Marine & Offshore

Certificate number: SMS.W.II./50730/E.0

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RECOGNITION FOR

BV MODE II SCHEME

WONIL T&I CO., LTD.

GIMPO (GYEONGGIDO) - KOREA (REPUBLIC OF)

Summary of the range of the recognition which is detailed in the subsequent page(s):

HEAT EXCHANGER / PRESSURE VESSEL

This certificate is issued to attest that Bureau Veritas Marine & Offshore has performed, at the above company's request and in compliance with the requirements of NR320, a satisfactory assessment of the manufacturing facilities and associated quality procedures related to the range of the recognition.

This certificate will expire on: 12 Sep 2022

For BUREAU VERITAS,

At BV PUSAN, on 22 Oct 2018,

Chang-uk HONG

BUREAU VERITAS SURVEYORS AT PARIS 1828 PUSAN INTERNATIONAL REGISTER

Certificate number: SMS.W.II./50730/E.0

THE SCHEDULE OF RECOGNITION

1. RANGE OF THE RECOGNITION

The products corresponding to the categories listed in the table below are to be certified individually or per batch by Bureau Veritas Marine & Offshore in compliance with the applicable requirements (IBV products as defined in NR320).

Generic product	Description
HEAT EXCHANGER	Sea Water Heater and Sea Water Drain Heater
PRESSURE VESSEL	Unfired pressure vessel

2. LIMITATIONS

The certificates listed in the range of recognition are to be valid, as applicable.

Bureau Veritas Marine & Offshore is to be informed immediately of any modification to manufacturing facilities and associated quality procedures in order to agree on appropriate actions.

WONIL T&I CO., LTD. has to apply for the periodical audits as agreed with Bureau Veritas Marine & Offshore.

3. PERIMETER OF CERTIFICATION

Quality system of following site(s) has been assessed:

WONIL T&I CO., LTD. - GIMPO (GYEONGGIDO) - KOREA (REPUBLIC OF)

4. REMARKS

Nil.

***** END OF CERTIFICATE *****

Bureau Veritas Marine & Offshore	**BUREAU VERITAS MODE I & II - AUDIT PLAN**

Name of Company:	**WONIL T&I CO., LTD.**
Type of audit:	☐ Initial ☐ Intermediate (surveillance) ☒ Renewal
Reference / frame:	☐ Mode I ☒ Mode II Both ticked if relevant
Audit Objectives:	• Determination of the conformity of the quality management system with the audit criteria, • Evaluation of the ability of the quality management system to ensure the organisation meets the NR320 requirements for the recognition scheme, • Evaluation of the effectiveness of the quality management system to ensure the organisation is continually meeting the NR320 requirements for the recognition scheme
Audit criteria:	• Bureau Veritas NR 320, as amended • Bureau Veritas Type Approvals for the concerned products (if applicable) • Manufacturer's processes and quality documents
Audit scope:	Wonil T&I – Workshop & Office(3rd Floor) - PRODUCT REALIZATION, PRODUCT TESTING & SHIPPING *(Physical locations, units, activities to be audited)*
Date(s) of audit:	14/09/2018 *(Locations indicated if several)*
Expected duration of the on-site audit:	1.0 day
Lead Assessor:	In-Ho LEE
Other audit team members:	N/A *(Roles indicated if relevant in frame of the audit)*

Wonil T&I
J.H. Park 2018. 9. 14.

This report consists of 1 page

BUREAU VERITAS MODE I & II
-
AUDIT REPORT

Report number:	**WII/50730/E-01**

1- AUDIT

Date(s) of audit:	**14/09/2018**			
Audit team:	**Lead auditor:**	**In-Ho LEE**		
	Auditor(s):			
Type of audit:	☐ Initial	☐ Intermediate (surveillance)	☒ Renewal	☐ Unplanned
Reference:	☒ BV Mode II Both ticked if relevant		☐ BV Mode I	
Audit scope & objectives:	See audit plan			

2- AUDITED COMPANY

Name:	**WONIL T&I CO., LTD.**
Site address:	**Hwanguem 1-ro 150, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea**
Contact Person:	**Jeong-Woo SON**
Phone number:	+82 31 980 4123
E-mail address:	Qa1@woniltni.co.kr
Persons met during the assessment:	**Jeong-Woo SON – Assistant Manager** **Ji-Hong PARK - Deputy General Manager**

