

COMPABLOC

Cb 1701 - Cb 1702 - Cb 1703

Installation and maintenance

Compabloc

Cb 1701 - Cb 1702

Cb 1703

INSTALLATION RECOMMENDATIONS

Gearbox :

- Remove the shaft protection cover (plastic sleeve).
- Mount the box on a flat, rigid support ; it should be free from vibration.
- Couplings, pinions and pulleys must be fitted with great care (they should first be heated), and under no circumstances should they be hammered on to the shaft.
- For pinions and pulleys, ensure that radial forces are within the permitted range (see selection tables).
- Ensure the correct belt tension and the proper alignment of the transmission ; keep the shafts parallel.
- For direct coupling, check the alignment of the shafts.

N.B. : If the product has been stored for a long period, turn the shaft by hand before running in order to avoid damage to the seals.

Despite all the care taken in the manufacturing and inspection processes of our products, LEROY-SOMER cannot guarantee 100 % against lubricant leakage. In cases where these leaks should be serious, putting at risk the safety and well-being of persons, it is the fitters responsibility to take all necessary precautions to avoid these eventualities occurring.

See motor : details page 6

ORDERING SPARE PARTS

Necessary information

a) from the gearbox nameplate :

- 1 - Gearbox model and size
- 2 - Type of mounting (S for feet, BS or BD for flange)
- 3 - Position
- 4 - Exact reduction ratio
- 5 - Build number

b) from the appropriate list :

- part description and item number

c) Where a motor is fitted to the gearbox, from the motor nameplate :

(For the motor : see the corresponding manual)

- motor type
- number of poles (or speed in r.p.m.)
- power in kW

Attention : the motor requires a special shaft and flange for integral mounting with the gearbox.

INSTRUCTIONS FOR DISMANTLING AND REBUILDING

Dismantling :

- Drain the gearbox.
- Remove the motor (undo the 4 bolts (151) in the flange).
- Rinse out the gearbox with a degreasing agent.
- For 2 and 3 stage boxes, remove the front cover (undo the 4 bolts (151)).
- Attention : use the proper tools :
 - hub-puller, bearing extractor
 - plastic or hide hammer
 - correctly sized spanners
 - correctly sized screwdrivers and circlip pliers

(To remove the first stage wheel (052) use a hub-puller - this gearwheel is locked on a tapered shaft).

- Place all the parts of the stripped-down gearbox in order of removal, in a clean area, preferably in a tray.
- Clean up all sealing surfaces with a scraper.
- Check the "O" rings for any damage or distortion ; to ensure a good seal when rebuilt, they must be free from cuts, indentations and tearing.
- Always dispose of used lip-seals, and fit new ones when rebuilding.
- Retain all faulty parts for re-ordering.

Rebuilding :

- Proceed in the reverse order to dismantling.
- Lightly grease the shafts and bearing cages before fitting.
- Do not hammer gearwheels on to shafts ; heat them on a hotplate (or in an oven) up to 180 °C (+0°, -10°). Heat open bearings to 120 °C maximum, sealed bearings to 90 °C maximum.
- Oil the new lip-seals ; they must be fitted very carefully so as to avoid damage to the running seal area ; the use of protection sleeves is recommended to cover the sharp edges of shaft keyways.
- Screws and pins must be fixed with medium strength anaerobic adhesive (e.g. Loctite or equivalent).
- Re-fit the "O"rings, checking that they are positioned correctly.
- Fill with oil up to the appropriate level (see page 6).
- Turn the shaft to check that the box is functioning satisfactorily before finally mounting it in position.

