

## Oil Change Instructions

All Drum Motors are factory filled with oil that is free of detergent additives. It is recommended that oil changes be performed at 50,000 hour intervals.

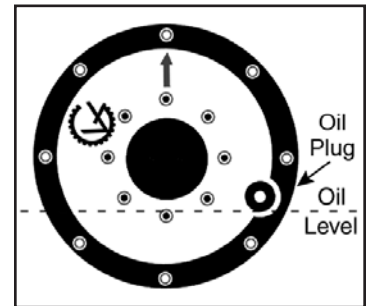
**NOTE:** Do not use oil additives which can cause damage to the motor insulation or seals. Electrically conductive-bases oils, such as graphite and molybdenum disulfide, should not be used, as they will result in electric motor insulation damage.

### OIL CHANGE

1. Allow the drum motor to cool to normal temperature.
2. Rotate the drum motor until the oil plug is located in the 6 o'clock position.
3. Unscrew the oil plug and allow the oil to drain completely.  
(**Note:** There may be internal pressure released when removing the oil plug, this is normal.)
4. Refill the drum motor with the suggested oil type (see below) and amount of oil (page 11 - Drum Motor Oil Content).

To verify the oil level, rotate the drum motor until the embossed arrow on the end flange (Models: TM160 - TM500), or the nameplate on the end flange (Models: TM100 - TM127) is pointed in the 12 o'clock position. The oil plug will be approximately in the 4 o'clock position. The oil level should be up to the level of the oil plug.\*

5. Re-install the oil plug and if available, install a new copper seal.



\*For Airline Specified Drum Motors, please call Van der Graaf Technical Support: 1 (888) 326-1476 for appropriate oil levels.

## Oil Types

Oil Type	
<u>Manufacturer</u>	<u>Oil Type</u>
Petro Canada	Enduratex EP 150 Gear Oil
Castrol	Molub-Alloy Gear Oil 84
Chevron	NL Gear Compound 150
Esso / Imperial Oil	Spartan EP 150
Citgo	EP Compound 150
Gulf	EP Lubricant 140
Shell	Omala 150
Sunoco	SUNEP 150
Mobil	Mobil Gear 629, SHC 150

Food Grade Oil Type	
<u>Manufacturer</u>	<u>Oil Type</u>
Petro Canada	Purity FG EP 100
Mobil/Exxon	Nuto FG 1000

Clutch Brake Oil Type	
<u>Manufacturer</u>	<u>Oil Type</u>
Petro Canada	Duratron Transmission/ Hydraulic Fluid

# Drum Motor Oil Content (in Litres)

Face Width (inches)	Drum Motor Oil Content (in Litres) per Face Width								
	Type of Drum Motor								
	TM 100	TM 113	TM 127	TM 160	TM 215	TM 315	TM 400	TM 500A60	TM 500A75
9.84			0.30						
10.24	0.30	0.51							
10.83	0.31	0.54	0.35						
11.81			0.45						
12.20	0.35	0.61							
12.80			0.50						
13.78			0.55	1.30					
14.17	0.40	0.70							
15.75			0.70	1.60					
16.14	0.46	0.80							
16.73			0.75	1.70	2.50				
17.72			0.80	1.80	2.70				
18.11	0.52	0.90							
19.69			0.95	2.00	3.10	5.80			
20.08	0.57	1.00							
21.65			1.05	2.20	3.50	6.60			
22.05	0.63	1.10							
23.62			1.20	2.40	4.00	7.50	15.00	27.00	
24.02	0.68	1.19							
25.59			1.30	2.60	4.40	8.30	16.00	29.00	
25.98	0.74	1.29							
27.56			1.45	2.80	4.80	9.20	17.00	31.00	
27.95	0.80	1.39							
29.53			1.55	3.00	5.20	10.00	18.00	33.00	
29.92	0.84	1.49							
31.50			1.70	3.20	5.60	10.90	19.00	35.00	
31.89	0.91	1.59							
33.46			1.80	3.40	6.00	11.70	20.00	37.00	30.00
33.86	0.96	1.69							
35.43			1.95	3.60	6.40	12.60	21.00	39.00	31.50
35.83	1.02	1.79							
37.40			2.05	3.80	6.80	13.40	22.00	41.00	33.00
37.80	1.08	1.89							
39.38	1.12		2.20	4.00	7.20	14.30	23.00	43.00	34.50
39.76	1.13	1.98							
41.34			2.30	4.20	7.60	15.10	24.00	45.00	36.00
41.73	1.19	2.07							
43.31			2.45	4.40	8.00	16.00	25.00	47.00	37.50
Above 43.31" Add	0.03 L per inch	0.05 L per inch	0.06 L per inch	0.10 L per inch	0.20 L per inch	0.40 L per inch	0.50 L per inch	1.00 L per inch	0.75 L per inch

**Example:** TM160 Drum Motor  
with face width of 33.46 inches requires 3.40 litres of oil.  
with face width of 44.31 inches requires 4.5 litres of oil.

1 Litres = 0.265 gallons; 100 mm = 3.94 inches

