POULIBLOC INSTALATION

1 - POULIBLOC 2000

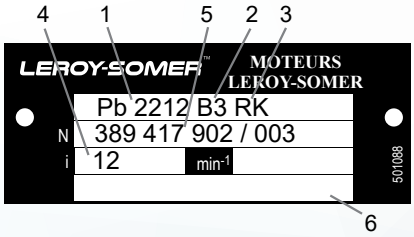
1.1 - Installation recommendations

Installation must be performed by qualified personnel.
Allow sufficient room around the gearbox for plugs accessibility.

Gearbox:
For the installation of Poulibloc 2000 gearbox, follow the "Recommendations" chapter in the general manual.

1.1.1 - Identification

Gearbox nameplate:
1 - gearbox type ;
2 - operating position ;
3 - RK fixing type : torque arm ;
- possible options (AD) ;
4 - reduction ;
5- serial number ;
6- lubricant : ⚠ delivered without oil.



1.1.2 - Tapered bushing mounting

For small bore bushings (fig. 1)
- Fit the bushing key (1) into the keyway on the tapered bushing (2).
- Insert the tapered bushing (2) into the locking ring (3) and driving hollow hub, taking care that bushing key fits into hollow hub keyway.
- Turn locking ring counter clockwise two turns.

For large bore bushings (fig. 2)
- Fit single special key (4) into driven shaft keyway.
- Insert the tapered bushing (2) into the locking ring (3) and driving hollow hub.
- Turn locking ring counter clockwise two turns.

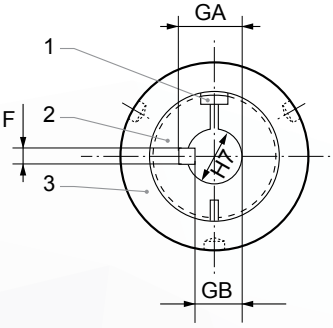


fig. 1

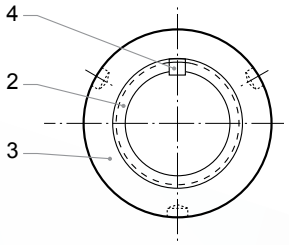


fig. 2

Standard bore sizes (fig. 1)				Taper bushes depending on size							
D H7	F	GB	GA	20	21	22	23	24	25	26	27
20	6	16.5	22.5	●							
25	8	21	28	●	●						
30	8	26	33	●	●	●					
35	10	30	38	●●	●	●	●				
40	12	35	43	●●	●	●	●				
45	14	39.5	48.5		●●	●	●	●			
50	14	44.5	53.5		●●	●●	●	●			
55	16	49	59			●●	●●	●			
60	18	53	64				●●	●	●		
65	18	58	69					●	●		
70	20	62.5	74.5					●●	●	●	
75	20	67.5	79.5					●●	●	●	
80	22	71	85						●●	●	
85	22	76	90						●●	●	
90	25	81	95							●	●
95	25	86	100							●●	
100	28	90	106							●●	●
110	28	100	116								●
120	32	109	127								●
				Minimum length of customer shaft							
				80	82	105	116	134	153	194	260

● Key to be supplied by customer with small bore, GA dimensions indicated.
●● Key supplied, GA dimensions non-indicated.

Poulibloc Installation

1.1.3 - Reducer mounting (fig. 3)

- Fit bushing reducer assembly onto driven machine shaft (5). Note: on large bore bushing, take care special key fits into hollow hub keyway.
- Slide unit to desired position. It should not be mounted such that dimension "A" is less than 6 mm and greater than one shaft diameter.
- Tighten locking ring (3) with special wrench (supplied) allowing the reducer to draw up the bushing (2). Do not exceed 70 N.m of torque on the locking ring.
- Insert and tighten set screw (6).

Note: inspect and tighten tapered bushing after 8 hours of use. To remove bushing or reducer, reverse above procedures.

