

DIESEL HYDRAULIC LOCOMOTIVES.

Protective Measures to be taken by Depot Immediately an Internal Coolant Leak is reported.

1. Determine source of leakage, i.e. turbocharger, cylinder head or liner; water in several cylinders does not necessarily mean all are defective and a careful diagnosis must be made.
2. If not done during diagnosis, take a sample of engine lubricating oil from the sump drain and carry out depot test for presence of water.
3. After diagnosis, drain the coolant.
4. If test shows no water in lubricating oil then:-
 - (a) Open all decompression valves.
 - (b) Bar over engine to remove as much water as possible from the engine.
 - (c) Introduce as much engine lubricating oil as possible through the decompression valves, again barring over the engine to distribute it round the cylinders, leaving the decompression valves open when this process has been completed.
5. If test shows water in lubricating oil then:-
 - (a) Drain the engine oil sump.
 - (b) Open all decompression valves.
 - (c) Bar over the engine to remove as much as possible of any water in the engine.
 - (d) Fill the lubricating oil sump as high as possible with engine lubricating oil. This level will be approximately 12" above the normal oil level.
 - (e) Bar over the engine to distribute the engine lubricating oil as much as possible throughout the unit.
 - (f) Introduce as much engine lubricating oil as possible through the compression valves, again barring over the engine to distribute it round the cylinders, leaving the decompression valves open when this process has been completed.
6. Record details of diagnosis and attention given in the Repair Book if locomotive is to be moved to another Depot.