



OCS's 10Ton Tugger winches are JQHS100 series, manual-operated single drum winch which adopts compressed air as the power to drive the piston motor. This machine is compact in structure, light in weight, small in size, it can be moved easily and fixed rapidly. This machine can do many works such as lifting, lowering and pulling. They are widely used in the following applications, such as beach pull of pipelines, pipeline post trenching operations etc.

The specification of the 10mT Air Tugger Winches installed in OCS's Utility Barge is as follows:

<b>Air Tugger Winch Specifications</b>	
Drum dimension - mm	522 Dia x 1100 width x 1100 wheel rim Dia
Brake	Double Air Band Brake
Working pressure – psi(bar)	102-131 (7-9)
Rated power - kW	30
Max air consumption – L/sec (m <sup>3</sup> /min) (USgpm)	400 (24) (6340)
Pulling force at 1 <sup>st</sup> layer – kN (Ton)	100 (10)
Rope diameter - mm	29
Rope length - m	500
Rope speed at 1 <sup>st</sup> layer – m/min	6
Max rope storage - m	1000
Dimensions - mm	2500x1300x1236
Weight - Ton	2.3
Number of units	12

## AIR TUGGER WINCH

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*OCS has Equipment passports for individual equipments which must be reviewed before each project to assess the status. The equipment passport gives the working history, maintenance and certification history of equipment.*

*It is important to regularly review the list of critical spare parts of the equipment before each project.*

*Where failures occur during operations Equipment bulletins will be issued to document the problem and the remediation solutions applied. The equipment bulletin will be circulated to all field engineers to be informed about the possible failure that can occur during the operation and thereby avoid future failure.*

*This equipment file remains a live document and will be constantly updated by the equipment department.*

LAYER	TOTAL WIRE PER LAYER (FT)	TOTAL ON DRUM (FT)	PULLING CAPACITY (MT)	BRAKE HOLDING (MT)
1	129.65	129.65	86.44	90.72
2	145.60	275.25	76.97	90.72
3	161.55	436.80	69.37	90.72
4	177.50	614.30	63.14	90.33

# CERTIFICATE of conformity

# AENOR

Machinery Directive 2006/42/EC & Low Voltage Directive 2006/95/EC

Certificate No. 0050150205k

**Holder:** YANTAI PETROLEUM MACHINERY CO., LTD.  
No.201 Shangkuang West Road,Yantai,Shandong Province,China

**Product Description:** Air Winch

**Type And Model:** JQHS200, JQHS150, JQHS100, JQHS90, JQHS80,  
JQHS70, JQHS60, JQHS50, JQHS40, JQHS35, JQHS30,  
JQHS20, JQH10, JQH5, JQCS50, JQCS40, JQCS30,  
JQCS20, JQCS10, JQCS5, JQY6, JQY4, JQY2

**Codes/Standards Applied:** ENISO 12100-1:2003+A1:2009;ENISO 12100-2:2003+A1:2009  
EN 60204-1:2006+A1:2009;ENISO 14121-1:2007

**Technical Construction File  
Report Number:** YT-A025

This certificate of conformity is based on the technical construction file, We hereby certify that the above-mentioned product meets the requirements of EU Machinery Directive 2006/42/EC & Low Voltage Directive 2006/95/EC.Applied Codes And Standards.

  
Manager

0099

AENOR  
D1,20floor,Shenjin Financial Square, No.895,  
West Yan'an Road, Changning District, Shanghai  
[www.eucemark.com](http://www.eucemark.com)  
E-mail: [info@eucemark.com](mailto:info@eucemark.com)

Date of Issuance:Feb.05,2015  
Date of Validity:Feb.04,2018



# AMERICAN BUREAU OF SHIPPING

Customer Name	YANTAI PETROLEUM MACHINERY CO., LTD	Purchase Order No.	
Attending Office	Yantai	Report Number	YA3148430
First Visit Date	04-Apr-2016	Last Visit Date	24-Jun-2016

**Certification Of:** Winch Quantity : Two (2)  
Manufacturer: YANTAI PETROLEUM MACHINERY CO., LTD

**Survey Location :** Yantai, P.R.China

## Equipment Data

Item Name	Air Winch(Stock)/ Air Winch(Stock)
Manufacturer Number(S. No.)	003/004
Model Number	JQHS-100

## Design Details

Design State	Product Design Assessed
ABS Reviewing Organization	CN Shanghai ESD

## Additional Data

ABS Stamping ✱ YA3148430-A

**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.

Asbestos-free declaration verified and supporting documentation reviewed.

Final markings for identification confirmed.

Two(2) units of air winches were constructed & test as per PDA No. 16-SQ1514521-PDA dated 17 May 2016, ABS Rules for Building and Classing Offhosre support vessel 2016, details as follows.

1. Product Name: Air winch

Model: JQHS100

Serial No.: 003 & 004

Cable diameter: 24 mm

Max. Cable speed: 10 m/min

Brake capacity: 100 KN

2. Following tests were carried out and found satisfactory.

2.1 Visual inspection.



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.



Customer Name	YANTAI PETROLEUM MACHINERY CO., LTD	Purchase Order No.	
Attending Office	Yantai	Report Number	YA3148430
First Visit Date	04-Apr-2016	Last Visit Date	24-Jun-2016

- 2.2 No load test.
- 2.3 Load test
- 2.4 Braking torque test

For details, refer to attached manufacturer test report with No. 003 & 004 endorsed by the undersigned on 20 Jun. 2016.

