

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.

Manufacturer	Parker Hannifin Hose Products Division
Address	30240 Lakeland Blvd, Wicliffe, OH, 44092, United States
Place of Production	Parker Hannifin – Hose Products Division 1501 Hayes Dr. Manhattan, KS 66502 United States
Place of Production	Parker Hannifin – Hose Products Division 101 Parker Lane, P.O. Box B Alliance, NE 69301 United States
Place of Production	Parker Hannifin – Hose Products Division 1867 State Hwy 48 Red Oak, IA 51566 United States
Type	Flexible Hoses
Description	Non-metallic flexible hoses with end fittings consisting of an inner tube of oil resistant synthetic rubber, reinforced by high tensile steel wires and fitted with an abrasion, oil and weather resistant synthetic rubber cover. End fittings in accordance with Parker Hannifin specification HS-D02.
Trade Name	387TC, 387 ST, 487TC 487ST, 722TC AND 722ST
Application	For use in marine systems as short joining lengths of flexible hose to accommodate relative movement between machinery and dynamic equipment connected to permanent piping systems

Type Approval Certificate

Specified Standard Lloyd's Register's Rules and Regulations for the Classification of Ships; July 2019
Lloyd's Register's Rules and Regulations for the Classification of Special Service Craft; July 2019
Lloyd's Register Type Approval Test Specification Number 2; March 2019

Ratings

Type	387	487	722
Pressure (bar)	210	280	280
Diameter (mm)	6.3 to 51	6.3 to 51	10 to 51

Tough & Super tough cover design temperature: -40°C to 125°C

Other Conditions Installation of the flexible hose including end fittings to be in accordance with up to date Lloyd's Register Rules and Regulations.

Not be used to compensate for misalignment in piping systems including installations subjected to torsional deformation.

Not intended for applications experiencing high levels of vibration.

Not to be used in high pressure fuel oil injection systems.

Where specialised application is intended, compatibility with fluids considering the design pressure and temperature including the environment should be consulted with the manufacturer.

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 Canada Limited of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. LR2006502TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

LLOYD'S REGISTER TYPE APPROVAL SYSTEM, 2019
Issue by: Americas Technical Support Office
Issued to: Parker Hannifin
For: Flexible Hoses
Types:387TC,387ST,487TC,487ST,722TC AND 722ST
TYPE APPROVAL CERTIFICATE No.15/60007(E2)

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System 2019 and this Design Appraisal Document forms part of the Certificate.

This certificate is a renewal of 15/60007(E1)

APPROVAL DOCUMENTATION

Application for Type Approval	17/June/2020
Production Quality Assessment Form Control#:WO5149150(Nebraska)	30/July/2018
Production Quality Assessment Form Control#:WO5149150(Red Oak)	30/July/2018
Production Quality Assessment Form Control#:WO5149150(Manhattan)	18/July/2018

TEST REPORTS

All documentation listed on Design Appraisal Document associated with Type Approval Certificate No. 15/60007(E1) are applicable.



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Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations. Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.