TPMCSTEEL
Your reliable firefighting supplier

ISO 9001:2015
SGS No. CN18/10985

INSPECTION CERTIFICATE

▶**Customer**	**Ingener S.A.**	▶**PI/LC No.**	TP1221228JC	▶**Product Name**	ERW Steel Pipe	▶**Standard Spec.**	ASTM A795-13, Type E, Grade B	▶**Cert. No.**	230303P01
▶**PO/Con. No.**	/	▶**PI/LC Date**	Dec 28, 2022	▶**Making Method**	HFW	▶**Delivery Condition**	Heat Treated Weld Seam	▶**Issue Date**	Mar.3th.2023

Outer Diameter			**Wall Thickness**		**Unit Length**	**Pieces**	**Bundles**	**Total Quantity (m)**	**Total Weight (kg)**	**End finish (PE/BE/G/T)**	**Surface Finish (Galv./Paint/FBE/Oil/Non)**
4"	DN 100	114.3 mm	Sch10	3.05 mm	5800 mm	112	6	**649.6**	**5437**	**Grooved End**	**GALV 85um**

Sr. No.	**Heat No.**	**Chemical Compositions (%)**													**Lot No.**	**Mechanical Properties**									**Impact Test**								**Hardness**
		1*	**C**	**Mn**	**P**	**S**	**Si**	**Cu**	**Ni**	**Cr**	**Mo**	**V**	**CT***	**CE***		**2***	**3***	**4***	**5***	**6***	**7***	**T.S***	**Y.S***	**E.L***	**T***	**D***	**S***	**F***	**Energy**				
			2	**2**	**3**	**3**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**								**MPa**	**MPa**	**%**					**Ak1**	**Ak2**	**Ak3**	**Avg**	**HB**
		1=1/10, 2=1/100, 3=1/1000																														
		Min	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	**415**	**240**	**21**	-	-	-	-	-	-	-	-	-
		Max	**30**	**120**	**35**	**35**	-	-	-	-	-	-	-	-								-	-	-								
1	25430C2707	P	14	59	11	12									23030305	P	S	L	2	2	20	440	350	33	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hydrostatic Test	**Eddy Current Test**	**Flux Leakage Test**	**Ultrasonic Testing**	**Magnetic Powder Inspection**	**Bending Test**
8.3 MPa (≥ 5 S)	-	-	ACCEPTED	-	ACCEPTED
Flattening Test	**Expansion Test**	**Flanging Test**	**Straightness Inspection**	**Ovality Inspection**	**Visual & Dimension Inspection**
ACCEPTED	-	-	ACCEPTED	ACCEPTED	ACCEPTED

Note:
1*: L=Ladle Analysis, P=Product Analysis
2*: Specimens Location, P=Production
3*: Specimens type, S=Strip, F=Full Section
4*: Orientation of Test Specimens, L=Longitudinal, T=Transverse
5*: Specimens Width, 1=19mm, 2=25mm, 3=38mm
CE*=Carbon Equivalent: C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15
6*: Gauge Length, 1=200mm, 2=50mm
7*: Test Temperature=20 degrees Celsius
CT*= Cu+Ni+Cr+Mo+V
T.S*=Tensile Strength
Y.S*=Yield Strength
E.L*=Elongation, Longitudinal
T*=Impact Test Temperature
D*: Orientation, L=Longitudinal, T=Transverse
S*: Specimens Size: 10x10x55mm
F*: Notch Form=Charpy V

Ref. Standards:
ASTM A795
ASTM A53
ASTM A370
ASTM A530
ASTM A751
ASTM E213/E309

Tianjin Tpmcsteel International Trade Co., Ltd.
APPROVED
QUALITY CONTROL
QC Dept. Manager

Remark:
1. We hereby certify that the materials supplied are in compliance with the requirements of the order and all test results meet the requirements of product specification.
2. This certificate is validated by the stamping of QC department.
3. The certificate complies with BS EN 10204:2004 3.1.

Add: 25th floor, 2nd Tower, Beichen Building, Tianjin, China.
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Email: info@tpmcsteel.com / Web: www.tpmcsteel.com

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INSPECTION CERTIFICATE

▶**Customer** Ingener S.A. ▶**PI/LC No.** TP1221228JC ▶**Product Name** ERW Steel Pipe ▶**Standard Spec.** ASTM A795-13, Type E, Grade B ▶**Cert. No.** 230303P01

▶**PO/Con. No.** / ▶**PI/LC Date** Dec 28, 2022 ▶**Making Method** HFW ▶**Delivery Condition** Heat Treated Weld Seam ▶**Issue Date** Mar.3th.2023

Outer Diameter			Wall Thickness		Unit Length	Pieces	Bundles	Total Quantity (m)	Total Weight (kg)	End finish (PE/BE/G/T)	Surface Finish (Galv./Paint/FBE/Oil/Non)
6"	DN 150	168.3 mm	Sch10	3.40 mm	5800 mm	11	2	63.8	882	Grooved End	RED FBE

Sr. No.	Heat No.	Chemical Compositions (%)													Lot No.	Mechanical Properties									Impact Test								Hardness
		1*	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	CT*	CE*		2*	3*	4*	5*	6*	7*	T.S*	Y.S*	E.L*	T*	D*	S*	F*	Energy				
		1=1/10, 2=1/100, 3=1/1000	2	2	3	3	2	2	2	2	2	2	2	2								MPa	MPa	%					Ak1	Ak2	Ak3	Avg	HB
		Min	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	415	240	23	-	-	-	-	-	-	-	-	-
		Max	30	120	35	35	-	-	-	-	-	-	-	-								-	-	-									
1	85334BZW07	P	9	57.7	24	18									23030314	P	S	L	3	2	20	445	375	32	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hydrostatic Test	Eddy Current Test	Flux Leakage Test	Ultrasonic Testing	Magnetic Powder Inspection	Bending Test
6.9 MPa (≥ 5 S)	-	-	ACCEPTED	-	ACCEPTED
Flattening Test	**Expansion Test**	**Flanging Test**	**Straightness Inspection**	**Ovality Inspection**	**Visual & Dimension Inspection**
ACCEPTED	-	-	ACCEPTED	ACCEPTED	ACCEPTED

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Prepare: Ben Verifier: Steven Page: 1/1

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