



AMERICAN BUREAU OF SHIPPING

Customer Name **KYUNG NAM DRYER CO., LTD.**
Attending Office **Seoul**
First Visit Date **25-May-2017**

Purchase Order No.
Report Number **SE3335026**
Last Visit Date **25-May-2017**

Certification Of:

Air Receiver
Manufacturer: KYUNG NAM DRYER CO., LTD.

Quantity : One (1)

Survey Location :

PAJU, KOREA

Equipment Data

Item Name Chamber of Control & General Service Air Dryer
Destination Vessel (Class Number) YY257737
Builder/Shipyards SAMSUNG HEAVY INDUSTRIES CO., LTD.
Builder I.D./Hull No. SN2119
Purchaser Name SAMSUNG HEAVY INDUSTRIES CO., LTD.

Design Details

Design State Design Approved/Reviewed
ABS Reviewing Organization Busan Ship Engineering

Additional Data

ABS Stamping * SE3335026
Code of design and construction ABS 4-4-1

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.

The pressure vessels for air dryer was visually examined and hydrostatically tested.

Item Name / Volume (m3) / Size (mm) / Serial No. / Quantity (ea) / Design Pressure / Test Pressure

- Chamber of No.1 Control & General Service Air Dryer / 0.812 / OD 818 x L 1,970 x T 9 / 170423A & B / 2 ea / 9.9 bar / 13 bar
- Chamber of No.2 Control & General Service Air Dryer / 0.812 / OD 818 x L 1,970 x T 9 / 170424A & B / 2 ea / 9.9 bar / 13 bar
- Air Filter of No.1 Control & General Service Air Dryer / 0.077 / OD 318.5 x L 1,245 x T 10.3 / 170423-1 & 2 / 2 ea / 9.9 bar / 13 bar
- Air Filter of No.2 Control & General Service Air Dryer / 0.077 / OD 318.5 x L 1,245 x T 10.3 / 170424-1 & 2 / 2 ea / 9.9 bar / 13 bar

For further details, refer to the manufacturer's test report No. KND17-TR4000-0525.

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 **KYUNG NAM DRYER CO., LTD.**
Attending Office **Seoul**
First Visit Date **25-May-2017**

Purchase Order No.
Report Number **SE3335026**
Last Visit Date **25-May-2017**

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

Lee Yun-Ki

Electronically Signed on 25-May-2017

Reviewed By
Yu, Kab-Yong

Electronically Signed on 25-May-2017, Seoul Port



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AMERICAN BUREAU OF SHIPPING

Customer Name	KYUNG NAM DRYER CO., LTD.	Purchase Order No.	
Attending Office	Seoul	Report Number	SE3346675
First Visit Date	22-Jun-2017	Last Visit Date	22-Jun-2017

Certification Of: Air Receiver
Manufacturer: KYUNG NAM DRYER CO., LTD. Quantity : One (1)

Survey Location : Paju, Korea

Equipment Data

Item Name	Pressure Vessel for Control Air Dryer
Manufacturer Number(S. No.)	170605/170606/170607
Destination Vessel (Class Number)	YY269197
Builder/Shipyard	HYUNDAI HEAVY IND. CO., LTD.
Builder I.D./Hull No.	2935
Purchaser Name	HYUNDAI HEAVY IND. CO., LTD.

Design Details

Design State	Design Approved/Reviewed
ABS Reviewing Organization	Busan Ship Engineering

Additional Data

ABS Stamping	* SE3346675
Design Temperature	100 C
Code of design and construction	ABS 4-4-1

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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.

For details of Mechanical Properties and/or Chemical Composition, refer to the mill/manufacture's records.

Item Name / Volume / Size / Serial No. / Quantity / Design Pressure / Test Pressure

- Chamber of No.1 Control Air Dryer / 0.089 m3 / OD 318.5mm x L 1390mm x T 10.3mm / 170605A & 170605B / 2ea / 8.8bar / 11.5bar
- Chamber of No.2 Control Air Dryer / 0.089 m3 / OD 318.5mm x L 1390mm x T 10.3mm / 170606A & 170606B / 2ea / 8.8bar / 11.5bar
- Chamber of No.3 Control Air Dryer / 0.043 m3 / OD 216.3mm x L 1526mm x T 8.2mm / 170607A & 170607B / 2ea / 13.2bar / 17.2bar

The above pressure vessels were examined and tested at the manufacturer's plant as follows;

- Visual examination
- Hydrostatic pressure test

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Customer Name	KYUNG NAM DRYER CO., LTD.	Purchase Order No.	
Attending Office	Seoul	Report Number	SE3346675
First Visit Date	22-Jun-2017	Last Visit Date	22-Jun-2017

For further details, refer to manufacturer's test report No. KND17-TR400-0622 & KND17-TR350-0622.