⚠ **Do not remove screw ref. 299 of part list.**

Note: protective output shaft cap can be removed in applications where driven shaft is mounted through hollow shaft. In other applications, keep in place for protection against dirt and water.

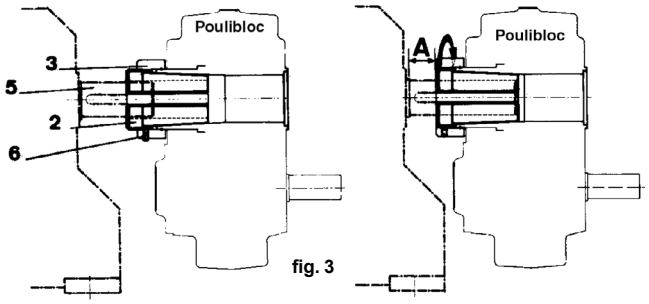


fig. 3

1.1.4 - Input shaft sheave mounting

Remove protective material from input shaft and clean it with cleaning solvent, if necessary, to remove any residue remaining on shaft.
Mount sheave on input shaft as near as possible to shaft shoulder because excessive overhung loads could occur and greatly reduce the life of the bearings (fig. 4). In particular do not hammer on reducer or sheave in mounting it. If difficulties occur in the mounting of the sheave, it is advised to use a soft mallet (neoprene type) or heat the sheave for easy installation.
Warning: excessive belt tension can greatly reduce V-belt life and damage bearings (motor, reducer). Follow V-belt manufacturers instructions and recommendations.
Once sheaves and V-belts have been installed, check for proper alignment.
Caution: for safety, user must provide a protective guard mounted around the V-belt and sheave.

1.1.5 - Torque arm mounting

Attach the torque arm housing bracket to the reducer housing. Three positions are recommended, although eight positions are possible (fig. 6).
Assemble the torque arm and attach the torque arm floor support to a rigid base.
Since all the reactive forces go through the torque arm, it is most adventageous to mount the torque arm at 90° to a line between the hollow shaft and the torque arm holding bolt (fig. 7, 8 & 9).
The torque arm must allways be mounted so the reactive forces are in tension with the reducer. This is dependent upon the rotation of the output shaft; mount torque arm in:
- section A for clockwise rotation (fig. 5a);
- section B for counter-clockwise rotation (fig. 5b).

1.1.6 - Motor location

Tension of V-belt is adjusted by the torque arm. Install the motor such that the belt be at 90° from the center line between driven and input shaft.

⚠ **Do not restrain the housing of Poulibloc on the built of the machine; use the torque arm bracket.**

