

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

This certificate is issued to:

PRODUCER	Diesse Rubber Hoses SpA
PLACE OF PRODUCTION	Via Provinciale, 8 24040 Filago (BG) Italy
DESCRIPTION	Fire safe flexible hoses made up of synthetic rubber with one or two high tensile braid reinforcement, or four or six spirals, with end fittings.
TYPE	DS 12, DS 13, DS15, DS-4SH, DS-4SP, DS1-T.1SN, DS2-T.2SN, DS1-SC and DS2-SC
APPLICATION	Marine, offshore and industrial use, including the following marine uses; Steering gear systems; Lube and fuel oil systems; Sea water systems; Fresh water systems; Sanitary systems.
SPECIFIED STANDARDS	Lloyd's Register's Rules and Regulations for the Classification of Ships; BS EN 853:1997; BS EN 856:1997; BS EN 857:1997;

Certificate No.	15/00051
Issue Date	08 June 2015
Expiry Date	07 June 2020
Sheet	1 of 3

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

*Lloyd's Register EMEA
Southampton Boldrewood Innovation Campus, Burgess Road, Southampton, SO16 7QF*



RATINGS

DS-12

Nominal diameter (mm): 10 to 38
Working pressures (bar): 276 to 172 bar
Reinforcement: 4 spirals

DS-13

Nominal diameter (mm): 19 to 51
Working pressure (bar): 345
Reinforcement: 4 spirals up to 25mm ND
6 spirals over 31mm ND

DS-15

Nominal diameter (mm): 19 to 38
Working pressure (bar): 420
Reinforcement: 4 spirals up to 25mm ND
6 spirals over 31mm ND

DS-4SH

Nominal diameter (mm): 19 to 51
Working pressure (bar): 450 to 250
Reinforcement: 4 spirals

DS-4SP

Nominal diameter (mm): 6 to 51
Working pressure (bar): 500 to 165
Reinforcement: 4 spirals

DS1-T.1SN

Nominal diameter (mm): 6 to 51
Working pressure (bar): 225 to 40
Reinforcement: 1 braid

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RATINGS (continued)

DS2-T.2SN

Nominal diameter (mm): 6 to 51
Working pressure (bar): 275 to 100
Reinforcement: 2 braids

DS1-SC

Nominal diameter (mm): 6 to 25
Working pressure (bar): 275 to 100
Reinforcement: 1 braid

DS2-SC

Nominal diameter (mm): 6 to 25
Working pressure (bar): 420 to 185
Reinforcement: 2 braids

OTHER CONDITIONS

1. The hoses are to be installed in accordance with the manufacturer's recommendations and instructions.
2. Service length should be as short as practicable.
3. The manufacturer's recommendations on replacement of the hoses after a specified period in service is to be strictly observed.

"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 Design Appraisal Document No. 15/00051 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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