



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/05/1363

Dated: 10-05-2022

Dated: 12-05-2022

To

M/S CGGC Suki Kinari Project Management in Pakistan

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1363)** (Page -1/12)

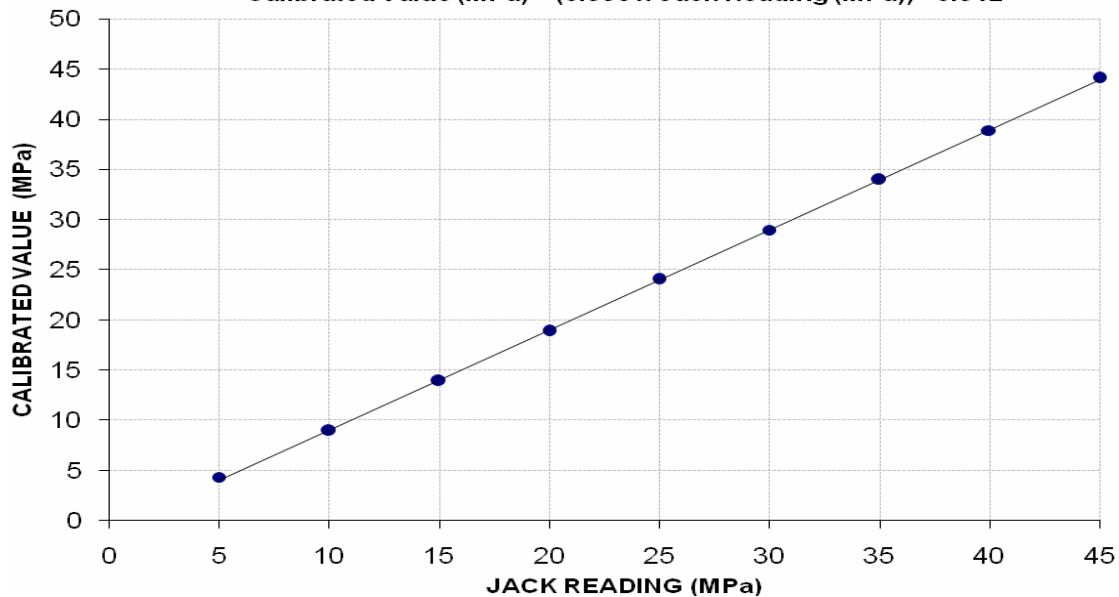
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 1082, Gauge No. 2688) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	13200	27200	42300	57400	73000	88000	103200	118200	134000
Calibrated Pressure (Mpa)	4.34	8.95	13.92	18.89	24.02	28.96	33.96	38.90	44.10

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. 1082 (Gauge # 2688)
Calibrated Value (MPa) = (0.996 x Jack Reading (MPa)) - 0.912



I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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To

M/S CGGC Suki Kinari Project Management in Pakistan

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1363)** (Page -2/12)

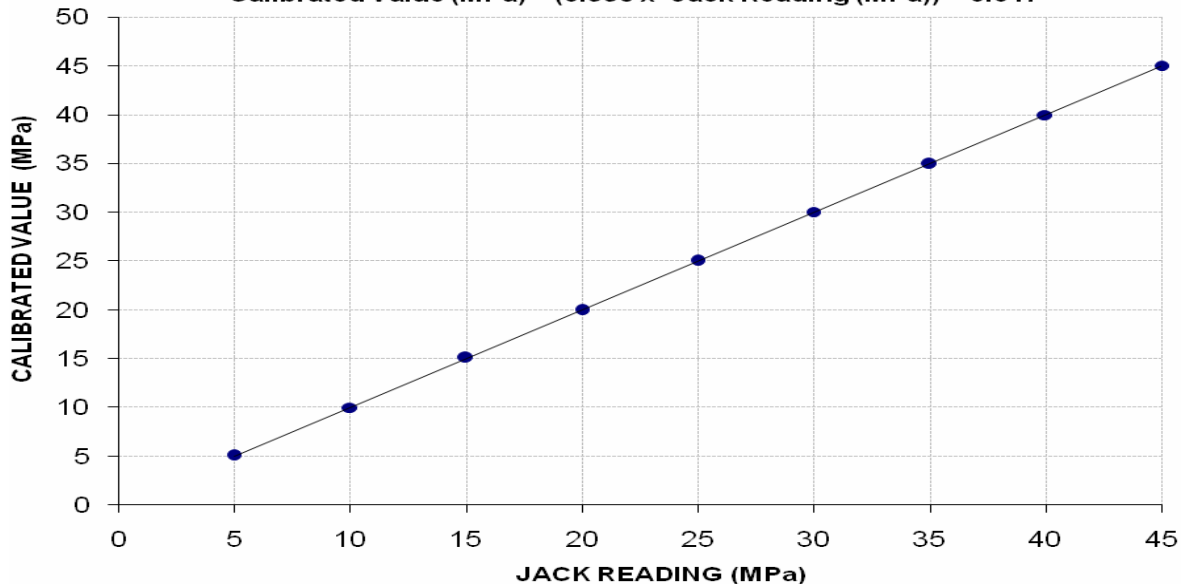
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 1082, Gauge No. 3942) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	15400	30400	45800	60600	76000	91200	106200	121400	136800
Calibrated Pressure (Mpa)	5.07	10.00	15.07	19.94	25.01	30.01	34.95	39.95	45.02