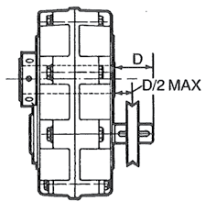


fig. 4

Section A : clockwise rotation

Poulibloc seen from output shaft end side

Section B : counter-clockwise rotation

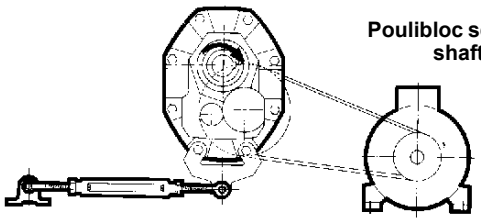


fig. 5a

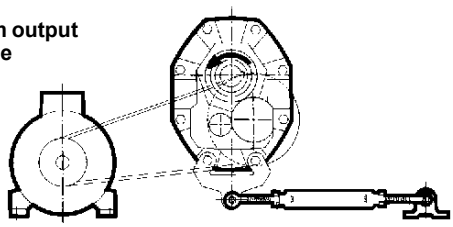


fig. 5b

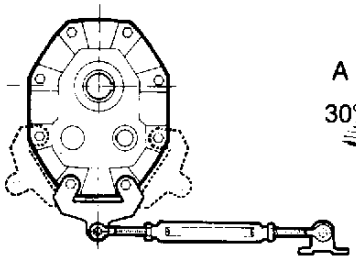


fig. 6

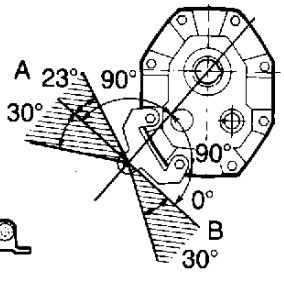


fig. 7

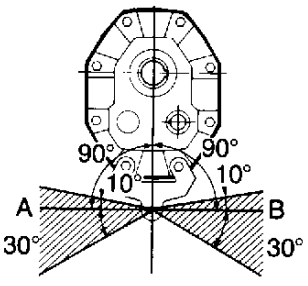


fig. 8

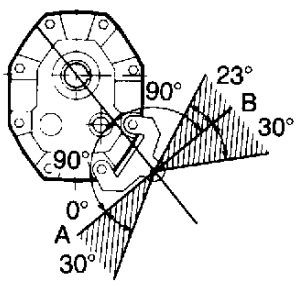
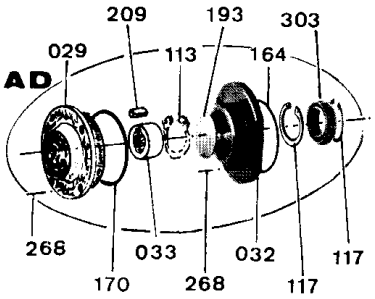


fig. 9

1.1.8 - Backstop installation

The backstop used to prevent the reverse rotation of the gearbox, is mounted on the input shaft (manual ref. 4114) for Pb 20 to 24.
For Pb 2205, 25, 26 and 27 sizes, it is fitted with rotation as specified on the order.



Backstop kit

Ref.	Description	Qty
029	backstop cap	1
032	free wheel flange	1
033	inner race	1
113	external retaining ring	1
117	internal retaining ring	2
118	shims (Pb 2205, 25, 26 and 27)	1 to 3
164	“O” ring seal	1
170	“O” ring seal	1
193	cover cap	1
209	inner race key	1
268	fixing screws, washers	4
303	free wheel	1

1.2 - Lubrication

⚠ Gearbox Poulibloc is supplied without oil. Before running it is necessary to:
1 - determine mounting position (see table § 1.2.2) ;
2 - install drain plug (magnetic) to lowest gearbox point ;
3 - fill gearbox up to level plug ;
4 - place the breather plug to highest gearbox point.

Recommended oil
Gearbox with or without backstop, for operation:
- between -10 and +50°C: mineral oil extreme pressure ISO VG 220 (Mobilgear 600 XP 220, Shell Omala S2 G 220) ;
- between -30 and +50°C: synthetic oil PAO ISO VG 150 (Mobil SHC SIBUS 150).

1.2.1 - Plugs position (R, N, V)[1]

