

MANUAL INSTRUCTION

Before you begin to rebuild the supercharger, please make sure that all required tools are present. These may include hydraulic press, grinder, pulley puller, socket sets, screw driver, tool to drain the oil, bar, feeler and rebuilt kit. Make sure that the parts provided with kits are undamaged and clean.

REPLACING THE BEARINGS AND SEALS IN EATON SUPERCHARGERS SERIES-M WITHOUT ELECTROMAGNETIC CLUTCH:

DISASSEMBLY:

Loosen the screw, which is draining the oil.
Get the oil out from the supercharger. Drain the oil from the oil fill hole by using a spray bottle or a syringe.
Loosen the bolts that hold the supercharger nose cone onto the body.
Pull apart the supercharger nose cone from the main supercharger housing.
Remove flexible coupling.
Remove the central board with rotors and gears from the main body of the supercharger.
Clean the oil chamber carefully.

MAIN BODY:

Use an internal puller to remove the needle bearings from the main body of supercharger in M45/M65 Supercharger or hydraulic press in M62/M90/M112.
On a hydraulic press, press the new needle bearings in to the supercharger main body.

CENATRAL BOARD:

Mark for the position of the gears and the shafts exactly relative to each other.
Support central board with rotors on hydraulic press.
Press shafts down through the gears.
Remove the ball bearings (To avoid cracks we suggest to remove the upper part of the flange around the ball bearings by using a mini grinder)
Remove simmerings and clean all thoroughly.
Put in new simmerings (Please note that simmerings have two different diameters; 34mm and 35mm.
The hole for larger simmering is always 35 mm and the hole for the smaller simmering may have 34mm or less likely 33,6mm. In both cases, the only option is to insert 34mm simmering with a rubber coating.
Grease the hole for ball bearings using adhesive glue.
Put new ball bearings.
Wait at least 10 hours to let the glue work.
Support central board on the press (bearing down).
Press shafts through the ball bearings.
Maintain a clearance of 0.2mm between the rotor and the central plate.
Support central board with rotors on the press (rotors down).
Put gears on the shafts according to their previous positions. Remember to keep 0.2mm clearance between the rotor and the central board. (To keep the response gap use 0.2mm feeler gauge to put it in between the rotors and the central board)

THE COVER WITH THE PULLEY:

Support the pulley on the press. Press shaft down.
Remove simmering and two ball bearings from the shaft and replace them using the new ball bearings, simmering and pulley in reverse order.

ALL BODY:

Put the central board with rotors into the main body of the compressor
Seal a center plate and cover using the black sealing paste.
Put back the cover with the pulley into the main supercharger body and tighten the whole supercharger by screws.
Check the clearance between the rotors with a 0.2mm feeler gauge, turning them on both sides.
Fill up the supercharger with the provided supercharger oil. Be careful and do not overfill the supercharger. If you over fill the supercharger oil beyond the recommended requirements, it can cause the oil to expand and leak out of the supercharger seals. For proper oil level please see the oil chart.

OIL CHART FOR OEM APPLICATIONS WITH EATON SUPERCHARGERS

OEM Application	Rotor Type	Size	Oil Fill (ml)	Oil Fill (fl oz)
Audi A6/S4	TVS	R1320	155	5.2
BMW/ Mini	3-lobe	M45	145 + 40	4.9 + 1.4
Mercedes M271	3-lobe	M45	135	4.6
Mercedes EVO M111	3-lobe	M45	110	3.7
Mercedes Clutched	3-lobe	M62	110	3.7
Ford	3-lobe	M24	35	1.2
Ford Super Coupe	3-lobe	M90	250	8.1
Ford Shelby GT500	3-lobe	Hybrid / M122	140	4.7
Ford Harley-Davidson F150	3-lobe	M112	215	7.3
Ford Lightning	3-lobe	M112	215	7.3
Ford Cobra	3-lobe	M112	215	7.3
GM 3800 Series L67	3-lobe	M90	225	7.6
GM 3800 Series L32	3-lobe	M90	205	6.9
GM Cobalt SS LSJ	3-lobe	M62	100	3.4
GM Cadillac LS3 Northstar	3-lobe	M112	215	7.3
GM Cadillac LSA	TVS	R1900	150	5.1
GM Corvette LS9	TVS	R2300	150	5.1
Jaguar AJ33	3-lobe	M112	215	7.3
Jaguar AJ43/44	3-lobe	M112	215	7.3
Jaguar AJ133	TVS	R1900	150	5.1
Nissan	3-lobe	M62	115	3.9
Volkswagen	3-lobe	M24	40	1.4