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. 1082 (Gauge # 3942)
Calibrated Value (MPa) = (0.998 × Jack Reading (MPa)) + 0.047



I/C Testing Laboratories
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Dated: 12-05-2022

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M/S CGGC Suki Kinari Project Management in Pakistan

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1363)** (Page -3/12)

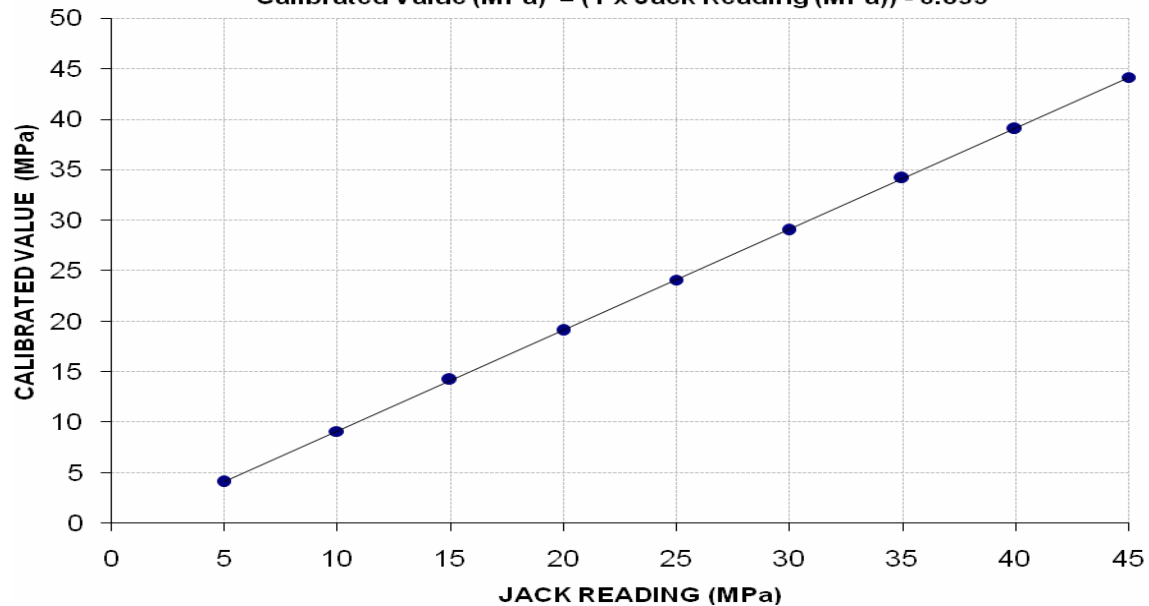
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 1083, Gauge No. 2872) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	12400	27600	43200	58000	73200	88200	103800	118600	134200
Calibrated Pressure (Mpa)	4.08	9.08	14.22	19.09	24.09	29.03	34.16	39.03	44.16

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. 1082 (Gauge # 2872)
Calibrated Value (MPa) = (1 x Jack Reading (MPa)) - 0.895



I/C Testing Laboratoires
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Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1363)** (Page -4/12)

