



CERTIFICATE NUMBER

FDRY-T1680186

ISSUING OFFICE

Global Engineering

CERTIFICATE OF FOUNDRY FACILITY AND PROCESS APPROVAL

This is to certify that a representative of ABS did, at the request of

QUALITY ELECTRIC STEEL CASTINGS

252 MCCARTY DRIVE, HOUSTON, TX, United States, 77029

attend its facilities as indicated in the ABS Houston Port office survey report number 3389524 dated 29 September 2017 in order to carry out a survey of the facilities and associated quality procedures. The facility is considered capable of manufacturing

Steel Casting components for marine applications

in accordance with the ABS Approval letter (Reference T1680186), ABS Rules, designated standards and ABS approved drawings. The approval is valid till 28 September 2022 subject to adherence to relevant ABS Rules, Survey requirements and annual endorsement by an ABS representative.



Marcus Cridland

**Marcus Cridland
Chief Metallurgist, ABS**

ISSUE DATE: 29 September 2017

EXPIRY DATE: 28 September 2022

FIRST ANNUAL ENDORSEMENT: 07 SEP 2018

SECOND ANNUAL ENDORSEMENT: 10 OCT 2019

THIRD ANNUAL ENDORSEMENT:

FOURTH ANNUAL ENDORSEMENT:



NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, Guides, standards or other criteria of ABS as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a full description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of ABS who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.



Quality Electric Steel Castings (486101)
 252 McCarty Dr.
 Houston, TX 77029

Reference: JO/VB T1680186
 Project Number: 3917504
 Certificate no.: FDRY-T1680186

ATTN: Mr. Hugh Newsom

**Initial Steel Foundry Facility and Process Approval
 ABS Approval of Quality Electric Steel Castings, Houston, Texas**

We have the ABS Houston plant survey report HS3389524 dated 29 September 2017, along with your submittals of 15 May 2017, together with enclosures relative to the subject. With regard thereto we advise that Quality Electric Steel Castings is considered approved to produce steel castings for machinery applications to the requirements of *ABS Rules for Materials & Welding 2-3-9 (2017)* as outlined below, provided the Rules are adhered to in all respects and all production, testing and inspection are to the satisfaction of the attending ABS Surveyor.

Grade	: Non-ABS Grades – Carbon, C-Mn & Low Alloy Steels
Melting Practice	: Electric Arc Furnace / Induction Furnace
Casting Practice	: Sand Casting
Maximum Weight	: 7,700 kg (17,000 lbs)
Heat Treatment Facility	: In-House
Application Examples	: Valve Bodies, Drum Pawl, Carrier, etc.

Weld repairs and PWHT, if applicable, to ABS certified castings are to be approved prior to commencing the repair and carried out in accordance with the ABS rules to the satisfaction of the attending ABS surveyor. Weld repairs are to be recorded on a map and included with the casting documentation.

The approval is valid for five years subject to annual endorsement survey and will expire on 28 September 2022. Please note it is the responsibility of the facility to inform ABS of any changes to the manufacturing parameters and request annual endorsement survey or renewal of approval prior to the five year expiry date. Please find our invoice to cover the costs of the technical review is enclosed.

A copy of the documentation appropriately stamped to indicate our review is available through the ABS Eagle Construct Engineering Manager (O2E) Web Portal: If you need to contact ABS regarding this review, please email James Oehrle at joehrle@eagle.org.

Very truly yours,

Wei-Biao (Bill) Shi
 Vice President, Global Engineering
 ABS

Satya Meruva
 Managing Principal Engineer
 Global Materials Team