DNV·GL

Certificate No:
**TAP00000VG**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Pipe Couplings with Bolts Not Covered by a National Standard**

with type designation(s)
**Style W07 AGS**

Issued to
**Victaulic Company**
**EASTON PA, United States**

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**
**DNVGL-OS-D101 – Marine and machinery systems and equipment, Edition July 2015**

## Application :

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

| | |
|---|---|
| **Temperature range:** | **0 °C to +110 °C** |
| **Max. working press.:** | **16 bar(g)** |
| **Sizes:** | **14" to 24"** |

Issued at **Høvik** on **2017-05-12**
This Certificate is valid until **2022-05-11**.
DNV GL local station: **New York**

for **DNV GL**

Approval Engineer: **Maheshraja Venkatesan**

**Marianne Spæren Marveng**
**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.


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## Product description

Victaulic Style W07 AGS rigid coupling with the following design:

Slip on machine grooved type fittings comprising of two piece cast housings & sealing is provided by a rubber gasket, internal to the coupling.

Sizes covered: 14", 16", 18", 20", 22" & 24"

Material of construction:-

- Housing : ASTM A536 grade 65-45-12
- Bolts : ASTM A449 type 1
- Nuts : ASTM A563 grade B
- Gasket : EPDM grade 'E'

Manufacturing location : Victaulic Company,
4901 Kesslersville Road,
Easton, PA 18040 USA

## Application/Limitation

Couplings shall not be used for piping subjected to pressure shock, excessive strains and vibration.

Couplings may be used for class III piping with the exception that they shall not be used in piping fitted on ship sides and bottom and on sea chests. For class II applications, couplings may be used in hydraulic piping sytems where failure would not render the system inoperative or introduce a fire risk.

EPDM sealing shall not be used for hydrocarbon applications.

When used in systems where vacuum may occur, precautions shall be taken to prevent the internal gasket from being drawn into the gap of the two pipe ends.

The couplings shall not be used in systems where pressure pulsation other than water hammer is expected.

Couplings covered under the certificate (14" thru 24") are considered fire resistant types.

The couplings may be used according to latest requirements of governing rules in following applications:

a. Flammable fluids (flash point ≤ 60°C)
   - Cargo oil lines(1)
   - Crude oil washing lines(1)
   - Vent lines
b. Inert gas
   - Water seal effluent lines
   - Scrubber effluent lines
   - Main lines(1) (2)
   - Distributions lines(1)
c. Flammable fluids (flash point > 60°C)
   - Cargo oil lines(1)
   - Fuel oil lines(2)
   - Lubricating oil lines(2)
   - Hydraulic oil(2)
   - Thermal oil(2)
d. Sanitary/drains/scuppers
   - Deck drains (internal)(3)
   - Sanitary drains
   - Scuppers and discharge (overboard)
e. Sea water
   - Bilge lines
   - Water filled fire extinguishing systems, e.g. sprinkler systems

- Non water filled fire extinguishing systems, e.g. foam, drencher systems
- Fire main (not permanently filled)
- Ballast system
- Cooling water system
- Tank cleaning services
- Non-essential systems

f. Fresh water
- Cooling water system
- Condensate return
- Non-essential system

g. Sounding/vent
- Water tanks/Dry spaces
- Oil tanks (f.p.> 60°C)[2]

h. Miscellaneous
- Starting/Control air
- Service air (non-essential)
- Brine
- $CO_2$ system
- Steam

1) Only in pump rooms and open decks
2) Not inside machinery spaces of category A or accommodation spaces. May be accepted in other machinery spaces provided the joints are located in easily visible and accessible positions.
3) Only above bulkhead deck of passenger ships and freeboard deck of cargo ships.

The installation of couplings shall be in accordance with the manufacturer's assembly instructions.

Material for couplings under class II piping system applications shall be delivered with Works Certificate approved by the Society.

## Type Approval documentation

## Tests carried out
Tightness, repeated assembly, burst pressure, pull-out, vibration, fire resistance & vacuum tests

## Marking of product
For traceability to this type approval, the couplings are at least to be marked with:
- Manufacturer's name or trade mark
- Type designation
- Size

## Periodical assessment
For retention of the Type Approval, a DNV GL Surveyor shall perform a survey - every second year and before the expiry date of this certificate to verify that the conditions for the type approval are complied with. The Surveyor shall witness burst testing of samples of couplings selected at random from stock or from the running production as a part of this survey.