



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

To,
 Resident Engineer
 NESPAK
 Lahore Knowledge Park

Reference # CED/TFL **34165** (Dr. M Rizwan Riaz)
 Reference of the request letter # 3957/13/MS/10/234

Dated: 11-11-2019
 Dated: 11-11-2019

Tension Test Report (Page – 1/2)

Date of Test 18-11-2019
 Gauge length 2 inches
 Description Angle Iron 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	75x75x6	25.40x6.65	168.91	6000	8900	348.47	516.90	0.65	32.50	
2		25.40x6.60	167.64	5700	8700	333.55	509.11	0.70	35.00	
3	75x75x9	25.50x9.60	244.80	9500	13300	380.70	532.98	0.70	35.00	
4		25.50x9.70	247.35	9000	12900	356.94	511.62	0.70	35.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Four Samples for Tensile Test										
Bend Test										

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Reference # CED/TFL **34165** (Dr. M Rizwan Riaz)
Reference of the request letter # 3957/13/MS/10/234

Dated: 11-11-2019

Dated: 11-11-2019

Weight & Size Test Report (Page – 2/2)

Date of Test 18-11-2019
Gauge length -----
Description Angle Iron Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	L-1	L-2	Thickness	Remark
	(mm)	(g)	(cm)	(kg/m)	(mm)	(mm)	(mm)	
1	75x75x6	7160	99.9	7.17	77.30	75.20	6.75	
2	75x75x9	10799	100.0	10.80	77.70	76.90	9.60	
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-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
Only Two Sample for Test								

To,

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Acting Project Director
 Air University Multan Campus
 Construction of Boys Hostel I, Air University Multan Campus
 (Ittefaq Steel)

Reference # CED/TFL **34185** (Dr. M Rizwan Riaz)
 Reference of the request letter # MUX/AUMC/BH1/2019/017

Dated: 14-11-2019
 Dated: 07-11-2019

Tension Test Report (Page -1/1)

Date of Test 18-11-2019
 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	0.366	3	0.370	0.11	0.108	2900	4400	58200	59380	88200	90100	1.60	20.0	
2	0.372	3	0.373	0.11	0.109	3000	4500	60200	60520	90200	90800	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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Department of Civil Engineering
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Ref: CED/TFL/11/34186

Dated: 15-11-19

Dated of Test: 18-11-19

To,
Deputy CRE
Zeeruk International (Pvt) Ltd
Lahore - Sialkot Motorway Project

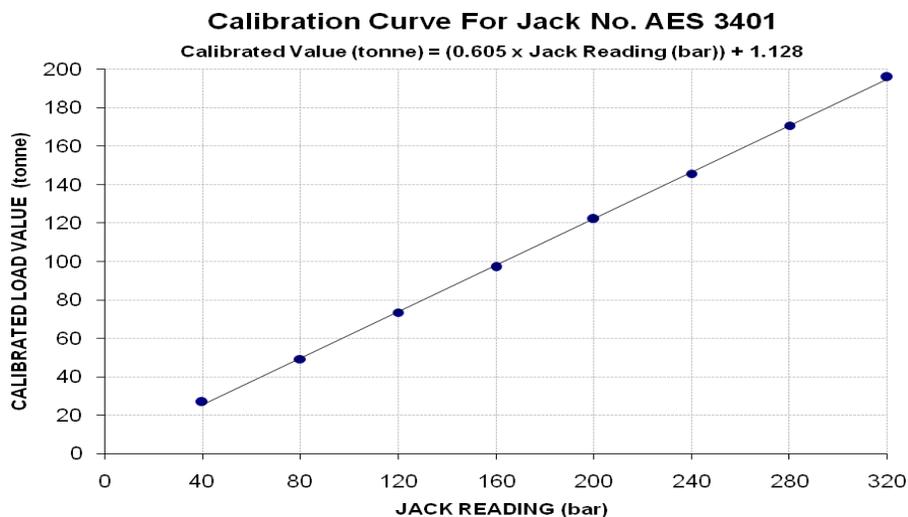
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/11/34186) (Page -1/2)

