

PERFORMANCE SHEET

Fire Safety In Hot Forming Hydraulic Presses

Risk Management

Hydraulic presses for hot sheet metal forming are a critical asset and a significant investment for press shops engaged in press hardening operations. Associated risks are also substantial if fires take place on the press when the metal reaches temperatures of about 900°C.

- Capital loss: multi-million euros losses are at stake
- Production losses: production can be stopped for days
- Increased Health & Safety risks for operators
- Customer relationships: trust and supply reliability

One of the main risks of fire is linked to the use of mineral oil in the hydraulic systems. At the units, substantial leakage has been observed. Most leakage takes place through accidents like ruptured hoses, or leaking couplings. Mineral oils are highly flammable and are a serious source of fire hazard in high temperature environments and applications close to open flames or red-hot metal parts. The risk is further increased by the rapid and aggressive ignition rate of mineral oils. Today mineral oil dangers present industries with a very real major risk. With QUINTOLUBRIC® 888, this risk can be reduced and managed preventively.

Risk Control Strategy

As in many industries working in hot environments, fire-resistant hydraulic fluids should be used to reduce fire risks and consequential losses. The Quaker Houghton QUINTOLUBRIC® ester-based fire-resistant hydraulic fluid (HFD-U) technology offers many benefits that help reach this objective:

- Excellent fire resistance compared to mineral oil (see still video illustrations to the right)
- Ease of implementation to switch from mineral oil: no general hydraulic system modification, no special maintenance, compatibility with commonly used seal and hose material
- Excellent hydraulic fluid performance: excellent lubrication, long lifetime, good filterability

Why Work With QUINTOLUBRIC® 888

- Best-in-class ester-based hydraulic fluid
- Proven track record in press hardening systems as it is used today in more than 60 presses worldwide
- Endorsed by all major hydraulic component OEMs and major hydraulic press manufacturers
- Factory Mutual approved
- Supplied ISO 4406:1999 class 19/16/11 max.
- Global formulation
- Extra long life (>75,000 system hours)
- Readily biodegradable (OECD-301 c)
- Global support by Quaker Houghton employees

QUINTOLUBRIC® 888 vs. Mineral Oil Performance On a 900°C Tilted Hot Plate

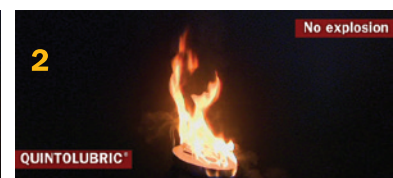
20 ML OF MINERAL OIL (HLP-46) POURED ON A 900°C PANEL



Mineral oil forms vapours which results in explosive ignition.



20 ML OF QUINTOLUBRIC® 888-46 POURED ON A 900°C PANEL



QUINTOLUBRIC® 888-46 produces controlled ignition, no explosion, and ultimate control of the situation.

