



**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/09/35320

Dated: 07-09-2020

Date of Calibration: 09-09-2020

To  
Resident Engineer  
NESPAK  
Dualization & Improvement of Indus Highway Road Project Package -01 (Sarai Gambila - Karak)

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/09/35320) (Page – 1/2)

Reference to your Letter No. 36267/103/TH/01/337, dated: 23/06/2020 on the subject cited above. One Hydraulic Jack (Jack No. 074, Pump No. B1-226) as received by us has been calibrated. The results are tabulated as under:

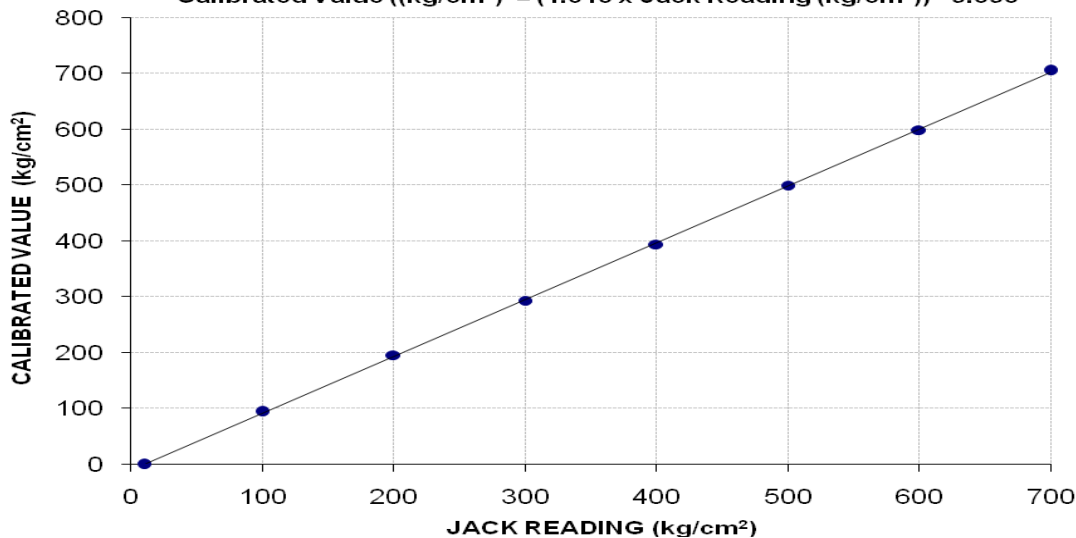
**Total Range : Zero - 1000 (kg/cm<sup>2</sup>)**  
**Calibrated Range : Zero - 700 (kg/cm<sup>2</sup>)**

Hydraulic Jack Reading (kg/cm <sup>2</sup> )	10	100	200	300	400	500	600	700
Calibrated Load (kg)	0	25200	52200	78400	105400	133400	160000	188400
Calibrated Pressure (kg/cm <sup>2</sup> )	0	94.30	195.34	293.39	394.43	499.21	598.76	705.04

The Ram Area of Jack = 267.2 cm<sup>2</sup>

**Calibration Curve For Jack No. 074**

Calibrated Value ((kg/cm<sup>2</sup>) = (1.016 x Jack Reading (kg/cm<sup>2</sup>)) - 9.595



**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

Note:

- 1- You can See your reports On Internet in the following web site  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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To

**Resident Engineer**  
**NESPAK**

Dualization & Improvement of Indus Highway Road Project Package -01 (Sarai Gambila - Karak)

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/09/35320)** (Page – 2/2)

Reference to your Letter No. 36267/103/TH/01/337, dated: 23/06/2020 on the subject cited above. One Hydraulic Jack (Jack No. 079, Pump No. B1-194) as received by us has been calibrated. The results are tabulated as under:

