

# TYPE APPROVAL CERTIFICATE

**This is to certify:**

**That the Lifting Gear**

with type designation(s)  
**Spreader beams type OX-SB**

Issued to  
**CARGO FLET BLASANT**  
**Sant Boi de Llobregat, Barcelona, Spain**

is found to comply with  
**DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances**  
**DNV GL standard DNVGL-ST-0377 – Standard for shipboard lifting appliances**

**Application :**

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

Issued at **Høvik** on **2018-08-23**

for **DNV GL**

This Certificate is valid until **2023-08-22**.

DNV GL local station: **Barcelona**

Approval Engineer: **Antonio Sendin Alvarez**

**Aldo Matteucci**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



## Product description

Spreader beams with the following designation:

- OX-SB-09
- OX-SB-17
- OX-SB-24
- OX-SB-34
- OX-SB-50
- OX-SB-70
- OX-SB-110
- OX-SB-110-170
- OX-SB-170
- OX-SB-170-250
- OX-SB-250
- OX-SB-250-400
- OX-SB-400
- OX-SB-400-600
- OX-SB-600
- OX-SB-800
- OX-SB-1350

The safe working loads for each spreader beam/configuration to be in accordance to the stamped report *Table load vs span OX-SB (\*)*

Dynamic amplification factor (DAF) in accordance to ST-0378 Clause 8.2.2.1

Design temperature = -20 °C

## Application/Limitation

1. All materials are to be delivered with 3.1 certificates, documenting mechanical properties and chemical composition in accordance with the DNVGL-ST-0378 Sec. 3
2. Welds and NDT to be carried out by certified personnel and in accordance to DNVGL-ST-0378 Sec.3
3. It is the responsibility of the Holder of the Certificate to ensure that both design and production are in compliance with Rules, Standards and/or Regulations listed on page 1 of this Type Approval Certificate.

## Type Approval documentation

| <b>Drawing No.</b> | <b>Rev.</b> | <b>Title</b>                 | <b>Status</b>   | <b>Date</b> |
|--------------------|-------------|------------------------------|-----------------|-------------|
|                    | 22/03/2018  | Table load vs span OX-SB (*) | For information | 2018-08-23  |
| OXSB009-001        | 00          | Assembly                     | For information | 2018-08-23  |
| 80220009 S         | 00          | Sections                     | Type approved   | 2018-08-23  |
| 80220009 E         | 00          | End unit                     | Type approved   | 2018-08-23  |
| 80220009 D         | 00          | Descendent unit              | Type approved   | 2018-08-23  |
| 017-001            | 00          | OX SB 017- 001               | For information | 2018-08-23  |
| 80220017 S         | 00          | Sections                     | Type approved   | 2018-08-23  |
| 80220017 E         | 00          | End unit                     | Type approved   | 2018-08-23  |
| 80220017 D         | 00          | Descendent unit              | Type approved   | 2018-08-23  |
| 024-001            | 00          | Assembly                     | For information | 2018-08-23  |
| 80220024 S         | 00          | Sections                     | Type approved   | 2018-08-23  |
| 80220024 E         | 00          | End unit                     | Type approved   | 2018-08-23  |

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 Certificate No: **TAS00001EK**

|                 |    |                    |                 |            |
|-----------------|----|--------------------|-----------------|------------|
| 80220024 D      | 00 | Descendent unit    | Type approved   | 2018-08-23 |
| OXSB034-001     | 00 | Assembly           | For information | 2018-08-23 |
| 80220034 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 80220034 E      | 00 | End unit           | For information | 2018-08-23 |
| 80220034 D      | 00 | Drop link          | Type approved   | 2018-08-23 |
| 80220050 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 050-001         | 00 | Assembly           | For information | 2018-08-23 |
| 80220050 E      | 00 | End unit           | Type approved   | 2018-08-23 |
| 80220050 D      | 00 | Drop link          | Type approved   | 2018-08-23 |
| 070-001-S       | 00 | Assembly           | For information | 2018-08-23 |
| 80220070 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 80220070 E      | 00 | End unit           | Type approved   | 2018-08-23 |
| 80220070 D      | 00 | Drop link          | Type approved   | 2018-08-23 |
| OXSB110-001     | 00 | Assembly           | For information | 2018-08-23 |
| 80220110 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 80220110 E      | 00 | End unit           | Type approved   | 2018-08-23 |
| 80220110 D      | 00 | Drop link          | Type approved   | 2018-08-23 |
| 170-001         | 00 | Assembly           | For information | 2018-08-23 |
| 80220170 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 80220170 E      | 00 | End unit           | Type approved   | 2018-08-23 |
| 80220170 D      | 00 | Drop link          | Type approved   | 2018-08-23 |
| 80220110 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| OXSB110-170-001 | 00 | Assembly           | For information | 2018-08-23 |
| 8022110170 E    | 00 | End unit           | Type approved   | 2018-08-23 |
| 8022170250 E    | 00 | End unit           | Type approved   | 2018-08-23 |
| 80220170 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 170-250-001     | 00 | Assembly           | For information | 2018-08-23 |
| 80220250 D      | 00 | Drop link          | Type approved   | 2018-08-23 |
| 250-001-V3      | 00 | Assembly           | For information | 2018-08-23 |
| 80220250 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 80220250 E      | 00 | End unit           | Type approved   | 2018-08-23 |
| 80220250 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 250-400-001     | 00 | Assembly           | For information | 2018-08-23 |
| 8022250400 E    | 00 | End unit           | Type approved   | 2018-08-23 |
| 80220400 D      | 00 | Drop link          | Type approved   | 2018-08-23 |
| 400-001         | 00 | Assembly           | For information | 2018-08-23 |
| 80220400 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 80220400 E      | 00 | End unit           | Type approved   | 2018-08-23 |
| 400-600-001     | 00 | Assembly           | For information | 2018-08-23 |
| 8022400600 E    | 00 | End unit           | Type approved   | 2018-08-23 |
| 80220600 D      | 00 | Drop link          | Type approved   | 2018-08-23 |
| OXSB800-001     | 00 | Assembly           | For information | 2018-08-23 |
| 80220800 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 80220800 E      | 00 | End unit           | Type approved   | 2018-08-23 |
| 80220800 D      | 00 | Drop link          | Type approved   | 2018-08-23 |
| 1350-001        | 00 | Assembly           | For information | 2018-08-23 |
| 80221350 S      | 00 | Sections           | Type approved   | 2018-08-23 |
| 80221350 E      | 00 | End unit           | Type approved   | 2018-08-23 |
| 80221350 D      | 00 | Drop link          | Type approved   | 2018-08-23 |
|                 | 00 | Calculations OX-SB | For information | 2018-08-23 |
|                 | 00 | Weld details       | For information | 2018-08-23 |

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### **Tests to be carried out**

Prototype tests carried out for spreader beams SWL = 70 tonnes and 170 tonnes the 14th of August 2018 and witnessed by DNV GL Sandefjord

In order to obtain a CG3 certificate, each spreader beam shall be tested according to the DNVGL-ST-0378 Table 14-2 and NDT to be carried out according to DNVGL-ST-0378 Sec.3

### **Marking of product**

Each spreader beam is to be marked according to DNVGL-ST-0378 Sec.14.5.

### **Periodical assessment**

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.

END OF CERTIFICATE