STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Resolving Traffic Congestion Issues at Crossing of 9Th Avenue and Jinnah Avenue / IBN-E-Sina Road, Islamabad. (WMI)

Reference # CED/TFL **6264** (Dr. Usman Akmal) Dated: 01-01-2025
Reference of the request letter # SA-527/103/KTF9/01/29 Dated: 30-12-2024

Tension Test Report (Page -1/3)

Date of Test 07-01-2025
Gauge length 600 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	**12.70 (1/2")**	**780.0**	**783**	**18000**	**176.58**	**19700**	**193.26**	**198**	**>3.50**	**26017**
2	**12.70 (1/2")**	**780.0**	**787**	**17900**	**175.60**	**19700**	**193.26**	**199**	**>3.50**	**26022**
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only two samples for Test										

Note:
1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

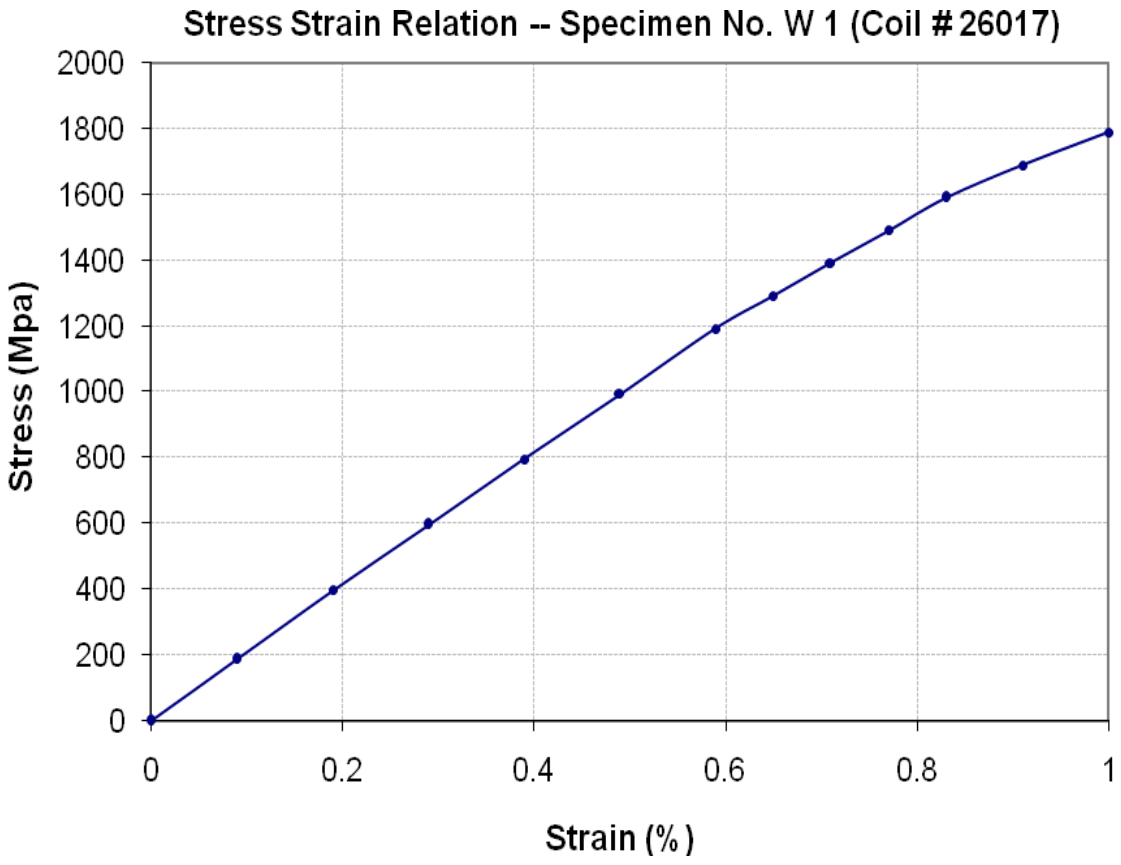
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Resolving Traffic Congestion Issues at Crossing of 9Th Avenue and Jinnah Avenue / IBN-E-Sina Road, Islamabad. (WMI)

