

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by Eure (Shanghai) Machinery Equipment Co. Ltd.
No. 30 Hangqi Road, Da Mai Wan Industrial Zone, Hangtuo Pudong New Area, Shanghai 201316, People's Republic of China
(Name and address of Manufacturer)

2. Manufactured for Atlas Copco Airpower nv
Ingberthoevevweg 7 2630 Aartselaar - Belgium
(Name and address of Purchaser)

3. Location of installation Not known
(Name and address)

4. Type Vertical Oil Separator 198167 to 198298 OH2920.7C SEP01638 Rev.1 188929 to 189060 2017
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (Year built)

5. ASME Code, Section VIII, Division 1 2015 n.a. n.a.
(Edition and Addenda, if applicable (date)) (Code Case numbers) (Special service per UG-120(d))

6. Shell SA-414 Gr. G 0.108 in. 0 in. 5.669 in. 1 ft. 3.138 in.
(Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) (Length (overall))

| Body Flanges on Shells | | | | | | | | | | | | |
|------------------------|------|------|------|------------|-------------|----------|--------------|----------|------------|------------------|--------------------|-----------------|
| No | Type | ID | OD | Flange Thk | Min Hub Thk | Material | How Attached | Location | Bolting | | | |
| | | | | | | | | | Num & Size | Bolting Material | Washer (OD,ID,thk) | Washer Material |
| n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

7. Seams UW-12 Tp.1 None 70% No No UW-12 Tp.2 None 65% 1
(Long. (welded, dbl., sngl., lap, butt)) (R.T. (spot or full)) (Eff., %) (H.T. temp.) (Time, hr) (Girth (welded, dbl., sngl., lap, butt)) (R.T. (spot or full)) (Eff., %) (No. of courses)

8. Heads (a) Material SA-105 (b) Material SA-414 Gr. G
(Spec. no., grade) (Spec. no., grade)

| | Location (Top, Bottom, Ends) | Minimum Thickness | Corrosion Allowance | Crown Radius | Knuckle Radius | Elliptical Ratio | Conical Apex Angle | Hemispherical Radius | Flat Diameter | Side to Pressure (Convex or Concave) |
|-----|------------------------------|-------------------|---------------------|--------------|----------------|------------------|--------------------|----------------------|---------------|--------------------------------------|
| (a) | Top | 2.114 in. | 0 in. | ---- | ---- | ---- | ---- | ---- | 5.906 in. | Flat |
| (b) | Bottom | 0.094 in. | 0 in. | ---- | ---- | 2.087:1 | ---- | ---- | ---- | Concave |

| Body Flanges on Heads | | | | | | | | | | | | |
|-----------------------|----------|------|------|------|------------|-------------|----------|--------------|------------|------------------|--------------------|-----------------|
| No. | Location | Type | ID | OD | Flange Thk | Min Hub Thk | Material | How Attached | Bolting | | | |
| | | | | | | | | | Num & Size | Bolting Material | Washer (OD,ID,thk) | Washer Material |
| (a) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| (b) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

9. MAWP 152 psi n.a. at max. temp. 248 °F n.a.
(Internal) (External) (Internal) (External)

Min. design metal temp. -4 °F at 152 psi . Hydro., pneu., or comb. test pressure 198 psi
Proof test n.a.

10. Nozzles, inspection, and safety valve openings:

| Purpose (Inlet, Outlet, Drain etc.) | No. | Diameter or Size | Type | Material | | Nozzle Thickness | | Reinforcement Material | Attachment Details | | Location (Insp. Open.) |
|-------------------------------------|-----|------------------|----------|--------------|--------|------------------|-------|------------------------|--------------------|--------|------------------------|
| | | | | Nozzle | Flange | Nom. | Corr. | | Nozzle | Flange | |
| Opening | 1 | G 3/8" | Coupling | SA-106 Gr. B | ---- | 0.105 in. | 0 in. | Inherent | Fig.UW-16.1(c) | ---- | ---- |
| Opening | 1 | G 3/4" | Coupling | SA-106 Gr. B | ---- | 0.168 in. | 0 in. | Inherent | Fig.UW-16.2(K) | ---- | ---- |
| Opening | 1 | G 1" | Coupling | SA-105 | ---- | 0.133 in. | 0 in. | Inherent | Fig.UW-16.1(c) | ---- | ---- |
| Opening | 1 | M 26" | Coupling | SA-105 | ---- | 0.118 in. | 0 in. | Inherent | Fig.UW-16.2(K) | ---- | ---- |
| Opening | 1 | ID 1.024 in | Elbow | SA-106 Gr. B | ---- | 0.118 in. | 0 in. | Inherent | Fig.UW-16.1(c) | ---- | ---- |
| Opening | 1 | ID 1.102 in | Elbow | SA-106 Gr. B | ---- | 0.118 in. | 0 in. | Inherent | Fig.UW-16.1(c) | ---- | ---- |

11. Supports: Skirt No Lugs No Legs No Other 1 Supports Attached Welded on shell
(Yes or no) (Number) (Number) (Describe) (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: n.a.

