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ILNAS-EN 17921:2024

Natural gas fuelling stations - LNG unloading connector

Stations-service de gaz naturel -
Connecteur de déchargement de GNL

Gasfüllanlagen - LNG-Entladeanschluss

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National Foreword

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European foreword

This document (EN 17921:2024) has been prepared by Technical Committee CEN/TC 326 “Natural gas vehicles - Fuelling and operation”, the secretariat of which is held by TSE.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2024, and conflicting national standards shall be withdrawn at the latest by September 2024.

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Introduction

The transport of LNG over the road in Europa is organized through ADR regulations. This European Agreement concerning the International Carriage of Dangerous Goods by Road specifies the safety procedures of the road tanker and driver. The design, construction, operation, maintenance and inspection including equipment safety and control devices for LNG fuelling stations are described in EN ISO 16924:2016 “Natural gas fuelling stations — LNG stations for fuelling vehicles”.

This document describes a harmonized unloading connector for LNG road tanker at LNG fuelling stations.

While LNG is also transported by rail, European regulations are organized through the International Carriage of Dangerous Goods by Rail (RID). The same configuration as specified by this document, can be utilized for LNG RID applications.

1 Scope

This document specifies a harmonized unloading connector for LNG road tanker at LNG fuelling stations. This document is also applicable to LNG RID applications. While LNG is also transported by rail, European regulations are organized through the International Carriage of Dangerous Goods by Rail (RID). The same configuration as defined by this document, can be utilized. This document includes requirements for (at least):

— functional description of the LNG unloading receptacle and LNG unloading nozzle;

— technical layout description of the LNG unloading receptacle.

The technical layout description of the LNG unloading nozzle is not part of this document.

The basic functional requirement of the LNG unloading connector are as follows:

— to prevent leakage of methane during operation and in particular during disconnecting;

— easy handling, no spillage and purging with nitrogen during disconnecting.

The loading connector between the LNG road tanker and the LNG terminal is not covered by this document.

See Figure 1.