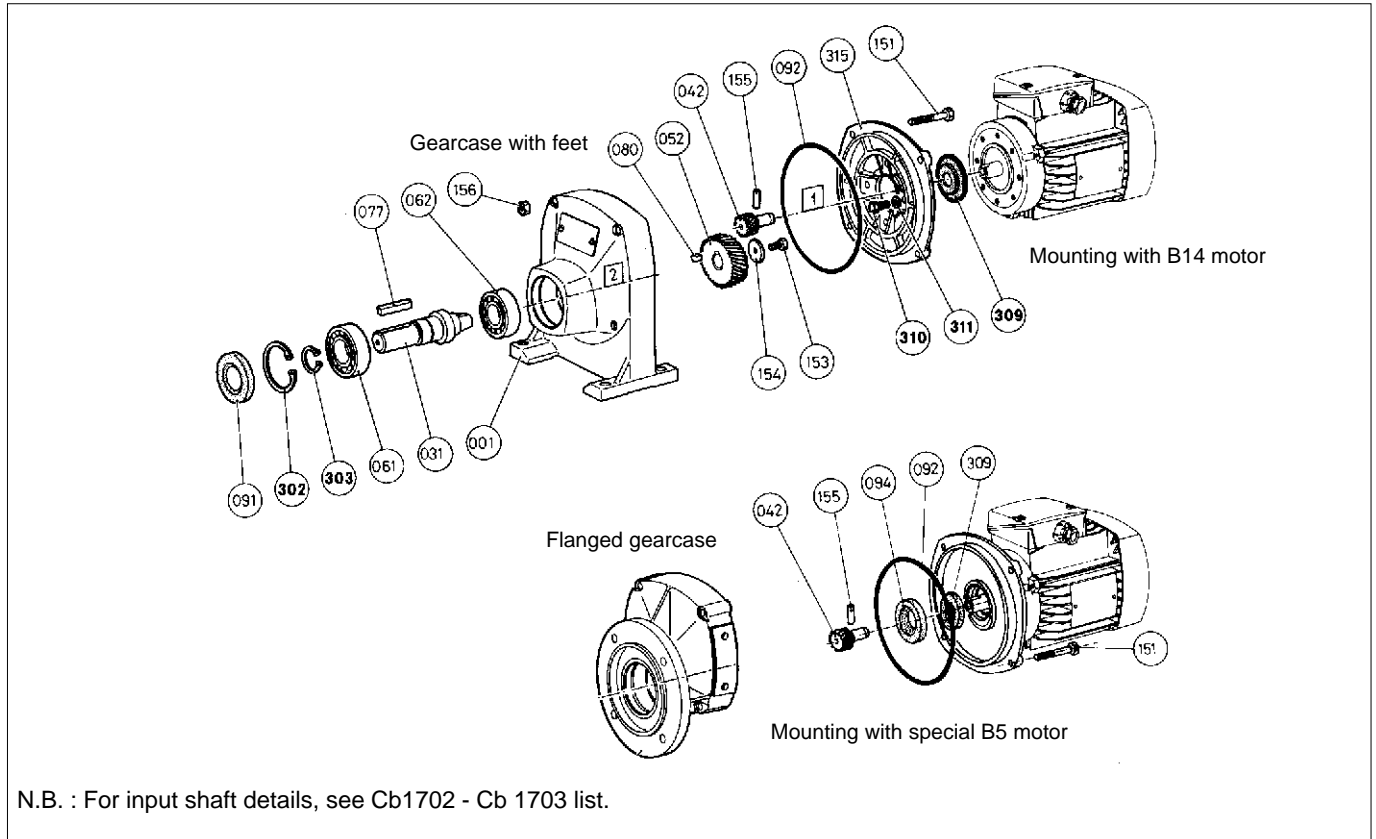
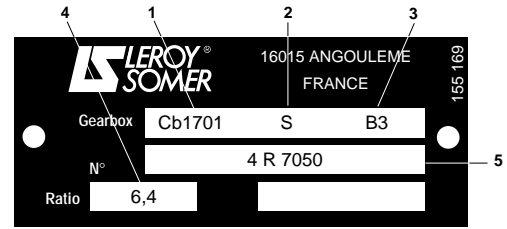
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Cb 1701 PARTS LIST

Information required for all parts orders.

Gearbox type	Mounting	Position	Ratio	Build N°	Part & item	Motor type & power
1	2	3	4	5		
Ex.: Cb1701	S	B3	6,4	4 R 7050	wheel item 052	LS 63 E/4 0.18 kW

Attention : the motor requires a special shaft and flange for integral mounting with the gearbox.