Reference # CED/TFL **6264** (Dr. Usman Akmal) Dated: 01-01-2025
Reference of the request letter # SA-527/103/KTF9/01/29 Dated: 30-12-2024

Graph (Page – 2/3)



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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

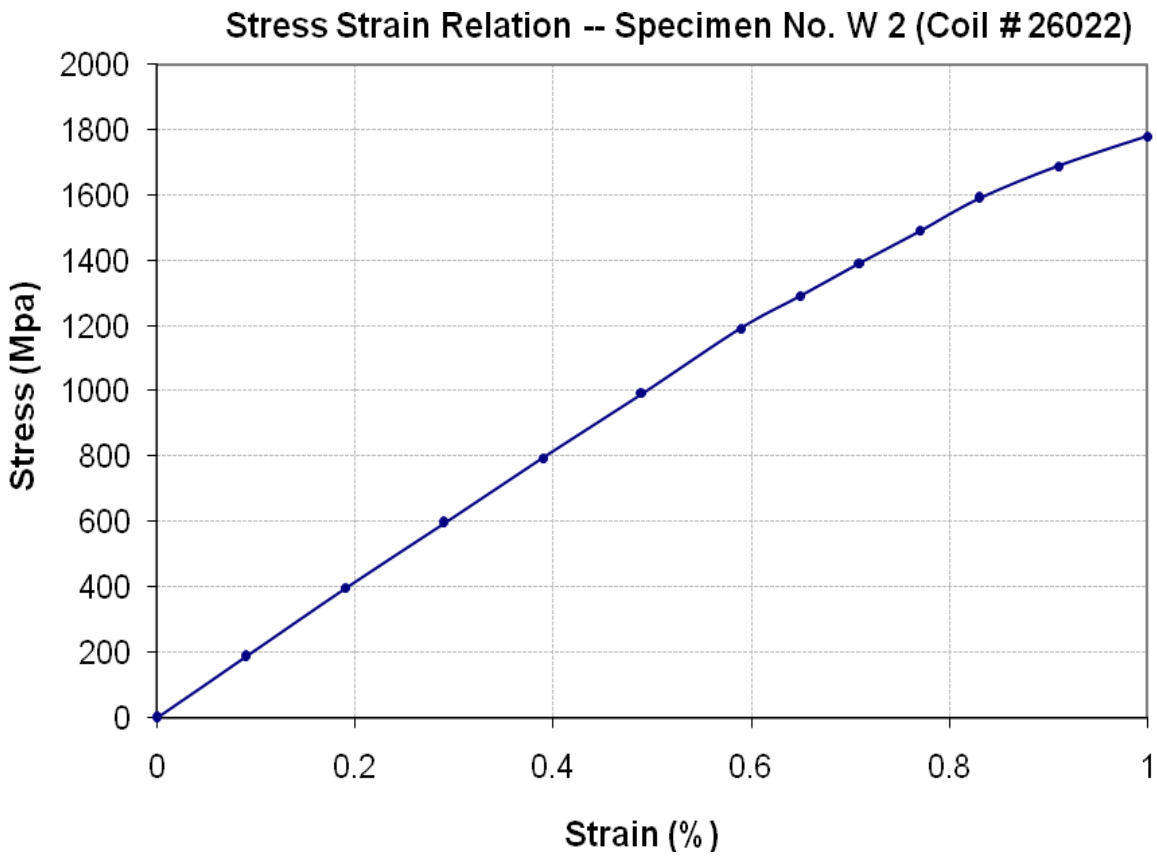
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Resolving Traffic Congestion Issues at Crossing of 9Th Avenue and Jinnah Avenue / IBN-E-Sina Road, Islamabad. (WMI)

Reference # CED/TFL **6264** (Dr. Usman Akmal) Dated: 01-01-2025
Reference of the request letter # SA-527/103/KTF9/01/29 Dated: 30-12-2024

Graph (Page – 3/3)



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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Construction of Flyover at Khawaja Corporation at Adyala Road, Rawalpindi.