This report consists of 3 pages

3- CONCLUSIONS

The results are satisfactory for issuance or confirmation of the Quality System approval certificate:	☒ **Yes**	☐ **No**
The next audit will be due on: *(specify date or time interval)*	12/09/2022	

4- FINDINGS

Findings have been issued	☐ **Yes**	☒ **No**

NONCONFORMITIES (NCs)		
Total number of NCs:	**0**	
Reference of NC:	APPLICABLE IN THE SCOPE OF THE:	
	Mode I audit	Mode II audit
NC-01	☐	☐
NC-02	☐	☐
NC-03	☐	☐
NC-04	☐	☐
NC-05	☐	☐
NC-06	☐	☐
NC-07	☐	☐
NC-08	☐	☐

OBSERVATIONS (OBSs)		
Total number of OBSs:	**0**	
Reference of OBS:	APPLICABLE IN THE SCOPE OF THE:	
	Mode I audit	Mode II audit
OBS-01	☐	☐
OBS-02	☐	☐
OBS-03	☐	☐
OBS-04	☐	☐
OBS-05	☐	☐
OBS-06	☐	☐
OBS-07	☐	☐
OBS-08	☐	☐

BUREAU VERITAS DISTRICT OF KOREA PARIS 1828 INTERNATIONAL REGISTER

This report consists of 3 pages

5- SYNTHESIS / REMARKS

- QMS : ISO 9001:2015 certified by Munich RE valid until 24/06/2020
*** Last audit : 02~04/07/2018, 1(one) NC raised and closed on 12/07/2018**

- Satisfactory implementation of QMS

- Total Employee : 63

- Total sale of 2017 : 30 billion won

BV SCHEME AS PER NR320
CHECKLIST – BV MODE II

This checklist shall be used for assessment of manufacturer's documents and visit to the manufacturer's premises within the scope of recognition procedure as per NR320 as amended.

For initial audit and renewal audit, all the items of the checklist are within the scope of the audit.

For intermediate (surveillance) audits, the scope should be focused on the items included in sections 1-3-4-5 unless some changes to items included in section 2 make it necessary to review them as well.

IDENTIFICATION

Job number: BVN-2018-0051675

Auditor(s): In-Ho LEE

Manufacturer:

WONIL T&I CO., LTD.

Hwanguem 1-ro 150, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea

SCOPE OF MANUFACTURING

Description:

- **Heat Exchanger; Sea Water Heater and Sea Water Drain Heater**
- **Pressure Vessel; Unfired Pressure Vessel**

Type approval certificates & Approval certificate number(s) as applicable:

- **N/A**

0 – OPENING MEETING	
Persons attending the meeting:	**Jeong-Woo SON – Assistant Manager** **Ji-Hong PARK - Deputy General Manager**
Notes & remarks:	Nil

Following elements shall be included in the schedule of the opening meeting (degree of detail to be adapted according to the familiarity of the participants with the audit process):	Done:
a) introduction of the participants, including an outline of their roles; b) confirmation of the scope of certification; c) confirmation of the audit plan (including type and scope of audit, objectives and criteria), any changes, and other relevant arrangements with the client, such as the date and time for the closing meeting, interim meetings between the audit team and the client's management; d) confirmation of formal communication channels between the audit team and the client; e) confirmation that the resources and facilities needed by the audit team are available; f) confirmation of matters relating to confidentiality; g) confirmation of relevant work safety, emergency and security procedures for the audit team; h) confirmation of the availability, roles and identities of any guides and observers; i) the method of reporting, including any grading of audit findings; j) information about the conditions under which the audit may be prematurely terminated; k) confirmation that the auditor(s) is/are responsible for the audit and shall be in control of executing the audit plan, l) confirmation of the status of findings of the previous review or audit, if applicable; m) methods and procedures to be used to conduct the audit based on sampling; n) confirmation of the language to be used during the audit; o) confirmation that, during the audit, the client will be kept informed of audit progress and any concerns; p) opportunity for the client to ask questions.	☒

1 - QUALITY MANAGEMENT SYSTEM (QMS) - CERTIFICATION

1.1 - Quality Management System (QMS) certificate number: Q248 – See attachments #1

