

# Service

## BULLETIN #125

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MODELS AFFECTED

**P-37**

SUBJECT

**CARBON IN THE INTAKE MANIFOLD**

**Pacbrake introduced the P-37 Superpac in January of 1988 and although it has been in the field for 6 years (including testing) some concerns are being expressed about carbon on the intake manifold.**

This patented brake represents a new technology in engine braking and some differences from the conventional must be taken into account.

On all engines (from any manufacturer) that are equipped with exhaust brakes, a “kickback” of pressure to the intake manifold occurs. This is a result of the high pressure air in the exhaust manifold being transferred to the intake manifold, through the partially open intake and exhaust valves during valve overlap. (Both intake and exhaust valves are open at the same time at the end of the exhaust stroke).

This transfer is not by itself harmful and normally results in a light carboning of the intake manifold that will not affect wear or performance. However, given an abnormal source of coolant, fuel or oil that might, for instance, be caused by a faulty air compressor or head gasket, a carbon buildup in the intake manifold could occur.

This source should be determined and repaired.

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ENGINE & EXHAUST BRAKES