Reference # CED/TFL **6265** (Dr. M Rizwan Riaz) Dated: 01-01-2025
Reference of the request letter # 4085/103/AAS/02 Dated: 27-12-2024

Tension Test Report (Page -1/1)

Date of Test 07-01-2025
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	0.367	3	0.371	0.11	0.108	4030	4810	80800	82380	96400	98400	1.10	13.8	Hunza Steel
2	0.366	3	0.370	0.11	0.107	4100	4810	82200	84080	96400	98700	1.30	16.3	
3	4.083	10	1.236	1.27	1.200	36600	51200	63600	67210	88900	94100	1.60	20.0	
4	4.091	10	1.237	1.27	1.203	37200	51400	64600	68180	89300	94300	1.70	21.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only four samples for tensile and two samples for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

#10 Bar Bend Test Through 180º is Satisfactory

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

M/S Banu Mukhtar Steel (Pvt) Ltd.
Lahore

Reference # CED/TFL **6271** (Dr. Usman Akmal) Dated: 01-01-2025
Reference of the request letter # BSMQA.QC-066/24 Dated: 01-01-2025

Tension Test Report (Page -1/1)

Date of Test 07-01-2025
Gauge length 8 inches
Description Anchor Bolt Bar Tensile Test

Sr. No.	Weight	Diameter/ size		Area (mm^2)		Yield load	Breaking Load	Yield Stress (MPa)	Ultimate Stress (MPa)	Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (mm)	Actual (mm)	Nominal	Actual	(kg)	(kg)	Actual	Actual	(inch)		
1	5.654	30	30.28	--------	720.3	25000	38800	340	528	2.40	30.0	AB02
2	5.598	30	30.13	--------	713.1	25400	39600	349	545	1.80	22.5	
3	7.995	36	36.01	--------	1018.5	57800	68000	557	655	1.20	15.0	AB03
4	7.995	36	36.01	--------	1018.5	--------	79000	--------	761	1.00	12.5	
5	9.426	36	39.10	--------	1200.8	43400	70200	355	574	1.70	21.3	AB04
6	9.484	36	39.22	--------	1208.1	36800	58600	299	476	2.30	28.8	
Note: only six samples for tensile test												
Bend Test												

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

M/S Altec International
Lahore

Reference # CED/TFL **6272** (Dr. Usman Akmal) Dated: 01-01-2025
Reference of the request letter # Nil Dated: 31-12-2024

Tension Test Report (Page – 1/1)

Date of Test 07-01-2025
Description Steel Wire Rope Tensile Test

Sr. No.	Nominal Diameter	Measured weight	Breaking Load	Remarks / Coil No.
	(mm)	(kg/m)	(kg)	
1	**8.3**	**0.25**	**4700**	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only one sample for Test				

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

M/S Jafris and Steele (Private) Limited.
Lahore

Reference # CED/TFL **6289** (Dr. Usman Akmal) Dated: 03-01-2025
Reference of the request letter # JSPL2025-80/531 Dated: 03-01-2025

Tension Test Report (Page -1/1)

Date of Test 07-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.370	10	9.46	0.12	0.109	4600	5200	84510	93120	95533	105300	0.90	11.3	
2	0.411	10	9.96	0.12	0.121	4500	5200	82673	82180	95533	95000	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Bar Bend Test Through 180º is Satisfactory														

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Design Manager
Stallion Steel Engineering Pvt. Ltd.
Roofing Structure Assembly Hall Main Building AJK Muzaffarabad.

Reference # CED/TFL **6290** (Dr. Ali Ahmed) Dated: 03-01-2025
Reference of the request letter # SE/1157/MT/02 Dated: 03-01-2025

Tension Test Report (Page – 1/1)

Date of Test 07-01-2025
Gauge length 2 inches
Description Flat Bar Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)	(mm)	(mm^2)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	**2.50**	**27.60x2.10**	**57.96**	**1900**	**2900**	**322**	**491**	**0.70**	**35.00**	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only One Sample for Tensile Test										
Bend Test										

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Construction of Road and Canal Bridge Rajba Kahna from Ahluo Road to Dhalu Kula Road.

