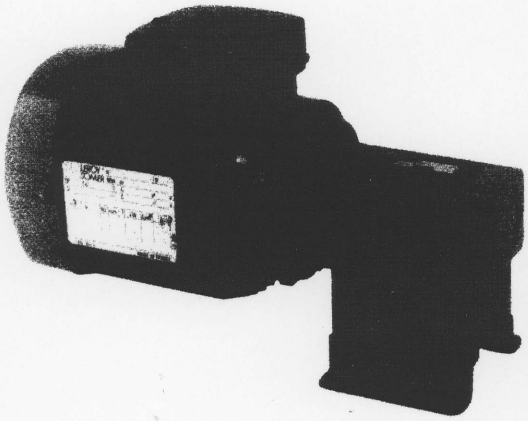
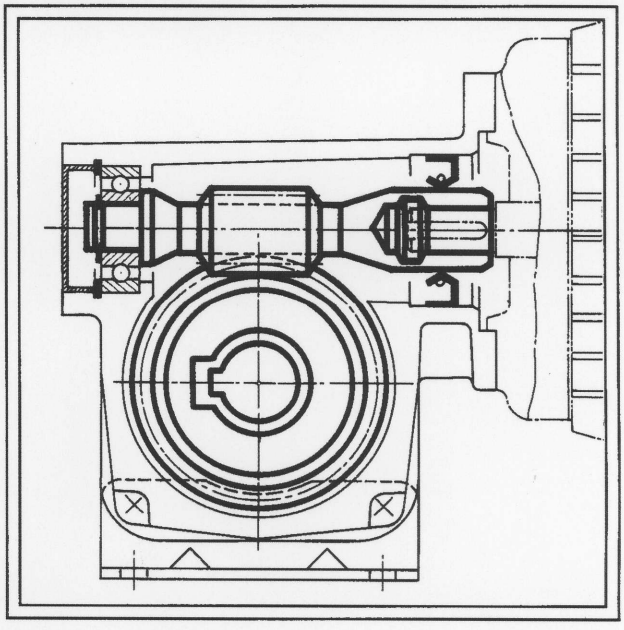
LEROY SOMER®

Réf. 1621 - 033 / a - 3.94





MINIBLOC MVA-MEVA

Installation and maintenance

GN 004001

INSTALLATION RECOMMENDATIONS

For the gearbox :

- Remove the protective material from the shafts (plastic coverings).
- Mount the gearboxes on flat rigid supports. They must be free from vibration.
- Mount the couplings, sprockets and pulleys with extreme care (they should be heated). Do not hammer the end of the shaft.
- Ensure that the radial force on the sprockets and pulleys is correct (see selection table).
- Ensure normal tension and correct alignment of the transmission. Check that the shafts are parallel.
- For direct couplings using a coupling sleeve, check the alignment of the axes.

NOTE : In the event of prolonged storage, turn the unit by hand before starting it, to avoid damaging the seals.

Despite all the precautions taken in the manufacture and the checking of equipment, LEROY-SOMER cannot guarantee 100 % against leakage of lubricant. If leaks occur which would risk the safety of equipment or personnel, it is the responsibility of the installer to take all necessary avoiding action.

For the motor : See recommendations on page 10.

ORDERING SPARE PARTS

Essential information to quote when ordering

a) From the gearbox identification plate :

1 - Gearbox reference
2 - Type of fixing
3 - Exact reduction ratio of the device
4 - Serial number

b) From the corresponding parts list :

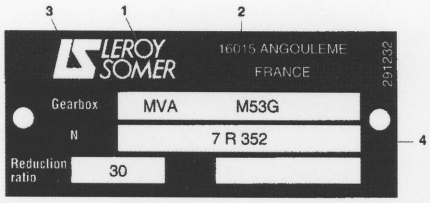
- Number and description of the part

c) If there is a motor connected to the gearbox, quote the following from the motor identification plate :

(For the motor : see the corresponding manual)
- Motor type
- Number of poles (or speed in min^{-1})
- Power in kW

Warning : special flange and motor shaft for these gearboxes.