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

Yu Kab-Yong

Electronically Signed on 23-Jun-2017

Reviewed By
Lee, Yun-Ki

Electronically Signed on 23-Jun-2017, Seoul Port



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AMERICAN BUREAU OF SHIPPING

Customer Name	KYUNG NAM DRYER CO., LTD.	Purchase Order No.	
Attending Office	Seoul	Report Number	SE3350904
First Visit Date	28-Jun-2017	Last Visit Date	28-Jun-2017

Certification Of: Air Receiver Quantity : One (1)
Manufacturer: KYUNG NAM DRYER CO., LTD.

Survey Location : Paju, Korea

Equipment Data

Item Name	Pressure Vessel for Control Air Dryer
Destination Vessel (Class Number)	YY263147
Builder/Shipyards	MITSUBISHI HEAVY INDUSTRIES SHIPBUILDING CO., LTD.
Builder I.D./Hull No.	2323
Purchaser Name	MITSUBISHI HEAVY INDUSTRIES SHIPBUILDING CO., LTD.

Design Details

Design State	Design Approved/Reviewed
ABS Reviewing Organization	Busan Ship Engineering

Additional Data

ABS Stamping	* SE3350904
Design Pressure	12 bar
Design Temperature	100 C
Capacity	0.056 CuM
Code of design and construction	ABS 4-4-1
Test Pressure	18 bar

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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.

Item Name / Volume / Size / Serial No. / Quantity

- Chamber of No.1 Control Air Dryer / 0.056 m3 / OD 267.4mm x L 1254mm x T 9.3mm / 170609A & 170609B / 2ea
- Chamber of No.2 Control Air Dryer / 0.056 m3 / OD 267.4mm x L 1254mm x T 9.3mm / 170610A & 170610B / 2ea

The above pressure vessels were examined and tested at the manufacturer's plant as follows;

- Visual examination
- Hydrostatic pressure test

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	KYUNG NAM DRYER CO., LTD.	Purchase Order No.	
Attending Office	Seoul	Report Number	SE3350904
First Visit Date	28-Jun-2017	Last Visit Date	28-Jun-2017

For further details, refer to manufacturer's test report No. KND17-TR260-0628.

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

Lee Yun-Ki

Electronically Signed on 28-Jun-2017

Reviewed By
Yu, Kab-Yong

Electronically Signed on 28-Jun-2017, Seoul Port



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AMERICAN BUREAU OF SHIPPING

Customer Name **KYUNG NAM DRYER CO., LTD.**
Attending Office **Seoul**
First Visit Date **18-Jul-2017**

Purchase Order No.
Report Number **SE3359503**
Last Visit Date **18-Jul-2017**

Certification Of: Air Receiver Quantity : One (1)
Manufacturer: KYUNG NAM DRYER CO., LTD.

Survey Location : PAJU, KOREA

Equipment Data

Item Name Pressure Vessel for Air Dryer
Manufacturer Number(S. No.) 170705A / 170705B
Destination Vessel (Class Number) YY265406
Builder/Shipyard DAEWOO SHIPBUILDING & MARINE ENGINEERING CO., LTD.
Builder I.D./Hull No. 4311
Purchaser Name DAEWOO SHIPBUILDING & MARINE ENGINEERING CO., LTD.

Design Details

Design State Design Approved/Reviewed
ABS Reviewing Organization Busan Ship Engineering

Additional Data

ABS Stamping * SE3359503
Design Pressure 9.9 bar
Design Temperature 100 C
Capacity 0.07 CuM
Code of design and construction ABS 4-4-1
Test Pressure 13 bar

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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.

The pressure vessels for air dryer were visually examined and hydrostatically tested.

* Description / Volume (m3) / Size (mm) / Quantity (ea)

-. Chamber of Control Dryer / 0.07 / OD 267.4 x L 1512 x T 9.3 / 2 ea

For further details, refer to manufacturer's test report No. KND17-TR350-0718.