Reference # CED/TFL **6291** (Dr. Usman Akmal) Dated: 03-01-2025
Reference of the request letter # 3772/103/MHK/ADP/Rajba Khana/19 Dated: 18-12-2024

Tension Test Report (Page -1/1)

Date of Test 07-01-2025
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	0.374	3	0.374	0.11	0.110	3400	4500	68200	68250	90200	90400	0.90	11.3	Mughal Steel
2	0.383	3	0.379	0.11	0.113	4000	5300	80200	78270	106200	103800	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Construction of Rawalpindi Ring Road (38.3 km) Main Carriageway (MCW) from Baanth (N-5) to Thalian (M-2)

Reference # CED/TFL **6292** (Dr. Usman Akmal) Dated: 06-01-2025
Reference of the request letter # 4713/RRR/IUK/25/178 Dated: 02-01-2025

Tension Test Report (Page -1/4)

Date of Test 07-01-2025
Gauge length 600 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	**12.70 (1/2")**	**780.0**	**781.0**	**17900**	**175.60**	**19600**	**192.28**	**199**	**>3.50**	**25993**
2	**12.70 (1/2")**	**780.0**	**782.0**	**17500**	**171.68**	**19500**	**191.30**	**198**	**>3.50**	**25995**
3	**12.70 (1/2")**	**780.0**	**781.0**	**17700**	**173.64**	**19400**	**190.31**	**199**	**>3.50**	**25996**
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only three samples for Test										

Note:
1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

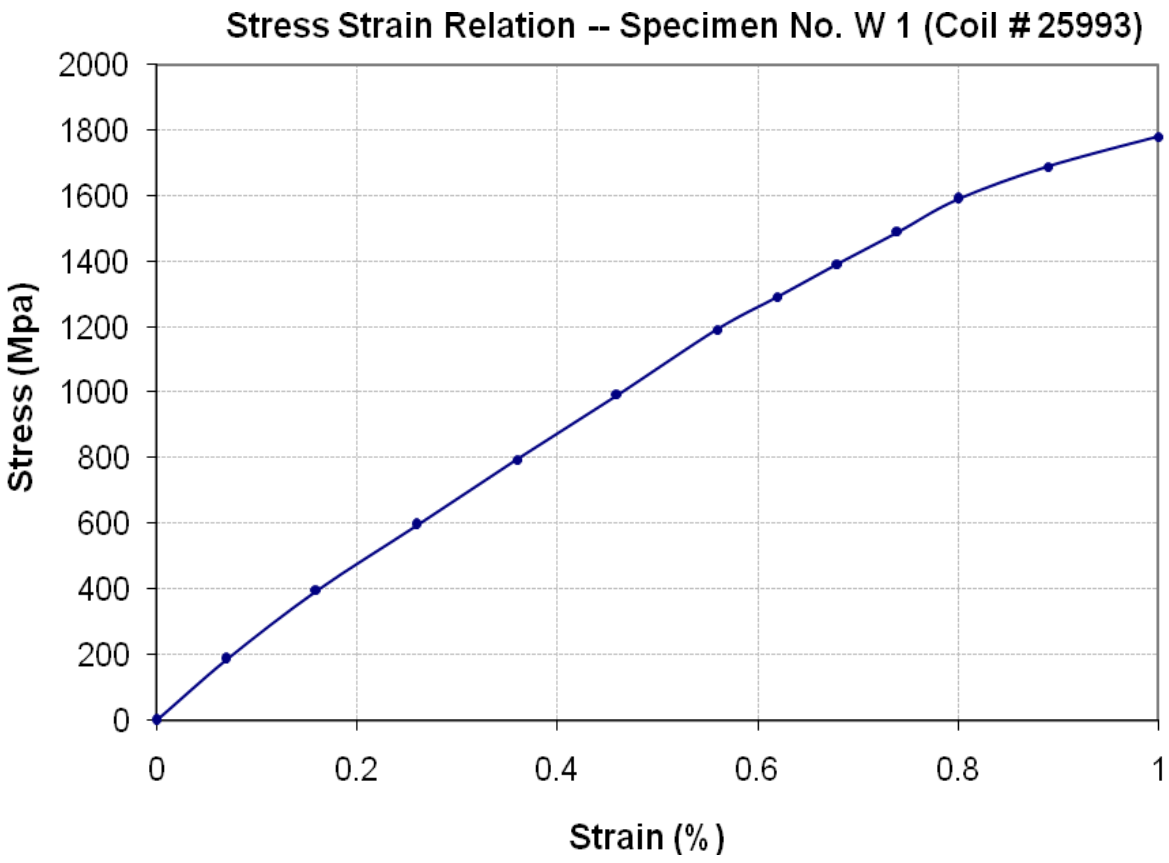
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Construction of Rawalpindi Ring Road (38.3 km) Main Carriageway (MCW) from Baanth (N-5) to Thalian (M-2)

