



BALKRISHNA
STEEL FORGE PVT. LTD.

Works :
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MANUFACTURING TEST CERTIFICATE

CERTIFICATION AS PER EN 10204: 3.1

TC NO. BF/09489 DT. 05.01.2019
CUSTOMER NAME :- M/S. NORCA INDUSTRIAL COMPANY, LLC-USA INV. NO./EC NO.- 2015 Dt: 05.01.2019

P.O. No.	502/005141		P.O. DT.	04.09.2018										
Sl. No.	DESCRIPTION		P.O. SR NO.	INV. NO.	BR	QTY	MATERIAL	MILL HEAT NO.	H.L. NO.	DIMENSION STD				
1	1"	150# BLD RF	1	1		1060	ASTM-A105-18	806900	806900	ASME B16.5-17				
2	3"	300# BLD RF	8	3		1	ASTM-A105-18	070904	BKS/03523	ASME B16.5-17				
3	3"	300# BLD RF	8	3		8	ASTM-A105-18	06/03	06/03	ASME B16.5-17				
4	3"	300# BLD RF	8	3		113	ASTM-A105-18	112135	112135	ASME B16.5-17				
5	3"	300# BLD RF	8	3		5	ASTM-A105-18	070904	070904	ASME B16.5-17				
6	6"	150# SO FF	47	6		4	ASTM-A105-18	100116	100116	ASME B16.5-17				
Chemical Composition		C%	Mn%	P%	S%	Si%	Cu%	Ni%	Cr%	Mo%	V%	Nb%	N%	CE.
Std. Reqmat.		MIN.	0.60	0.035	0.040	0.35	0.40	0.40	0.30	0.12	0.08	0.02		0.47
Check Analysis	806900	0.21	0.94	0.027	0.015	0.17	0.01	0.01	0.01	0.00	0.00	0.00	-	0.37
	070904	0.23	0.92	0.020	0.018	0.24	0.08	0.02	0.02	0.01	0.00	0.00	-	0.40
	06/03	0.21	0.92	0.024	0.021	0.28	0.05	0.03	0.05	0.00	0.01	0.00	-	0.38
	112135	0.19	1.04	0.022	0.020	0.27	0.07	0.02	0.02	0.00	0.00	0.00	-	0.37
	100116	0.21	0.94	0.025	0.028	0.15	0.08	0.02	0.01	0.00	0.00	0.00	-	0.38
MECHANICAL PROPERTIES		U.T.S. N/mm2	Y.S. (0.2% Offset) N/mm2	ELONGATION% MIN.	REDUCTION IN AREA% MIN.	HARDNESS (HBW)	HEAT TREATMENT DETAILS				IMPACT ENERGY ABSORBED AT °C			
Std. Requirement		485 MIN.	250 MIN.	22%	30%	137 TO 197					Specimen (J)			Avg.(J)
Result	806900	521.35	333.13	31.80	57.00	146-159	AS FORGED				-	-	-	-
	BKS/03523	509.70	345.10	33.00	72.10	143-156	AS FORGED				-	-	-	-
	06/03	532.04	313.69	32.40	62.40	146-159	AS FORGED				-	-	-	-
	112135	499.79	320.08	33.40	72.40	143-156	AS FORGED				-	-	-	-
	070904	504.22	336.51	35.00	66.30	143-156	AS FORGED				-	-	-	-
	100116	514.94	332.34	29.00	53.00	146-159	AS FORGED				-	-	-	-
Identification		Size, Pressure Rating, Type, Nominal Bore, SA/A105 N, B-16, Heat Lot No., INDIA												
Remark:-		<ul style="list-style-type: none"> Materials Was manufactured, sampled, Tested and inspected in accordance with specification(s) solely by the manufacturer listed herein and was found to meet the requirements. No weld repair was performed. Materials is free of mercury and radioactive contamination. Test Bar used - Round Lx4D. The Raw material for above item is manufactured/procure from Indian mill 												
		We hereby certify that the above mentioned items conform to requirements of - ASTM A-105-18 / ASME SA 105 & NACE MR0175 / ISO 15156 -15												

6" 150# FS S/O FLANGE--FLAT FACE--

Heat #: 100116

(Metallurgist)
FLB:12 REV:00 Dt: 01.11.17

Stock
4709895
07/01/2019
MATCONOR MN150FSF13 6IN 150LB SLI
ON WELD FLANGE FF

Basheer
QA HEAD