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Customer Name **KYUNG NAM DRYER CO., LTD.**
Attending Office **Seoul**
First Visit Date **18-Jul-2017**

Purchase Order No.
Report Number **SE3359503**
Last Visit Date **18-Jul-2017**

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

Yu Kab-Yong

Electronically Signed on 19-Jul-2017

Reviewed By
Lee, Yun-Ki

Electronically Signed on 19-Jul-2017, Seoul Port



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AMERICAN BUREAU OF SHIPPING

Customer Name **KYUNG NAM DRYER CO., LTD.**
Attending Office **Seoul**
First Visit Date **18-Jul-2017**

Purchase Order No.
Report Number **SE3359501**
Last Visit Date **18-Jul-2017**

Certification Of:

Air Receiver
Manufacturer: KYUNG NAM DRYER CO., LTD.

Quantity : One (1)

Survey Location :

PAJU, KOREA

Equipment Data

Item Name Chamber of Control Air Dryer
Manufacturer Number(S. No.) 170701A & B, 170702A & B
Destination Vessel (Class Number) YY260927
Builder/Shipyard SAMSUNG HEAVY INDUSTRIES CO., LTD.
Builder I.D./Hull No. SN2149
Purchaser Name SAMSUNG HEAVY INDUSTRIES CO., LTD.

Design Details

Design State Design Approved/Reviewed
ABS Reviewing Organization Busan Ship Engineering
Drawing Number KHDM-350-FA-002

Additional Data

ABS Stamping ✱ SE3359501
Design Pressure 9.9 bar
Design Temperature 100 C
Code of design and construction ABS 4-4-1
Test Pressure 13 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.

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.

The pressure vessel for air dryer was visually examined and hydrostatically tested.

Description / Volume (m3) / Size (mm) / Quantity (ea)

- Chamber for Control Air Dryer / 0.062 / OD 267.4 x L 1,354 x T 9.3 / 4 ea

For further details, refer to the manufacturer's test report No. KND17-TR350-0717.

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Customer Name	KYUNG NAM DRYER CO., LTD.
Attending Office	Seoul
First Visit Date	18-Jul-2017

Purchase Order No.	
Report Number	SE3359501
Last Visit Date	18-Jul-2017

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

Yu Kab-Yong

Electronically Signed on 19-Jul-2017

Reviewed By
Lee, Yun-Ki

Electronically Signed on 19-Jul-2017, Seoul Port



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AMERICAN BUREAU OF SHIPPING

Customer Name	KYUNG NAM DRYER CO., LTD.	Purchase Order No.	
Attending Office	Seoul	Report Number	SE3366396
First Visit Date	02-Aug-2017	Last Visit Date	02-Aug-2017

Certification Of: Air Receiver Quantity : One (1)
Manufacturer: KYUNG NAM DRYER CO., LTD.

Survey Location : Paju, Korea

Equipment Data

Item Name	Pressure Vessel for Control Air Dryer
Destination Vessel (Class Number)	YY263046
Builder/Shipyard	MITSUBISHI HEAVY INDUSTRIES SHIPBUILDING CO., LTD.
Builder I.D./Hull No.	2321
Purchaser Name	MITSUBISHI HEAVY INDUSTRIES SHIPBUILDING CO., LTD.

Design Details

Design State	Design Approved/Reviewed
ABS Reviewing Organization	Busan Ship Engineering

Additional Data

ABS Stamping	* SE3366396
Design Pressure	12 bar
Design Temperature	100 C
Capacity	0.056 CuM
Code of design and construction	ABS 4-4-1
Test Pressure	18 bar

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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.

Item Name / Volume / Size / Serial No. / Quantity

- Chamber of No.1 Control Air Dryer / 0.056 m3 / OD 267.4mm x L 1254mm x T 9.3mm / 170709A & 170709B / 2ea
- Chamber of No.2 Control Air Dryer / 0.056 m3 / OD 267.4mm x L 1254mm x T 9.3mm / 170710A & 170710B / 2ea

The above pressure vessels were examined and tested at the manufacturer's plant as follows;

- Visual examination
- Hydrostatic pressure test

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Customer Name	KYUNG NAM DRYER CO., LTD.
Attending Office	Seoul
First Visit Date	02-Aug-2017

Purchase Order No.	
Report Number	SE3366396
Last Visit Date	02-Aug-2017

For further details, refer to manufacturer's test report No. KND17-TR260-0802.