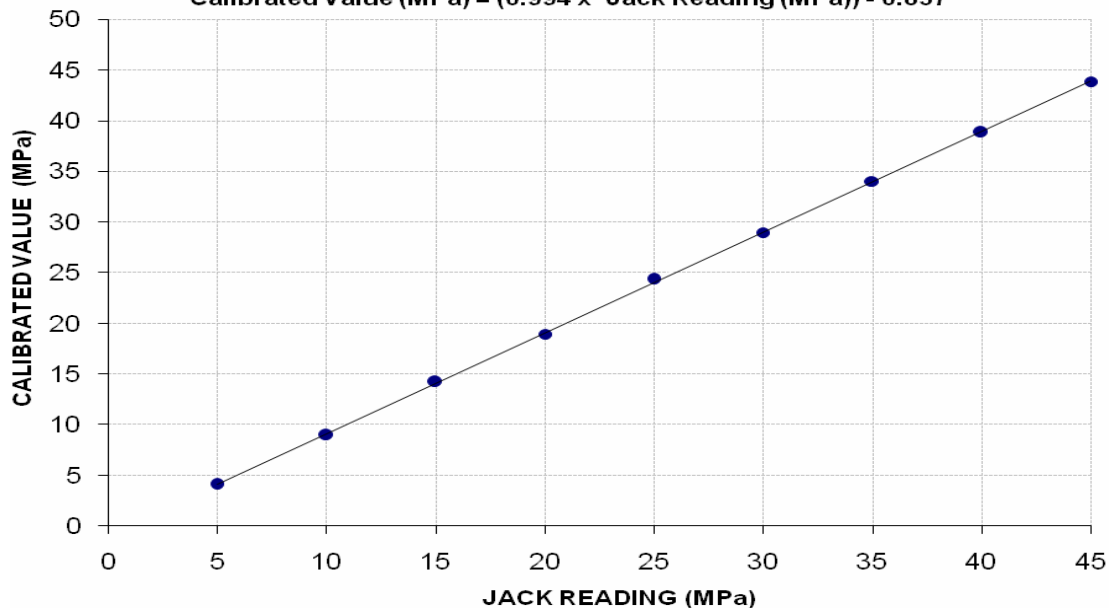
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 1493, Gauge No. 2872) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	12400	27200	43200	57600	73900	88000	103400	118000	133200
Calibrated Pressure (Mpa)	4.08	8.95	14.22	18.96	24.32	28.96	34.03	38.83	43.84

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. 1493 (Gauge # 2872)
Calibrated Value (MPa) = (0.994 x Jack Reading (MPa)) - 0.837



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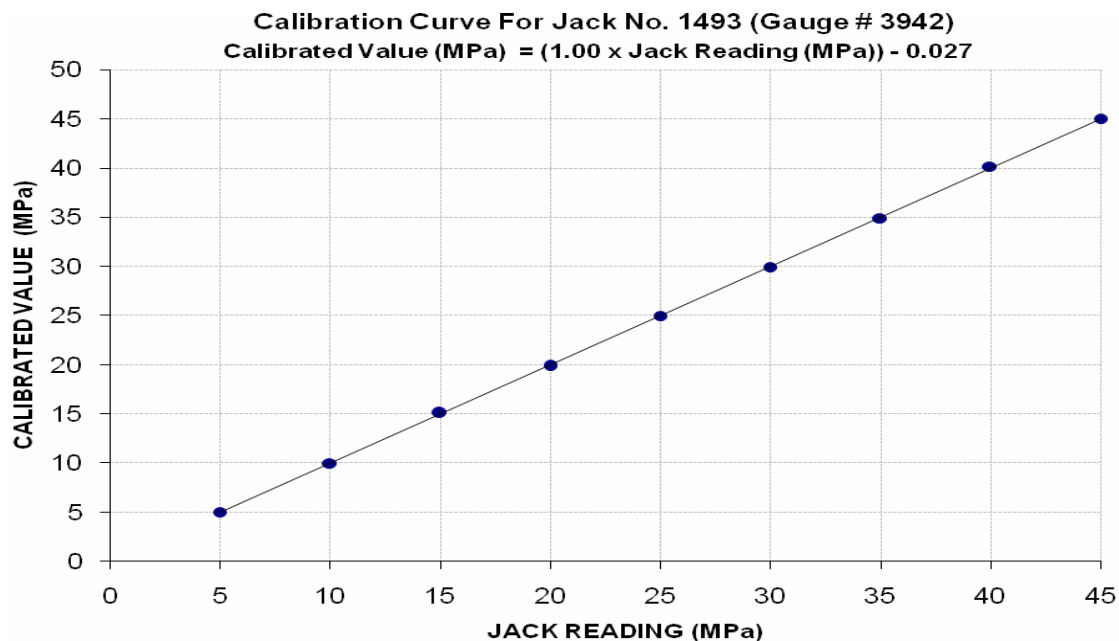
Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1363)** (Page -5/12)

Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 1493, Gauge No. 3942) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	15200	30400	45800	60400	75800	91000	106000	122000	136800
Calibrated Pressure (Mpa)	5.00	10.00	15.07	19.88	24.95	29.95	34.88	40.15	45.02

The Ram Area of Jack = 298 cm²



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Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1363)** (Page -6/12)

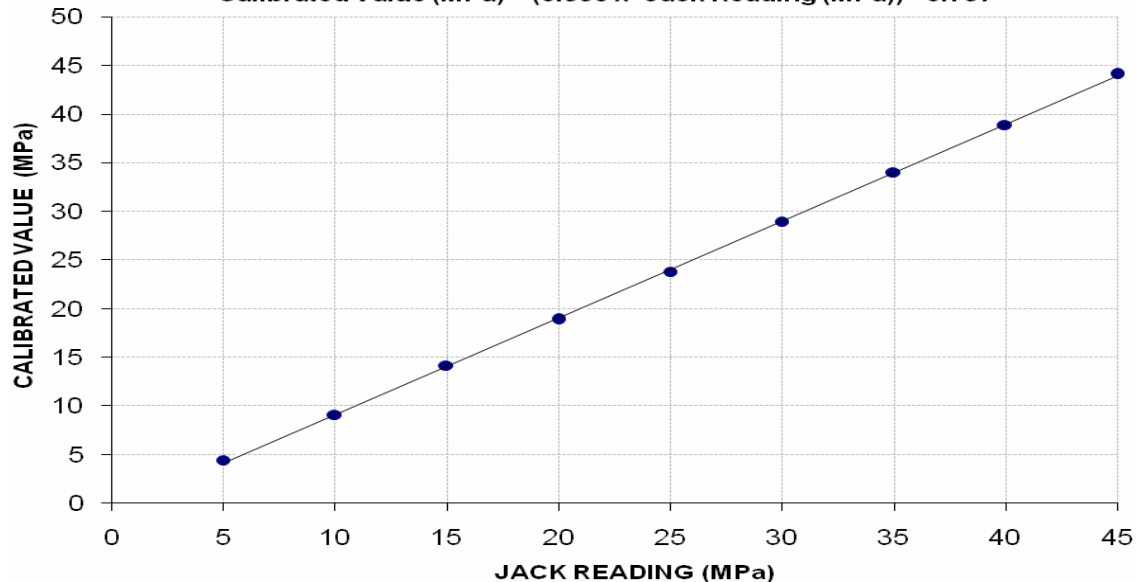
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 1493, Gauge No. 2688) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	13400	27600	43000	57400	72400	88000	103400	118200	134000
Calibrated Pressure (Mpa)	4.41	9.08	14.15	18.89	23.83	28.96	34.03	38.90	44.10

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. 1493 (Gauge # 2688)
Calibrated Value (MPa) = (0.993 x Jack Reading (MPa)) - 0.797



I/C Testing Laboratoires
UET Lahore, Pakistan.

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Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1363) (Page -7/12)