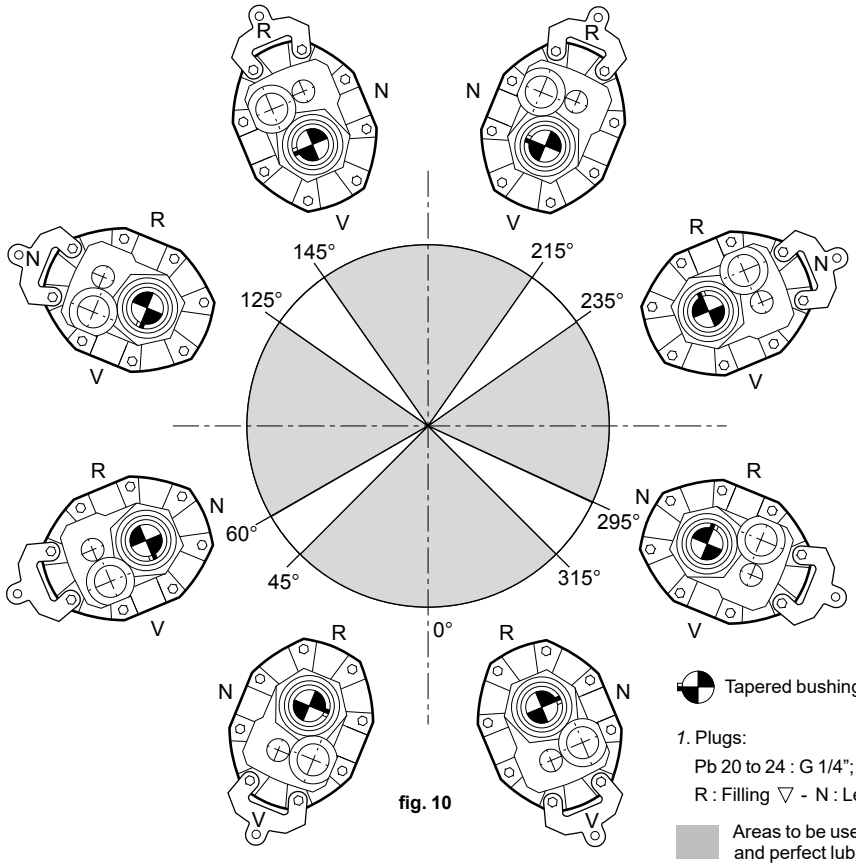


fig. 10

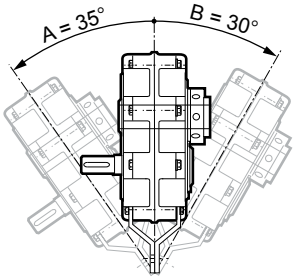


fig. 11

Tapered bushing Input shaft

1. Plugs:
Pb 20 to 24 : G 1/4"; Pb 25 to 27 : G 3/4" ; (before 2011/06 -> Pb 20 to 27 : M16x150)
R : Filling ▽ - N : Level ◒ - V : Draining ▼

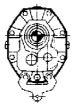
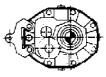
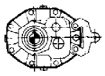
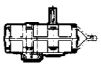
Areas to be used for satisfactory operation and perfect lubrication

Oil capacities
The oil capacities shown in table are approximative values and should be used only as reference in determining how much oil to provide. The proper oil levels can only be determined by **filling the reducer to the level of the plug (fig. 10)**.

Note: For proper oil level other than horizontal position, maximum inclination allowed is A=35° and B=30° (fig. 11).
For special mounting position not shown, please consult LEROY-SOMER.

1.2.2 - Oil quantity (considering operating position)[1]

⚠ Place the breather plug at the top of the gearbox

Operating position	Pb 20 G 1/4" litre[1]	Pb 21 G 1/4" litre[1]	Pb 22 G 1/4" litre[1]	Pb 23 G 1/4" litre[1]	Pb 24 G 1/4" litre[1]	Pb 25 G 3/4" litre[1]	Pb 26 G 3/4" litre[1]	Pb 27 G 3/4" litre[1]
B3 	0.75	1	1.75	2.5	4	5	8.5	14
B6 	0.75	0.9	1.75	2.3	3.55	5.2	8.3	13
B7 	0.75	0.9	1.75	2.3	3.55	5.2	8.3	13
B8 	0.7	0.75	1.4	2	3.3	4.9	7.6	12
V5 	1.25	1.5	2.25	3.5	4.5	6.5	9.5	17

1. Tolerance: ± 0.05 litre for oil quantity < 5 litre
± 2% for oil quantity ≥ 5 litre

1.3 - Maintenance

- Mineral oil: drain every 5000 hours of operation (or every 6 months).
- Synthetic oil: for T°≤ 70°C, drain every 25000 hours of operation. It is nevertheless recommended to check proper oil level periodically (every 5000 hours) and oil should be added if the level is low.

Email: flowandindustrial@hmagrp.com
Tel: +61 (0)3 8720 6770
Fax: +61 (0)3 8720 6779