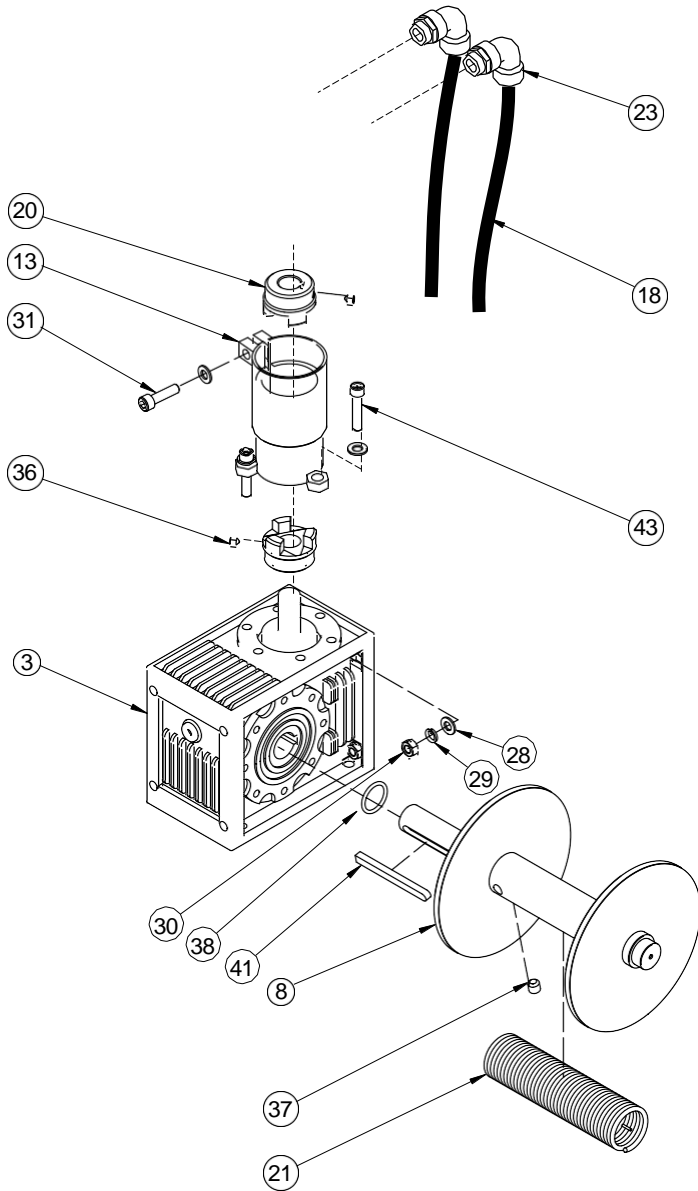
Exploded View for TMCW-200



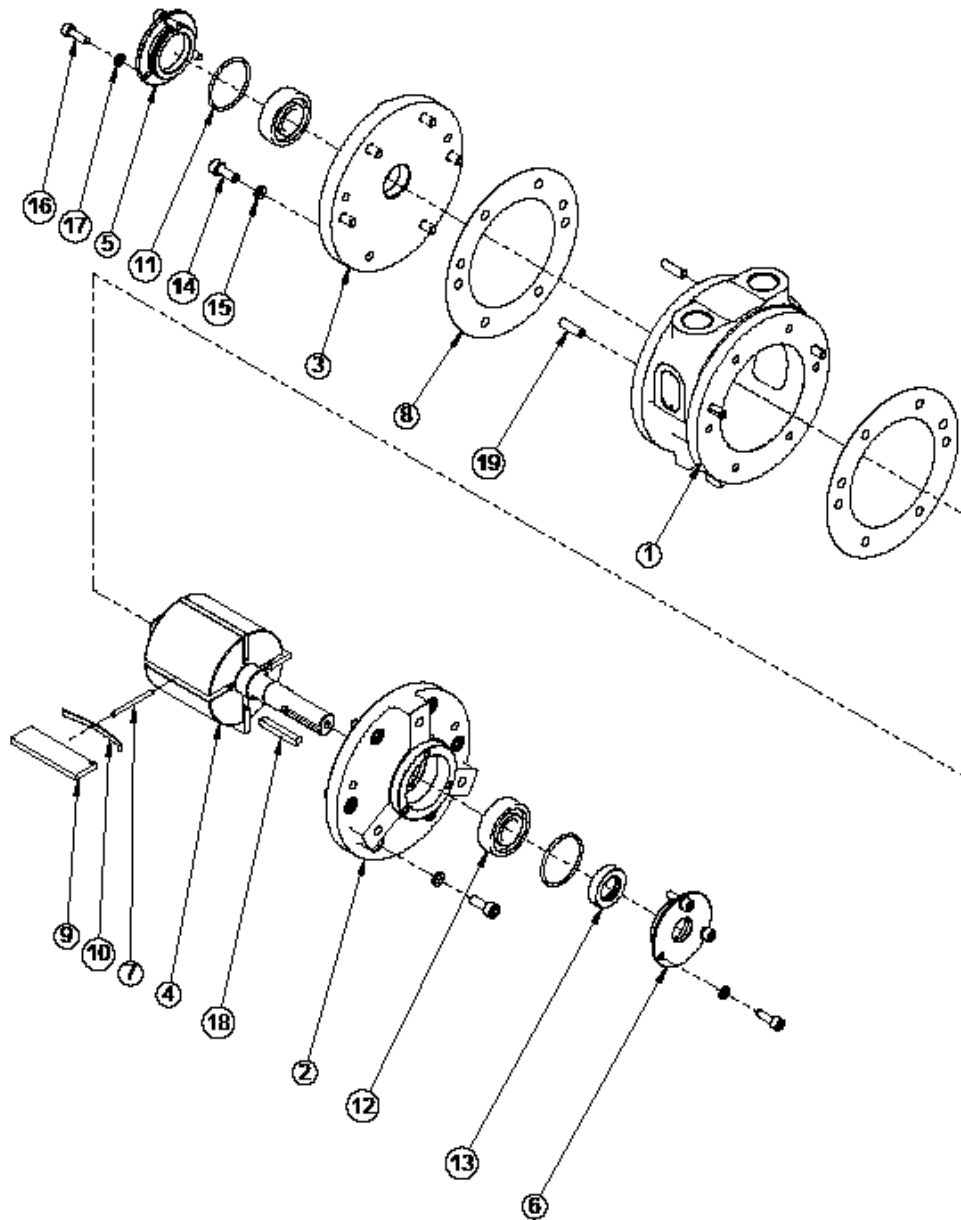
Exploded View Detail - A for TMCW-200



Exploded View Detail - B for TMCW-200



Exploded view Air Motor 8050000



Bill of Materials for Air Motor 8050000

Illu No	Part Number	Description	Qty
1	805 05 01	MOTOR HOUSING	1
2	805 05 02	FRONT FLANGE	1
3	805 05 03	TOP FLANGE	1
4	805 21 01	ROTOR SHAFT	1
5	805 21 02	REAR BEARING CAP	1
6	805 50 02	BALL BEARING	2
7	805 40 01	O' RING	2
8	805 60 01	OIL SEAL	1
9	550 90 28	ALLEN BOLT	6
10	567 22 01	ONE SIDE	1
11	804 90 04	ROLL PIN	4

Illu No	Part Number	Description	Qty
12	804 90 03	ALLEN BOLT	12
13	805 39 02	ROTOR BLADE	4
14	805 21 03	FRONT BEARING CAP	1
15	805 21 08	DOWEL PIN	2
16	805 37 01	SHIM	2
17	536 90 04	SPRING WASHER	12
18	805 90 01	SPRING WASHER	6
19	805 51 02	LEAF SPRING	4

Dimensional Data for MCW-200

