



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

Ref: CED/TFL/11/34206

Dated: 20-11-19

Dated of Test: 27-11-19

To

Resident Engineer

NESPAK - Zeeruk jv

(China Pakistan Economic Corridor (CPEC) Western Route Hakla (on M1) to D.I. Khan Motorway - Rehmain Khel to Kot Balian - Package IIA)

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/11/34206) (Page -1/2)

Reference to your Letter No. RE/NESPAK/P-2A/CPEC-WR/1007, Dated: 18/11/2019 on the subject cited above. One Hydraulic Jack (Jack No 1501, Gauge No. AES-1501) as received by us has been calibrated. The results are tabulated as under:

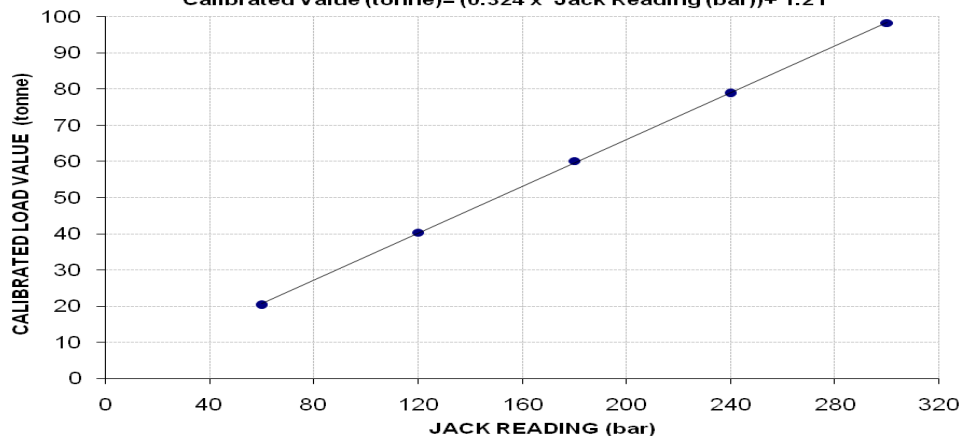
Total Range : Zero - 600 (bar)
Calibrated Range : Zero - 300 (bar)

Hydraulic Jack Reading (bar)	60	120	180	240	300	
Calibrated Load	(kg)	20300	40300	60100	78800	98300
	Tonne	20.30	40.30	60.10	78.80	98.30
Calibrated Pressure (bar)	62.62	124.31	185.39	243.08	303.23	

1 Tonne = 1000 kg, The Ram Area of Jack = 317.92 cm²

Calibration Curve For Jack No. AES 1501

Calibrated Value (tonne) = (0.324 × Jack Reading (bar)) + 1.21



I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/11/34206) (Page -2/2)

Reference to your Letter No. RE/NESPAK/P-2A/CPEC-WR/1007, Dated: 18/11/2019 on the subject cited above. One Hydraulic Jack (Jack No 1502, Gauge No. AES-1502) as received by us has been calibrated. The results are tabulated as under:

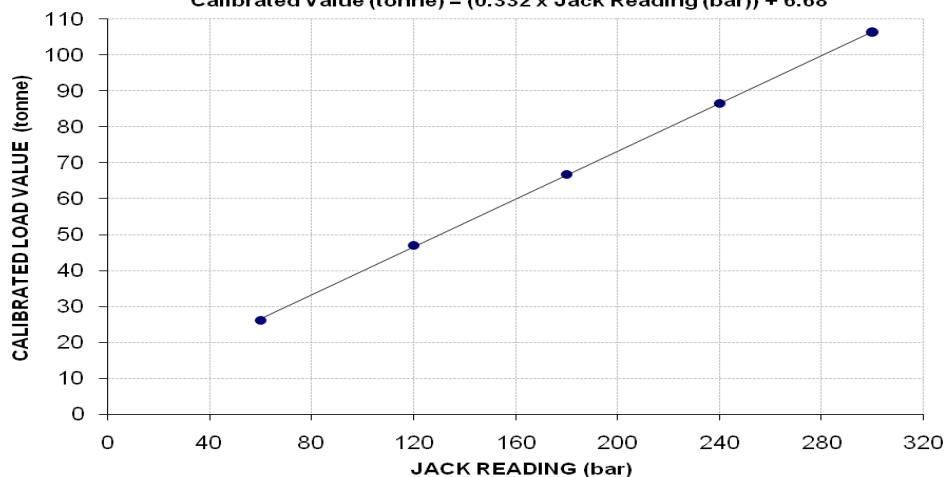
Total Range : Zero - 600 (bar)
Calibrated Range : Zero - 300 (bar)

Hydraulic Jack Reading (bar)	60	120	180	240	300	
Calibrated Load	(kg)	26200	47000	66800	86600	106200
	Tonne	26.20	47.00	66.80	86.60	106.20
Calibrated Pressure (bar)	80.82	144.98	206.06	267.14	327.60	

1 Tonne = 1000 kg, The Ram Area of Jack = 317.92 cm²

Calibration Curve For Jack No. AES 1502

Calibrated Value (tonne) = (0.332 × Jack Reading (bar)) + 6.68



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To,
 Deputy CRE
 Zeeruk International (Pvt) Ltd
 Lahore Sialkot Motorway Project
 (759 CTE – FWO – LSMP)(M/s Munir Industries Lahore)

Reference # CED/TFL **34210** (Dr. Safer Abbas)
 Reference of the request letter # LSM/RE-II/St/19/722

Dated: 22-11-2019
 Dated: 22-11-2019

Tension Test Report (Page – 1/1)

Date of Test 27-11-2019
 Gauge length 2 inches
 Description W-Beam Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	W-Beam	2.37x0.275	0.65	2600	3200	3989.26	4909.86	0.60	30.00	Sample No. 1
2		2.29x0.275	0.63	2400	3100	3811.04	4922.59	0.70	35.00	
3	W-Beam	2.29x0.275	0.63	2400	3100	3811.04	4922.59	0.70	35.00	Sample No. 2
4		2.29x0.275	0.63	2400	3100	3811.04	4922.59	0.60	30.00	
5	W-Beam	2.36x0.275	0.65	2500	3200	3852.08	4930.66	0.60	30.00	Sample No. 3
6		2.36x0.275	0.65	2500	3200	3852.08	4930.66	0.70	35.00	
Only Six Samples for Tensile Test										
Bend Test										

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To,
 Additional Director Development
 DHA Phase-XI (Rahbar)
 Construction of DHA Girls School at Block- 'B' Sector-I, DHA Phase-XI (Rahbar)

Reference # CED/TFL **34222** (Dr. M Rizwan Riaz) Dated: 27-11-2019
 Reference of the request letter # 700/3/Girls School/Ph-XI/Projs/3299 Dated: 25-11-2019

Tension Test Report (Page -1/1)

Date of Test 27-11-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (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	0.347	3	0.361	0.11	0.102	2900	4500	58200	62600	90200	97200	1.30	16.3	Agha Steel
2	0.359	3	0.367	0.11	0.106	3000	4500	60200	62670	90200	94000	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

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