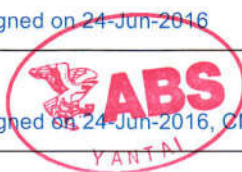
**Surveyor(s) to The American Bureau of Shipping**  
**Attending Surveyors**

Jia Jing

Electronically Signed on 24-Jun-2016

**Reviewed By**  
Liu, Xu-Hua

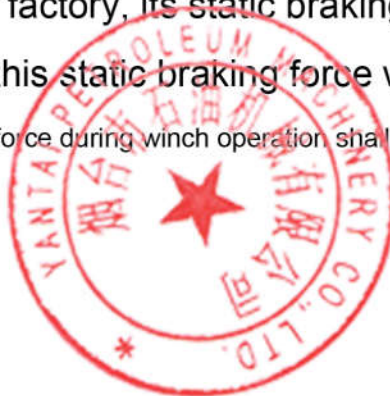
Electronically Signed on 24-Jun-2016, CN Yantai Port (MLO)



When the winch leaves the factory, its static braking force can reach 15 tons.

With the use of the winch, this static braking force will decrease.

Note: the maximum first layer pulling force during winch operation shall not exceed 10 tons.



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# AMERICAN BUREAU OF SHIPPING

Customer Name	YANTAI PETROLEUM MACHINERY CO., LTD	Purchase Order No.	
Attending Office	Yantai	Report Number	YA3203761
First Visit Date	09-Aug-2016	Last Visit Date	15-Nov-2016

**Certification Of:** Winch Quantity : Three (3)  
Manufacturer: YANTAI PETROLEUM MACHINERY CO., LTD

**Survey Location :** Yantai, P.R.China

## Equipment Data

Item Name	Air Winch(Stock)/ Air Winch(Stock)/ Air Winch(Stock)
Manufacturer Number(S. No.)	007/006/008
Model Number	JQHS-100

## Design Details

Design State	Type Approved
ABS Reviewing Organization	CN Shanghai ESD

## Additional Data

ABS Stamping ✱ YA3203761-A

**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.

Welding plans, procedures & welder qualifications have been reviewed as required by Rule/Specifications.

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.

Asbestos-free declaration verified and supporting documentation reviewed.

Final markings for identification confirmed.

Three(3) units of air winches were constructed & test as per PDA No. 16-SQ1514521-PDA dated 17 May 2016, ABS Rules for Building and Classing Offhosre support vessel 2016, details as follows.

1. Product Name: Air winch

Model: JQHS100

Serial No.: 006,007 & 008

Cable diameter: 24 mm

Max. Cable speed: 10 m/min

Brake capacity: 100 KN

2. Following tests were carried out and found satisfactory



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Customer Name	YANTAI PETROLEUM MACHINERY CO., LTD	Purchase Order No.	
Attending Office	Yantai	Report Number	YA3203761
First Visit Date	09-Aug-2016	Last Visit Date	15-Nov-2016

- 2.1 Visual inspection.
- 2.2 No load test.
- 2.3 Load test
- 2.4 Braking torque test

For details, refer to attached manufacturer test report with No. 006, 007 & 008 endorsed by the undersigned on 25 Oct. 2016.

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

Jia Jing

Electronically Signed on 15-Nov-2016

**Reviewed By**  
Liu, Xu-Hua

Electronically Signed on 15-Nov-2016, CN Yantai Port (MLO)

When the winch leaves the factory, its static braking force can reach 15 tons.

With the use of the winch, this static braking force will decrease.

Note: the maximum first layer pulling force during winch operation shall not exceed 10 tons.

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# AMERICAN BUREAU OF SHIPPING

Customer Name	YANTAI PETROLEUM MACHINERY CO., LTD	Purchase Order No.	
Attending Office	Yantai	Report Number	YA3226115
First Visit Date	24-Oct-2016	Last Visit Date	15-Nov-2016

**Certification Of:** Winch Quantity : Three (3)  
Manufacturer: YANTAI PETROLEUM MACHINERY CO., LTD

**Survey Location :** Yantai, P.R.China

## Equipment Data

Item Name	Air Winch(Stock)/ Air Winch(Stock)/ Air Winch(Stock)
Manufacturer Number(S. No.)	010/011/009
Model Number	JQHS-100

## Design Details

Design State	Type Approved
ABS Reviewing Organization	CN Shanghai ESD

## Additional Data

ABS Stamping ✕ YA3226115-A

**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.

Asbestos-free declaration verified and supporting documentation reviewed.

Final markings for identification confirmed.

Three(3) units of air winches were constructed & test as per PDA No. 16-SQ1514521-PDA dated 17 May 2016, ABS Rules for Building and Classing Offhosre support vessel 2016, details as follows.

1. Product Name: Air winch

Model: JQHS100

Serial No.: 009,010 & 011

Cable diameter: 24 mm

Max. Cable speed: 10 m/min

Brake capacity: 100 KN

2. Following tests were carried out and found satisfactory

2.1 Visual inspection.



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.



Customer Name	YANTAI PETROLEUM MACHINERY CO., LTD	Purchase Order No.	
Attending Office	Yantai	Report Number	YA3226115
First Visit Date	24-Oct-2016	Last Visit Date	15-Nov-2016

- 2.2 No load test.
- 2.3 Load test
- 2.4 Braking torque test

For details, refer to attached manufacturer test report with No. 009, 010 & 011 endorsed by the undersigned on 25 Oct. 2016.

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

Jia Jing

Electronically Signed on 15-Nov-2016

**Reviewed By**  
Liu, Xu-Hua

Electronically Signed on 15-Nov-2016, CN Yantai Port (MLO)



When the winch leaves the factory, its static braking force can reach 15 tons.  
With the use of the winch, this static braking force will decrease.

Note: the maximum first layer pulling force during winch operation shall not exceed 10 tons.



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