Reference # CED/TFL **6292** (Dr. Usman Akmal) Dated: 06-01-2025
Reference of the request letter # 4713/RRR/IUK/25/178 Dated: 02-01-2025

Graph (Page – 2/4)



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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

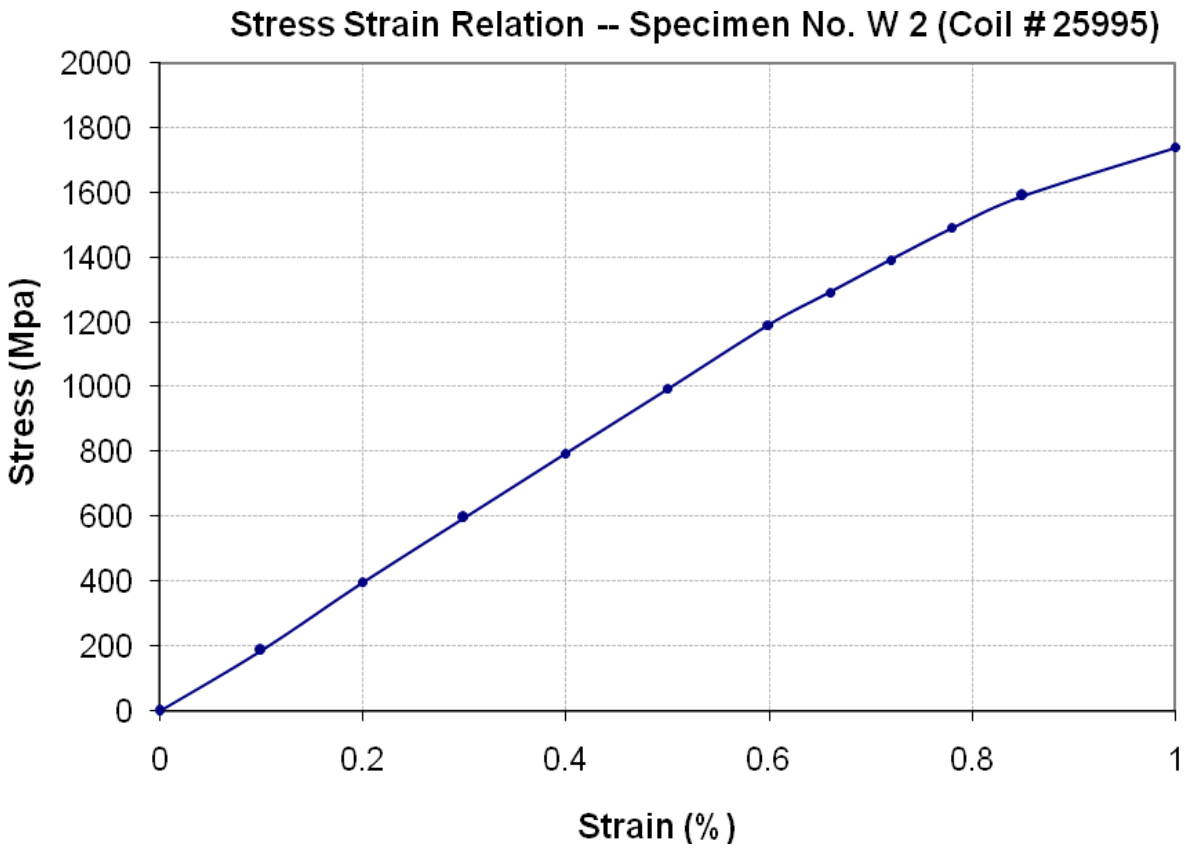
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Construction of Rawalpindi Ring Road (38.3 km) Main Carriageway (MCW) from Baanth (N-5) to Thalian (M-2)

