



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/11/5984, 5990

Dated: 12-11-2024

Dated: 14-11-2024

To

Resident Engineer
Diamer Basha Consultants Group (DBCG)
NESPAK - ACE -MMP - MWH - ROYRY - DOLSAR JV
Diamer Basha Dam Project.

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/05/5082) (Page -1/6)

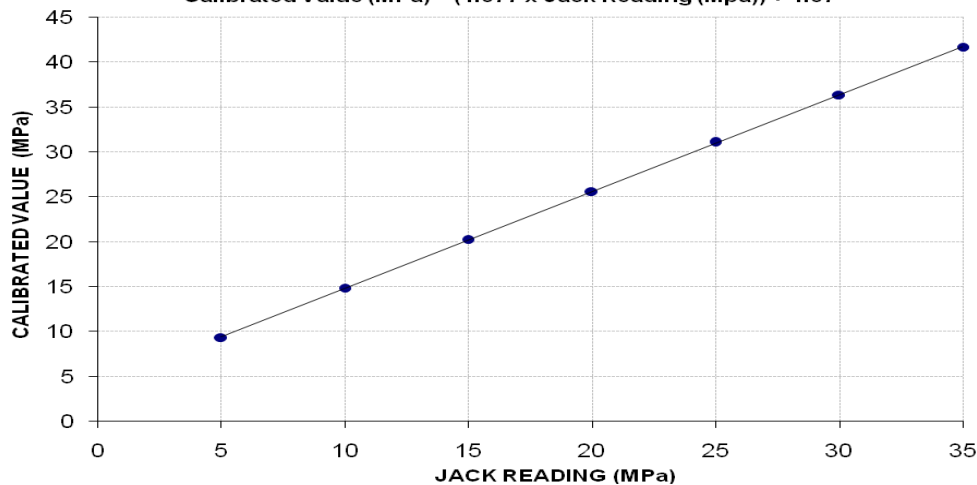
Reference to your Letter No. DBCG/Lab/PF JV/2024/057, dated: 07/11/2024 on the subject cited above. One Hydraulic Jack (Jack No. 1707052, Gauge No. IE0756875 (01)) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 35 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35
Calibrated Load (kg)	43800	69600	95000	120000	145600	170200	195200
Calibrated Pressure (Mpa)	9.35	14.86	20.29	25.63	31.10	36.35	41.69

The Ram Area of Jack = 459.2 cm²

Calibration Curve For Jack No. 1707052 (Gauge # IEO 756875 (1))
Calibrated Value (MPa) = (1.077 x Jack Reading (Mpa)) + 4.07



I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/05/5082) (Page -2/6)

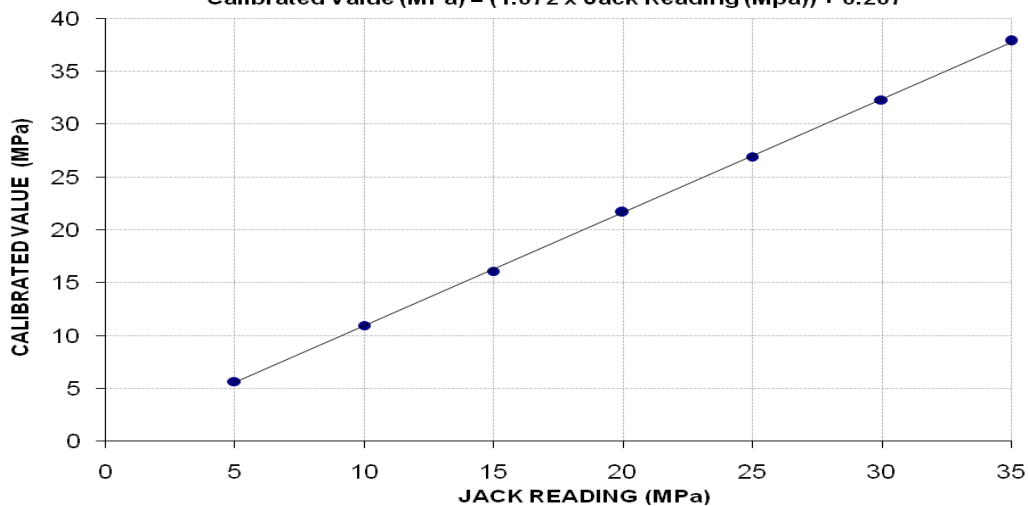
Reference to your Letter No. DBCG/Lab/PF JV/2024/057, dated: 07/11/2024 on the subject cited above. One Hydraulic Jack (Jack No. 1707052, Gauge No. IE0756875 (02)) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 35 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35
Calibrated Load (kg)	26600	51400	75400	101600	126200	151400	177400
Calibrated Pressure (Mpa)	5.68	10.98	16.10	21.70	26.95	32.33	37.89

The Ram Area of Jack = 459.2 cm²

Calibration Curve For Jack No. 1707052 (Gauge # IEO 756875 (2))
Calibrated Value (MPa) = (1.072 x Jack Reading (Mpa)) + 0.207



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Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/05/5082) (Page -3/6)