N.B. : For input shaft details, see Cb1702 - Cb 1703 list.

ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION
001	1	Gearcase	091	1	Lip seal	302	1	Int. circlip
031	1	Output shaft	092	1	"O" ring	303	1	Ext. circlip
042	1	1st stage pinion	094	1	Oil slinger	309	1	Motor seal
052	1	1st stage wheel	151	4	End cover bolt	310	4	Motor face-plate bolt
061	1	Output bearing	153	1	Fixing screw	311	4	Washer
062	1	Input bearing	154	1	Washer	315	1	Motor face-plate
077	1	O/P shaft key	155	1	Pin			
080	1	1st stage shaft key	156	4	Nut			

Type	KEY MAINTENANCE ITEMS				
	061	062	091	309	092
Cb 1701	6205	6204	25 x 52 x 7	15 x 50 x 6	126 x 3

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Cb 1701 - Cb 1702

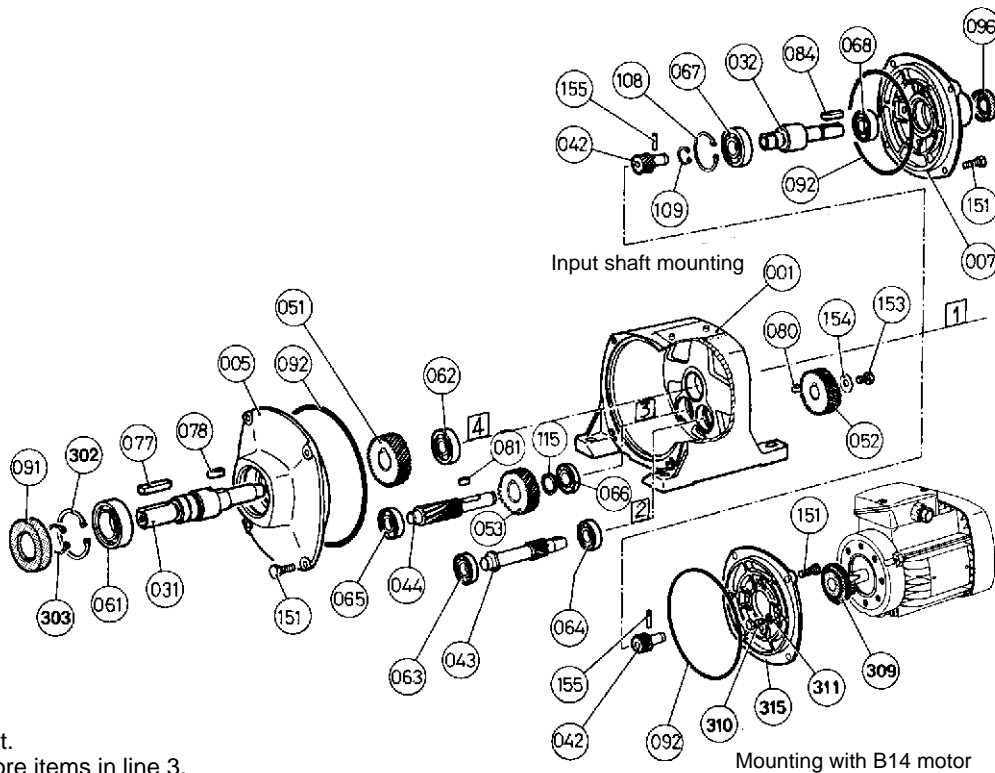
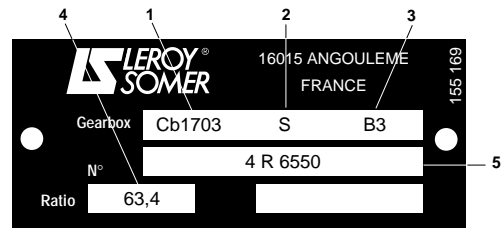
Cb 1703

Cb 1702-1703 PARTS LIST

Information required for all parts orders.

