



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/08/3737

Dated: 11-08-2023

Dated of Test: 16-08-2023

To

Engineer's Representative
NESPAK

Construction of Additional Block at Pakistan Engineering Council (PEC)
Headquarters, G-5/2, Islamabad

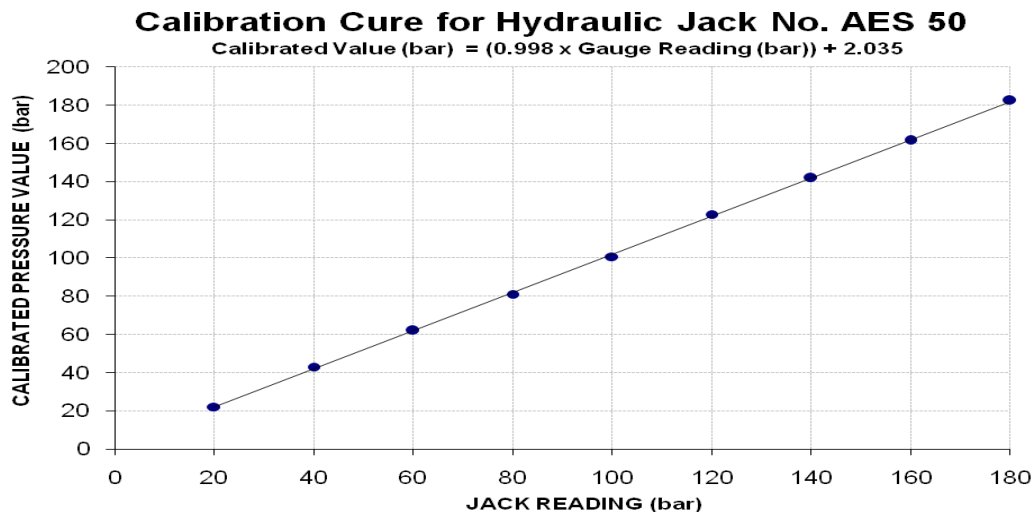
Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/08/3719)** (Page # 2/2)

Reference to your Letter No. 4125/321/NS/05/676, Dated: 11/08/2023 on the subject cited above. One Hydraulic Jack No. AES 50 with Pressure Gauge No. AES 50 as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 200 (bar)
Calibrated Range : Zero - 180 (bar)

Jack Reading (bar)	20	40	60	80	100	120	140	160	180
Calibrated Load (kg)	1850	3600	5200	6800	8450	10300	11900	13550	15300
Calibrated Pressure (bar)	22.05	42.90	61.97	81.04	100.70	122.75	141.82	161.48	182.34

The Ram Area of Jack = 82.29 cm²



I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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2. The above results pertain to sample /samples supplied to this laboratory.
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Ref: CED/TFL/08/3742

Dated: 15-08-2023

Dated: 16-08-2023

To

M/S China Gezhouba Group Company Limited
CGGC Dasu Hydropower Project Management in Pakistan
Dasu Hydropower Project.

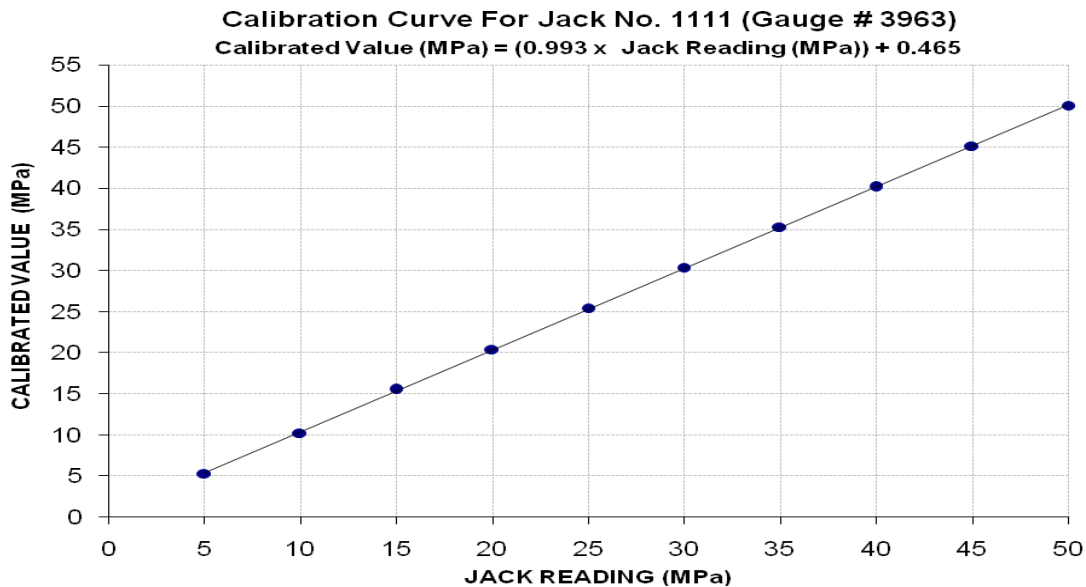
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/08/3742) (Page -1/6)

