

Bulletin 016/2013 Revision 2

Subject: The fire suppression system engine shutdown delay needs to be reprogrammed on certain machines fitted with the optional Hastings Deering Multifunction Integrated Control System (MICS) and a Chubb Fire Suppression System.

Affected Product: Machines listed in the table below are fitted with the optional MICS attachment and a Chubb Fire Suppression System configured with an engine shutdown delay.

Serial numbers of machines with a 15 second shutdown delay

D11T AMA00204 AMA00348 AMA00371

Serial numbers of machines with a 30 second shutdown delay

777G TNM00242

Serial numbers of machines with a 60 second shutdown delay

D11T AMA00216 AMA00343 AMA00453 AMA00236 AMA00402 AMA00251
AMA00406 AMA00264 AMA00407 AMA00335 AMA00409

D10T RJG04184 RJG04299 RJG04481 RJG04211 RJG04405 RJG04498
RJG04286 RJG04406 RJG04510 RJG04291 RJG04407 RJG04511
RJG04292 RJG04480 RJG04516

795F AC ERM00255 ERM00261 ERM00256 ERM00262 ERM00257 ERM00263
ERM00258 ERM00260

777G T4Y00118 T4Y00119 TNM00603

Risks identified

Where both the Hastings Deering MICS and Chubb Fire Suppression System have been fitted, the effectiveness of the fire suppression system may be reduced due to extended engine shutdown delay time.

Principles of mobile plant fire suppression

When a fire is detected, the fire suppression system activates immediately. In general, the sooner the engine is shutdown, the greater the chance that the fire will be successfully suppressed or extinguished.

This is because continued engine operation can continue to feed a fire with fuel or oil from ruptured lines. The actions of the fan can spread the burning liquids and cause a rapid expansion of the fire. However a sudden automatic engine shutdown may cause an unsafe situation to occur for the operator or other personnel near the affected plant. For this reason, most suppression systems have an inbuilt delay that gives the operator time to move the machine to a safe location before shutdown.

If too much time elapses between the activation of the fire suppression system and engine shutdown, the fire suppression system reservoir may be depleted before the engine is stopped. Irrespective of any auto shutdown functions fitted, the operator can manually shut down the machine at any time.

Problem Overview

When a machine fitted with MICS and a Chubb fire suppression system detects a fire, an audible alert is raised to the machine operator and indicated on the Chubb display module.

The Chubb system contains a programmable engine shutdown delay timer. The timer function allows the engine to operate for a period defined by the programmed engine shutdown delay set-point. This feature enables the operator to move the machine to a safer position before shutdown if required. The operator can also manually shut the engine down at any time during this period via the key switch or emergency stop button.

The MICS system also contains a shutdown delay timer. In the machines listed in this bulletin, the MICS system delay timer commences AFTER the Chubb delay is completed. The total shutdown delay period therefore consists of two sequential events: The programmed Chubb delay and the programmed MICS delay. The two sequential shutdown delay periods can result in reduced fire suppression system effectiveness. The solution is to eliminate the Chubb system delay and retain the programmed MICS delays of 15, 30 or 60 seconds.

For the machines listed in this bulletin, the Chubb fire suppression system delay set-point must be reprogrammed to ZERO delay, so that a shutdown request is passed to the MICS immediately.

When the Chubb shutdown delay set-point is reprogrammed to zero, the engine will be shut down when one of the following events occur:

- Machine park brake applied;
- The elapsed time on the MICS system shutdown delay timer equals the shutdown delay set-point (15, 30 or 60 seconds-refer table).

Note: The delay extension button function on the fire suppression system panel was previously used to delay the engine shutdown if required. With the Chubb system shutdown delay time set to zero, the delay extension function is disabled. A warning label will be supplied by Hastings Deering to advise of the information detailed in the bullet points above.

In the event of fire, to maximise the effectiveness of the fire suppression agent, the engine should be stopped via the key switch or emergency stop pushbutton as soon as it is safe to do so.

What to Do

For machines listed in the table on page 1, please follow the steps below to ensure the fire suppression system is configured correctly.

1. Check/Update Chubb Fire Suppression System

Please refer to authorized Chubb Service Personnel to change the engine shutdown delay time set-point to zero seconds. Perform a test to confirm that the shutdown feature is functioning correctly through MICS so that the engine shuts down immediately when the park brake is applied, or if the park brake is not applied, shuts down on expiry of the MICS shutdown delay period.

2. **Install a new warning label**

A warning label advising the shutdown delay parameters will be supplied. This should be fitted in a visible area next to the Chubb Fire Suppression Control Panel in the cab.

3. **Update HDAL Operations & Maintenance Manual Supplement**

A revised Hastings Deering Operation and Maintenance Manual Supplement (OMMS) will be supplied for the affected machines. The existing OMMS will need to be removed from the cab and replaced with this revised version.

Contact Details

For further information regarding this bulletin, contact your nearest Hastings Deering branch on 131228 and ask to speak to your Mining Support Representative.

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.