

INSPECTION REPORT						Page 1 of 5	
EVO Job No: 90641-01		Report No: IR01		Date of Report May 16 th 2022		Customer: SAIP S.R.L.	
CUSTOMER DATA				INTERTEK DATA			
Name:		SAIP S.R.L. SOCIETA' ACCUMULATORI IDROPNEUMATICI. Via Lambro, 23/25/27 20073 Opera (MI) Italy		Project – Assignment No.		90641-01	
Address:				Client P.O./I.O. to Intertek:		/	
Attn:		/		Phone:		/	
E-Mail:		/		Requisition No:		/	
Copies to:		/		Date of Order:		/	
				Intertek Contract Coordinator:		Elisabetta Galbiati	
SUPPLIER/SUB-SUPPLIER DATA				INSPECTION INFORMATION			
Inspection Performed: <input type="checkbox"/> With Customer Supplier <input type="checkbox"/> With Sub-Supplier				Date(s) of Visit(s):			
P.O. No:		Change No:		Requisition No:		May 16 th , 2022	
/		/		/		Date of Previous Visit: N/A	
Supplier:		/		Date of Next Scheduled Visit:		N/A	
Supplier Job No:		/		P. O. Status:		<input checked="" type="checkbox"/> Complete <input type="checkbox"/> Incomplete	
Location:		/		Project Name:			
Primary Contact:		/		Certification NOM-020-STP-2011			
Phone:		/		Materials/Items Inspected /Reviewed:			
E-mail:		/		Calculation Report and Drawing for a Pressure Vessel according ASME BPVC Sec VIII -2021 and NOM-020-STPS-2011			
Sub-supplier:		NA		Pre-Inspection Meeting Summary Attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Sub-Supplier Job No:		/		Summary Report Attached: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Location:		/					
Primary Contact:		/					
Phone:		/					
E-mail:		/					
INSPECTION DISPOSITION: <input type="checkbox"/> Accept <input type="checkbox"/> Nonconformance(s) Identified <input type="checkbox"/> Placed on Hold <input checked="" type="checkbox"/> Other (Explain)							
INSPECTION SUMMARY AND CONCLUSION:							
Intertek Professional Engineer performed a documental review for Calculation Report & Drawing for a Pressure Vessel as per request of SAIP S.R.L. with the purpose to confirm its compliance to ASME BPVC Sec VIII 2021 and NOM-020-STPS-2011, since the pressure vessel will be installed to operate in Mexico. As a result of that review.							
1. Calculation Report LA.1.6.10.X.N5.B7PTV7 Rev 1, is in compliance to the requirements of ASME BPVC Sec VIII 2021 and NOM-020 -STPS-2011							
2. Drawing LA.1.6.10.X.N5.B7PTV7 Rev 0, also complies to ASME BPVC SEC VIII 2021 and NOM-020 -STPS-2011							
RECOMMENDED ACTION:							
NA							
INSPECTION TIME :		<input checked="" type="checkbox"/> DAYS <input type="checkbox"/> HOURS		1		TRAVEL HOURS:	
						DISTANCE: <input type="checkbox"/> MI <input type="checkbox"/> KM	
Technical Specialist:		Valente Vera		Date:		16-May-22	
				Project Coordinator:		Rodolfo Gallardo	

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1.0 ATTENDEES

NAME	COMPANY REPRESENTED	TITLE
Valente Vera	Intertek	Professional Engineer

2.0 MATERIALS

2.1 GENERIC MATERIALS

TAG / EQPT NO.	DESCRIPTION
Cylindrical shell - Valve	SA-479 316L (high allowable stresses) - Bar - UNS: S31603
Hemispherical head #1	SA-312 TP316L (high allowable stresses) -Smls. & wld. pipe - UNS: S31603
Reinforcement of opening - Nozzle #1	SA-312 TP316L (high allowable stresses) -Smls. & wld. pipe - UNS: S31603
Cylindrical shell #1	SA-312 TP316L (high allowable stresses) -Smls. & wld. pipe - UNS: S31603
Hemispherical head #2	SA-312 TP316L (high allowable stresses) -Smls. & wld. pipe - UNS: S31603
Cylindrical shell - upper	SA-312 TP316L (high allowable stresses) -Smls. & wld. pipe - UNS: S31603

2.2 MATERIALS INSPECTED

PO ITEM NO.	TAG / SERIAL NO.	PRODUCT / MATERIAL / ITEM NAME	ORDERED QUANTITY	PRESENTED THIS VISIT	ACCEPTED THIS VISIT	QUANTITY ACCEPTED TO DATE
N/A						

3.0 DOCUMENTS USED

DOCUMENT NO.	REVISION	TITLE	APPROVAL STATUS
LA.1.6.10.X.N5.B7PTV7_ASME	1	Calculation Report	Approved
LA.1.6.10.X.N5.B7PTV7	0	Assembly Drawing	Approved

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ASME BPVC SEC VIII DIV 1	2021	ASME Boiler and Pressure vessel code Section VIII Rules for Construction of pressure Vessels			N/A
NOM-020-STPS-2011	2011	Recipientes sujetos a presión, recipientes criogénicos y generadores de vapor o calderas - Funcionamiento - Condiciones de Seguridad.			N/A

4.0 SCOPE OF INSPECTION

ITP LINE NO.	ITP ACTIVITY DESCRIPTION	ITEMS	RESULTS	CLAUSE
N/A				

5.0 EQUIPMENT AND INSTRUMENTATION USED (TO BE SUPPLIED BY SUPPLIER)

EQUIPMENT / INSTRUMENT DESCRIPTION	SERIAL NO	CALIBRATION CERT. NO.	EXPIRY DATE
N/A			

6.0 INSPECTION DETAILS

6.1 Document review

1.- Calculation Report

Document: LA.1.6.10.X.N5.B7PTV7.pdf

All calculations for each one of the vessel parts were reviewed by Intertek PE. Find below the summary.