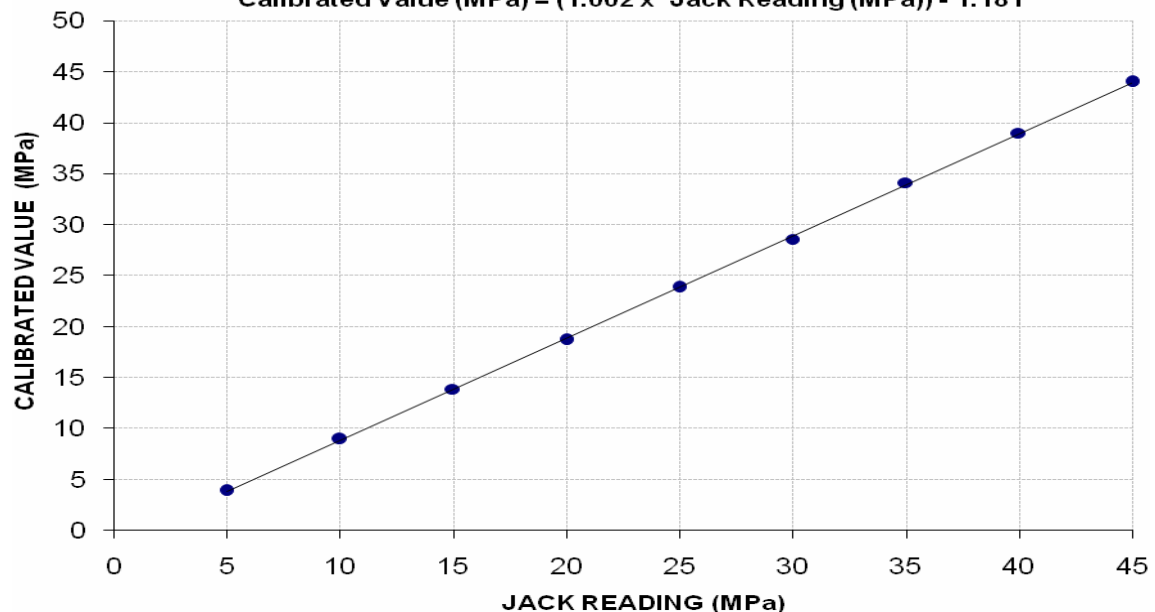
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 17175, Gauge No. 2688) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	1900	4350	6750	9100	11600	13900	16600	18950	21400
Calibrated Pressure (Mpa)	3.91	8.94	13.87	18.71	23.84	28.57	34.12	38.95	43.99

The Ram Area of Jack = 47.71 cm²

Calibration Curve For Jack No. 17175 (Gauge # 2688)
Calibrated Value (MPa) = (1.002 x Jack Reading (MPa)) - 1.181



I/C Testing Laboratories
UET Lahore, Pakistan.

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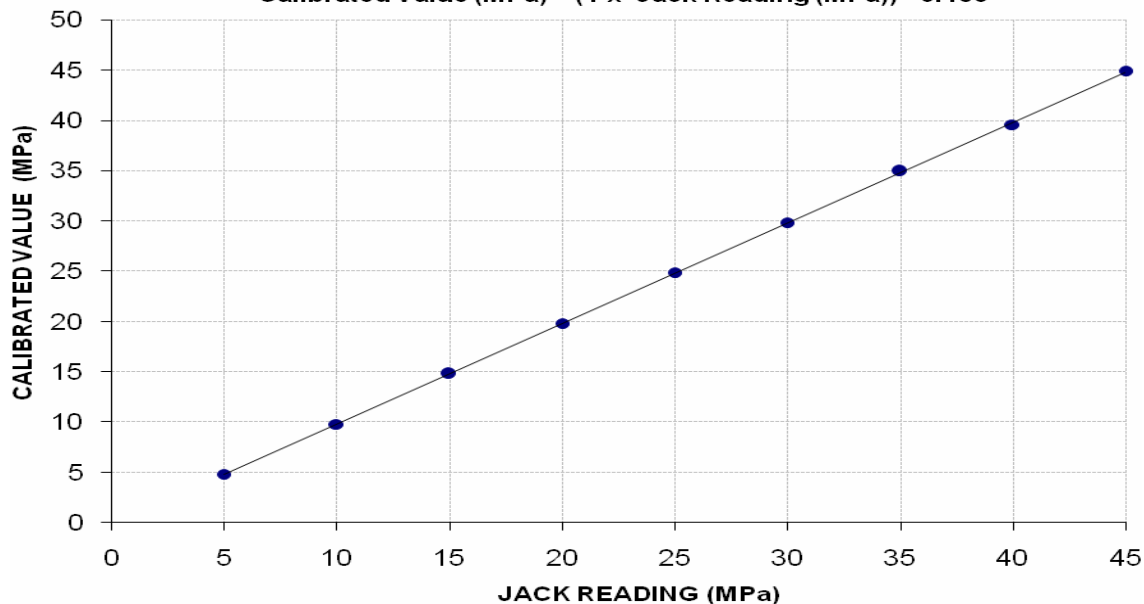
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 17175, Gauge No. 3942) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	2350	4750	7200	9650	12100	14500	17000	19250	21850
Calibrated Pressure (Mpa)	4.83	9.76	14.80	19.84	24.87	29.81	34.94	39.57	44.91

