

Customer Name SKIPPER ELECTRONICS A/S

Attending Office Oslo

First Visit Date 29-Jan-2019

Purchase Order No.

Last Visit Date

Quantity:

109827/109830

04-Feb-2019

Report Number **OS3620182** 

Certification Of: Shell Valve Diam. 65 mm

Manufacturer: SKIPPER ELECTRONICS A/S

One(1)

Survey Location: Oslo, Norway

**Equipment Data** 

Manufacturer Number(S. No.) 19034 Model Number SB-60-SA

**Design Details** 

Design State Product Design Assessed
ABS Reviewing Organization London Engineering Department

Drawing Number 17-LD1648327-PDA

**Additional Data** 

Valve Size 65

Valve Material Stainless Steel - High Strength Steel - NOT SPECIFIED - NOT SPECIFIED

Design Pressure 5 bar

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and applicable approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

Final markings for identification confirmed.

## Side shell valves intended for Echosounder Transducer Installation

Hydrostatic pressure test was carried out at 5 bar with closed valve.

No leakage or plastic deformation were noted during testing.

The valves were found covered by ABS Product Design Assessment no. 17-LD1648327-PDA.

NOTE: This report evidences that the survey reported herein was carried out in compliance with one or more of the Rules, guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Report is a representation only that the vessel, structure, item or material equipment, machinery or any other item covered by this Report has been examined for compliance with, or has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping. The validity, applicability and interpretation of this report is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Report or in any notation made in the contemplation of this Report shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.

AB Report Vendor Page 1 of 2

Customer Name SKIPPER ELECTRONICS A/S
Attending Office Oslo
First Visit Date 29-Jan-2019

Purchase Order No. Report Number Last Visit Date 109827/109830 OS3620182 04-Feb-2019

# Surveyor(s) to The American Bureau of Shipping Attending Surveyors

Silvestro Francesco Electronically Signed on 04-Feb-2019

Reviewed By Fuglei, Tor Brodde

Electronically Signed on 04-Feb-2019, Oslo Port



NOTE: This report evidences that the survey reported herein was carried out in compliance with one or more of the Rules, guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Report is a representation only that the vessel, structure, item or material equipment, machinery or any other item covered by this Report has been examined for compliance with, or has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping. The validity, applicability and interpretation of this report is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Report or in any notation made in the contemplation of this Report shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.

AB Report Vendor Page 2 of 2



Customer Name SKIPPER ELECTRONICS A/S

Attending Office Oslo

First Visit Date 29-Jan-2019

Purchase Order No. 109827/109830

Report Number **OS3620182** 

Last Visit Date **04-Feb-2019** 

Certification Of: Shell Valve Diam. 65 mm Quantity: One(1)

Manufacturer: SKIPPER ELECTRONICS A/S

Survey Location: Oslo, Norway

**Equipment Data** 

Manufacturer Number(S. No.) 19035 Model Number SB-60-SA

**Design Details** 

Design State Product Design Assessed
ABS Reviewing Organization London Engineering Department

Drawing Number 17-LD1648327-PDA

**Additional Data** 

Valve Size 65

Valve Material Stainless Steel - High Strength Steel - NOT SPECIFIED - NOT SPECIFIED

Design Pressure 5 bar

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and applicable approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

Final markings for identification confirmed.

## Side shell valves intended for Echosounder Transducer Installation

Hydrostatic pressure test was carried out at 5 bar with closed valve.

No leakage or plastic deformation were noted during testing.

The valves were found covered by ABS Product Design Assessment no. 17-LD1648327-PDA.

NOTE: This report evidences that the survey reported herein was carried out in compliance with one or more of the Rules, guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Report is a representation only that the vessel, structure, item or material equipment, machinery or any other item covered by this Report has been examined for compliance with, or has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping. The validity, applicability and interpretation of this report is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Report or in any notation made in the contemplation of this Report shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.

AB Report Vendor Page 1 of 2

Customer Name SKIPPER ELECTRONICS A/S
Attending Office Oslo
First Visit Date 29-Jan-2019

Purchase Order No. Report Number Last Visit Date 109827/109830 OS3620182 04-Feb-2019

# Surveyor(s) to The American Bureau of Shipping Attending Surveyors

Silvestro Francesco Electronically Signed on 04-Feb-2019

Reviewed By Fuglei, Tor Brodde

Electronically Signed on 04-Feb-2019, Oslo Port



NOTE: This report evidences that the survey reported herein was carried out in compliance with one or more of the Rules, guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Report is a representation only that the vessel, structure, item or material equipment, machinery or any other item covered by this Report has been examined for compliance with, or has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping. The validity, applicability and interpretation of this report is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Report or in any notation made in the contemplation of this Report shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.

AB Report Vendor Page 2 of 2



SKIPPER ELECTRONICS A/S **Customer Name** 

**Attending Office** Oslo

First Visit Date 29-Jan-2019 Purchase Order No.

Quantity:

109827/109830

Report Number OS3620182 Last Visit Date 04-Feb-2019

One(1)

Certification Of: Shell Valve Diam, 100 mm

Manufacturer: SKIPPER ELECTRONICS A/S

**Survey Location:** Oslo, Norway

**Equipment Data** 

Manufacturer Number(S. No.) 19035 Model Number SB-100-SB

**Design Details** 

Design State Product Design Assessed **ABS Reviewing Organization London Engineering Department** 

17-LD1648327-PDA **Drawing Number** 

**Additional Data** 

**⊕** OS3620182-A **ABS Stamping** 

Valve Size 100

Stainless Steel - High Strength Steel - NOT SPECIFIED - NOT SPECIFIED Valve Material

Design Pressure 5 bar

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and applicable approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates

Final markings for identification confirmed.

## Side shell valves intended for Echosounder Transducer Installation

Hydrostatic pressure test was carried out at 5 bar with closed valve.

No leakage or plastic deformation were noted during testing.

The valves were found covered by ABS Product Design Assessment no. 17-LD1648327-PDA.

NOTE: This report evidences that the survey reported herein was carried out in compliance with one or more of the Rules, guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Report is a representation only that the vessel, structure, item or material equipment, machinery or any other item covered by this Report has been examined for compliance with, or has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping. The validity, applicability and interpretation of this report is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Report or in any notation made in the contemplation of this Report shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied

AB Report Vendor Page 1 of 2 Customer Name SKIPPER ELECTRONICS A/S
Attending Office Oslo
First Visit Date 29-Jan-2019

Purchase Order No. Report Number Last Visit Date 109827/109830 OS3620182 04-Feb-2019

# Surveyor(s) to The American Bureau of Shipping Attending Surveyors

Silvestro Francesco Electronically Signed on 04-Feb-2019

Reviewed By Fuglei, Tor Brodde

Electronically Signed on 04-Feb-2019, Oslo Port



NOTE: This report evidences that the survey reported herein was carried out in compliance with one or more of the Rules, guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Report is a representation only that the vessel, structure, item or material equipment, machinery or any other item covered by this Report has been examined for compliance with, or has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping. The validity, applicability and interpretation of this report is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Report or in any notation made in the contemplation of this Report shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.

AB Report Vendor Page 2 of 2