

Approval Certificate for Quality Assurance System

[Coupling & Fitting Bolts, Stay Bolts, Studs and Valves]



Initial Approval 20 December 2010
Manufacturer HSME CORPORATION
8, Hwajeonsandan 5-ro, Gangseo-gu, Busan, Rep. of Korea
Product Description KR-QAS Type F

Approval Condition " See Appendix 1 & 2 "

THIS IS TO CERTIFY that the Quality Assurance System of the above-mentioned company / works including production methods, inspection and testing, quality control and general standards of workmanship has been audited by this Society and that the System is found to be in compliance with the requirement of this Society's Rules and / or of the recognized standards as follows.

Ch. 5 of the Guidance for Approval of Manufacturing Process and Type Approval, etc.

This Certificate is valid until 19 December 2025

Issued at Gamcheon, Korea on 17 October 2022



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No(ME23057736222) and certificate No.(GCH00559-QA001).



KOREAN REGISTER

*General Manager of
Gamcheon Branch Office*

- Note :**
1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
 2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
 3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
 4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

Product Description and/or Approval Condition

Date of Issue : 17 October 2022

1. This Approval is applied to components of Diesel Engine as below which have been manufactured based on the drawings for type approved Diesel Engines by this Society as well as which are intended only for Licensor or Licensee of the Engine in question.
 - Coupling & fitting bolts for crankshaft
 - Fitting bolts (Cheese head type)
 - Assemblies of stay bolt
 - Studs for cylinder cover, main bearing & connecting rod
 - Safety valves for cylinder cover
 - Fuel oil by-pass valves
 - Fuel oil compact ball valves
 - CO2 line ball valves
 - Fuel oil retaining valves
 - Relief valves for starting air
 - Fuel oil pipe
 - GRU (gas regulating unit)
 - FVT (fuel valve train)
 - Boss, flange, ball valve, filter, regulator valve, relief valve for GRU and FVT
 - Gas venting valve
2. Design Approval or Drawing Approval for GRU (gas regulating unit), FVT (fuel valve train) are to be maintained separately from this approval.
3. This certificate is valid on condition that an annual surveillance audit for the Quality Assurance System is carried out and found to be satisfactory by this Society.
4. Tests and Inspections for the above products are to be carried out by the manufacturer in compliance with the manufacturer's Quality Assurance Procedure approved by this Society.
5. The Application for Product Certificate is to be forwarded to KR Gamcheon Branch office through KR e-MESIS together with the manufacturer's test records and material certificates for Certification and endorsement thereon by the Surveyor.
6. The Confirmation Survey is to be carried out by the Surveyor of KR Gamcheon Branch office at least once a year.
7. Each certified product is to be marked KRQ + Product Certificate No. + Serial No. by the person in charge of Manufacturing Survey.
8. The special steel KRQ stamp supplied by this Society is to be kept by the person in charge of the Manufacturing Survey.
9. In case where other organizations especially request witnessing of the test by the Surveyor or there is any problem with the quality of certified products, this Society may directly witness, with prior notice, all the tests for certification of the product in question regardless of aforesaid survey delegation.
10. Major Customer Complaints or Claims, as agreed with this Society, to products certified under this Quality Assurance System shall be reported to this Society.
11. Following documents are to be prepared by the manufacturer and made available at the request of the Surveyor and unscheduled visits with regard thereto shall be also permitted to the Surveyor of this Society ;
 - Material Test Reports
 - Inspection reports for Dimensions, NDT, Hydraulic Pressure tests and etc.
 - Documents and data for Quality Control Activity.

< The End >

Endorsement for Periodical Audit

Date of Issue : 17 October 2022

Anniversary Date : 19 December

This is to certify that the Production Quality Assurance Scheme is in compliance with the relevant requirements to obtain / retain the Society's approval in accordance with Ch. 5 of the Guidance for Approval of Manufacturing Process and Type Approval, etc. and is valid until 19 December 2023.

■ Periodical/Confirmation/Occasional Audit

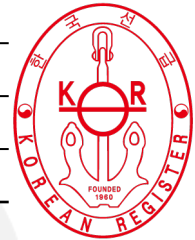
Periodical/Confirmation/Occasional Audit has been carried out and Annual Plant Audit is valid until

19 December 2024

Branch(Office) : Gamcheon Branch Office

Date : 12 December 2023

Surveyor : SEO Yongmin



■ Periodical/Confirmation/Occasional Audit

Periodical/Confirmation/Occasional Audit has been carried out and Annual Plant Audit is valid until

Branch(Office) :

Date :

Surveyor :

■ Periodical/Confirmation/Occasional Audit

Periodical/Confirmation/Occasional Audit has been carried out and Annual Plant Audit is valid until

Branch(Office) :

Date :

Surveyor :

■ Periodical/Confirmation/Occasional Audit

Periodical Survey has been carried out and the product is valid until

Branch(Office) :

Date :

Surveyor :

Note : The approval will be automatically suspended and the Certificate become invalid if not endorsed annually within 3 months after the anniversary date of this Certificate