

# CASE STUDY

## Die Casting: Minimizing the Risk of Fire Hazards

QUINTOLUBRIC® 888-46

### The Challenge

A world-leading Japanese die casting manufacturer was using mineral oil-based hydraulic fluid in their operations. Due to the high temperature operations in the die casting plant and the flammability of mineral oil-based hydraulic fluid, the customer had been operating under possible serious fire hazards.

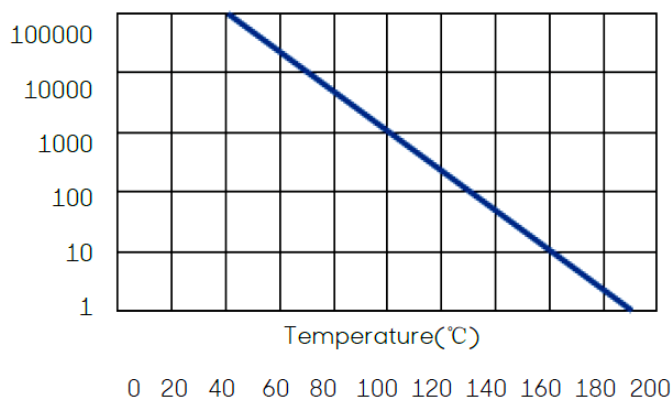
One day, a rubber hose on a die casting machine burst and the mineral oil-based hydraulic oil inside sprayed out, causing a fire. The die casting machine was seriously damaged. Fortunately, no personnel were injured.

### The Solution

Quaker Houghton recommended QUINTOLUBRIC® 888-46 to the customer. This water-free fire resistant hydraulic oil is specially designed to replace mineral oil-based hydraulic fluids in operations where fire hazards exist. QUINTOLUBRIC® 888-46's Factory Mutual (FM) approval and our extensive experience in the field won customer's trust and they decided to switch to QUINTOLUBRIC® 888-46 in all of their hydraulic systems.

The following chart shows the change of the service life of QUINTOLUBRIC® 888-46 under various temperatures.

QUINTOLUBRIC® 888-46 Expected Fluid Lifetime



### The Benefits

- High fire point and ignition temperature, low heat release
- Controls the spread of fire
- Enables swift and easy control of a potential crisis situation
- Superior shear stability
- Fluid life can reach 100,000 hours under normal operating temperature

### Process and Equipment

PRODUCT TITLE	PRODUCT INFORMATION
Die Casting Machine Maker	Toyo, LK, Toshiba
Processing Material	Aluminum Alloy
Parts Produced	Water Pump, Oil Pump
Equipment Pressure	250t/500t/800t/2000t
DCM Quantity	21

### The Product

QUINTOLUBRIC® 888-46 was designed to replace anti-wear mineral oil-based hydraulic fluids used in applications where fire hazards exist. This product can also be used in environmentally sensitive hydraulic applications without compromising the overall hydraulic system operations. This fluid does not contain water, mineral oil, or phosphate ester, and is based on high-quality, synthetic, organic esters and carefully selected additives to achieve excellent hydraulic fluid performance. QUINTOLUBRIC® 888-46 offers the lubrication level of premium, anti-wear hydraulic oils, and can be used with hydraulic components from all major manufacturers.