1.2 - QMS certification standard: ISO9001:2015

1.3 - QMS certificate expiry date: 24/06/2020

1.4 - QMS certification body: Munich RE

1.5 - QMS certification body accredited by, if any: ANAB

2 – GENERAL – QUALITY MANAGEMENT SYSTEM (QMS)

S: Satisfactory – F: Finding – NE: Not Examined – NA: Not Applicable

Item	Result	Note/Comment
2.1 – Does the QMS cover the realization of the products included in the range of the Mode II recognition?	S ☒ F ☐ NE ☐ NA ☐	QMS certified by Munich RE in the scope of Design, Development and Fabrication of Plant Equipment and System
2.2 – Is the quality policy and are the quality objectives defined, communicated and adequately documented?	S ☒ F ☐ NE ☐ NA ☐	Quality Manual WI-QMK-01, Ch.3; Quality Policy and Ch.5.2; Policy Procedure CWP-0903; Policy and Objective Control Procedure - 품질목표 및 QC 운영방침 - 품질실적관리현황
2.3 – Are the organization, responsibilities and authorities defined and adequately documented?	S ☒ F ☐ NE ☐ NA ☐	Quality Manual WI-QMK-01, Ch.5.3; Organization roles, responsibilities and authorities Procedure BS-P-101; 조직 및 업무분장
2.4 – Is the documented information required by the QMS adequately controlled to ensure its availability and integrity? Note: "documented information" may for example be operating instructions, inspection reports and test data, component certificates, calibration data, damage and claim records, qualification reports of personnel…	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0401; 문서 및 데이터관리 Procedure CWP-0402; 품질기록관리 Procedure CWP-0403; 문서번호 부여
2.5 – Is the control of nonconforming products defined and adequately documented?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0806; 부적합 사항 관리 - NCR(불인치보고서) - 부적합 보고서 관리대장
2.6 – Is the management of customer feedback (including management of complaints and monitoring of customer satisfaction) defined and adequately documented?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0801; Customer Satisfaction Procedure
2.7 – Where applicable, have the findings of the previous audit by Bureau Veritas been cleared?	S ☐ F ☐ NE ☐ NA ☒	

3 – QUALITY MANAGEMENT SYSTEM (QMS) – DEFINITION OF PRODUCT REALIZATION		
Item	**Result**	**Note/Comment**
	S: Satisfactory – F: Finding – NE: Not Examined – NA: Not Applicable	
3.1 – Has the manufacturer identified the adequate BV Marine & Offshore local contacts?	S ☒ F ☐ NE ☐ NA ☐	*BV BUSAN*
Documentation		
3.2 – Are the applicable BV Rules for Classification available and up-to-date?	S ☒ F ☐ NE ☐ NA ☐	*Using Web site, www.veristar.com*
3.3 – Are the applicable reference documents (like IMO documents, testing standards) available and up-to-date?	S ☒ F ☐ NE ☐ NA ☐	*IGC, ASME, and Classification Rule*
Product design & development		
3.4 – *Are there provisions:* - To submit type testing programme to BV, where type testing is required as part of type approval process?	S ☐ F ☐ NE ☐ NA ☒	*Pressure vessel – Case by Case drawing approval*
3.5 – *Are there provisions:* - To contact Bureau Veritas in writing in case of design modifications of a product covered by reviewed drawings or type approval?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0702, *Para 8.0; Inform to Plan Approval Office when design modification*
Purchase of materials & components		
3.6 – Are criteria for selection and evaluation of suppliers established?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0704; *Supplier Evaluation* - *협력업체 등록명부* - *공급업체 평가표*
3.7 – Is the purchasing information describing adequately the product to be purchased and the associated requirements? Does it include requirement for BV product certificate where applicable?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0703; *Purchasing Control* - *Plate for Shell, Head, etc* - *Flange, Pipe, Fitting for acc'y*
3.8 – Is the verification process of purchased product(s) defined?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0804; *Factory & Receiving Inspection* - *인수검사 보고서* - *인수검사 의뢰서*

