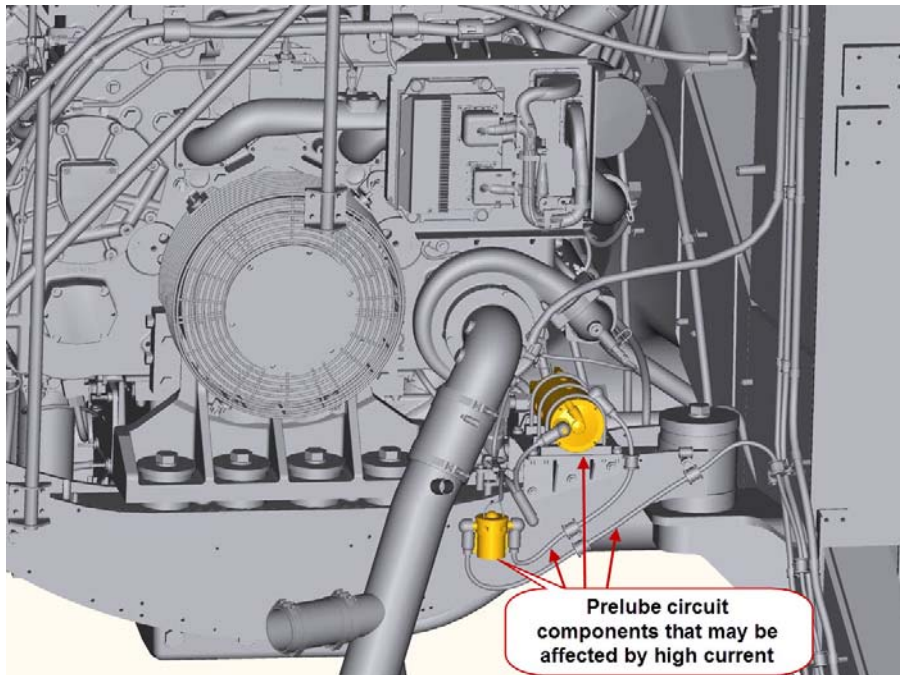


Bulletin 012/2013

- Subject:** Caterpillar 797F Off Highway Truck (OHT)
Engine Pre lubrication (Prelube) motor
electrical circuit may experience overloads
- Affected Product:** 797F Off Highway Trucks serial prefix LAJ1 - up
- Risks Identified:** Electrical fires or thermal events
Personal injury
Property damage



Problem Overview:

Electrical overloads can occur in the main electrical cables supplying current to the engine prelube pump motor on 797F off highway trucks. The wiring, or wiring insulation, can be damaged by excessive current flow. In two instances known to Hastings Deering, a fire has occurred. In some cases of faulty operation, the prelube pump may continue to run after the pre-lubrication cycle is completed.

Interim Containment Action:

A circuit protection arrangement has been designed and tested by Hastings Deering. This arrangement includes a 300 amp fuse, arc suppressor, cable, harness, mounting bracket, and all necessary mounting hardware. After the system is fitted, an electrical overload will cause the fuse to blow [create an open circuit] and prevent further current flow.

When the circuit protection system operates, the prelube pump will not be able to run when required and a E233 level 2 code will be logged in the engine ECM indicating "Low engine prelube pressure". The event will be briefly displayed to the machine operator via the advisor monitor display. After this has occurred, and subject to software fitment in the ECM, the ECM may inhibit engine starting when prelube is required. When the engine must be started in an emergency, it is possible to override the engine prelube cycle, via the 'prelube override' key-switch sequence outlined in the Operation and Maintenance Manual.

To restore normal prelube operation, inspect the prelube electrical circuit for a possible short circuit or other wiring defects that may have caused the excess current flow. If no problem is evident, replace the fuse with a new item of the same rating and clear the E233 (2) event code.

Test the prelube system in a cold start cycle and confirm correct operation. The prelube pump must operate and the pump must stop when the filtered engine oil pressure reaches 48 kPa, or the prelube pump has run continuously for 45 seconds. If prelube operation is not correct, or the pump continues to operate, or the fuse blows again, the truck should not be returned to service until the problem is found and rectified.

Permanent Containment Action:

The cause or causes of the circuit overload is still under investigation by Caterpillar, and until the outcomes of that investigation is known, the interim control actions outlined in this bulletin should be observed at **all** operational locations.

What To Do:

Install the circuit protection kit available from Hastings Deering.

Contact Details:

If further information is required in regards to this bulletin, contact your nearest Hastings Deering branch on 131 228 and ask to speak to a Mining Support Representative. The Mining Support Representative will seek the latest information on the issue from the Technical Support Group.

This bulletin is to inform you of the recommendations of the supplier in respect of issues dealt with in the bulletin and should not be used as specific advice in respect of any particular events. Advice from a qualified repairer should be sought in respect of any particular events and Hastings Deering (Australia) Ltd accepts no responsibility for any loss or damage occasioned by a party using this general bulletin.