Example :



Type of gearbox 1	Fixing 2	Ratio 3	Serial number 4	Part number	Type of motor No. of poles - power
Eg : MVA	M53G	30	7 R 352	Wheel No. 51	LS 63 - 0.18 kW

LUBRICATION

These gearboxes are permanently greased.
They have no draining, emptying or level plugs.

-Original grease :

LUBRILOG LX DDEB 00 grease
Synthetic base
Grade 00
Worked penetration 400/430
Operating temperature -40°/+150°
Melting point >130
Supplier :
LUBRILOG - 26260 S^{t} DONAT S/ L' HERBASSE

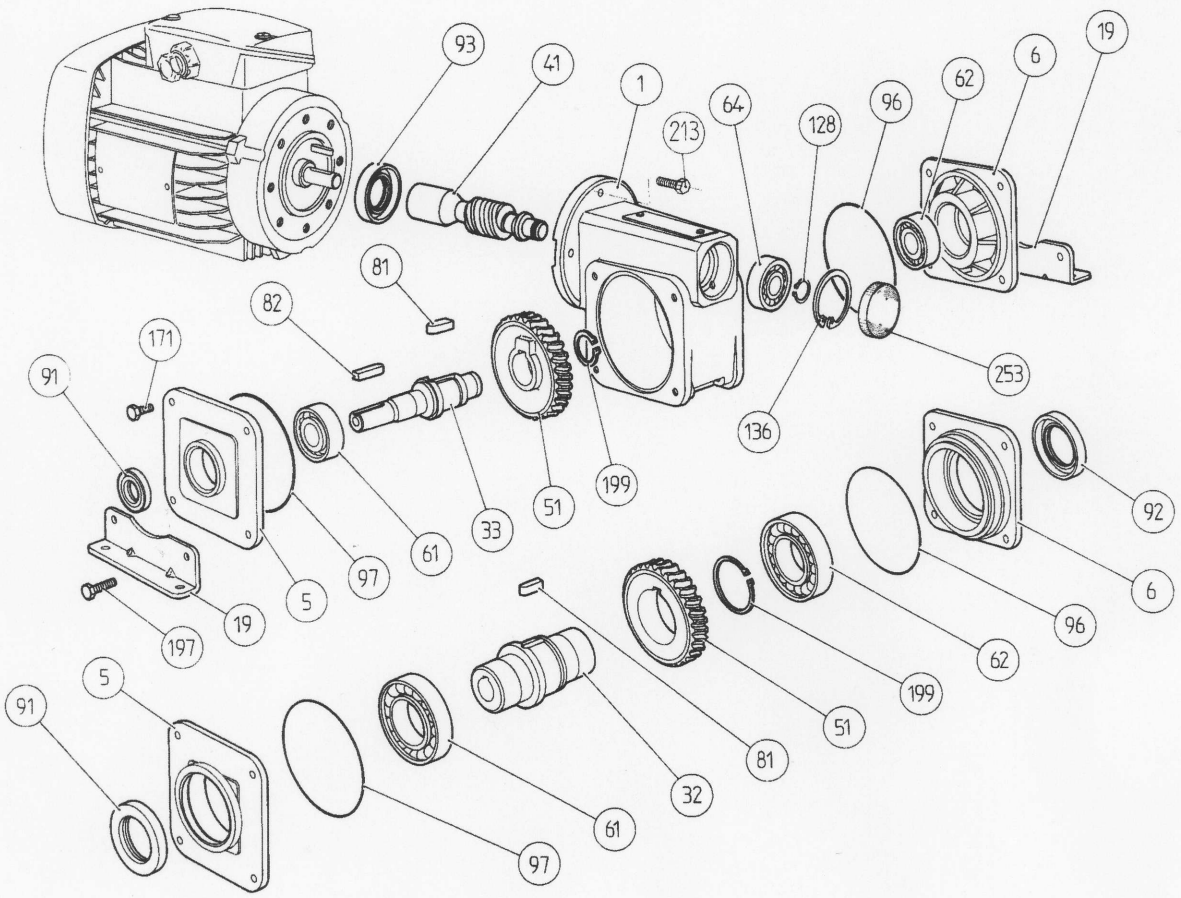
In the event of dismantling :

