



**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/03/6687

Dated: 11-03-2025

Dated of Test: 13-03-2025

To

**Resident Engineer**  
**NESPAK**

**Construction of Rawalpindi Ring Road (RRR)(38.3km) Main Carriageway.**

**Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/03/6687) (Page -1/2)**

Reference to your Letter No. 4713/RRR/IUK/25/192, dated: 08/03/2025 on the subject cited above. One Hydraulic Jack (Jack No. AES-3501, Gauge No. AES-3501) as received by us has been calibrated. The results are tabulated as under:

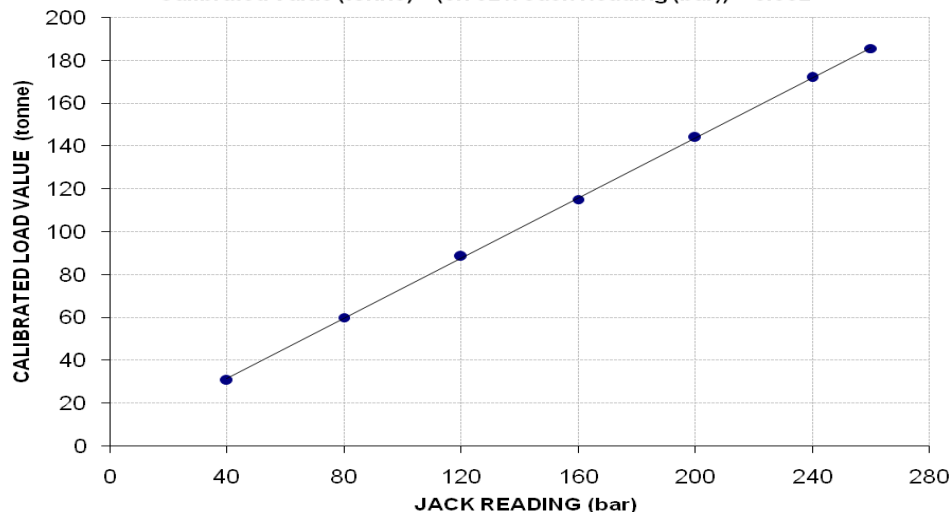
**Total Range : Zero - 1000 (bar)**  
**Calibrated Range : Zero - 280 (bar)**

Hydraulic Jack Reading (bar)		40	80	120	160	200	240	260
Calibrated Load	(kg)	30700	60000	88500	115200	144000	172000	185600
	(tonne)	30.70	60.00	88.50	115.20	144.00	172.00	185.60
Calibrated Pressure (bar)		44	87	128	167	208	249	268

The Ram Area of Jack = 678.24 cm<sup>2</sup>

**Calibration Curve For Jack No. AES-3501**

**Calibrated Value (tonne) = (0.702 × Jack Reading (bar)) + 3.362**



**I/C Testing Laboratoires**  
**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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**Construction of Rawalpindi Ring Road (RRR)(38.3km) Main Carriageway.**

**Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/03/6687) (Page -2/2)**

Reference to your Letter No. 4713/RRR/IUK/25/192, dated: 08/03/2025 on the subject cited above. One Hydraulic Jack (Jack No. AES-3502, Gauge No. AES-3502) as received by us has been calibrated. The results are tabulated as under:

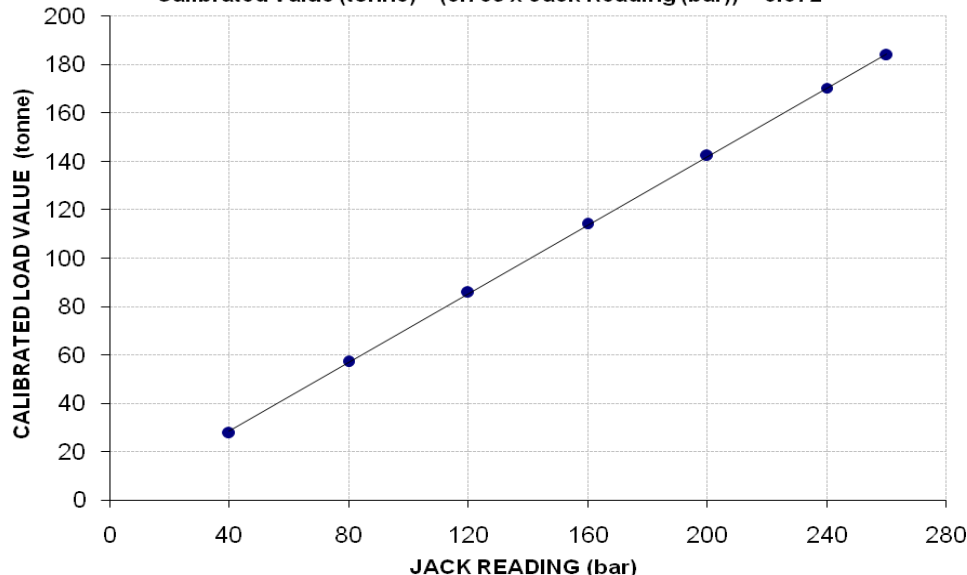
**Total Range : Zero - 1000 (bar)**  
**Calibrated Range : Zero - 280 (bar)**

Hydraulic Jack Reading (bar)		40	80	120	160	200	240	260
Calibrated Load	(kg)	27600	57000	85800	114000	142200	170200	183800
	(tonne)	27.60	57.00	85.80	114.00	142.20	170.20	183.80
Calibrated Pressure (bar)		40	82	124	165	206	246	266

The Ram Area of Jack = 678.24 cm<sup>2</sup>

**Calibration Curve For Jack No. AES-3502**

Calibrated Value (tonne) = (0.709 x Jack Reading (bar)) + 0.072



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Ref: CED/TFL/03/6689

Dated: 11-03-2025

Dated of Test: 13-03-2025

To

Ashfaq Ali Shah

Resident Engineer, NESPAK

Construction of Flyover at Khawaja Corporation Chowk Adyala Road Rawalpindi.

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/03/6689) (Page -1/2)

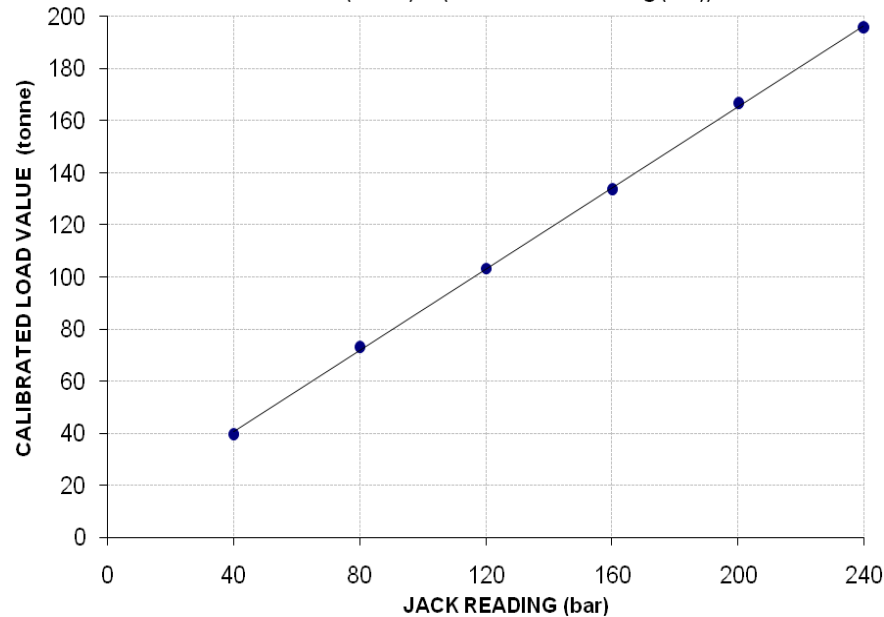
Reference to your Letter No. 4085/KCF/AAS/24, dated: 07/03/2025 on the subject cited above. One Hydraulic Jack (Jack No. 407, Gauge No. SF-407) as received by us has been calibrated. The results are tabulated as under:

Total Range :		Zero - 1000 (bar)					
Calibrated Range :		Zero - 240 (bar)					
Hydraulic Jack Reading (bar)		40	80	120	160	200	240
Calibrated Load	(kg)	39400	72800	103400	133400	166500	195600
	(tonne)	39.40	72.80	103.40	133.40	166.50	195.60
Calibrated Pressure (bar)		52.62	97.22	138.09	178.15	222.36	261.22

The Ram Area of Jack = 734.35 cm<sup>2</sup>

**Calibration Curve For Jack No. 407**

$$\text{Calibrated Value (tonne)} = (0.780 \times \text{Jack Reading (bar)}) + 9.306$$



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Construction of Flyover at Khawaja Corporation Chowk Adyala Road Rawalpindi.

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/03/6689) (Page -2/2)

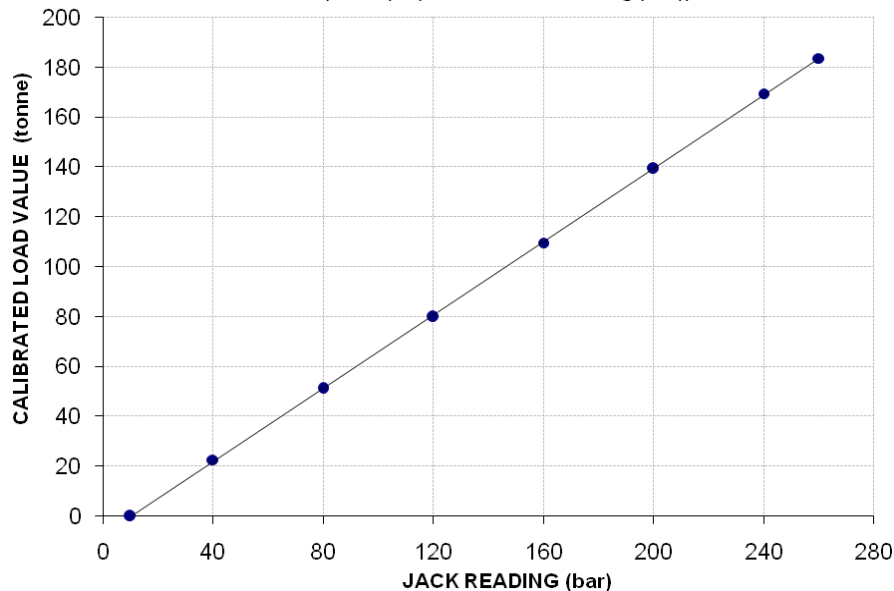
Reference to your Letter No. 4085/KCF/AAS/24, dated: 07/03/2025 on the subject cited above. One Hydraulic Jack (Jack No. 408, Gauge No. SF-408) as received by us has been calibrated. The results are tabulated as under:

Total Range :		Zero - 1000 (bar)							
Calibrated Range :		Zero - 260 (bar)							
Hydraulic Jack Reading (bar)		10	40	80	120	160	200	240	260
Calibrated Load	(kg)	0	22500	51200	79800	109500	139400	169400	183600
	(tonne)	0	22.50	51.20	79.80	109.50	139.40	169.40	183.60
Calibrated Pressure (bar)		0	30.05	68.38	106.57	146.23	186.16	226.23	245.19

The Ram Area of Jack = 734.35 cm<sup>2</sup>

**Calibration Curve For Jack No. 408**

Calibrated Value (tonne) = (0.734 x Jack Reading (bar)) - 7.499



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