INSPECTION CERTIFICATE

P/O No. : 24.889
L/C No. : HU20110829001

ISSUED DATE : 2021.07.09

COMMODITY : E.R.W STEEL PIPE

SPECIFICATION : ASTM A53A / ASME SA53A

주식회사 휴스틸
HUSTEEL Co., Ltd.
HEAD OFFICE SHINAN B/D 15F, 943-19, DAECHI-DONG, KANGNAM-GU, SEOUL, KOREA
DANGJIN PLANT 131, BUGOKGONGDAN STREET, SONGAK-EUP, DANGJIN-SI, CHUNGCHEONGNAM-DO, KOREA

CERTIFICATE No. : 210709-153-1

MANUFACTURED No. : 21-05-010-0

SUPPLIER

CUSTOMER

Original certificate can be verified through QReal Application.

NO.	HEAT_NO	QUANTITY	TYPE	NOMINAL SIZE	ORDER SIZE O.D	ORDER SIZE W.T	ORDER SIZE LENGTH	WEIGHT	TENSILE TEST Ori.	TS	YS	EL	YR	WTS	DIV	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE IIW	CE Pcm
		PCS	*1		inch	inch	ft	lb/ft	TYPE *3	PSI *4		%	%	PSI	*5	-2			-3					-4				-5	-3	
					*2											*6														
03	SP92153	566	BPE	1-1/2	1.900	0.200	21	3.63	L	58,738	54,822	31	92		H	7	1	29	11	5	21	11	13	30	TR					
															P	7	1	25	10	4	18	11	11	21	2					
															P	8	1	26	10	4	17	12	11	20	3					
	✓ SQ62678	684	BPE	1-1/2	1.900	0.200	21	3.63	L	58,448	53,517	32	92		H	6	1	37	8	5	11	7	10	20	TR					
															P	6	1	40	9	6	15	8	14	21	14					
															P	7	1	41	8	6	14	8	14	23	14					

NO.	HYDROSTATIC TEST T.P	H.T	RESULT	HEAT TREATMENT	ZINC COATING TEST WZC	CST	THREADS TPI	ETL	HARDNESS TEST	IMPACT TEST (0)℃ DIV	Energy (Ind, J)	SIZE	*13 N·D·T (UT Or ECT)	FLATTENING OR BEND TEST	VISUAL& DIMENSION	METALLOGRAPHIC TEST	RESIDUAL MAGNETISM
	PSI	sec		℃	g/㎡	TIMES		inch	HV	*7		*8	GOOD	GOOD	GOOD		
	*9			*10	*11		*12						FLANGE TEST	REVERSE FLATTENING TEST	CRUSH TEST		
03	1800	5	GOOD														
	1800	5	GOOD														

- Latest edition per ASTM(2020) ASME(2017)
- RAW MATERIAL MAKER : POSCO (Gwangyang Works) / Korea
- MELTED AND POURED IN KOREA
- EN 10204.3.1

NOTE

*1.Type of Pipe Ends

BPE	Black Plain Ends	GPE	Galvanized Plain Ends
BPEB	BPE Bevelled	GPEB	GPE Bevelled
BTE	Black Threaded Ends	GTE	Galvanized Threaded Ends
BTC	BlackThreaded & Coupled	GTC	Galvanized Threaded & Coupled

* 2. **O.D** : Outside Diameter, **W.T** : Wall Thickness * 3. Orientation & Type(Location) - **L** : Longitudinal Strip(Pipe body, L90), **T** : Transverse Strip(Pipe body, T180 & Seam weld, W), **F** : Full Size Longitudinal, Size - 38.1mm(O.D 170mm above), 25.4mm(O.D 60.3 ~ 170mm), 19.1mm(O.D 50mm and below), Full Size(O.D 27.2mm and below)
* 4. **Tensile Test -TS** : Tensile Strength, **YS** : Yield Strength, **YR** : Yield Ratio, **EL** : Elongation, **WTS** : Weld tensile strength, **Gauge Length** : 2 inch, **Y.P method** 0.5% Underload
* 5. H : Heat analysis, P : Product analysis * 6. **-2** : x1/100, **-3** : x1/1000, **-4** : x1/10000, **-5** : x1/100000, Tr :Trace * 7. **B** Pipe body(L90) **W** : Seam weld(W), **H** : Heat Affected Zone
* 8. **Specimen Size** - A :10x10mm, B :10x7.5mm, C :10x6.6mm, D :10x5.0mm, E :10x3.3mm, **Direction** : Longitudinal * 9. **T.P** : Testing Pressure, **H.T** : Holding Time * 10. **Heat Treatment** Seam Normalizing
* 11. **WZC** : Weight of Zinc Coating, **CST** : Copper Sulphate Test * 12. **TPI** : Threads per inch, **ETL** : Effective length of threads * 13. **NDT** : UT Or ECT.

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN ACCORDANCE WITH THE ORDER AND ABOVE SPECIFICATION
THIS CERTIFICATE IS ISSUED ACCORDING TO EN 10204 3.1 (ISO 10474 3.1)

SURVEYOR

S.G. Lee
MANAGER OF Q.A TEAM

HMC C-30-05-(21)

HUSTEEL