Synthetic greases for wheels and worm screws with similar characteristics.
For example :
Structovis P 00 - from KLUBER
Tivella Compound A - from SHELL
Energrease GSF- from BP

Note :

Do not mix greases.
Drain, clean thoroughly with trichlorethylene or a similar product, and refill the housing 2/3 with new grease.

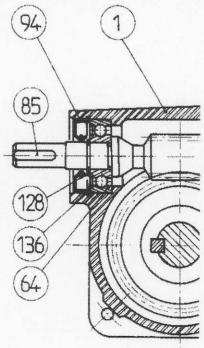
EXPLODED VIEW OF MVA with feet



NO.	QTY	DESCRIPTION
1	1	Housing
5	1	Left side end shield
6	1	Right side end shield
19	2	Separate feet
32	1	Hollow output shaft
33	1	Left side output shaft
41	1	Worm screw
51	1	Bronze wheel
61	1	Output shaft left side bearing
62	1	Output shaft right side bearing
64	1	Worm screw bearing
81	1	Key for bronze wheel

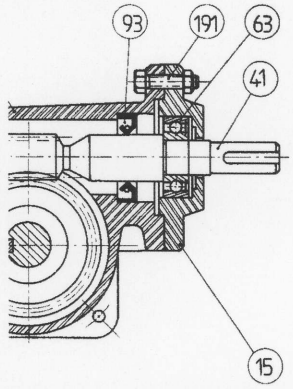
NO.	QTY	DESCRIPTION
82	1	Output shaft extension key
91	1	Output shaft left side lipseal
92	1	Output shaft right side lipseal
93	1	Worm screw lipseal
96	1	O-Ring
97	1	O-Ring
128	1	Locking circlip for worm screw
136	1	Locking circlip for worm screw bearing
171	4	Screws for output shaft end shields
197	4	Screws for end shield and feet
199	1	Locking circlip for bronze wheel
213	3	Screw for mounting motor on gearbox
253	1	Cover

Assembly with fast shaft extension



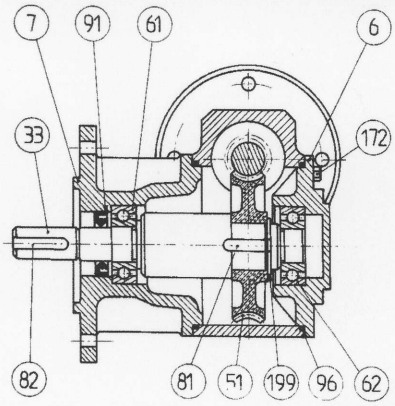
NO.	QTY	DESCRIPTION
1	1	Housing
64	1	Worm screw bearing
85	1	Fast shaft extension key
94	1	Worm screw lipseal
128	1	Worm screw locking circlip
136	1	Worm screw bearing locking circlip

Assembly with input shaft extension



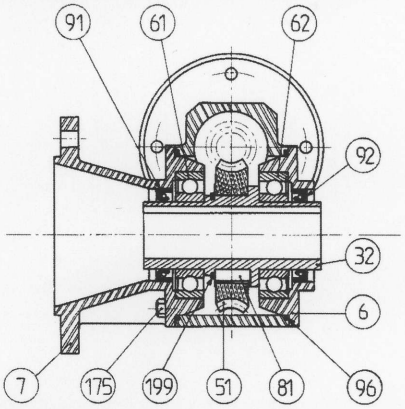
NO.	QTY	DESCRIPTION
15	1	Input shaft retainer
41	1	Worm screw
63	1	Worm screw input bearing
93	1	Worm screw input lipseal
191	3	Housing fixing screw /input shaft retainer

