



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 21-FEB-2021. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Product Name: Expansion Joint, Rubber
Model Name(s): Style 204HP

Presented to:
GARLOCK SEALING TECHNOLOGIES
1666 DIVISION STREET
NY 14522
United States

Intended Service:	Seawater Service, Sanitary, Brine, Fresh Water Service for Marine and Offshore Vessels.
Description:	Rubber Type Expansion Joint; a flexible connector fabricated of natural or synthetic elastomers, fluoroplastics and fabrics and metallic reinforcements to provide stress relief in piping system due to thermal and mechanical vibration and movements.
Tier:	3
Ratings:	Pressure Rating @ 4:1 Safety Factor Pipe I.D. Size / Pressure Rating: 1/2" to 4" (13 to 100 mm) / 200 psi (13.8 bar) 5" to 12" (200 to 300 mm) / 190 psi (13.1 bar) 26" to 40" (650 to 1000 mm) / 90 psi (6.2 bar) 68" to 96" (1700 to 2400 mm) / 70 psi (4.8 bar) Standard Construction (250°F/120°C max)
Service Restrictions:	Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined. Not to be used in any system requiring a fire test or for flammable fluids. Not to be used in Marine Fuel, Lube Oil Flammable Hydraulic Service or Firemain Systems. Expansion joint has not been fire tested to ISO 15540.
Comments:	1. Each expansion joint shall be permanently marked with manufacturer's name, nominal diameter, manufacturing date month/year, MAWP and temperature.

Notes / Documentation:

Expansion Joints are to be installed in accessible locations to permit inspection and/or periodic servicing. 2. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. Expansion Joints are to be installed in accordance with manufactures recommended procedures.

Drawing No. ABS Witnessed Style 204HP Pressure Testing Proofs, ABS Witnessed Style 204HP Pressure Testing Proofs, Revision: -, Pages: 1 Drawing No. Design Calculations Style 204HP, Design Calculations Style 204HP, Revision: -, Pages: 1 Drawing No. EJ 9-19 Installation and Maintenance Manual, EJ 9-19 Installation and Maintenance Manual, Revision: -, Pages: 1 Drawing No. Expansion Joints Catalog Manual, Expansion Joints Catalog Manual, Revision: -, Pages: 1 Drawing No. Flammability Testing, Flammability Testing, Revision: -, Pages: 1 Drawing No. ISO 9001 Cert Palmyra 2018 Cert# CERT-0091691, ISO 9001 Cert Palmyra 2018 Cert# CERT-0091691, Revision: -, Pages: 1 Drawing No. Quality Manual, Quality Manual, Revision: 21, Pages: 1 Drawing No. Quality Manual Reference List, Quality Manual Reference List, Revision: 2, Pages: 1 Drawing No. Style 204HP Datasheet, Style 204HP Datasheet, Revision: -, Pages: 1 Drawing No. Style 204HP Introduction Letter, Style 204HP Introduction Letter, Revision: -, Pages: 1

Term of Validity:

This Product Design Assessment (PDA) Certificate 16-HS1478161-PDA, dated 22/Feb/2016 remains valid until 21/Feb/2021 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules:

The Rules for Conditions of Classification, Part 1 (2016) Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: 2016 Steel Vessel Rules 4-6-2/5.8.1 (a) 2016 Steel Vessel Rules Under 90 Meters in Length, 4-4-1/9.7 2016 Offshore Support Vessels, 4-6-2/5.8.1 (a) 2016 Mobile Offshore Drilling Units, 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-2-1/11.7

- National Standards:**
- International Standards:**
- Government Authority:**
- EUMED:**
- Others:**

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	16-HS1478161-PDA	22-FEB-2016	21-FEB-2021

ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.