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

Lee Yun-Ki

Electronically Signed on 02-Aug-2017

Reviewed By
Yu, Kab-Yong

Electronically Signed on 02-Aug-2017, Seoul Port



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AMERICAN BUREAU OF SHIPPING

Customer Name **KYUNG NAM DRYER CO., LTD.**
Attending Office **Seoul**
First Visit Date **29-Sep-2017**

Purchase Order No.
Report Number **SE3392391**
Last Visit Date **29-Sep-2017**

Certification Of:

Air Receiver
Manufacturer: KYUNG NAM DRYER CO., LTD.

Quantity : One (1)

Survey Location : PAJU, KOREA

Equipment Data

Item Name Pressure Vessel for Air Dryer
Manufacturer Number(S. No.) 170912A / 170912B
Destination Vessel (Class Number) YY265407
Builder/Shipyard DAEWOO SHIPBUILDING & MARINE ENGINEERING CO., LTD.
Builder I.D./Hull No. 4312
Purchaser Name DAEWOO SHIPBUILDING & MARINE ENGINEERING CO., LTD.

Design Details

Design State Design Approved/Reviewed
ABS Reviewing Organization Busan Ship Engineering

Additional Data

ABS Stamping ✱ SE3392391
Design Pressure 9.9 bar
Design Temperature 100 C
Capacity 0.07 CuM
Code of design and construction ABS 4-4-1
Test Pressure 13 bar

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Traceability of materials used on this project has been verified.

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

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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.

The pressure vessels for air dryer were visually examined and hydrostatically tested.

* Description / Volume (m3) / Size (mm) / Quantity (ea)

-. Chamber of Control Dryer / 0.07 / OD 267.4 x L 1512 x T 9.3 / 2 ea

For further details, refer to manufacturer's test report No. KND17-TR350-0929.

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Customer Name	KYUNG NAM DRYER CO., LTD.	Purchase Order No.	
Attending Office	Seoul	Report Number	SE3392391
First Visit Date	29-Sep-2017	Last Visit Date	29-Sep-2017

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

Yu Kab-Yong

Electronically Signed on 29-Sep-2017

Reviewed By

Lee, Yun-Ki

Electronically Signed on 29-Sep-2017, Seoul 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.



AMERICAN BUREAU OF SHIPPING

Customer Name **KYUNG NAM DRYER CO., LTD.**
Attending Office **Seoul**
First Visit Date **29-Sep-2017**

Purchase Order No.
Report Number **SE3392396**
Last Visit Date **29-Sep-2017**

Certification Of: Air Receiver Quantity : One (1)
Manufacturer: KYUNG NAM DRYER CO., LTD.

Survey Location : Paju, Korea

Equipment Data

Item Name Pressure Vessel for Control Air Dryer
Destination Vessel (Class Number) YY267746
Builder/Shipyard MITSUBISHI HEAVY INDUSTRIES SHIPBUILDING CO., LTD.
Builder I.D./Hull No. 2332
Purchaser Name MITSUBISHI HEAVY INDUSTRIES SHIPBUILDING CO., LTD.

Design Details

Design State Design Approved/Reviewed
ABS Reviewing Organization Busan Ship Engineering

Additional Data

ABS Stamping ✱ SE3392396
Design Pressure 12 bar
Design Temperature 100 C
Capacity 0.056 CuM
Code of design and construction ABS 4-4-1
Test Pressure 18 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.

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.

Item Name / Volume / Size / Serial No. / Quantity

- Chamber of No.1 Control Air Dryer / 0.056 m3 / OD 267.4mm x L 1254mm x T 9.3mm / 170910A & 170910B / 2ea
- Chamber of No.2 Control Air Dryer / 0.056 m3 / OD 267.4mm x L 1254mm x T 9.3mm / 170911A & 170911B / 2ea

The pressure vessels were examined and tested at the manufacturer's plant as follows;

- Visual examination
- Hydrostatic pressure test

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For further details, refer to manufacturer's test report No. KND17-TR260-0929.

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

Yu Kab-Yong

Electronically Signed on 29-Sep-2017

Reviewed By

Lee, Yun-Ki

Electronically Signed on 29-Sep-2017, Seoul Port



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