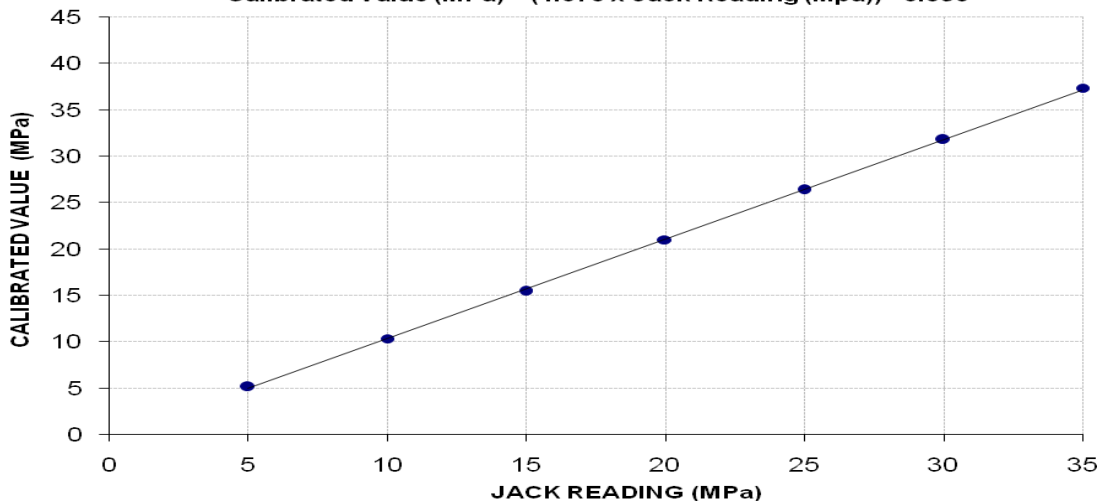
Reference to your Letter No. DBCG/Lab/PF JV/2024/057, dated: 07/11/2024 on the subject cited above. One Hydraulic Jack (Jack No. 1707052, Gauge No. IE0756875 (03)) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 35 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35
Calibrated Load (kg)	24200	48600	72400	98400	123600	149000	174800
Calibrated Pressure (Mpa)	5.17	10.38	15.46	21.02	26.40	31.82	37.33

The Ram Area of Jack = 459.2 cm²

Calibration Curve For Jack No. 1707052 (Gauge # IEO 756875 (3))
Calibrated Value (MPa) = (1.073 x Jack Reading (Mpa)) - 0.390



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Dated: 12-11-2024

Dated: 14-11-2024

To

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Diamer Basha Dam Project.

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/05/5082) (Page -4/6)

Reference to your Letter No. DBCG/Lab/PF JV/2024/057, dated: 07/11/2024 on the subject cited above. One Hydraulic Jack (Jack No. 1707051, Gauge No. IE0756875 (01)) as received by us has been calibrated. The results are tabulated as under:

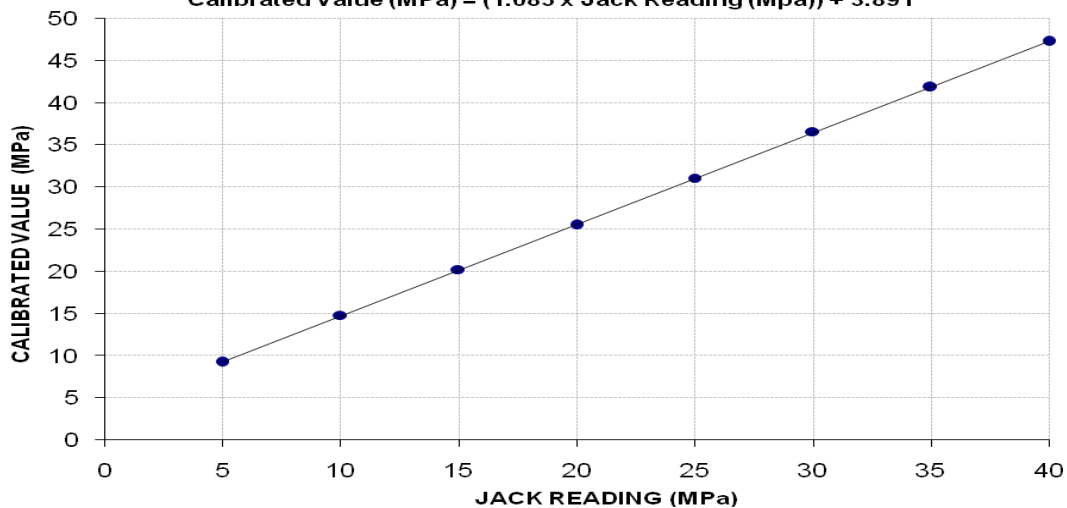
Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 40 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40
Calibrated Load (kg)	4500	7200	9850	12400	15100	17800	20350	23000
Calibrated Pressure (Mpa)	9.25	14.80	20.25	25.49	31.05	36.60	41.84	47.29

The Ram Area of Jack = 47.70 cm²

Calibration Curve For Jack No. 1707052 (Gauge # IEO 756875 (1))

Calibrated Value (MPa) = (1.085 x Jack Reading (Mpa)) + 3.891



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Dated: 14-11-2024

To

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Diamer Basha Dam Project.

