



# Safety Alert

From the International Association of Drilling Contractors

---

ALERT 02 – 11

## ENGINE BLOWER FIRE

### WHAT HAPPENED:

Due to a failure in the intake air shutoff device on one of the two intake blowers (Turbo) during normal rig operations a 16-cylinder diesel engine blower caught fire. The cam that controls the closing function of the flappers on the shut down device was worn due to vibration allowing it to slip causing the flapper to close. After closure, the blower rotors made contact with the housing resulting in heat buildup due to friction. Oil from the scavenging system was sucked into the rotor housing due to the pressure drop and was dispersed on the now hot rotor, thereby resulting in ignition of the oil.

### WHAT CAUSED IT:

The known cause of this failure was determined to be excessive wear on the cam due to normal vibration. This wear allowed the cam to unexpectedly shift thus closing the flapper.

**CORRECTIVE ACTIONS:** To address this incident, this company did the following:

- Increased the visual inspection frequency of the cams to weekly check and conduct a function test on a monthly basis with the engine not running.
- Installed an Original Equipment Manufacturer (OEM)-approved retrofit kit to the existing intake air shutoff system that ties together both cams with a linkage to prevent closure of just one blower.
- Issued industry alert to warn other users of this potential hazard.

**The Corrective Actions stated in this alert are one company's attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.**

---

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices.  
Copyright © 2002 International Association of Drilling Contractors. All Rights Reserved

Issued March 2002