



MAINTENANCE INSTRUCTION

MODERNIZATION RECOMMENDATION IMPROVED OIL SEPARATOR SYSTEM

PURPOSE: To provide an improved crankcase ventilation system which will minimize carbon buildup by reducing oil carryover.

APPLICATION: All turbocharged engines built before mid 1970.

Part I -- Units built after mid 1963. These are equipped with oil separator 8332584.

Part II -- Units built prior to mid 1963. These units are equipped with oil separator 8287892.

REFERENCES: None required.

Part I -- Kit 8453258

**NEW MATERIAL
REQUIRED:**

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	9502409	Outer Eductor Pipe
1	9502412	Inner Eductor Pipe
1	8271729	Gasket
4	181380	Bolt
4	8289127	Nut
1	8306958	Gasket
4	179839	Bolt
4	6101225	Washer
1	8448162	Eliminator Element
1	8448164	Cover
1	8453237	Spring
1	8335770	Gasket

Part II -- Not available in kit form.

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	9502409	Outer Eductor Pipe
1	9502412	Inner Eductor Pipe
1	8271729	Gasket
4	181380	Bolt
4	8289127	Nut
1	8306958	Gasket
1	8448163	Oil Separator Assembly
1	8271726	Cover Plate
1	8262488	Gasket
1	8028760	Gasket

*This bulletin is revised and supersedes previous issues of this number.

PART I**Oil Separator**

Oil separator 8332584, applied to production engines since mid 1963, can be modified to reduce oil carryover by replacing the original cover, element, and element retaining spring. New oil separator cover 8448164, eliminator element 8448162, and element spring 8453237 have been released to accomplish this modification, and are included in kit 8453258. These items are direct replacements for the original equipment and thus, no structural modification is required to complete the change. With the new material added, the oil separator assembly becomes 8448163.

NOTE

Under no circumstances should the new separator element be used with the old separator covers. Such applications will result in gross oil carryover.

Eductor Pipe

The second modification to the crankcase ventilation system is the application of an air cooled inner

and outer eductor pipe inside the existing eductor pipe in the exhaust duct. The mounting flange of the outer eductor pipe is provided with spacers for the purpose of drawing relatively cool air from the engineroom between the two eductor pipes, thus keeping the surface temperature of the inner pipe below the oxidation temperature of engine lube oil which, in turn, reduces the formation of carbon.

To apply the eductor pipes, thoroughly remove all carbon from the I.D. and leading edges of the permanent eductor pipe and any gasket remnants from its mounting flange. Install both the inner and outer eductor pipes on the mounting flange and locate so that the word TOP stamped on the inner flange is facing upwards. NO gasket is required between the flanges of the inner and outer eductor pipes or between the eductor pipes and the exhaust duct. A gasket is required between the eductor pipes and the flexible connector.

NOTE

When modifying 20-cylinder engines, remove and discard orifice plate 8409003.

PART II

Application of the new eductor system on units built prior to mid 1963 is accomplished in the same manner as described in Part I except that oil separator 8287892 is completely removed and

replaced by new separator assembly 8448163. Since separator assembly 8287892 is equipped with an external oil drain, cover plate 8271726 is provided to plug the drain opening in the turbo housing.

GENERAL**Turbocharger Duct**

Turbochargers built after March 1, 1979, will have the fixed eductor pipe removed from the exhaust duct. Units equipped with these turbochargers will receive the maximum benefit of the new eductor inner and outer pipes. On these units, the eductor

pipes can be removed and cleaned while the engine is shut down.

Maintenance

The oil separator and element should be cleaned annually. The eductor pipes should be inspected on a quarterly basis.

• • • • **A Service Department Publication** • • • •

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