Manufacturing		
3.9 – Are documents necessary to ensure manufacturing in conformity with the design reviewed or type approved available? (Such as product specifications, drawings, process specifications, work instructions)	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0401; 문서 및 데이터관리 - *문서 목록 및 배포전*
Management of special processes		
3.10 – Are special processes qualified in accordance with applicable requirements? *(typically welding procedures)*	S ☒ F ☐ NE ☐ NA ☐	*WPS : GT-8.8-10, GT-8.8-11, GT-8.8-22* *PSN/WP/03/008/R0, PSN/WP/05/023/R0*
3.11 – Are welders and NDE operators qualified, as applicable?	S ☒ F ☐ NE ☐ NA ☐	*Welder : 2(two) persons – PSN/WQ/15/099/R1, PSN/WQ/15/100/R1*
Product testing		
3.12 – Are the examination and tests that will be carried out <u>before and during</u> the manufacturing process (incl. their frequency) defined? Is this process adequately documented?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0804/0805; 공장검사 및 수입검사 / 중간(공정)및 최종검사 - *NDT, Forming/Bending, Fit-up inspection* -
3.13 – Are the examination and tests that will be carried out <u>on the final product</u> (incl. their frequency) defined? Is this process adequately documented?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0805; 중간(공정) 및 최종검사 - *Hyd. Test, Dimension, Visual inspection report* - *Final Inspection Report*
3.14 – Is the verification and calibration of monitoring and measuring equipment defined (with specified frequency, methods, recording …)? Is this process adequately documented?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0712; Control of monitoring and measuring device - *List of measuring and test equipment – See attachment #2*
3.15 – Is the measuring equipment having identification making possible to determine its calibration status?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0712; Control of monitoring and measuring device - *History card of measuring & test equipment* - *Calibration tag on each equipment*
3.16 – Are testing activities subcontracted? If yes, are subcontractors selected and evaluated according to criteria found acceptable?	S ☒ F ☐ NE ☐ NA ☐	*- Production test for welding joint : Mechanical testing laboratory, i.e. Yeom-sung tech, KTR* *- NDT : KOSTEC*
Product traceability		
3.17 – Are the product & components identification defined so that traceability is ensured throughout the product realization phase?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0709; Identification & Traceability control - Hard stamping on each item - Item No, Heat No. etc
3.18 – Is the final product marking defined as to ensure traceability to the approved type, where applicable?	S ☒ F ☐ NE ☐ NA ☐	*Using the name plate – Identification, Size, Specification, Manufacturing date, etc*

ADDITIONAL ITEMS SPECIFIC TO MANUFACTURING OF **IBV PRODUCTS**		
3.19 – *Are there provisions:* - To determine upon receipt of a customer's order, if the ordered product requires a BV Product Certificate?	S ☒ F ☐ NE ☐ NA ☐	Procedure CWP-0701; Contract review control - *Purchase order* - *General specification*
3.20 – Are the conditions to communicate with BV for request for survey defined and agreed?	S ☒ F ☐ NE ☐ NA ☐	*'APPLICATION FOR INSPECTION" using Internet* - *www.bvkorea.co.kr*
3.21 – Are the requirements related to BV interventions determined? *(typically needs for review, witness, hold points)*	S ☒ F ☐ NE ☐ NA ☐	*'Inspection Test Plan' for each project*
3.22 – *Are there provisions:* - To comply with requirements for case-by-case drawing review where applicable?	S ☒ F ☐ NE ☐ NA ☐	*Case-by-case drawing approval for heat exchanger and pressure vessel*
3.23 – *Are there provisions:* - To comply with requirements for type approval of components where applicable?	S ☐ F ☐ NE ☐ NA ☒	*No type approval of components needed.*
3.24 – *Are there provisions:* - To comply with requirements for BV Product Certificate covering raw materials and/or components where applicable?	S ☒ F ☐ NE ☐ NA ☐	*For class I & II product – Plate, pipe, flange, fitting as per BV Rule*
3.25 – *Are there provisions:* - To sample and identify the test specimen in accordance with relevant requirements?	S ☒ F ☐ NE ☐ NA ☐	*Welding production test*
3.26 – *Are there provisions:* - To submit repair proposal to BV, as applicable? *(like for castings, forgings)*	S ☐ F ☐ NE ☐ NA ☒	

4 – VERIFICATION OF THE PRACTICAL IMPLEMENTATION OF THE QMS FOR PRODUCT REALIZATION
ITEMS EVALUATED ON A SAMPLED MANUFACTURED PRODUCT

S: Satisfactory – F: Finding – NE: Not Examined – NA: Not Applicable

For this part, one product (preferably finished) shall be randomly selected. It shall then be evaluated if that particular product has been manufactured, tested, marked & packaged according to the manufacturer's QMS (and BV rules if applicable).