The Ram Area of Jack = 47.71 cm²

Calibration Curve For Jack No. 17175 (Gauge # 3942)
Calibrated Value (MPa) = (1 × Jack Reading (MPa)) - 0.185



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Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1363)** (Page -9/12)

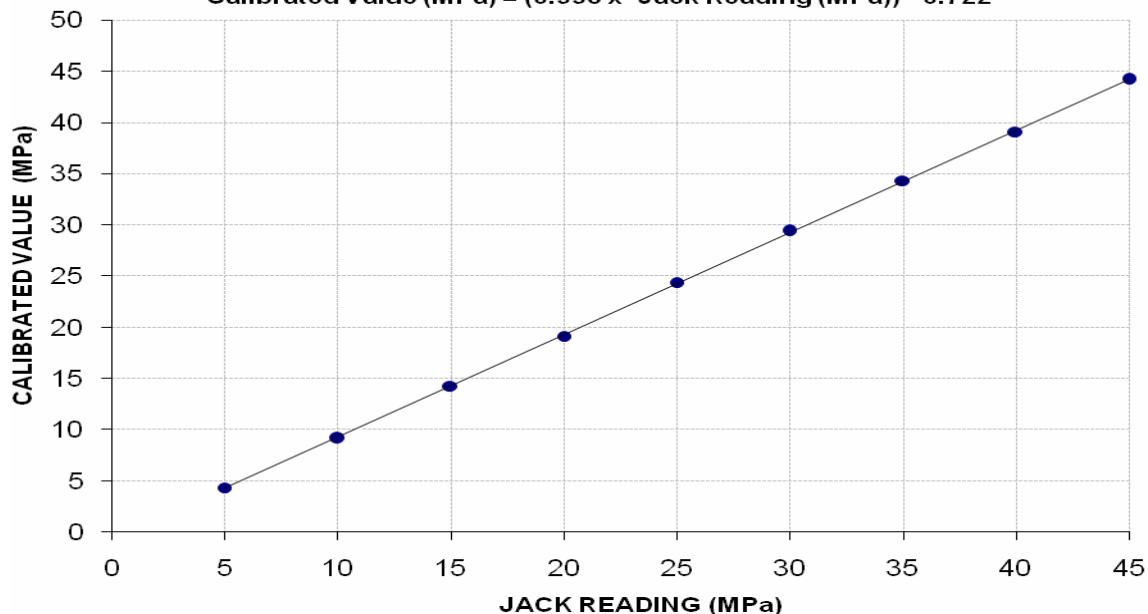
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 17175, Gauge No. 2872) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	2100	4450	6950	9300	11850	14300	16700	19000	21500
Calibrated Pressure (Mpa)	4.32	9.15	14.29	19.12	24.36	29.39	34.33	39.06	44.19

The Ram Area of Jack = 47.71 cm²

Calibration Curve For Jack No. 17175 (Gauge # 2872)
Calibrated Value (MPa) = (0.998 x Jack Reading (MPa)) - 0.722



I/C Testing Laboratoires
UET Lahore, Pakistan.

