

# MAINTENANCE INSTRUCTION

## MODERNIZATION RECOMMENDATION

### CLEAN-OUT COVER KIT-SPARK ARRESTER EXHAUST MANIFOLDS ON BLOWER ASPIRATED ENGINES

**PURPOSE:** To facilitate cleaning of carbon from the retention traps on spark arrester exhaust manifolds.

**REFERENCES:** Figs. 1 and 2 of this publication.

**DISCUSSION:** Depending on the type of locomotive service and the frequency of emptying the retention trap, carbon can accumulate in the trap and solidify, making it difficult to empty the trap through the basic pipe cap at the bottom of the trap. The modification kit provides a 4" diameter opening approximately in the middle of the trap which can be accessed when necessary to thoroughly clean the carbon from all areas of the trap. The cleanout kit utilizes the same flange, bolts, cover, and gasket as turbocharged engine inlet screen inspection port kit, 9336983.

The modification should not be attempted with the manifolds on the engine due to the possibility of foreign material entering the engine.

It is imperative that the spark arrester manifold nameplate be re-applied to comply with U.S. Forest Service regulations regarding the labeling of spark arrester devices.

**NEW MATERIAL REQUIRED:** One kit 9518064 is required per exhaust manifold, thus two kits are needed for each 8 or 12-cylinder engine and four kits are needed for each 16-cylinder engine.

Each kit contains the following:

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	9518066	Flange Assembly
1	9316673	Flange
1	9316672	Gasket
6	8287827	Bolt - 1/2"-20 Hex.
6	8284621	Nut - 1/2"-20 Self Locking

**NOTE**

Additional gaskets 9316672 should be kept on hand since each time the flange cover is removed a new gasket will be required for re-installation.

## MODIFICATION PROCEDURE

(To Be Done With Manifold Removed From Engine)

1. Remove manifold nameplate by grinding welds or rivets.
2. Cut 4-5/8" dia. hole at location indicated, Fig. 1.

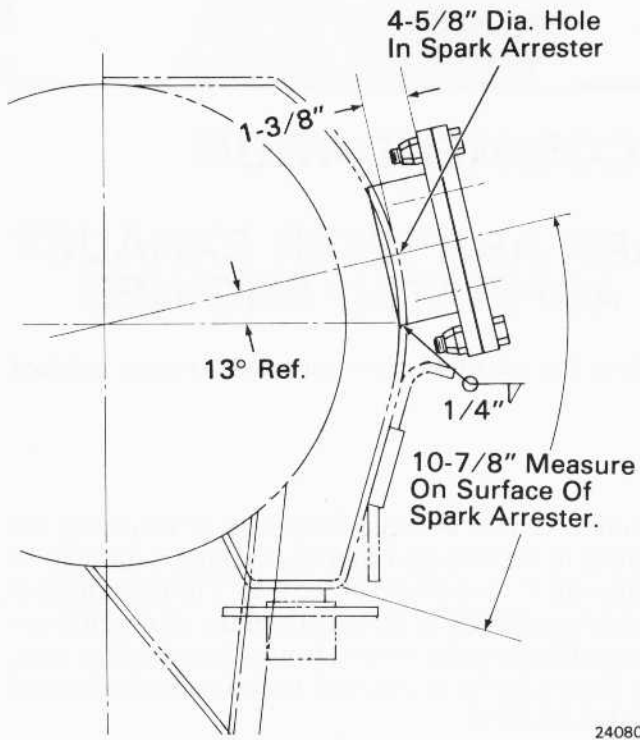


Fig.1 - Application Of Clean-Out Cover

3. Insert inspection cover assembly, maintaining 1-3/8" height dimension and bolt orientation as shown. Weld full around with mild steel electrode to weld size shown.

4. Clean spark trap and manifold interior of all foreign material prior to reapplying manifold on engine.
5. Torque inspection cover bolts to 80 ft-lbs, manifold mounting bolts to 130 ft-lbs, and interconnecting band clamp T-bolts to 70 in.-lbs.
6. Reapply manifold nameplate to manifold chamber adjacent to spark trap, Fig. 2. Use E-308-16 stainless steel electrode.

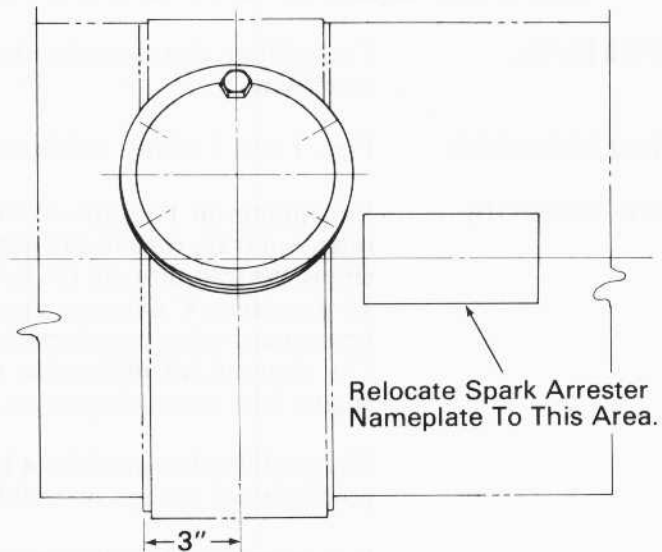


Fig.2 - Spark Arrester Nameplate Relocation