For manufacturers of HBV and IBV products, this part may be duplicated (select one HBV and one IBV products and fill the duplicated parts accordingly). More generally, this part may be replicated as deemed appropriate by auditor.

For IBV products, checklist items of this part may be omitted if they are verified at each product survey.

Product name / Model: N/A - Verified at each product survey

Identification number (Serial number/Batch number): N/A

Stage of manufacturing at the time of review: N/A

Remarks *(like tests witnessed during the audit if any)*:N/A

Item	Result	Note/Comment
4.1 – Can the purchased materials and equipment used for the manufacturing of the product be traced?	S ☐ F ☐ NE ☐ NA ☒	
4.2 – Is the documented info concerning those purchased materials and equipment (datasheets, test and inspection reports, certificates …) in accordance with the design specifications? *Note: this info may be documented in datasheets, test and inspection reports, certificates …*	S ☐ F ☐ NE ☐ NA ☒	
4.3 – Has the verification of those purchased materials and equipment been performed as defined in the QMS? – Are the reports of this verification available and showing compliance with applicable specifications? – Is/Are the person(s) having performed this verification identified?	S ☐ F ☐ NE ☐ NA ☒	

4.4 – Have the examinations and tests carried out before and during the manufacturing process been performed as defined in the QMS? – Are reports of those examinations and tests available and showing compliance with applicable specifications for the approved type? – Is/Are the person(s) having performed those examinations and tests identified? – Is/Are the used examination and measuring equipment duly calibrated, and having identification showing their calibration status	S ☐ F ☐ NE ☐ NA ☒	-
4.5 – Have the examinations and tests on the final product been performed as defined in the QMS? – Are reports of those examinations and tests available and showing compliance with applicable specifications for the approved type? – Is/Are the person(s) having performed those examinations and tests identified? – Is/Are the used examination and measuring equipment duly calibrated, and having identification showing its calibration status?	S ☐ F ☐ NE ☐ NA ☒	
4.6 – Are markings affixed on final product in conformity with what is defined in the QMS? *In particular:* - when so defined, are the products bearing a type, batch or serial number or other element allowing their identification? - when so defined, are the Manufacturer's name, registered trade name or registered trade mark, address at which it can be contacted indicated on the product?	S ☐ F ☐ NE ☐ NA ☒	
4.7 – If applicable, is the packaging conforming to its definition in the QMS? *In particular:* - when so defined, is the packaging bearing a type, batch or serial number or other element allowing identification of the packaged product? - when so defined, are the Manufacturer's name, registered trade name or registered trade mark, address at which it can be contacted indicated on the packaging?	S ☐ F ☐ NE ☐ NA ☒	
ADDITIONAL SPECIFIC FOCUS – Identification and control of nonconforming products		
4.8 – Are nonconforming products identified and controlled as defined in the QMS?	S ☐ F ☐ NE ☐ NA ☒	-

5 – CLOSING MEETING	
Persons attending the meeting:	Same attendance than for opening meeting ☒ Modified attendance ☐ Details of the changes:
Remarks:	Nil
Comments of the auditee if any:	Nil

Following elements shall be communicated / explained to the auditee during the closing meeting (degree of detail, to be adapted according to the familiarity of the participants with the audit process):	Done:
a) synthesis on the audit; b) method and timeframe of audit reporting; c) nonconformities detected, if any, observations to be made, if any. It must be ensured that those findings are well understood by the auditees and that, to the extent possible, the auditees agree on their relevance. d) reminder that the audit evidence collected was based on a sample of the information; thereby introducing an element of uncertainty; e) for any nonconformities identified during the audit: timeframe for the client to present a plan for correction and corrective action, timeframe to submit evidence of action implementation; f) for any observations made following the audit: timeframe for the client to present a plan of action; g) BV's process for handling nonconformities including any consequences relating to the status of the client's certification; h) information about the complaint handling and appeal processes.	☒

**** End of checklist ****