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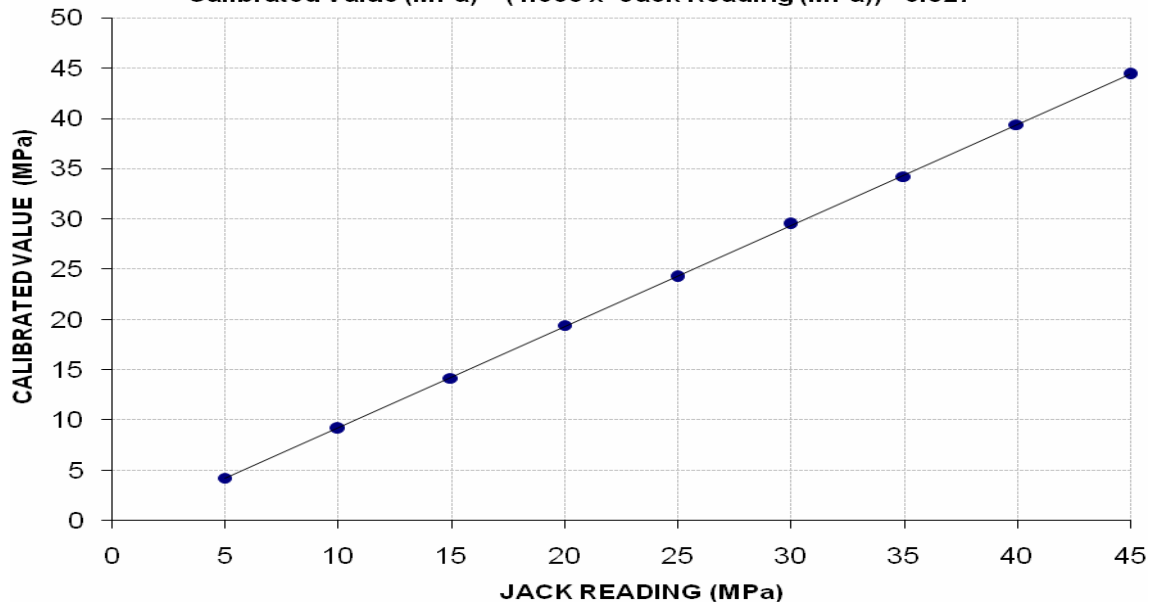
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 18128, Gauge No. 2872) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	2050	4450	6900	9450	11800	14350	16650	19150	21600
Calibrated Pressure (Mpa)	4.21	9.15	14.18	19.42	24.26	29.50	34.22	39.36	44.40

The Ram Area of Jack = 47.71 cm²

Calibration Curve For Jack No. 18128 (Gauge # 2872)
Calibrated Value (MPa) = (1.005 x Jack Reading (MPa)) - 0.827



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UET Lahore, Pakistan.

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Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/1363)** (Page -11/12)

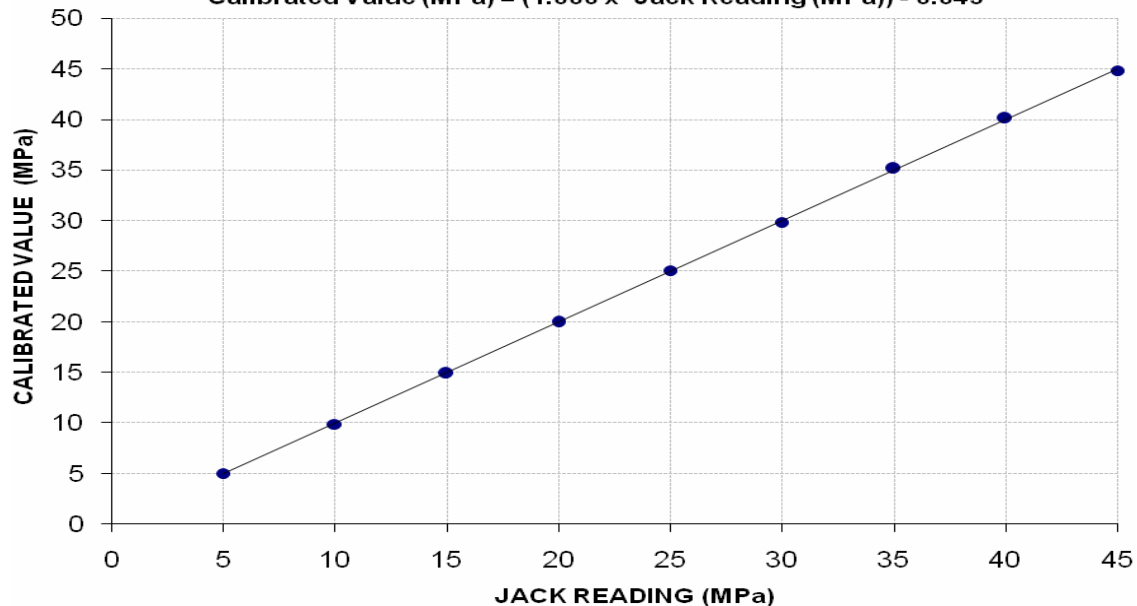
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 18128, Gauge No. 3942) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	2450	4800	7250	9700	12200	14500	17100	19500	21800
Calibrated Pressure (Mpa)	5.04	9.87	14.90	19.94	25.08	29.81	35.15	40.08	44.81

The Ram Area of Jack = 47.71 cm²

Calibration Curve For Jack No. 18128 (Gauge # 3942)
Calibrated Value (MPa) = (1.000 x Jack Reading (MPa)) - 0.045



I/C Testing Laboratoires
UET Lahore, Pakistan.