Reference to your Letter No. LSMP/DCRE/2019/1206, Dated: 15/11/2019 on the subject cited above. One Hydraulic Jack (Jack No 3401, Gauge No. AES-3401) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 700 (bar)
Calibrated Range : Zero - 320 (bar)

Hydraulic Jack Reading (bar)	40	80	120	160	200	240	280	320	
Calibrated Load	(kg)	26800	49200	73400	97000	122000	145800	170800	196000
	Tonne	26.80	49.20	73.40	97.00	122.00	145.80	170.80	196.00
Calibrated Pressure (bar)	43.65	80.14	119.56	158.00	198.72	237.48	278.20	319.25	

1 Tonne = 1000 Kg, The Ram Area of Jack = 602.09 cm²



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UET Lahore, Pakistan.

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Ref: CED/TFL/11/34186

Dated: 15-11-19

Dated of Test: 18-11-19

To,
Deputy CRE
Zeeruk International (Pvt) Ltd
Lahore - Sialkot Motorway Project

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/11/34186) (Page -2/2)

Reference to your Letter No. LSMP/DCRE/2019/1206, Dated: 15/11/2019 on the subject cited above. One Hydraulic Jack (Jack No 3402, Gauge No. AES-3402) as received by us has been calibrated. The results are tabulated as under:

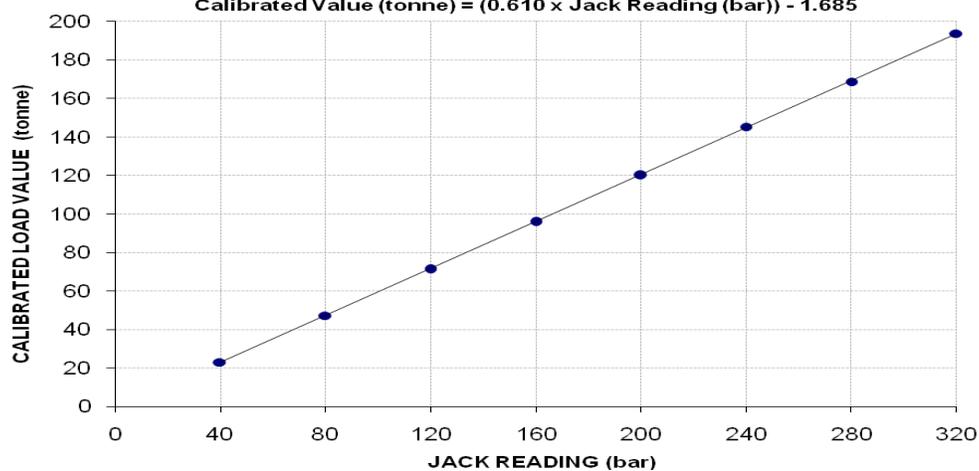
Total Range : Zero - 700 (bar)
Calibrated Range : Zero - 320 (bar)

Hydraulic Jack Reading (bar)	40	80	120	160	200	240	280	320	
Calibrated Load	(kg)	23000	47200	71200	95800	120000	145200	168800	193800
	Tonne	23.00	47.20	71.20	95.80	120.00	145.20	168.80	193.80
Calibrated Pressure (bar)	37.46	76.88	115.97	156.04	195.46	236.51	274.95	315.67	

1 Tonne = 1000 Kg, The Ram Area of Jack = 602.09 cm²

Calibration Curve For Jack No. AES 3402

Calibrated Value (tonne) = (0.610 × Jack Reading (bar)) - 1.685



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To,
 Resident Engineer
 NESPAK
 Construction of Entry Gate of Lahore at Thokatr Niaz Baig Multan Road, Lahore

Reference # CED/TFL **34192** (Dr. M Rizwan Riaz) Dated: 18-11-2019
 Reference of the request letter # 4047-R/13/SNH/07/AHC/119 Dated: 12-11-2019

Tension Test Report (Page -1/1)

Date of Test 18-11-2019
 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	0.367	3	0.371	0.11	0.108	3100	4800	62200	63360	96200	98100	1.40	17.5	
2	0.360	3	0.367	0.11	0.106	3100	4800	62200	64550	96200	100000	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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