

DIN EN ISO 12617:2017-09 (E)

Road vehicles - Liquefied natural gas (LNG) refuelling connector - 3,1 MPa connector (ISO 12617:2015, Corrected version 2016-01-15)

Contents		Page
European foreword		4
Foreword		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	General construction requirements	8
4.1	General	8
4.2	LNG refuelling nozzles	8
4.3	LNG nozzles and receptacles	8
4.4	Pressure rating	9
4.4.1	Working pressure (maximum allowable pressure)	9
4.4.2	Maximum service pressure	9
4.4.3	Hydrostatic pressure	9
4.4.4	Working temperature	9
4.5	Materials	9
4.5.1	Corrosion protection	9
4.5.2	LNG nozzle and receptacles	9
4.5.3	Material of the bodies of the receptacle and of the nozzle	9
4.6	Hand operation	9
4.7	Sealing exchange	9
4.8	Installation	10
5	Nozzles	10
5.1	Venting depressurization	10
5.2	Identification	10
5.3	Internal check valve	10
6	Standard receptacle dimensions	10
6.1	Drawing	10
7	Receptacle	11
7.1	Cycle life	11
7.2	Design	11
7.3	Protective cap	11
7.4	Mounting	12
7.5	Maximum working temperature	12
8	Instructions	12
8.1	Clarity	12
8.2	List of tools	12
9	Marking	12
9.1	Clarity	12
9.2	Manufacturer and International Standard information	12
9.3	Date of manufacture	13
9.3.1	First and second digits	13

9.3.2	Third and fourth digits	13
9.4	Alternative marking	13
9.5	Additional marking	13
10	Tests	13
10.1	General requirements	13
10.2	User interface	14
10.2.1	Positive locking	14
10.2.2	Safe disconnection	14
10.2.3	Manual force in warm conditions	14
10.2.4	Manual force at cold conditions under frost	14
10.3	Impact resistance of a nozzle	14
10.4	Receptacle protective cap	15
10.5	Leakage at room temperature	15
10.5.1	Nozzle	15
10.5.2	Receptacle	15
10.6	Abnormal loads	16
10.6.1	General	16
10.6.2	Test in the unpressurized condition	16
10.6.3	Test in pressurized condition	16
10.7	Durability of the device (Cycle life)	17
10.7.1	Concept of the test of a device	17
10.7.2	Cycle definition	17
10.7.3	Test series	17
10.7.4	Exchange of seal of the nozzle and/or receptacle	17
10.8	Electrical conductivity	17
10.9	Hydrostatic strength	18
10.9.1	Test configurations	18
10.9.2	Test procedure and evaluation	18
10.10	Corrosion resistance	18
10.11	Non-igniting evaluation	18
	Bibliography	19