



STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
Chief Resident Engineer
Osmani & Co. (Pvt) Ltd
Swat Motorway Project

Reference # CED/TFL **33854** (Dr. Usman Akmal)
Reference of the request letter # 332/CRE/QAT/SMP/2019

Dated: 18-09-2019
Dated: 17-09-2019

Tension Test Report (Page – 1/1)

Date of Test 26-09-2019
Gauge length 2 inches
Description Bearing Plates Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	Plate	28.30x40.20	1137.66	39600	56800	341.47	489.78	2.00	25.00	
2	Plate	28.30x44.30	1253.69	45200	63200	353.69	494.53	2.10	26.25	
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-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test										
Bend Test										

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Ref: CED/TFL/09/33886

Dated: 25-09-19

Date of Test: 26-09-19

To,
M/S Hamza Corporation
Lahore

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/09/33886)

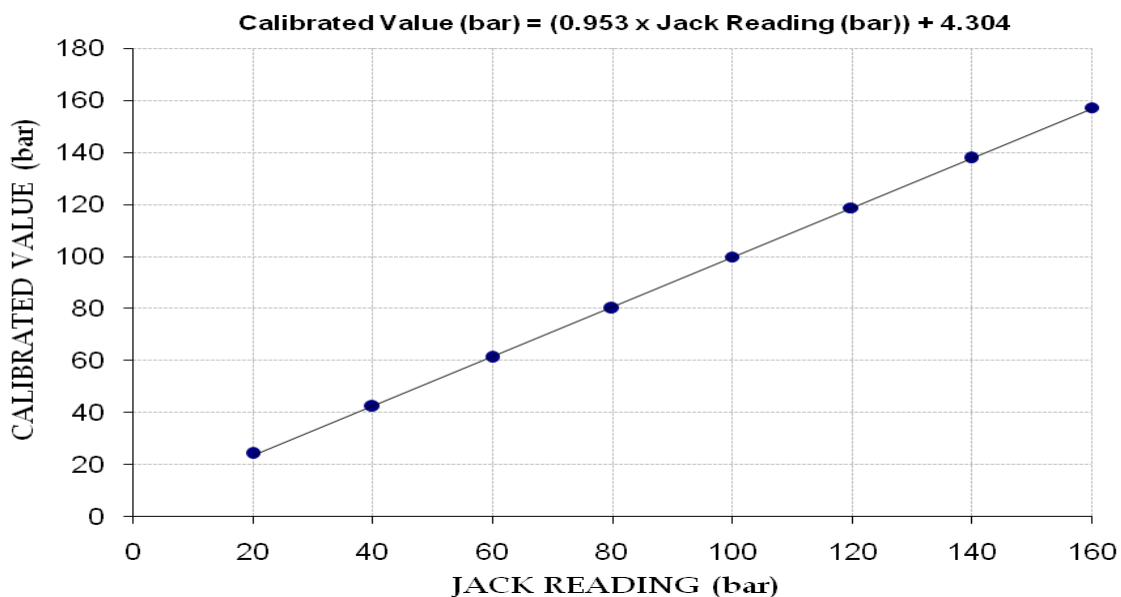
Reference to your Letter No. Nil, Dated: 25/09/2019 on the subject cited above. One Hydraulic Jack No H 139 as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 250 (bar)
Calibrated Range : Zero - 160 (bar)

Hydraulic Jack Reading (bar)	20	40	60	80	100	120	140	160
Calibrated Load (k g)	28000	49100	71000	93000	116000	138000	160200	182600
Calibrated Pressure (bar)	24.09	42.24	61.07	80.00	99.78	118.71	137.80	157.07

The Ram Area of Jack = 1140.095 cm²

Calibration Curve For Jack No. H 139



I/C Testing Laboratories
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To,
RE (E&M) KTDP
MM Pakistan (Pvt) Ltd
Kurram Tangi Multipurpose Dam Project Stage – I Kaitu Weir Irrigation & Power Project

Reference # CED/TFL **33888** (Dr. Waseem Abbas) Dated: 25-09-2019
Reference of the request letter # SPINWAM/KTDP/SITE/MWSE/MT/019/002 Dated: 24-09-2019

