

PYROBAN®

EN1755 UPDATE

July 2017

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EXPLOSION PROTECTION RULES HAVE CHANGED

PYROBAN ENSURES YOU COMPLY

FORKLIFTS USED
IN POTENTIALLY
EXPLOSIVE
ATMOSPHERES ARE
AFFECTED BY NEW
RULES

3

THERE ARE 3 RULES
YOU NEED TO KNOW
ABOUT IF YOU ARE A:

- ☒ FORKLIFT SUPPLIER
- ☒ FORKLIFT USER IN
HAZARDOUS AREAS

IN THE PAST

ATEX 94/9/EC

"Equipment and protective systems intended for use in potentially explosive atmospheres"

EN1755:2000

"Safety of industrial trucks. Operation in potentially explosive atmospheres. Use in flammable gas, vapour, mist and dust"



NOW

ATEX 2014/34/EU

Mandatory : April 2016

Includes several changes to certification.
• New products must be labelled with the updated ATEX Directive number
• Component level certificate now called 'EU Type Examination Certificate'

EN1755:2015

Mandatory: November 2017

References the latest standards not available when first issued in 2000.
• Static now considered ignition risk during 'normal' operation
• Gas detection and safety system performance requirements strengthened
• Truck labelling redefined
• More detailed assessment of non-electrical components

ISO 3691-1:2011

Guides best practice for modifying forklifts with safety in mind applies to explosion protection conversions
• Unauthorised truck modification is not permitted
• **No alterations** should be made without the prior **written approval of the original truck manufacturer**

**FAILURE TO COMPLY EXPOSES
BRANDS AND PEOPLE TO RISK.**

SIMILAR RULES APPLY ON **ALL TYPES**
OF MOBILE EQUIPMENT



ASK THE EXPERTS.

FOR MORE INFORMATION CONTACT PYROBAN.
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HAZARDOUS AREAS?

Pyroban is supporting businesses handling flammable material in storage and process areas affected by the updates to the EN1755:2015 standard.

Chemical
Pharmaceutical
Food & Drink
Waste
Cosmetics
Military
Manufacturing
Logistics

...and other industries
are affected



WHAT'S NEW IN EN1755:2015?

CATEGORY 3G + 3D EQUIPMENT ZONE 2 AND ZONE 22

- Assessment and Ex protection of mechanical components and sub-systems. This includes pumps, drives and transmissions
- Protection against static ignition sources are mandatory. This is now treated as a normal occurrence in Zone 2. More detail on statics and conductivity shown within table on the following page
- Safety related control needs to meet latest functional safety requirements such as PLc or SIL
- Certified batteries as individual components

SPECIFIC REQUIREMENTS FOR GAS DETECTION (3G – ZONE 2)

- The gas detection system performs key safety control functions and needs to meet defined functional safety requirements such as PLc or SIL
- The gas detection system calibration procedure on system6000 does not change as it is compliant with the new edition of the standard
- Electrical enclosures and components that are protected as restricted breathing (nR) are subject to a more stringent leak performance test
- Trucks are to be labelled for the gases that the gas detection system is designed for. The specific flammable gases that the gas detection system is suitable to detect is to be stated on the truck or made available to the operator (user/owner)

CATEGORY 2G EQUIPMENT ZONE 1

- Inclusion of mechanical components and systems for assessment and Ex protection. This includes pumps, drives and transmissions
- Safety related control needs to meet latest functional safety requirements such as PLc or SIL

CATEGORY 2D EQUIPMENT ZONE 21

- Frame leakage detection and shutdown
- Assessment and Ex protection of mechanical components and sub-systems. This includes pumps, drives and transmissions
- Safety related control systems to meet latest functional safety requirements such as PLc or SIL
- Protection against static ignition sources
- New requirements for protection of brakes bring in mechanical 2G requirements

THE NEW ELECTROSTATIC REQUIREMENTS

Be prepared, don't get a shock



Key changes according to category	3G	3D	2G	2D
1) Operator seats and armrests	⊗		⊗	
2) Anti-static tyres (travelling at > 6km/hr)	⊗	⊗	⊗	⊗
3) Additional protection of plastic parts			⊗	
4) Conductivity to earth	⊗	⊗	⊗	⊗



EX-ANNUAL SAFETY AUDITS

New audit schedules will be created to include the changes as a result of the EN1755 update.

As Pyroban are the manufacturer of the equipment and implementing the required changes as per the Standard, the auditors of the vehicles have first-hand knowledge of the changes that have been made.

Investment is being made into new equipment to carry out the more stringent testing as detailed in the new Standard;

- Such as static requirements for Zone 2 (seats, tyres, plastic surfaces)
- More robust integrity test for Zone 2 enclosures
- Checks on labelling will be more stringent which has compulsory new labelling requirements at both truck and component level





**PROTECTING PEOPLE,
THEIR INVESTMENT AND
OUR ENVIRONMENT**

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