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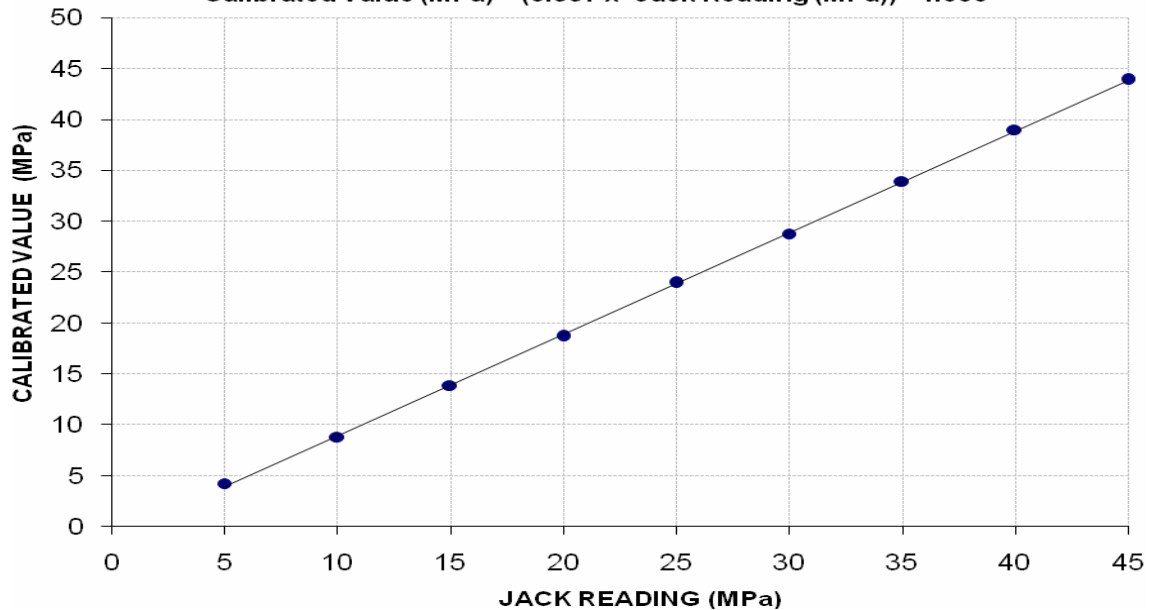
Reference to your Letter No. Nil, dated: 10/05/2022 on the subject cited above. One Hydraulic Jack (Jack No. 18128, Gauge No. 2688) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 45 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45
Calibrated Load (Kg)	2050	4300	6750	9100	11650	14000	16500	18950	21350
Calibrated Pressure (Mpa)	4.21	8.84	13.87	18.71	23.95	28.78	33.92	38.95	43.89

The Ram Area of Jack = 47.71 cm²

Calibration Curve For Jack No. 18128 (Gauge # 2688)
Calibrated Value (MPa) = (0.997 x Jack Reading (MPa)) - 1.030



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To,
 Head / Manager Projects
 Shaukat Khanum Memorial Trust
 Construction of Multi-Storied Parking Garage SKMCH & RC, Lahore

Reference # CED/TFL **1370** (Dr. Asif Hameed)
 Reference of the request letter # SKM/PG/UET/05/07

Dated: 12-05-2022
 Dated: 11-05-2022

Tension Test Report (Page -1/1)

Date of Test 12-05-2022
 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	0.377	3	0.376	0.11	0.111	4200	5100	84200	83560	102200	101500	0.90	11.3	
2	0.388	3	0.381	0.11	0.114	4200	5150	84200	81080	103200	99500	1.10	13.8	
3	0.369	3	0.371	0.11	0.108	4250	5000	85200	86420	100200	101700	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile test														
Bend Test														

Witness by Muhammad Bilal Khalid (Sr. Civil Engineer)

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