Foot and face plate mounting/solid shaft



NO.	QTY	DESCRIPTION
6	1	Right end shield
7	1	Separate left flange
33	1	Left output shaft
51	1	Bronze wheel
61	1	Output shaft left bearing
62	1	Output shaft right bearing
81	1	Bronze wheel key
82	1	Output shaft extension key
91	1	Output shaft left lipseal
96	2	O-Ring
172	8	End shield flange/housing fixing screws
199	1	Bronze wheel locking circlip

Foot and face plate mounting/hollow shaft



NO.	QTY	DESCRIPTION
6	1	Right end shield
7	1	Separate left flange
32	1	Hollow output shaft
51	1	Bronze wheel
61	1	Output shaft left bearing
62	1	Output shaft right bearing
81	1	Bronze wheel key
91	1	Output shaft left lipseal
92	1	Output shaft right lipseal
96	2	O-Ring
175	8	End shield flange/housing fixing screws
199	1	Bronze wheel locking circlip

DISMANTLING AND REASSEMBLY

1°/ Dismantling :

Dismantling the motor
-Remove the 3 fixing screws which fix the gearbox to the motor ref. 213
-Disconnect the gearbox from the motor (to do this use 2 levers in the 2 notches for this purpose in the gearbox housing flange)

Dismantling the worm screw
-Remove cover no. 253 (generally necessary to break this and order a replacement)
-Remove circlip no. 136
-Remove screw no. 41 pushing it from the motor side
-Remove circlip no. 128 and bearing no. 64 (hub remover)

Dismantling the output shaft
-Remove 4 screws (2 no. 171 and 2 no. 197) from flange no. 6 opposite the shaft extension
-Tap on the shaft extension to make it come out (no. 33 or 32)
-Remove left flange no. 5 from the housing
Dismantle the bronze wheel
-Remove flange no. 6 from on top of its bearing
-Take out the 2 bearings no. 61 and no. 62 (hub remover)
-Remove circlip no.199
-Take out bronze wheel no. 51 (hub remover)
(label the direction of the bronze wheel on the side where the wheel hub protrudes beyond the circlip on the shaft)

2°/ Reassembly :

Before reassembling clean all the parts thoroughly. It is preferable to change all the seals

a/ Bronze wheel and output shaft
Perform the above operations in reverse order
Before replacing the worm screw in the housing, fill the housing with grease (see paragraph on lubrication) - to approximately 2/3 of its internal volume

b/ Worm screw and motor
Perform the above operations in reverse order
For all these operations it is important to use the correct tools (rings, circlip pliers)

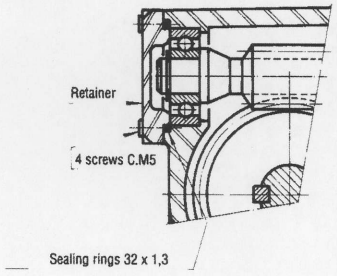
c/ Mount the gearbox on the motor

Mounting the thrust bearing

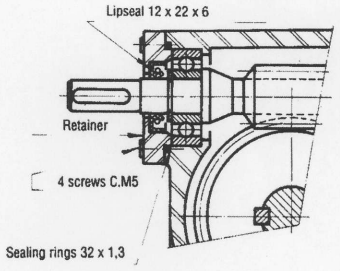
There are two ways of mounting the thrust bearing on the worm screw

1°/ Mounting using thrust bearing retainer (attached to the housing using 4 screws)

Without fast shaft extension

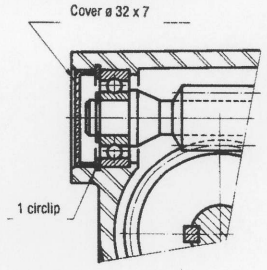


With fast shaft extension



2°/ Mounting using a cover and circlip in the prebored hole on the housing. (Warning : if the screw is dismantled, the seal or the cover will be broken)

Without fast shaft extension



With fast shaft extension