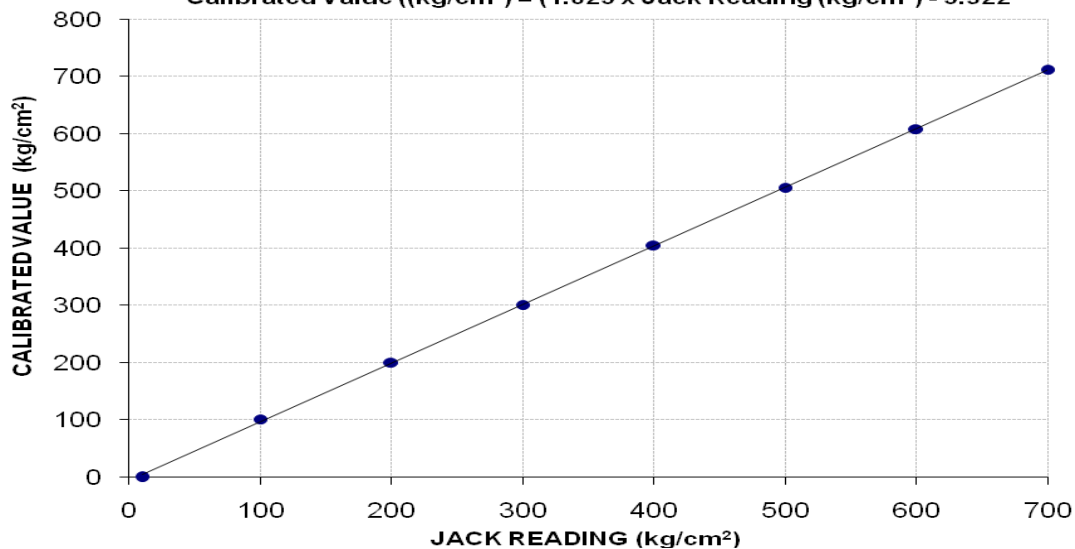
**Total Range** : Zero - 1000 (kg/cm<sup>2</sup>)  
**Calibrated Range** : Zero - 700 (kg/cm<sup>2</sup>)

Hydraulic Jack Reading (kg/cm <sup>2</sup> )	10	100	200	300	400	500	600	700
Calibrated Load (kg)	0	27000	53600	80400	108400	135200	162600	190400
Calibrated Pressure (kg/cm <sup>2</sup> )	0	101.04	200.58	300.88	405.66	505.95	608.49	712.52

The Ram Area of Jack = 267.2 cm<sup>2</sup>

**Calibration Curve For Jack No. 079**

Calibrated Value ((kg/cm<sup>2</sup>) = (1.025 x Jack Reading (kg/cm<sup>2</sup>) - 5.922



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**UET Lahore, Pakistan.**

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To,  
 Resident Engineer  
 ACES (Pvt) Ltrd  
 DHA Multan  
 (Main Truck Sewer – DHA Multan)

Reference # CED/TFL **35322** (Dr. Ali Ahmed)  
 Reference of the request letter # MTS/CT/Material/02

Dated: 07-09-2020  
 Dated: 03-09-2020

**Tension Test Report** (Page -1/1)

Date of Test 09-09-2020  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A496

Sr. No.	Weight (kg/m)	Diameter/ Size (mm)		Area (mm <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (Mpa)		Ultimate Stress (Mpa)		Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual	
1	0.209	5	5.82	19.40	26.62	1700	2000	860	627	1011	737	<b>MSM</b>
2	0.201	5	5.71	19.40	25.60	1600	1900	809	613	961	728	
3	0.277	6	6.71	32.30	35.32	2000	2500	607	556	759	694	
4	0.272	6	6.65	32.30	34.71	1600	2200	486	452	668	622	
5	0.371	8	7.75	51.60	47.21	2000	2800	380	416	532	582	
6	0.378	8	7.83	51.60	48.10	2100	2800	399	428	532	571	
<b>Note: only six samples for tensile and three samples for bend test</b>												
Bend Test												
5mm Dia Bar Bend Test Through 180° is Satisfactory												
6mm Dia Bar Bend Test Through 180° is Satisfactory												
8mm Dia Bar Bend Test Through 180° is Satisfactory												

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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