E N CORPORATION
Lot 2, 4 & 6, Block 16, Phase IV, Cavite Export Processing Zone
Authority, PEZA, Rosario, Cavite, Philippines 4106
TEL : (+63) 46-437-1022~25 FAX : (+63)46-437-1018, 21

INSPECTION CERTIFICATE

EN10204 3.1

CERTIFICATE NO.: Q-2201016-006
PURCHASER: DODSON GLOBAL

DATE : 2022/01/27
P. O. NO.: 296291-00
S/C NO. : V172DG

PRODUCT : CARBON STEEL FORGED FITTING

HEAT NO.	Q'TY.	DESIGNATION	SPECIFICATION
LF919	30	1" NPT 45 ELBOW 3000LB	ASME B16.11-2016/MSS SP25-2018

CHEMICAL ANALYSIS OF MATERIAL

HEAT NO.	C	Mn	Si	P	S	Cr	Ni	Mo	V	SPECIFICATION
Maxi	0.35	1.05	0.35	0.035	0.040	0.30	0.40	0.12	0.08	ASTM A105-18
LF919	0.21	0.88	0.24	0.011	0.004	0.05	0.01	0.00	0.001	ASME SA105N-21

MECHANICAL CHARACTERISTICS

HEAT NO.	T.S. (MPA)	Y.S. (MPA)	%-E.L.	%-R.A.	HEAT-TREAT.	HARDNESS	DIMENSION	P.M.I.
Mini	485	250	22	30	°C	≤197 HBW		
LF919	495	295	37	65	°C	130-132 HBW	OK	OK

Pb CONTENT: < 0.010%

C E: 0.37
Cu: 0.02

NORMALIZED AT 1679 DEG F FOR 30 MINUTES
THEN STILL AIR COOLED

MATERIAL IS IN ACCORDANCE WITH NACE MR0175-2015, ISO 15156-2015, NACE MR0103-2015/ISO 17945:2015, ISO 9001; 2015 COMPLIANT. PED 2014/68/EC (ANNEX I PARAGRAPH 4.3) CERTIFIED. PRODUCTS WERE MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH ASTM A105-2018 AND HAVE BEEN FOUND TO MEET THE REQUIREMENTS.

ALL MATERIAL SUPPLIED IS CERTIFIED TO BE FREE OF MERCURY CONTAMINATION AND NO MERCURY BEARING EQUIPMENT WAS USED DURING MANUFACTURING.

COUNTRY OF ORIGIN: PHILIPPINES

ARNEL ROJAS
QUALITY ASSURANCE MANAGER

SHAKTI

Forge Industries Pvt. Ltd.

CIN No. U29100GJ2015PTC084600

An ISO:9001 Certified
Manufacturer of Pipe Fitting & Flanges
Forgings, Precision Components & Industrial Suppliers

-: TEST CERTIFICATE :-

[In Accordance with EN 10204:2005 (E) Type 3.1]

CERTIFICATE NO.:	SFIPL/TC/E/2022/2439	**DATE:**	8/Mar/22
CUSTOMER:	DODSON GLOBAL INC.	**PO. NO.:**	310211
Item Details as follow :-		**PROCESS OF MANUFACTURING:-**	HOT FORGING / MACHINING

Po. Sr.NO	ITEM DESCRIPTION	Material Specification	Size X Class	Qty	Lot No	HT NO
026	90DEG ELBOW NPT	SA / A105 N	1" 3000#	240	D058	109392

MILL TEST PROPERTIES

Lot NO	HT NO.	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	V	Al	CE
Min		-	0.60	0.10	-	-	-	-	-	-	-	-	-
Max		0.350	1.050	0.350	0.040	0.035	0.300	0.400	0.120	0.400	0.080	-	0.470
D058	109392	0.190	1.050	0.189	0.019	0.029	0.014	0.001	0.001	0.001	0.001	0.033	0.368

CHEMICAL PROPERTIES (TEST METHOD AS PER ASTM E-415)

Lot NO	HT NO.	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	V	Al	CE
Min		-	0.60	0.10	-	-	-	-	-	-	-	-	-
Max		0.350	1.050	0.350	0.040	0.035	0.300	0.400	0.120	0.400	0.080	-	0.470
D058	109392	0.188	1.144*	0.163	0.023	0.022	0.024	0.003	<0.001	0.002	<0.001	0.035	0.384

MECHANICAL PROPERTIES (TEST METHOD AS PER ASTM A370)

Lot NO	HT NO.	Yield Strength / (0.2 % Offset method) MPa	Ultimate Tensile Strength Mpa	ELONGATION (%) G.L.=4D	REDUCTION IN AREA %	HARDNESS IN BHN	Heat Treatment
Min		250.00	485.00	22.00%	30.00%	137	Normalizing at 910°C Soaking Time 01:30 HRS
Max		-	-	-	-	187	
D058	109392	334.09	539.24	31.62	48.97	162 - 163	

MARKING DETAILS :- (BRAND, MATERIAL+N; LOT NO, STD, PRESSURE, SIZE, COUNTRY OF ORIGIN)

MATERIAL STANDARD :	ASME Section II Part-A SA105 - 2019 / ASTM A105 - 2018	**DIMENSION STANDARD :-**	ASME B16.11 - 2016
GALVANIZING STANDARD :-	N.A.	**THREADING STANDARD :-**	ASME B1.20.1 - 2013(R2018)

Remark :- MATERIAL CONFIRMS TO ASME Section II Part-A SA105 - 2019 / ASTM A105 - 2018

* For each reduction of 0.01% below the specified carbon max.(0.35%), an increase of 0.06% manganese above the specified max.(1.05%)willbe permitted up to a max of 1.65%.

We hereby certify that the fitting was manufactured, sampled, tested and inspected in the specification and was found to meet the requirements

For, Shakti Forge Industries Pvt. Ltd.	For, Shakti Forge Industries Pvt. Ltd.	For Client / Third Party Insp. Agency
SHAKTI FORGE INDIA PVT. LTD. QC	Shakti Forge Ind. Pvt. Ltd. Rajkot	
(Inspected By)	(Approved By)	(Auth. Signature & Stamp)

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Reg. / Corp. Office & Factory :
Plot No. G-1068, Nr. FM-PBW Bearing, Kishan Gate Road, GIDC Lodhika,
Kalawad Road, Metoda - 360021, Dist. Rajkot, Gujarat, INDIA. Tel. : 02827-286262

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