Reference to your Letter No. Nil, dated: 12/08/2023 on the subject cited above. One Hydraulic Jack (Jack No. 1111, Gauge No. 3963) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 50 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45	50
Calibrated Load (kg)	16200	31000	47200	62000	77200	92200	107200	122000	137200	152000
Calibrated Pressure (Mpa)	5.33	10.20	15.53	20.40	25.41	30.34	35.28	40.15	45.15	50.02

The Ram Area of Jack = 298 cm²



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Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/08/3742) (Page -2/6)

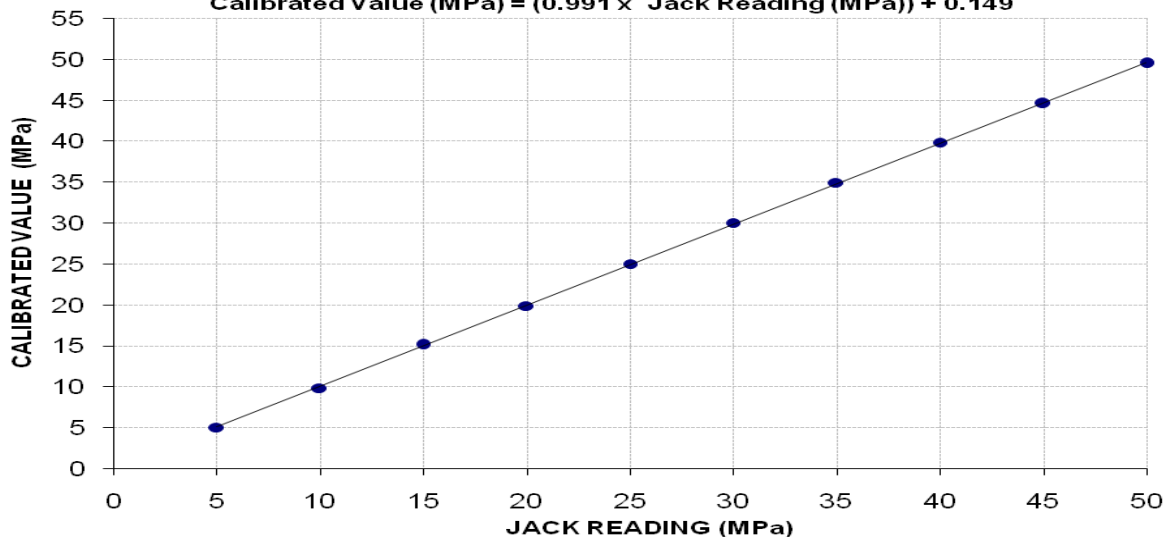
Reference to your Letter No. Nil, dated: 12/08/2023 on the subject cited above. One Hydraulic Jack (Jack No. 1111, Gauge No. 3964) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 50 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45	50
Calibrated Load (kg)	15400	30000	46000	60400	76000	91400	106200	121200	135600	150600
Calibrated Pressure (Mpa)	5.07	9.87	15.14	19.88	25.01	30.08	34.95	39.89	44.63	49.56

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. 1111 (Gauge # 3964)
Calibrated Value (MPa) = (0.991 x Jack Reading (MPa)) + 0.149



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Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/08/3742) (Page -3/6)