Gearbox typ	Mounting	Position	Ratio	Build N°	Part & item	Motor type & power
1	2	3	4	5		
Ex.: Cb1703	S	B3	63,4	4 R 6550	shaft item 032	LS 63 E/4 0.18 kW

Attention : the motor requires a special shaft and flange for integral mounting with the gearbox



N.B. :
 Cb 1703 parts list.
 For Cb1702, ignore items in line 3.
 For mounting special B5 motor, see Cb 1701 parts list.

ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION
001	1	Gearcase	064	1	1st stage rear bearing	109	1	Input shaft large circlip
005	1	End cover	065	1	Intermediate front bearing	115	1	Spacer
007	1	Input shaft body	066	1	Intermediate rear bearing	151	8	End cover bolt
031	1	Ouput shaft	067	1	Input shaft front bearing	153	1	1st stage wheel screw
032	1	Input shaft	068	1	Input shaft rear bearing	154	1	Washer
042	1	1st stage pinion	077	1	Output shaft key	155	1	Pin
043	1	Intermediate pinion	078	1	O/P wheel key	302	1	Internal bearing circlip
044	1	O/P stage pinion	080	1	1st stage wheel key	303	1	External bearing circlip
051	1	O/P stage wheel	081	1	Intermediate shaft key	309	1	Motor shaft lip-seal
052	1	Intermediate wheel	084	1	Input shaft key	310	4	Motor face-plate bolt
053	1	1st stage wheel	091	1	Output shaft lip-seal	311	4	Washer
061	1	O/P shaft front bearing	092	2	End cover "O" ring	315	1	Motor face-plate
062	1	O/P shaft rear bearing	096	1	Input shaft lip-seal			
063	1	1st stage front bearing	108	1	Input shaft small circlip			

KEY MAINTENANCE ITEMS

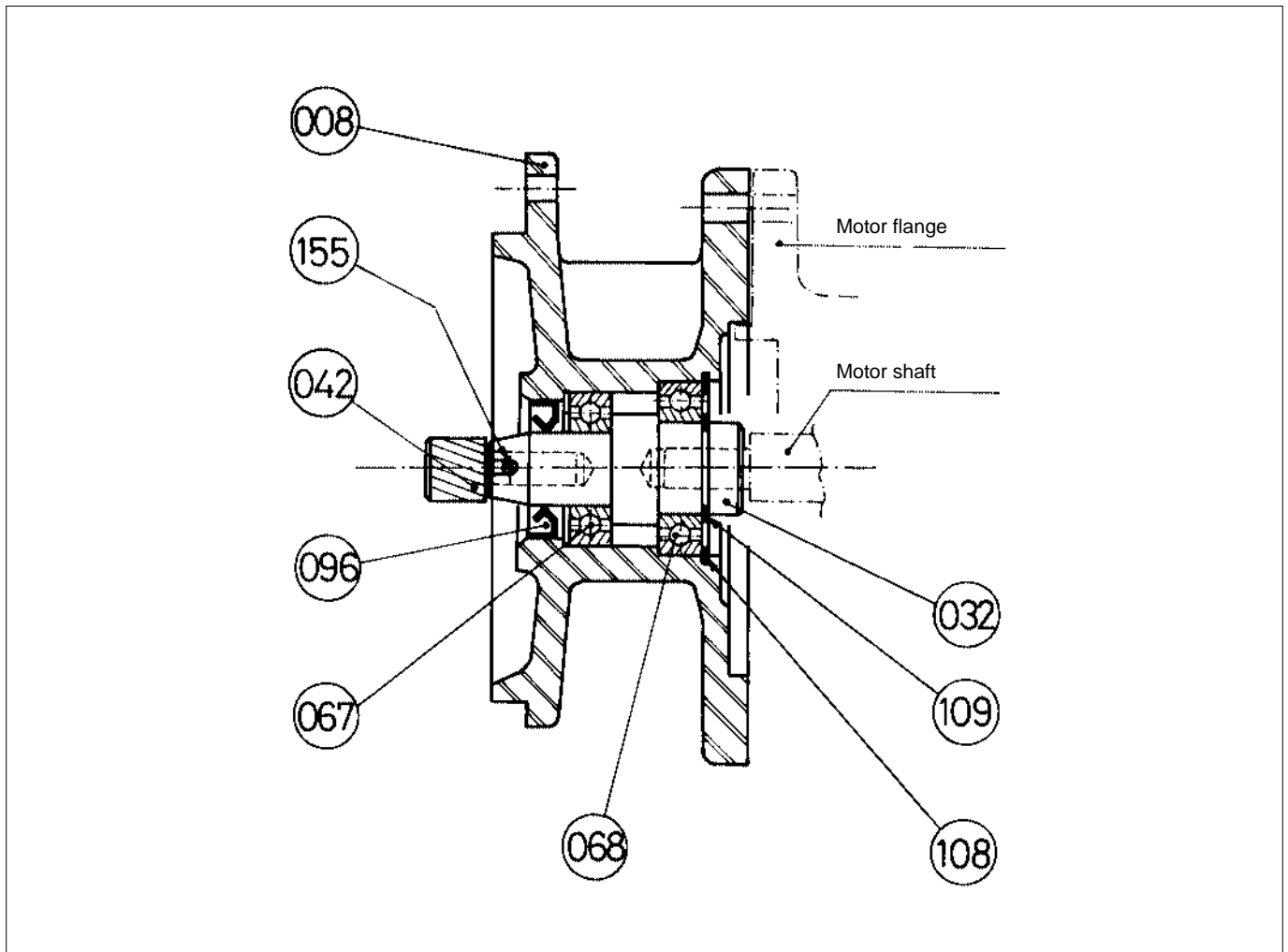
Type	061	062	065/063	064/066	067	068	091	309	092	096
Cb 1702	6205	6202	6201	6201	6204 2RS	6203 2RS	25 x 52 x 7	15 x 50 x 6	126 x 3	17 x 28 x 7
Cb 1703	6205	6300	6201	6201	6204 2RS	6203 2RS	25 x 52 x 7	15 x 50 x 6	126 x 3	17 x 28 x 7

