

## 25th September 2014

Dongbei Special Steel Group – Fushun Special Steel Co Ltd No.8 Anshan Road, East WangHua District

**Fushun City** 

Liaoning Province, P. R. China

Refer to: S. Meesey/CYW

File Ref: S-6

Re: Plant Survey & Testing

Gentlemen:

A renewal survey of the forging shop and testing facilities of **Dongbei Special Steel Group** – **Fushun Special Steel Co Ltd** at their plant at Fushun, Liaoning Province, The People's Republic of China, was conducted by an exclusive Surveyor to the American Bureau of Shipping on the 14<sup>th</sup> August 2014 and subsequent dates. Results of the survey indicated that **Dongbei Special Steel Group** – **Fushun Special Steel Co Ltd** is considered approved to produce steel forging for marine applications as listed on the attachment(s) in accordance with the Rules of this Bureau.

Therefore, **Dongbei Special Steel Group – Fushun Special Steel Co Ltd** may produce above steel forging provided that the relevant ABS rules and appropriated grade specification are to be adhered to in all respects, and production, inspection, testing and NDT procedures of forgings are to the satisfaction of the attending Surveyor.

Please note that our plant survey at this time is for the products and process as listed in the attachment(s). When new or special materials or production methods are proposed, data in support of mechanical properties and compliance with ABS rules are required to be submitted for review and at which time another plant survey by an exclusive Surveyor will be required. It is the responsibility of your company to inform ABS of any changes in manufacturing parameters.

This approval letter and the accompanied certificate number 14-MMPS-FF&PAC-587 are valid until 14<sup>th</sup> August 2019 or until ABS Rules or specification used in the assessment are revised (whichever occurs first). Renewal of approval is subject to a plant audit and re-approval test as applicable on or before the expiry date.

This approval letter is used to replace or supersede all approval letter(s) previously issued (if any).

Very truly yours,

CVW

Principal Surveyor

cc: ABS Greater China - Shanghai

cc: ABS Houston Materials

Reference Report No: DL2690643-A



## Attachment A

## Attachment to Approval letter Dated 25th September 2014

Dongbei Special Steel Group – Fushun Special Steel Co Ltd No.8 Anshan Road, East WangHua District

Fushun City Liaoning Province, P. R. China Refer to: S. Meesey/CYW File Ref: S-6

Products	:	Steel Forgings <sup>(1)(2)</sup> (Shaft, Forged Bar for Shaft) <sup>(3)(4)</sup>	
Alloy Types		Non-ABS Grades	
		Carbon, Low Alloy Steels and Stainless Steels	
		Grades #45, 42CrMo and 316L in accordance with GB699, GB3077 and ASTM A276 Specification requirements respectively	
Manufacturing Process		Open Die Forging (ODF)	
Maximum Weight		4000 Kg	

#### Notes:

- 1. Steel forgings are to be design approved when used on ABS classed vessel
- 2. It is the responsibility of the facility to inform ABS, and to obtain approval from ABS, of any changes made to the manufacturing procedure specification(s), and/or, to the processing parameters as compared to the initially approved technical document(s).
- Weld repairs of the listed and approved forged steel components are not permitted as indicated in the reviewed document.
- 4. Forging produced for ABS Classed Applications are to have an ABS Surveyor in attendance at the facility for unit certification.

## Remarks:

- Accompanied with ABS certificate Nos: 14-MMPS-FF&PAC-587
- See also ABS approval letter dated 25 September 2014 for details of term and condition.

Principal Surveyor



CERTIFICATE NUMBER
14-MMPS-FF&PAC-587

PORT OFFICE
ABS MATERIALS HOUSTON

## **CERTIFICATE OF**

# FORGING FACILITY AND PROCESS APPROVAL

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

## Dongbei Special Steel Group- Fushun Special Steel Co., Ltd., Liaoning Province, P.R. China

attended its facilities as indicated in the ABS Dalian port office survey report number DL2690643-A dated 15 August 2014, in order to carry out a survey of the facilities and associated quality procedures. The facility is considered capable of manufacturing

## Steel Forgings for Marine Applications

in accordance with the ABS Approval letter, ABS Rules, designated standards and ABS approved drawings. The approval is valid subject to adherence to relevant ABS Rules and survey requirements and annual facility endorsement by an ABS representative.

ISSUE DATE

15 Aug 14 EXPIRATION DATE

14 Aug 19

SIGNATURE

V. BALASUBRAMANIAM PRINCIPAL ENGINEER ABS MATERIALS, HOUSTON

FIRST ANNUAL ENDORSEMENT

SECOND ANNUAL ENDORSEMENT

THIRD ANNUAL ENDORSEMENT

FOURTH ANNUAL ENDORSEMENT

Project #: 3347902; Task #: T1248707; Office Ref #: MMPS: 6020

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.



FROM: ABS Materials, Houston

TO: ABS Greater China (Dalian)

ATTN: Chun Hui Xie

MMPS: 6020

SUBJECT:

ENGINEER: V.K. Mantravadi

DATE: September 25, 2014

O2E TASK: 1248707

PAGE: 1

OID: 3347902

FAX: 86-21-6322-9649

Dongbei Special Steel Group- Fushun Special Steel Co., Ltd., Liaoning

Province, P.R. China

Renewal Approval of Forging Facility to Produce Forged Steel Components

used in Marine Applications.

We have your electronic submittals and Plant Survey Report DL2690643-A dated 15 August 2014, on the subject, together with enclosures, relative to the subject, and with regard thereto, we advise that Dongbei Special Steel Group- Fushun Special Steel Co., Ltd., Liaoning Province, P.R. China is considered facility and process approved to produce Steel Forgings as outlined below. The relevant ABS Rules [Part 2: Materials & Welding 2-3-7 (2014)] is to be adhered to in all respects, and production, inspection, and testing of forgings is to be to the satisfaction of the attending ABS Surveyor.

Products	:	Steel Forgings <sup>(1)(2)</sup> (Forged Bar for Shaft) <sup>(3)(4)</sup>
Alloy Types	:	Non-ABS Grades
		Carbon, Low Alloy Steels and Stainless Steels
		Grades #45, 42CrMo and 316L in accordance with
		GB699, GB3077 and ASTM A276 Specification
		requirements respectively.
Forging Process	:	Open Die Forging (ODF)
Maximum Weight		4000kg

### Notes:

1. Steel Forgings are to be design approved when used on ABS Classed Vessels.

- It is the responsibility of the facility to inform and obtain ABS approval, if any changes are made in the manufacturing
  procedure specification(s), and/or, to the processing parameters as compared to initially approved technical
  document(s).
- 3. Weld repair of listed and approved forged components are not carried out as per reviewed document.
- 4. Forgings produced for ABS Classed Applications are to have an ABS Surveyor in attendance at the facility for unit

Very truly yours,

Daniel Cronin

Vice President of Engineering

**ABS** Americas

V. Balasubramaniam Principal Engineer,

ABS Materials, Houston