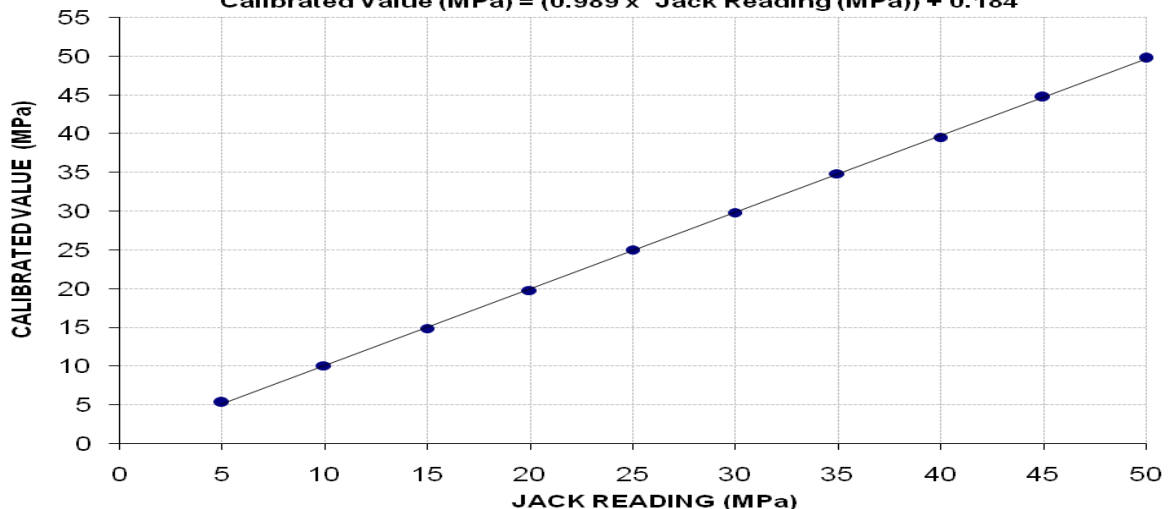
Reference to your Letter No. Nil, dated: 12/08/2023 on the subject cited above. One Hydraulic Jack (Jack No. 1212, Gauge No. 1475) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 50 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45	50
Calibrated Load (kg)	16200	30600	45200	60200	76000	90600	106000	120200	136000	151200
Calibrated Pressure (Mpa)	5.33	10.07	14.88	19.81	25.01	29.82	34.88	39.56	44.76	49.76

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. 1212 (Gauge # 1475)
Calibrated Value (MPa) = (0.989 x Jack Reading (MPa)) + 0.184



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Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/08/3742)** (Page -4/6)

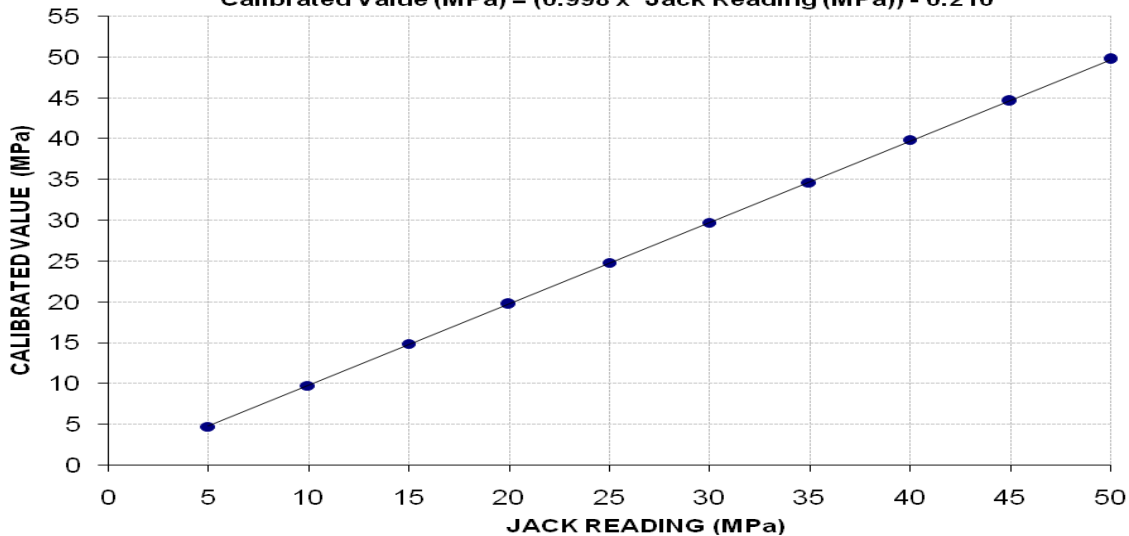
Reference to your Letter No. Nil, dated: 12/08/2023 on the subject cited above. One Hydraulic Jack (Jack No. 1212, Gauge No. 3972) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 50 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45	50
Calibrated Load (kg)	14400	29600	45200	60000	75400	90400	105200	121200	135600	151200
Calibrated Pressure (Mpa)	4.74	9.74	14.88	19.75	24.81	29.75	34.62	39.89	44.63	49.76

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. 1212 (Gauge # 3972)
Calibrated Value (MPa) = (0.998 x Jack Reading (MPa)) - 0.210



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Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/08/3742) (Page -5/6)**

