

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Pipe Couplings**

with type designation(s)
Style 107N

Issued to

Victaulic Company
Easton, PA, USA

is found to comply with

DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV GL class programme DNVGL-CP-0185 – Type approval – Mechanical joints

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Temperature range: 0°C up to +120°C

Max. working press.: 16 bar

Sizes: DN50

Issued at **Hamburg** on **2018-09-19**

This Certificate is valid until **2023-09-18**.

for **DNV GL**

DNV GL local station: **Certification & Inspection Services**

Approval Engineer: **Hagen Markus**

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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 Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-027445-1**
 Certificate No: **TAP00001HV**

Product description

Slip-on joint, non-fire resistant type, as specified in DNV GL Rule – Ship - Pt.4, Ch.6, Sec.9 – Table 11 – Slip on joint – Machined grooved type – non-fire resistant.
 Pipe material: Carbon steel, stainless steel
 Pipe dimension standards ANSI, ISO. Refer to Victaulic specification 06.23

Materials

Component	Material designation	Grade	Reference
Coupling Housing	Ductile iron conforming	ASTM A536, Grade 65-45-12	Drawings C-000-107-000 – Coupling Assembly, 2"/60,3mm THRU 12" / 323,9mm Style 107N H-020-107-002
	Corrosion protection	Orange enamel Optional Hot dipped galvanised	Victaulic specification - 06.23
Gasket ¹	EPDM	EHP and EF	Drawing - G-020-177N-002 – Gasket, 2"/60,3mm STYLE 177N, 107N Victaulic specification - 06.23
	Nitrile	Grade T	
	Nitrile HNBR	Grade ST	
Bolts, Nuts	Carbon steel oval neck track bolts		ASTM A449 (imperial), ISO 898-1, Class 9.8
	Carbon steel hex nuts		ASTM A563 GRADE B (imperial) – heavy hex nuts) ASTM A 563 M Class 9 (metric – hex nuts)
	Corrosion protection		Track bolts and hex nuts are zinc electroplated per ASTM B633 ZN/FE5, finish Type III (imperial) or Type II (metric)

Note

¹ Refer to Victaulic Seal Selection guide 05.01

Selection of materials

It shall be noted that the selection of the materials considers the applicable service condition with respect to type of media, flow velocity, media temperature etc. and installation area of the piping system. In particular, the resistance to corrosion, erosion, oxidation and other deterioration during projected service life are to be considered.
 Reference is made to DNVGL Rules Pt.4, Ch.6 – Section 2 – Materials.

Sizes, Nominal pressure PN

DN	Pipe OD	PN
50	60.3mm	16

Production places

	DNV GL Station
Victaulic Polska Sp. Z o.o. ul. Niepodleglosci 8, 66-530 Drezdenko, Poland	Gdansk
Victaulic, 18040 Easton, USA	New York

Responsibility

The company Victaulic Easton, PA takes the responsibility that both design and production are in compliance with Rules, Standards and/or Regulations listed on page 1 of this certificate.

Application/Limitation

The slip-on joint grip type coupling (non-fire resistant) of type STYLE 107N is type approved for piping systems of pipe class II and III as listed in table below.
 In addition, the limitations as specified on page 3 of this certificate and in the "Notes" column of the table below are to be observed.

Table – Approved applications

Piping systems	Notes
Flammable fluids (flash point ≤ 60 °C)	
Cargo oil lines	4)
Crude oil washing lines	4)
Vent lines	3)
Inert gas	
Water seal effluent lines	5)
Scrubber effluent lines	5)
Main lines	2), 4)
Distribution lines	4)
Flammable fluids (flash point > 60 °C)	
Cargo oil lines	4)
Fuel oil lines	2), 3)
Lubricating oil lines	2), 3)
Hydraulic oil lines	2), 3)
Thermal oil lines	2), 3)
Sea water	
Bilge lines	1)
Water filled fire extinguishing systems (e.g. sprinkler)	3)
Non-water filled fire extinguishing systems (e.g. foam, drencher systems)	3)
Fire main (not permanently filled)	3)
Ballast systems	1)
Cooling water systems	1)
Tank cleaning services	
Non-essential systems	
Piping systems	
Fresh water	
Cooling water systems	1)
Condensate return systems	1)
Non-essential piping systems	
Sanitary/drains/scuppers	
Deck drains (internal)	5)
Sanitary drains	
Sounding/vent	
Water tanks/dry spaces	
Oil tanks (flash point > 60 °C)	2), 3)
Miscellaneous	
Service air piping systems (non-essential)	

Notes – Fire resistance

For applications where "fire resistance types" are required the STYLE 107N pipe coupling is not approved.

- 1) Not approved inside machinery spaces of category, A
- 2) Not inside machinery spaces of category A or accommodation spaces. May be accepted in other machinery spaces if the joints are in easily visible and accessible positions.
- 3) Not approved except in cases where such mechanical joints are installed on exposed open decks, as defined in SOLAS II-2/Reg. 9.2.3.3.2.2(10) and not used for fuel oil lines.
- 4) Not approved in pump rooms and open decks

Notes - General

- 5) Only above bulkhead deck of passenger ships and freeboard deck of cargo ships.

Temperature range¹

Material grade	Temperature range	Marking
Grade "EHP" EPDM	0°C up to +120°C	Red and Green stripes color code
Grade "T" Nitrile	0°C up to +82°C	Orange stripe color code

Notes

¹ Refer to Victaulic specification "Victaulic QuickVic Rigid Coupling Style 107N", 06.23

Installation

For installation the Victaulic installation instruction I-107N is to be observed.

Limitations

Pipe couplings are not approved for:

- bilge lines inside ballast and fuel tanks.
- seawater and ballast lines including air and overflow pipes inside cargo holds and fuel tanks.
- fuel and oil lines including overflow pipes inside cargo holds and ballast tanks.
- scuppers and discharge (overboard), starting/control air and CO2 systems.
- piping sections directly connected to sea openings or tanks containing flammable liquids which in the event of damage could cause fire or flooding.
- systems containing oxygen (more than 25% by volume).

Slip-on joints inside tanks may be permitted only if the pipes and tanks contain a medium of the same nature.

Type Approval documentation

Tests carried out

Marking of product

Each pipe coupling shall bear legible and durable marking on the body or on a plate fixed securely to the body. Scope of marking shall be at least as follows:

Marking scope	Example
Coupling Casing	
Manufacturer's name or Trade Mark	"Victaulic"
Type code	107N
Size in DN / inch	2"/60,3mm
Casting	Foundry symbol, Date Code
Gasket	
Manufacturer's name or Trade Mark	"V"
Type/Size	177N 107N 2"/60,3mm
Additional symbols	Gasket Manufacturers Symbols
	Compound Plug
	Date Plug
	Cavity number
	Compound Plug

Periodical assessment

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

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