TYPE APPROVAL CERTIFICATE

Certificate No. : NYK05774-PE008 **Initial Approval :** 11th October, 2016

Product : Mechanical Joints

Manufacturer : Victaulic Company
4901 Kesslersville Road, Easton, PA 18040, U.S.A.

Product Description : Mechanical Joints (Victaulic AGS - Style W/07 Rigid Couplings)

- Sizes : DN350(14″) ~ DN600(24″)
- Max. Working Press. : 16 bar
- Temperature range : Grade "E" EPDM : -34 ℃ ~ 110 ℃
- Approved drawing NO. : C-140-W07-003-F, H-140-W07-002-M, H-160-W07-002-O, H-180-W07-002-L, H-200-W07-002-I, H-220-W07-002-D, H-240-W07-002-J, G-140-W07-004-D, 3993-H.

″ See Appendix 1 ″

Approval Condition : ″ See Appendix 1 ″

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".
Pt. 5, Ch. 6, Sec. 1 of the Rules for Classification, Steel Ships.

This Certificate is valid until 10th October, 2021
Issued at Busan, Korea on 11th October, 2016

KOREAN REGISTER OF SHIPPING

General Manager of
Marine & Ocean Equipment Team

Note : *1 : The approval will be automatically suspended and the Certificate become invalid from the expiry date of the Certificate in the event that the extension has not been granted or the renewal of the Certificate is not underway.*

Appendix 1

Product Description and/or Approval Condition

Certificate No : NYK05774-PE008 **Date of Issue :**11th October, 2016

◎ Manufacturing Site :

1. Quality castings
   - Address : 1200 North Main Street, Orrville, OH 44667, USA

2. Dalian Refrigeration Company Ltd.
   - Address : No.106 Liaohe East road, Jinzhou District, Dalian Liaoning Province, China 116033

◎ Approval conditions ;

1. This approval is granted on the basis of the design assessment & type approval test witnessed by this society.
   - Forks Engineering Lab(27th~8th Jan., 2016) in U.S.A.
   - Edison Road Lab(1st Mar., 2016), in U.S.A.
   - Nu Lab(23th Feb., 2016), in U.S.A.

2. Individual Product Certification is required where the mechanical joints are intended to use for Class I or II piping system.

3. The mechanical joints can be used for the following pipe lines in easily visible and accessible positions ;
   - Flammable fluids(Flash point ≤ 60 ℃)
     : Cargo oil lines, Crude oil washing lines and Vent lines
   - Inert gas
     : Water seal effluent lines, Scrubber effluent lines and Distributions lines
     : Main lines outside machinery space of category A and accommodation spaces
   - Flammable fluids(Flash point > 60 ℃)
     : Cargo oil lines
     : Fuel oil lines, Lubricating oil lines, Hydraulic oil lines and Thermal oil lines outside machinery space of category A and accommodation spaces
   - Sea water
     : Bilge lines, Fire main and water spray lines, Foam system lines, Sprinkler system lines, Ballast system lines, Cooling water system lines, Tank cleaning services lines and Non-essential system lines
   - Fresh water
     : Cooling water system lines, Condensate return lines and Non-essential systems lines
   - Sanitary/Drains/Scuppers
     : Sanitary drain lines
     : Deck drain lines(internal) above free board deck
   - Sounding/Vent
     : Water tanks/Dry spaces lines
     : Oil tanks lines(Flash point > 60 ℃) outside machinery space of category A and accommodation spaces
   - Miscellaneous
     : Service air lines(non-essential) and Brine lines

4. Limitation ;
   - These mechanical joints, which in the event of damage could cause fire or flooding, are not to be used in piping sections directly connected to the sea openings or tanks containing flammable fluids.
   - These mechanical joints are not to be used in pipelines in cargo holds, tanks, and other spaces which are not easily accessible. Application of these inside tanks may be permitted only for the same media that is in the tanks.

< The End >