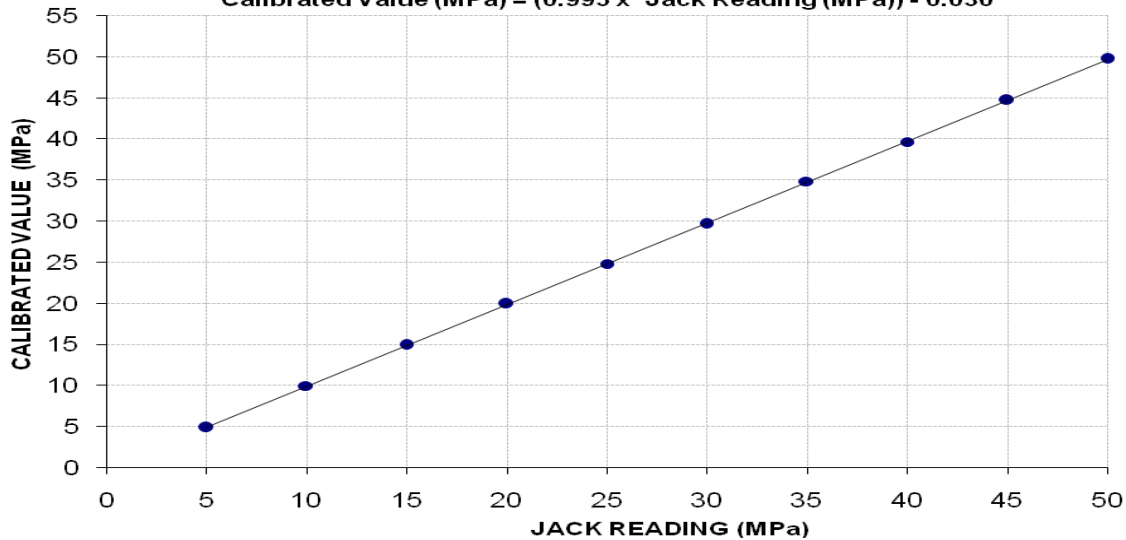
Reference to your Letter No. Nil, dated: 12/08/2023 on the subject cited above. One Hydraulic Jack (Jack No. 1313, Gauge No. 3932) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 50 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45	50
Calibrated Load (kg)	14900	30200	45400	60600	75400	90200	106000	120600	136000	151200
Calibrated Pressure (Mpa)	4.90	9.94	14.94	19.94	24.81	29.68	34.88	39.69	44.76	49.76

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. 1313 (Gauge # 3932)
Calibrated Value (MPa) = (0.995 x Jack Reading (MPa)) - 0.030



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Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/08/3742)** (Page -6/6)

Reference to your Letter No. Nil, dated: 12/08/2023 on the subject cited above. One Hydraulic Jack (Jack No. 1313, Gauge No. 3967) as received by us has been calibrated. The results are tabulated as under:

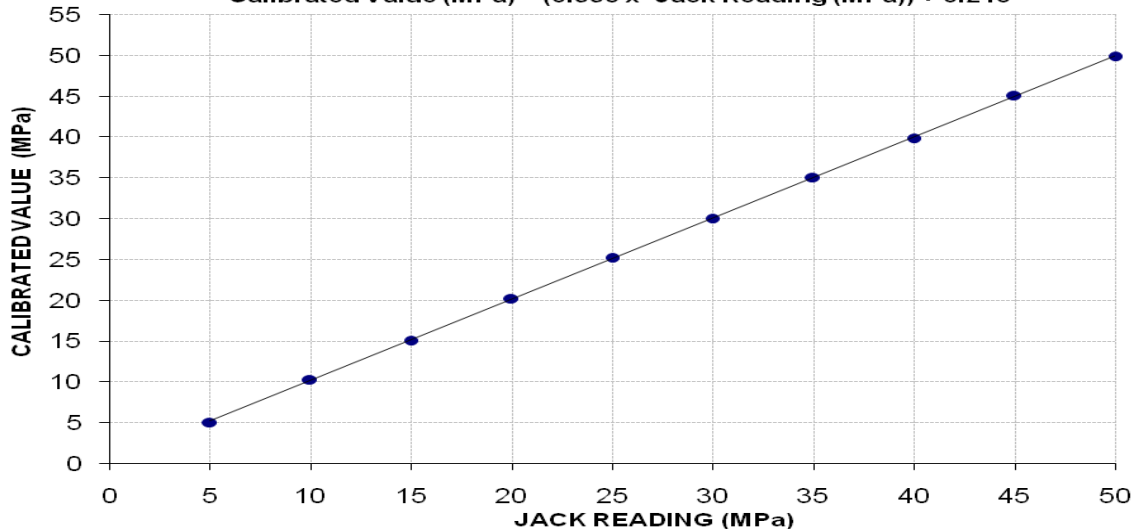
Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 50 (MPa)

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35	40	45	50
Calibrated Load (kg)	15400	31200	45800	61400	76800	91400	106600	121200	137200	151800
Calibrated Pressure (Mpa)	5.07	10.27	15.07	20.21	25.27	30.08	35.08	39.89	45.15	49.96

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. 1313 (Gauge # 3967)

Calibrated Value (MPa) = (0.996 x Jack Reading (MPa)) + 0.215



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