

# The big bang



**Gerry Simpson** of Barloworld Handling looks at explosion risk and ATEX forklift trucks.

It's easy to think that the risk of explosion is only present in a refinery, chemical processing site or related industry, but this is certainly not the case. Any company handling flammable material in the form of liquid, gas or powder could be at risk and it may affect the way in which the materials handling fleet is specified and supported. The food and drinks industry, third party logistics and various other manufacturing industries are all affected.

I won't dwell on the specific details of the ATEX Directives or DSEAR regulations because those who are at risk should already understand exactly what they are. I will however get back

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to some of the basics and how Barloworld effectively manages the supply and support of explosion proof equipment.

If a company is handling flammable material, the law requires them to avoid, where possible, a potentially explosive atmosphere in the first place, conduct a risk assessment, and then formally classify the area into a zone. Zone 1 (2G) operations are where the risk of a gas or vapour being present is likely, in other words, it is expected in

normal operation such as a process area. Zone 2 (3G) is where it is not expected in normal operation, but it could occur for short periods, for example chemical storage areas or warehouses containing aerosols. Dust and powder risks are classified as zone 21 (2D) and 22 (3D) by similar definition.

Since the introduction of DSEAR, Barloworld has seen an increasing number of customers who have made modifications to their operation resulting in reduced risk and a reclassification of their formally classified areas from zone 1 to zone 2. This has had a significant affect on the specification of equipment and ultimately improves safety and reduces cost. Likewise, some logistics operations have newly classified areas where previously there were none.

The principle of explosion proof safety is quite simple; prevent a source of ignition from entering a potentially explosive atmosphere. Standard forklift trucks are riddled with ignition sources such as hot surfaces, arcing and sparking components or simply the engine itself and so if a truck is to be used in a hazardous area it should be fully protected.

Barloworld supplies some of the most advanced and dependable warehouse and IC powered forklift trucks on the market built by Hyster. Barloworld and Hyster have worked with specialists in the field of explosion protection for many years to ensure

that the latest equipment is available for operation within potentially explosive atmospheres. In particular Barloworld and Pyroban have forged a strong relationship over the last 30 years.

Pyroban assesses every single component on a truck and modifies or replaces parts so that the entire truck cannot cause an ignition. Equipment is delivered to site fully ATEX 94/9/EC compliant; however, it is critical to carry out regular maintenance on the truck and the flame protection equipment. Explosion protection is a specialist area so all Barloworld engineers assigned to maintain ATEX equipment have undertaken specialist explosion protection training. This allows our engineers to confidently and safely maintain equipment in line with recommended service intervals using approved parts.

Barloworld has one of the largest explosion proof forklift fleets in the UK with the largest network of ATEX trained engineers, supplying the military, oil refineries, distilleries and various other industries with ATEX compliant Hyster machines. We are also actively growing our short term hire fleet of ATEX machines and supply alternative types of equipment such as access platforms, scrubber driers and side loaders.

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