

TYPE EXAMINATION CERTIFICATE

This is to certify:**That the Pipeline Clamps**

with type designation(s)

Series A (Light Series), Series B (Twin Tube Clamp), Series C (Heavy Series)

Issued to

**Parker Hannifin Manufacturing Germany GmbH & Co KG
BIELEFELD, Germany**

is found to comply with

DIN 3015-1 Fastening clamps – Block clamps – Part 1: Light duty (L)**DIN 3015-2 Fastening clamps – Block clamps – Part 2: Heavy duty (S)****DIN 3015-3 Fastening clamps – Block clamps – Part 3: Double clamps (Z)****DIN 3015-10 Fastening clamps – Block clamps – Part 10: Technical delivery conditions****Application :**

**The tube clamps specified in this certificate are found to comply with the above standards and may be used in combination with seamless EO carbon - and stainless steel pipes on board ships, mobile units and floating offshore installations.
Refer to certificate.**

Issued at **Hamburg** on **2018-06-26**This Certificate is valid until **2023-06-25**.for **DNV GL**DNV GL local station: **Hamburg**Approval Engineer: **Hagen Markus**

.....
Olaf Drews
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Examination Certificate and not to the approval of equipment/systems installed.



Product description

Overview types

Type	Design	Outer diameter of pipes		
		Metric series	Inch series	Imperial series
Series A	Light construction series / DIN 3015, Part 1	4 up to 101,8mm	1/8" up to 3 1/2"	1/4" up to 4"
	Normal mechanical loads	nine standard sizes		
Series B	Twin tube clamps / DIN 3015, Part 3	6 up to 42mm	1/8" up to 1 1/4"	1/4" up to 1 1/2"
	Normal mechanical loads	five standard sizes		
Series C	Heavy series / DIN 3015, Part 2	6 up to 406,4	1/8" up to 16"	5/16" up to 12 3/4"
	High mechanical loads	ten standard sizes		

Assembly Variants

Assembly on to metal welding	Cover plates, clamp body, screws
Assembly on support rails	Support rail, support rail nuts, clamp body, cover plate, screws
Construction assembly	Same as assembly on support rail. Clamps allow the assembly of multiple clamps of the same construction

Materials¹

Clamp body	Material designation
Series A	Polypropylene PP, Polyamide 6 PA, Thermoplastic, Elastomer, TPE Aluminum Al
Series B	
Series C	
Cover plates, Screws	Carbon steel, Stainless steel
Rails, Rail nuts, Welding plates	

Notes

¹ Mechanical properties refer to Parker Hannifin catalogue 4100

Application/Limitation

The pipe clamps may be used in piping systems installed on board ships, mobile units and floating offshore installations.

For selection and installation of the pipe clamps the data/instructions specified in the Parker Hannifin catalogue 4100, Section T are to be observed. Furthermore, the Rules DNVGL Pt.4, Ch. 6 and OS-D101.

Pipe clamps intended to be installed inside of machinery spaces are to be provided with upper cover plates made of carbon or stainless steel.

Temperature range

Clamp body material	Temperature range	Color
Polypropylene	-30°C up to +90°C	Dark green
Polyamide 6	-40°C up to +120°C	black
Thermoplastic Elastomer	-40°C up to +120°C	black
Aluminum	-40°C up to +300 °C	n.a.

Type Examination documentation

Test reports / Assessment reports:

Tests carried out

Marking of product

For traceability to this type examination certificate, each tube clamp is to be marked with

- Manufacturers mark
- Diameter
- Size

Certificate Retention Survey

For retention of the type approval certificate periodical assessments shall be carried out at production places by DNVGL surveyor.

The objective of the periodical assessment is to verify that the design and production conditions for the type approval have not been altered.

Main scope of the assessment:

- verification of the production and quality control system
- review of quality control documentation of recent deliveries
- review of drawings in production to verify any design changes which may have an impact on data specified in the type approval certificate, performance and range of application
- verification of the product marking

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

End of certificate