(Name of part, item number, Manufacturer's name and identifying stamp)

1. Anti-vibrating system and safety valve not supplied. It is responsibility of the user

2. Threaded couplings

3. Impact test exemption per UG-20 (f)

4. Corrosion allowance not required per UG-25(d), for noncorrosive service, inspection openings be omitted per UG-46 (a) (4)

5. Tested in horizontal position

6. Girth seams: Joggle in heads UW-13.1(i)

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization Number 37,490 expires May 8, 2020.

Date November 24, 2017 Co. name Eure (Shanghai) Machinery Equipment Co. Ltd Signed _____
 (Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by: Eure (Shanghai) Machinery Equipment Co. Ltd . at No. 30 Hangqi Road, Da Mai Wan Industrial Zone, Hangtong Pudong New Area, Shanghai 201316, People's Republic of China

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the employed by ABSG Consulting Inc., an Affiliate of ABS Boiler & Marine Insurance Company

have inspected the component described in this Manufacturer's Data Report on November 24, 2017 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 11/24/2017 Signed _____ Commissions MB14625A2
 (Authorized Inspector) [National Board (incl. endorsements)]

ABS Consulting

| Report No. | Project No. | Date | Office |
|-----------------|-------------|-------------------|-----------------|
| 17-11312-SQ-988 | 3857114 | 24 November, 2017 | Shanghai, China |

Inspection Certificate

This is to certify that the undersigned representative of **ABSG Consulting Inc.** did at the request of **EURE (SHANGHAI) MACHINERY EQUIPMENT CO. LTD.** attend their plant at No. 30 Hangqi Road, Da Mai Wan Industrial Zone, Hangtou, Pudong New Area, Shanghai 201316, China on the 24 November, 2017 and subsequent date(s) in order to perform Third Party Inspection in accordance with Singapore Ministry of Manpower (MOM) requirements and the applicable Code and report details are as follows:

Description of vessel:

| | |
|--------------------------|---|
| Manufacturer: | EURE (Shanghai) Machinery Equipment Co. Ltd. |
| Type of Vessel: | Vertical Oil Separator |
| Construction Code: | ASME Code Section VIII Div 1, 2015 Edition |
| Drawing No.: | SEP01638 Rev.1 |
| Manufacturer Serial No.: | 198167 to 198298 (132 PCS) |
| Materials: | Shell and Head: SA-414 Gr. G, Flat head: SA-105 Coupling: SA-105 , SA-106 Gr. B |
| Vessel Size: | Shell and Head : 5.886" OD X0.108"thk, Min.thk.0.094" Flat Head: 5.906" OD X2.913"thk |
| MAWP: | 152 psi at 248 °F |
| Hydrotest Pressure: | 198 psi |
| Working Temperature: | -4 °F to 248 °F |
| Design Temperature | 248 °F |
| MDMT: | -4 °F at 152 psi |
| Other: | No NDE, No Heat Treatment, No Impact Test, With ASME Certification Mark with U designator |

Inspections:

Inspections were carried out in accordance with the requirements of the construction Code as follows:

- ✧ • Review of design calculations and drawings for compliance with ASME Code Section VIII-1.
- ✧ • Verification of the pressure part materials.
- ✧ • Review of welding procedure specifications and support procedure qualification records.
- ✧ • Review of Welders' performance qualification records.
- ✧ • In-process fabrication inspections, including thickness check, witness of welding, witness of fit-up, etc.
- ✧ • Final internal and external inspections.
- ✧ • Witness of hydrostatic pressure tests.
- ✧ • Verification of nameplate information

The vessel was hydrostatic tested at a pressure of 198 psi at ambient temperature for a period of 30 mins. in the presence of the undersigned on 24 November, 2017. Test results found satisfactory at the time of inspection.

Conclusion:

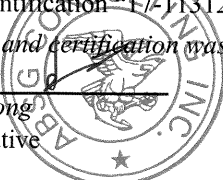
Upon completion of inspection the vessel was found meeting the requirements of ASME Code Section VIII-1 and the design drawing, and workmanship found satisfactory at the time of inspection.

Marking:

In addition to ASME Certification Mark with U designator, the vessel was stamped with the following information on the nameplate:

ABSG Consulting Inc.'s logo "wTs", which is on the bottom left corner of the nameplate and Project identification "17-11312-SQ-988".

Inspection and certification was made without prejudice.


Miao Junlong
Representative

This certificate is granted subject to the condition that it is understood and agreed that nothing herein contained shall be deemed to relieve any designer, manufacturer, seller, supplier, repairer or operator of any warranty, express or implied and ABSG Consulting, Inc.'s liability shall be limited to the acts or omissions of its employees, agents and subcontractors. Under no circumstance whatsoever shall ABSG Consulting, Inc. be liable for any injury or damage to any person or property occurring by reason of negligent operation or any defect in materials, machinery, equipment or other items other than defects ascertainable by normally accepted testing standards and only upon those items actually inspected by ABSG Consulting, Inc. and which are covered by this certificate or report.