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U-MOUNT PARTS LIST for Cb 1701 - 1702 - 1703



ATTENTION :

When ordering :

- for item 008 "U"-mount body
specify the dimensions of the B14 or B5 motor flange

- for item 032 "U"-mount shaft
specify the dimensions of shaft required

- for item 042 pinion
specify the gearbox type (1701, 1702 or 1703) and
the overall reduction ratio.

ITEM	QTY	DESCRIPTION
008	1	"U"-mount body
032	1	"U"-mount shaft
042	1	Pinion
067	1	Front bearing

ITEM	QTY	DESCRIPTION
068	1	Rear bearing
096	1	Lip-seal
108	1	Small circlip
109	1	Large circlip

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3-PHASE MOTOR

1 - Installation

Before installation, check :

- that the motor shaft turns freely and easily by hand.

Precaution :

Where the motor has been stored in a damp atmosphere, it is recommended that the insulation is checked by an electrician.

The insulation value must not be less than 5000 ohms per volt of the rated voltage of the motor.

2 - Connection to the mains

- Select cables of sufficient cross-sectional area to avoid excessive voltage drop (5 amps per mm²)

- Connect the terminals according to the diagrams contained in the terminal box, with reference to the indications on the motor nameplate and the mains supply.

Very important : After making the electrical connections, carefully replace the terminal box cover, and make sure that the cable-gland is tightened on to the cable.

Earthing :

An earth terminal is provided inside the terminal box.

3 - Bearings (types)

Motor type	Drive end	Non-drive end	Non-drive end with shaft extension
LS 56	6002 or 6202	6201	6201
LS 63	6002 or 6202	6201	6002 or 6201
LS 71	6202	6201	6002
LS 80	6204	6203	6204

For IP 44 motors the bearings are ZZ type ; for IP 55 motors, 2 RS bearings are used. These are greased for life : 15 000 hours at 3 000 r.p.m. and 30 000 for 1 500 r.p.m. operation.