Tension Test Report (Page – 1/1)

Date of Test 26-09-2019
Gauge length 2 inches
Description M.S Sheet Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	12.70	29.80x12.70	378.46	11500	17500	298.09	453.61	0.90	45.00	
2	12.70	29.80x12.70	378.46	11200	17600	290.31	456.21	0.90	45.00	
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-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test										
Bend Test										

Witness by RE (E&M) KTDP, Consultant

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S Specialists Group Inc. Limited
Lahore

Reference # CED/TFL **33889** (Dr. Waseem Abbas)
Reference of the request letter # SGI/UET/2419/09

Dated: 25-09-2019

Dated: 24-09-2019

Tension Test Report (Page – 1/1)

Date of Test 26-09-2019
Gauge length 8 inches
Description Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	-----	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	ZM30-9A	26.40x10.10	266.64	9900	13900	364.23	511.40	1.60	20.00	
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Only One Sample for Tensile Test										
Bend Test										

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Resident Engineer
 NESPAK

Rural Accessibility Programme (RAP) - Naya Pakistan Manzilen Asan

a. Rehabilitation of road from Sohawara - Sanyari via Chakwal, Behlolpur and Chamriyal (L = 6.20 km) - Distt Narowal

b. Rehabilitation of road from Jajyal Morr – Chak Suraj via bara pind (L = 6.50 km) - Distt Narowal

c. Construction/Rehabilitation of road from Mahais Kalan – Derianwala via Daood Station (L = 5.20 km) - Distt Narowal

Reference # CED/TFL **33892** (Dr. Waseem Abbas)

Dated: 25-09-2019

Reference of the request letter # 3699/103/RAP Nrl/ML/02

Dated: 03-09-2019

Tension Test Report (Page -1/1)

Date of Test 26-09-2019

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.410	3	0.392	0.11	0.121	3300	4800	66200	60300	96200	87800	1.30	16.3	
2	0.412	3	0.392	0.11	0.121	3200	4800	64200	58310	96200	87500	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180° is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 M/S Defence Housing Authority.
 Lahore Cantt
 (Const. of Mosque at Sector-S, DHA Ph-VIII)(M/s Innovative)

Reference # CED/TFL **33893** (Dr. Waseem Abbas)
 Reference of the request letter # 408/241/E/Lab/716/64

Dated: 25-09-2019
 Dated: 25-09-2019

Tension Test Report (Page -1/1)

Date of Test 26-09-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.369	3	0.372	0.11	0.109	3400	4700	68200	69020	94200	95500	1.40	17.5	Kamran Steel
2	0.368	3	0.371	0.11	0.108	3300	4600	66200	67280	92200	93800	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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UET Lahore, Pakistan.

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To,
 GE Project Manager
 Guarantee Engineers (Pvt) Ltd
 SMTH, Lahore

Reference # CED/TFL **33894** (Dr. Waseem Abbas)
 Reference of the request letter # Nil

Dated: 25-09-2019
 Dated: 11-09-2019

Tension Test Report (Page -1/1)

Date of Test 26-09-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.370	3/8	0.372	0.11	0.109	3200	4600	64200	64830	92200	93200	1.40	17.5	
2	0.370	3/8	0.372	0.11	0.109	3200	4600	64200	64940	92200	93400	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
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To,
 Project Director (HVDC)
 NTDC Lahore
 (HVDC Transmission Line in Lot-5)

Reference # CED/TFL **33895** (Dr. Waseem Abbas) Dated: 25-09-2019
 Reference of the request letter # 1898-1902/PD/HVDC/NTDC/LHR Dated: 25-09-2019

Tension Test Report (Page -1/1)

Date of Test 26-09-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	4.322	10	1.272	1.27	1.271	46400	59800	80600	80490	103800	103800	1.40	17.5	
2	4.287	10	1.267	1.27	1.260	43600	59200	75700	76260	102800	103600	1.40	17.5	
3	4.376	10	1.280	1.27	1.286	43000	58400	74700	73680	101400	100100	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and three samples for bend test														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

Witness by Umair Aslam (DM (HVDC) NTDC), M. Abbas (OE) & M. Aamir (Lot-5 Camp)

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