



# SAFETY ALERT

## Compressor Engine Fire from Equipment Failure

<b>Safety Alert:</b> #26 - 2010	<b>Release Date:</b> September 27, 2010
<b>Incident Type:</b> Defective Equipment	<b>Country of Origin:</b> Western Canada

### Description of Incident:

- A used engine and compressor unit was installed at the production facility. After the unit was overhauled, it was started and partially loaded. The unit was stable when operations had left the site.
- Operations were called to site later that night for a Dehydrator alarm from the automatic site call out system.
- The operator arrived at site and verified the alarm. Following the procedure, he started the Dehydrator back up. After the Dehydrator was online, he walked over to the compressor building and noticed the unit was also shut down. The alarm panel indicated emergency shutdown but not specifically what had taken the unit off line.
- Looking over the unit and finding nothing, he proceeded to restart and load up the compressor. As he walked over to the Dehydrator to verify the sales chart, he returned to the compressor building to see flames and smoke coming off the top of the engine.
- The operator hit the emergency shutdown button on the building and extinguished the fire. The operator investigated the cause of the fire and found a cracked tubing line, which supplies oil to the turbo.

### What Caused it:

Examination of the scene revealed the following:

- The cause of the fire was a crack in the brazed flange on a turbo oil supply tubing line
- The crack was caused by the engine vibrations.

### Recommendations:

- Prestart up inspections, maintenance and daily operations inspections should include the visual inspection of equipment supports for signs of fatigue or failure.
- There are two issues with the turbo lube lines that Waukesha has identified on VGF F18 and H24 model engines:
  1. Service bulletin 13-3009A regarding the turbocharger oil supply/return line clamps.
  2. A product improvement is a change from a brazed flange to a compression type fitting on the oil supply line. This was a running change with no service bulletin issued. For this change see the parts list below. (Please confirm all parts against your engine serial number before ordering)
    - i. Oil supply tube P/N 214391M supersedes A304156G.
    - ii. Compression fitting P/N 194769G, new part on the turbocharger end. This fitting was previously used only on the engine end of the tube.
    - iii. Oil supply tube flange P/N 305150T new part.

### Contact:

For more information of event, please contact [safety@enform.ca](mailto:safety@enform.ca)

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