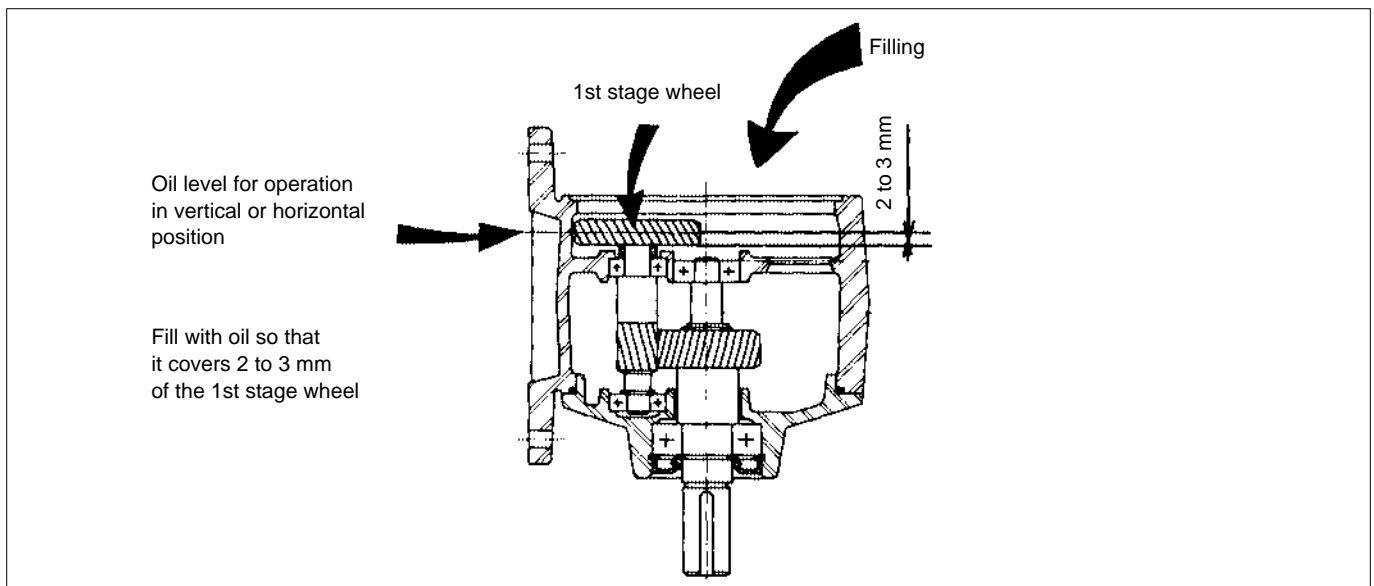
SINGLE PHASE MOTOR WITH PERMANENT CAPACITOR

These are mechanically identical to 3-phase motors. They are equipped with a permanent capacitor attached to the side of the terminal box.

For the connections, follow the diagrams in the terminal box and the voltage indicated on the motor nameplate.

LUBRICATION

Oil levels



Oils

These gearboxes are lubricated for life with synthetic oil. There are no filling, level or drain holes provided.

- Oil specification :

TIVELLA WB Synthetic base

Temperature range -30 °C to + 150 °C

Viscosity category ISO VG 220

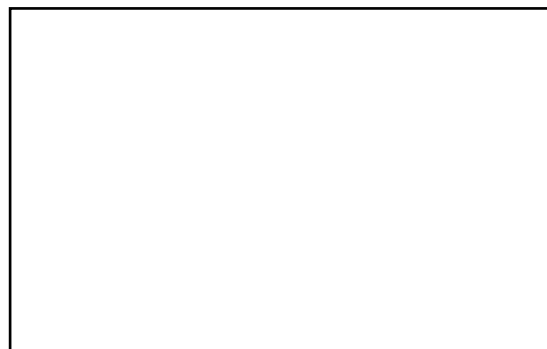
Flash point 250 °C

Supplied by : SHELL

- For replacement after disassembly :

- Possible substitute oils :
any oil for gearboxes with a synthetic base having a viscosity category characteristic similar to ISO VG 220 (DIN 51 519)
E.g. : Mobil SHC 629 or 634

N.B. : Never mix different oils. Always drain completely, wash out the box, and re-fill with new oil.



MOTEURS LEROY-SOMER 16015 ANGOULÊME CEDEX - FRANCE

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