



Lloyd's
Register

Type Approval Certificate Extension

This is to certify that Certificate No. 11/00044(E3) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	I.M.M. Hydraulics S.p.A.
PLACE OF PRODUCTION	Via Italia, 49 -51 1-66041 Atessa (Chieti) Italy
DESCRIPTION	Flare flange pipe couplings utilising 37° flared tubes with cones and 'O' rings, fastened with through bolts.
TYPE	GS 37° Flare Flange System
SPECIFIED STANDARDS	Lloyd's Register's Rules & Regulations for the Classification of Ships, Part 5, Chapter 12; IACS Unified Requirement (UR) No. P2, Rules for piping design, construction and testing; ISO 19921:2005; ISO 19922:2005.
APPLICATION	Marine, Offshore and Industrial piping systems.

Certificate No. 11/00044(E4)

Issue Date 28 June 2019

Expiry Date 27 June 2024

Sheet 1 of 2



M.H.M.Rila
Marine Technology & Engineering Services, Southampton
Lloyd's Register EMEA

Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS

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RATINGS

Diameter (inch): 1/2 to 12

Max. pressure (bar): 420

(Refer to GS-Hydro technical brochure for actual max. pressure for specified diameter)

Pipe material: Carbon/stainless/duplex steel

Seal material: Viton rubber
NBR rubber

OTHER CONDITIONS

1. Couplings are to be selected and installed in accordance with the manufacturer's instructions and recommendations, and be suitable for the intended fluid, temperature & pressure;
2. For use on ships classed by Lloyd's Register the couplings:
 - 2.1. May not be used for flammable liquid systems in Category A machinery spaces;
 - 2.2. May be used in essential and non-essential systems, as specified in the Rules, where components are to be wet fire tested.

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. 11/00044(E4) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No. 11/00044(E4)

Issue Date 28 June 2019

Expiry Date 27 June 2024

Sheet 2 of 2



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Type Approval Certificate Extension

This is to certify that Certificate No. 11/00045(E2) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	I.M.M. Hydraulics S.p.A.
PLACE OF PRODUCTION	Via Italia, 49 -51 1-66041 Atessa (Chieti) Italy
DESCRIPTION	Flare flange pipe couplings with loose flanges.
TYPE	90° Flare
SPECIFIED STANDARDS	Lloyd's Register's Rules & Regulations for the Classification of Ships, Part 5, Chapter 12; IACS Unified Requirement (UR) No. P2, Rules for piping design, construction and testing; ISO 19921:2005;
APPLICATION	Marine, Offshore and Industrial piping systems.

Certificate No. 11/00045(E3)

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Sheet 1 of 2



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RATINGS

Diameter (inch): 1/2 to 16

Max. pressure (bar): 16

(Refer to GS-Hydro technical brochure for actual max. pressure for specified diameter)

Pipe material: Carbon/stainless/duplex steel
CuNi

OTHER CONDITIONS

1. Couplings are to be selected and installed in accordance with the manufacturer's instructions and recommendations, and be suitable for the intended fluid, temperature & pressure;
2. For use on ships classed by Lloyd's Register the couplings:
 - 2.1. Are suitable for use in Class III piping systems;
 - 2.2. May not be used for flammable liquid systems within machinery spaces, or adjacent to the ship side;
 - 2.3. May be used in essential and non-essential systems, as specified in the Rules, where components are required to be wet fire tested.

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. 11/00045(E3) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No. 11/00045(E3)

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Type Approval Certificate Extension

This is to certify that Certificate No. 11/00046(E4) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	I.M.M. Hydraulics S.p.A.
PLACE OF PRODUCTION	Via Italia, 49 -51 1-66041 Atessa (Chieti) Italy
DESCRIPTION	Retain ring flange system, types: 124, 132, 140, 148, 156, 164, 180, 196, 228, 308, 312, 316, 320, 324, 332, 340, 348, 424, 432, 440, 448, 456, 608, 612, 616, 620, 624, 632, 860, 864, 880, 888, 896, 8160, 8192
TYPE	GS 37° Flare Flange System
SPECIFIED STANDARDS	Lloyd's Register's Rules & Regulations for the Classification of Ships, Part 5, Chapter 12; IACS Unified Requirement (UR) No. P2, Rules for piping design, construction and testing; ISO 19921:2005; ISO 19922:2005.
APPLICATION	Marine, Offshore and Industrial piping systems.

Certificate No. 11/00046(E5)

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RATINGS

Diameter (inch): 1/2 to 12

Max. pressure (bar): 420

(Refer to GS-Hydro technical brochure for actual max. pressure for specified diameter)

Pipe material: Carbon/stainless/duplex steel

Seal material: Viton rubber
NBR rubber

OTHER CONDITIONS

1. Couplings are to be selected and installed in accordance with the manufacturer's instructions and recommendations, and be suitable for the intended fluid, temperature & pressure;
2. For use on ships classed by Lloyd's Register the couplings:
 - 2.1. May not be used for flammable liquid systems in Category A machinery spaces;
 - 2.2. The couplings may be used in essential and non essential systems, as specified in Lloyd's Register's Rules and Regulations for the Classification of Ships, where components are required to be wet fire tested.

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. 11/00046(E5) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No. 11/00046(E5)

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