Vessel Pressure part	ASME BPVC SEC VIII 2021 contents used to review the calculation (minimum wall thickness required)	Wall thickness obtained and result according to ASME BPVC SEC VIII 2021	Hydrostatic test calculation	Final Status
Cylindrical shell - Valve	Appendix 1, 1-2 (a) For Circumferential stress (longitudinal Joints) Appendix 1, 1-2 (b) For Longitudinal Stress (Circumferential joints) UG-16 (b) the minimum thickness permitted for shells and heads is 1.5 mm	$t \geq t_r$ (13.25 mm \geq 1.65 mm) $t \geq t_r$ UG-16(b) In compliance	$P_a \geq P_t$ (103.63 MPa \geq 17.55 MPa) In compliance	Approved
Hemispherical head #1	UG-32 (e) for Hemispherical heads UG-16 (b) the minimum thickness permitted for shells and heads is 1.5 mm	$t \geq t_r$ (9.50 mm \geq 4.42 mm) $t \geq t_r$ UG-16(b) In compliance	$P_a \geq P_t$ (37.18 MPa \geq 17.55 MPa) In compliance	Approved

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Reinforcement of opening - Nozzle #1	Appendix 1-7(a) Opening maximum allowable pressure Pmax = 14.48 Mpa Total pressure Pt = 13.50 MPa	Pmax = 14.48 Mpa Pt = 13.50 MPa In compliance	Pt ≤ Pmax: In compliance	Approved
Cylindrical shell #1	UG-27 (1) For Circumferential stress (longitudinal Joints) UG-27 (2) Longitudinal Stress (Circumferential joints)	t ≥ tr (9.50 mm ≥ 9.42 mm) t ≥ tr UG-16(b) In compliance	Pa ≥ Pt (17.71 MPa ≥ 17.55 MPa) In compliance	Approved
Hemispherical head #2	UG-32 (e) for Hemispherical heads UG-16 (b) the minimum thickness permitted for shells and heads is 1.5 mm	t ≥ tr (9.50 mm ≥ 4.42 mm) t ≥ tr UG-16(b) In compliance	Pa ≥ Pt (37.18 MPa ≥ 17.55 MPa) In compliance	Approved
Cylindrical shell - upper	UG-27 (1) For Circumferential stress (longitudinal Joints) UG-27 (2) Longitudinal Stress (Circumferential joints)	t ≥ tr (5.50 mm ≥ 4.93 mm) t ≥ tr UG-16(b) In compliance	Pa ≥ Pt (19.44 MPa ≥ 17.55 MPa) In compliance	Approved

2.- Drawing

Document: LA.1.6.10.X.N5.B7PTV7.pdf

The drawing was reviewed by Intertek PE. Find below the summary.

Drawing Section	Comments	Final Status
Vessel drawing with measurements (mm) and details	None	Approved
Nameplate Design	None	Approved
Nameplate ASME	None	Approved
Basic design Data	None	Approved
Spare parts	None	Approved
Material specification	None	Approved

3.- Recommendation

According to the NOM-020-STPS-2011, paragraph, 9.3 subsection h-1

9.3 The file of each of the equipment classified in Category III, which are installed in the work center, must contain as minimum, the following:

h) The technical sheet, which at least considers:

- 1) The fluid(s) handled and its type of risk, if any;

Neither the calculation Report nor the drawing mention the operation fluid of the vessel, however this information shall be considered in the technical sheet of the equipment, before the final assessment with the NOM-020-STPS-2011.

7.0 NON-CONFORMANCES

NCR #	DESCRIPTION	DATE RAISED	DATE CLOSED
N/A			

Title Inspection Report Form	Form Number MI-1220-01	Revision E	mm/dd/yyyy 08/07/2019	Instructions SOP-1220
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8.0 QUALITY OBSERVATIONS

Item No.	Material Inspected: Choose an item.		
Observation Type: <input type="checkbox"/> Positive <input type="checkbox"/> Negative		Criticality: <input type="checkbox"/> Critical <input type="checkbox"/> Non-Critical	
Category: Choose an item.		Sub-Category: Choose an item.	
Further Comments: N/A			

Item No.	Material Inspected: Choose an item.		
Observation Type: <input type="checkbox"/> Positive <input type="checkbox"/> Negative		Criticality: <input type="checkbox"/> Critical <input type="checkbox"/> Non-Critical	
Category: Choose an item.		Sub-Category: Choose an item.	
Further Comments: N/A			

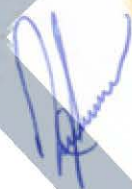
9.0 ATTACHMENTS TO THIS REPORT

- Calculation Report, signed by Intertek PE Valente Vera
- Assembly Drawing, signed by Intertek PE Valente Vera

10.0 PHOTOGRAPHS

N/A

END OF THIS REPORT



May 16th, 2022
Valente Vera Mejía
Professional Engineer
Mexican Professional License # 1356891