

PYROBAN®

ADPO:

**A CHEMICAL
LOGISTICS
SUCCESS
STORY**

Antwerp, Belgium

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EXPLOSION PROOF FORKLIFTS FOR ADPO'S CHEMICAL WAREHOUSES

CHEMICAL LOGISTICS BUSINESS ADPO HAS ACQUIRED A NEW GENERATION OF EXPLOSION PROOF FORKLIFT TRUCKS FOR ITS ANTWERP OPERATIONS. THE TOYOTA FORKLIFT TRUCKS WERE CONVERTED BY PYROBAN FOR "SAFETY WITHOUT COMPROMISE" IN ZONE 2 HAZARDOUS AREAS.

On the left bank of the river Scheldt, is ADPO's main facility, a 35ha integrated liquid bulk terminal where the company provides container logistics, tank storage, warehousing and drumming services.

At the terminal, ADPO operates 24,500m² of chemical warehousing in combination with five filling stations for drums and IBCs with a capacity of 400 tonnes per day.

"For more than ten years we have worked with Pyroban to ensure that the forklift trucks used in our Zone 2 areas cannot be the source of an ignition," explains Karel Stoop for ADPO. The trucks are used to transport and store IBCs and palletised drums both inside and outside, load and unload containers, and load conveyor belts in Zone 2 areas.

"The trucks are handling many different flammable chemicals in sealed containers, so a flammable atmosphere is not expected unless by accident," says Eelco Huisinga, Sales Manager, Benelux and Scandinavia, Pyroban BV. "However, each solvent or chemical liquid has a different characteristic so we have to make sure the protection covers all potential flashpoints and temperature classes."

Many ignition sources are present on a standard forklift truck such as heat from the engine, sparks from the forks, the electrics and even static, which can cause an explosion if they come into contact with a flammable atmosphere.

The two new Toyota FDF30 forklift trucks have been converted by Pyroban with full CE approval in accordance with the ATEX 2014/34/EU Directive and EN 1755:2000+A2:2013 (now EN1755:2015) standard. There is also written consent from Toyota in line with ISO 3691-1:2011, an important Standard for industrial trucks, safety requirements and verification.

The new trucks feature Pyroban's system6000D™, which prevents explosions by combining gas detection with various explosion protection methods. The conversion includes the use of restricted breathing enclosures, stainless steel cladding for forks and surface temperature cooling to T4 (135°C) to ensure the engine, motors, brakes, electrics and other components remain below the auto-ignition temperatures of flammable materials.

The pellistor based gas detection system detects the wide range of potential hazards found in the chemical warehouse at ADPO. It auto-calibrates and self-tests at start up to ensure it is working correctly and the whole solution is certified with gas groups IIA and IIB.

"Through well trained drivers and exceptional site planning and management, we have only had one system shutdown in the last ten years," adds Karel. "This was the result of a tiny spillage from a small drum, proving the sensitivity and instant response of the Pyroban system."

ADPO operates a total forklift fleet of more than 60 machines across the three sites, many of which feature explosion protection from Pyroban.

"Safety is the number one priority across our three sites in Antwerp. With such significant volumes of flammable material being stored and handled, we operate with the highest environmental, safety and health regulations without compromise, which is why we use Pyroban explosion protected forklifts."

Karel Stoop, responsible for Antwerp Distribution and Products Operations' (ADPO) mobile equipment.

Shifts run from 6am to 5pm and each driver is assigned their own truck.

ADPO purchased the trucks from Toyota to suit the business' specific requirements and it is quite normal for the Pyroban trucks in the fleet to run over 15,000 hours during their lifetime.

"There is a strong relationship between Toyota, Pyroban and ADPO," says Bart Bonnaerens, Key Account Manager for Toyota Material Handling in Belgium. "The trucks are operating in heavy working conditions, so when there is a breakdown we review to ensure continuous improvements throughout the fleet."

The trucks are regularly maintained by ADPO engineers at the well-equipped garage onsite with parts support from Toyota and Pyroban.

The team of ADPO engineers is fully trained by Toyota and Pyroban and every three months the trucks are checked independently. Furthermore, every year specialist Pyroban engineers conduct a thorough safety audit known as the EX-ASA.

"The EX-ASA ensures that the integrity and safety of the trucks is not compromised and gives us confidence that we are maintaining the equipment to the highest order," says Karel.

All safety critical components of Pyroban's explosion protection system are inspected and recorded, including Exd enclosures, cables and glands, shutdown devices, conductivity and fork cladding. Irregularities are repaired immediately and a certificate issued.

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"WE ARE COMPLETELY SATISFIED BY PYROBAN AND TOYOTA AND THEIR PRO-ACTIVE COMMITMENT TO SUPPORTING OUR OPERATION WHENEVER WE NEED IT"

ABOUT PYROBAN

Pyroban provide explosion protection solutions for materials handling equipment and diesel engines.

For over 40 years we have been at the forefront of the industry developing products to protect your people, your site and equipment when operating in hazardous & added safety areas.



**For more information on
Pyroban's explosion protection
solutions contact us or visit our
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