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/05/5082) (Page -5/6)

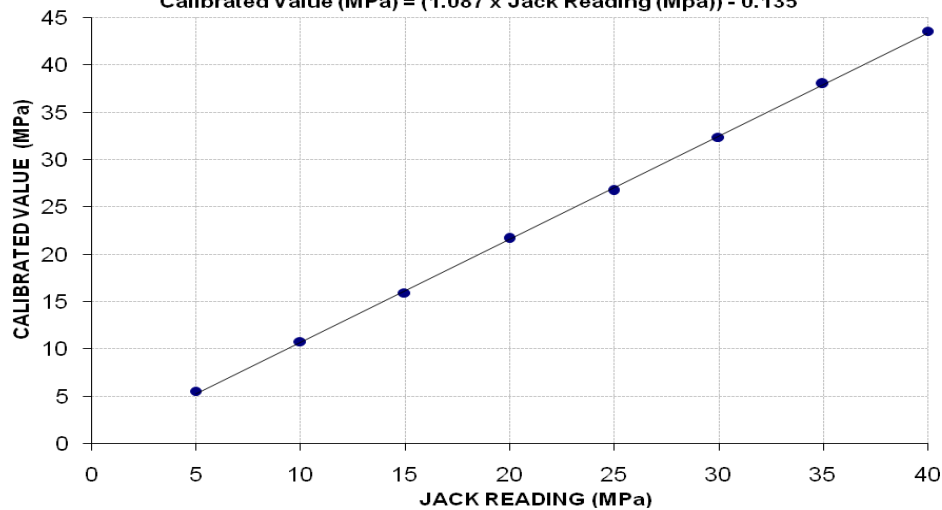
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Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 40(MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40
Calibrated Load (kg)	2700	5250	7750	10550	13000	15750	18500	21200
Calibrated Pressure (Mpa)	5.55	10.79	15.93	21.69	26.73	32.38	38.04	43.59

The Ram Area of Jack = 47.70 cm²

Calibration Curve For Jack No. 1707052 (Gauge # IEO 756875 (2))
Calibrated Value (MPa) = (1.087 x Jack Reading (MPa)) - 0.135



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Dated: 12-11-2024

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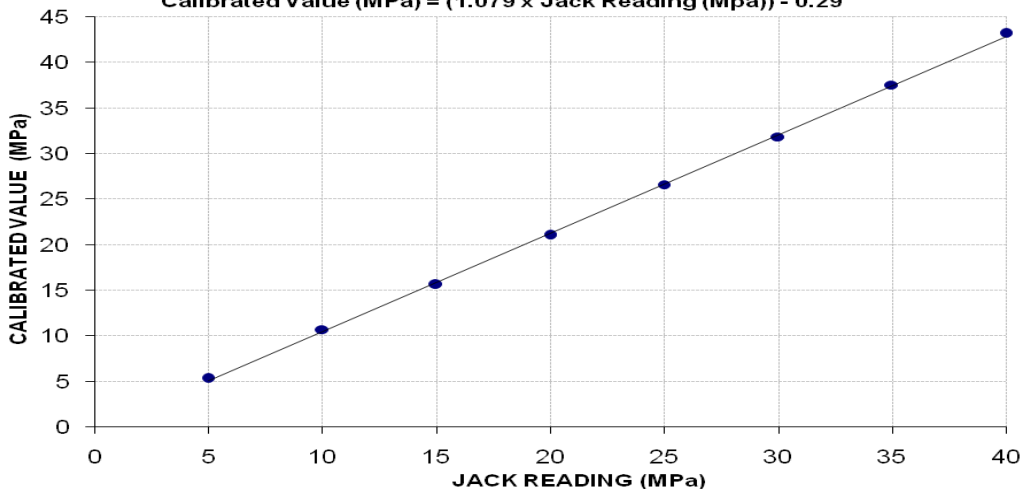
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Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 40 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40
Calibrated Load (kg)	2600	5200	7600	10250	12950	15500	18250	21000
Calibrated Pressure (Mpa)	5.35	10.69	15.63	21.07	26.62	31.87	37.52	43.18

The Ram Area of Jack = 47.70 cm²

Calibration Curve For Jack No. 1707052 (Gauge # IEO 756875 (3))
Calibrated Value (MPa) = (1.079 x Jack Reading (Mpa)) - 0.29



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To,
 Project Manager
 DSG Energy
 Construction of Office Building at 29-M QIE, Lahore.

Reference # CED/TFL **5989** (Dr. M K Ashif)
 Reference of the request letter # Nil

Dated: 14-11-2024
 Dated: 14-11-2024

Tension Test Report (Page -1/1)

Date of Test 14-11-2024
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in ²)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.351	3	0.362	0.11	0.103	3230	4330	64800	69060	86800	92600	1.20	15.0	Hunza Steel
2	0.362	3	0.368	0.11	0.106	3310	4450	66400	68640	89200	92300	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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