

Series F Gearboxes : Installation and Maintenance

SHAFT MOUNTING

Ensure that the shaft on to which the gear unit is to be mounted and the gear unit bore are clean and free from burrs. Liberally smear the shaft and bore with lubricants to aid assembly and prevent fretting corrosion. Slide the unit on to the driven shaft and secure unit onto the shaft using chosen method. Fit side fitting key. DO NOT USE TAPER OR TOP FITTING KEY.

FLANGE MOUNTING

The Fenner Series F Mk II is designed primarily as a shaft mounted gearbox. However, it can be supplied with a single or double output shaft and a mounting flange if required.

LUBRICATION

Sizes 780 to 784 are pre-filled for mounting position B3 with a quantity of EP mineral oil (Shell Omala 320). However, if the unit is supplied without lubricant then the oil quantity is obtained from the table at the bottom of page 278.

Other mounting positions must be specified on order. Sizes 785 to 790 are supplied without oil. Before running they should be filled with an appropriate amount of the correct lubricant shown in the table, dependent on the mounting position, see chart. WARNING: Do not over fill as excess lubricant may cause overheating and leakage.

For Lubrication quantity, recommended grades and viscosity tables see table opposite.

OIL CHANGES

Sizes 780 to 783 are lubricated for life except when the units are required to work in an explosive atmosphere (94/9/EC Atex 100a Group II category 2 zones 1 & 21 & category 3 zones 2 & 22) See separate leaflet for recommendations. All other sizes will require an oil change depending on the unit operating temperature. Initial fill of oil should be changed in a new gear unit after 1000 hours operation or one year or half the life in the table below whichever is the soonest.

BREATHERS/MOUNTING POSITIONS

All sizes of Series F are supplied for operation without a breather. On sizes 785 and above the unit should be filled to the recommended level for operating position being used and the blanking plug replaced in the filling position indicated below.

MOTOR CONNECTIONS TO MAINS

Connection of the electric motor to the mains supply should be made by a qualified person.

The current rating of the motor will be identified on the motor plate and correct sizing of the cables to electrical regulations is essential.

STARTING UP

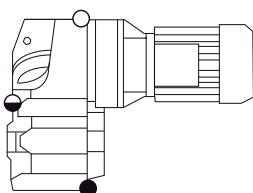
Prior to starting up the following procedure should be followed

- 1: Check Oil level (784 and above) top up if necessary
- 2: Ensure all safety devices are in place (i.e. guards fitted)
- 3: Remove any safety devices fitted to prevent machine rotation

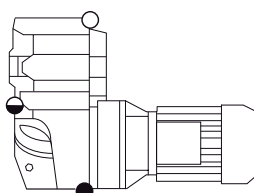
Starting up should be performed or supervised by suitably qualified personnel.

MOUNTING POSITIONS

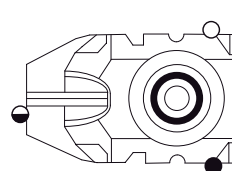
Mounting B3



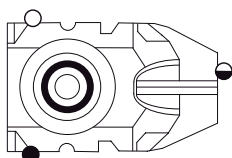
Mounting B8



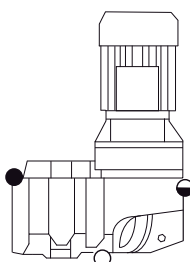
Mounting B7



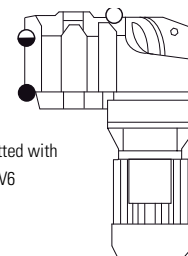
Mounting B6



Mounting V5



Mounting V6



Motor must be fitted with seal for position V6

- Ventilator/Filling Position
- ◐ Level Position
- Drain Position

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LUBRICATION VISCOSITY

ISO Viscosity	Ambient Temperature °C			
	-5°C to 20°C	-30°C to 20°C	0°C to 35°C	20°C to 50°C
EP Mineral Oil	220	-	320	460
Synthetic Oil 1	-	220	220	320
Synthetic Oil 2	-	220	320	460

Synthetic Oil 1 = Polyalphaolefin based.

Synthetic Oil 2 = Polyglycol based

RECOMMENDED OIL GRADES

Supplier	Mineral Oils Containing EP Additives	Synthetic Lubricants Polyglycol Based	Synthetic Lubricants Polyalphaolefin based
BP	Energol GR-XP or XF	Enersyn SG-XP	Enersyn EPX
Castrol	Alpha Max or SP	Alphasyn PG	Alphasyn EP or T
Esso	Spartan EP	Glycolube	Spartan Synthetic EP
Fuchs	Renogear V or WE	Renolin PG	Renogear SG
Mobil	Mobilgear 600	Glygoyle	Mobilgear SHC
OKS	-	-	OKS 3725
Shell	Omala or Omala F	Tivela or Tivela S	Omala HD
Texaco	Meropa or Meropa WM	Synlube CLP	Pinnacle EP
Total	Carter EP	Carter SY	Carter EP/HT
Rocol	Sapphire Hi-Torque	-	-

OIL RENEWAL PERIODS

Unit Op Temp °C	Renewal Period (Hours)	
	Mineral Oil	Synthetic Oil
75 or less	17000 or 3 yrs	26000 or 3 yrs
80	12000 or 3 yrs	26000 or 3 yrs
85	8500 or 3 yrs	21000 or 3 yrs
90	6000 or 2 yrs	15000 or 3 yrs
95	4200 or 17 mths	10500 or 3 yrs
100	3000 or 12 mths	7500 or 2.5 yrs
105	2100 or 8 mths	6200 or 2 yrs
110	1500 or 6 mths	2100 or 18 mths

LUBRICANT QUANTITY (LITRES)

ISO Viscosity	780		781		782		783		784		785		786		787		788		789		790	
	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple
B3	0.5	0.6	0.8	0.8	0.8	0.8	1.5	1.6	1.5	1.6	2.0	2.1	2.6	2.7	4.2	4.4	10.5	11.5	11	14	17	18
B8	0.8	0.9	1.2	1.3	1.2	1.3	1.8	1.9	1.8	1.9	2.0	2.1	2.9	3.0	6.3	6.5	12.0	12.0	22	24	31	33
B7	0.6	0.7	0.7	0.7	0.7	0.7	1.6	1.7	1.6	1.7	1.9	2.0	2.7	2.8	5.4	5.6	12.0	12.0	22	24	31	33
B6	0.8	0.9	1.2	1.2	1.2	1.2	1.8	1.9	1.8	1.9	1.7	1.8	3.0	3.1	7.3	7.5	12.0	12.0	19	21	28	30
V5	0.7	0.7	1.1	1.1	1.1	1.1	2.0	2.1	2.0	2.1	2.2	2.3	3.2	3.3	6.8	6.8	16.8	16.8	32	32	47	47
V6	1.0	1.1	1.4	1.6	1.4	1.6	2.6	2.7	2.6	2.7	2.8	2.9	4.7	4.8	9.3	9.7	16.4	16.5	26	28	38	40

Oil quantities are approximate, fill gearbox until oil escapes from level plug hole. Do not over fill as excess lubricant may cause overheating and leakage.