Reference # CED/TFL **6292** (Dr. Usman Akmal) Dated: 06-01-2025
Reference of the request letter # 4713/RRR/IUK/25/178 Dated: 02-01-2025

Graph (Page – 3/4)



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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

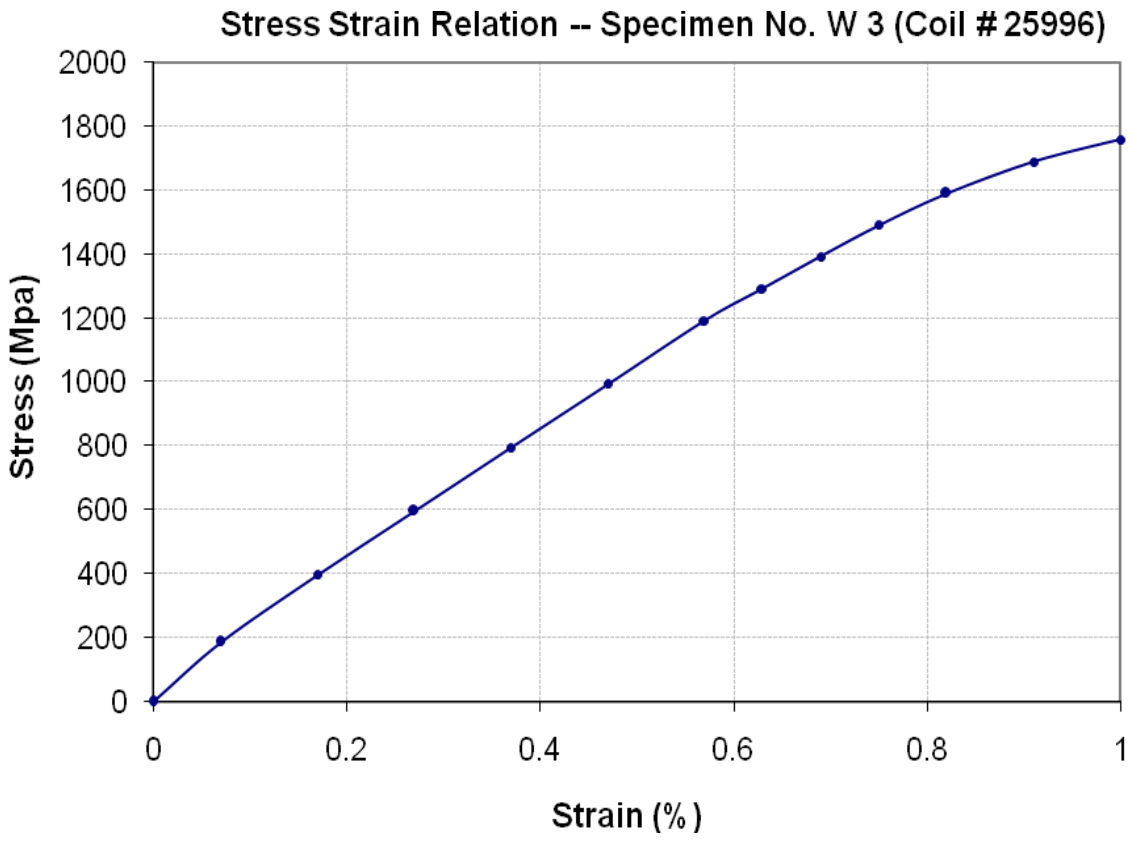
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Construction of Rawalpindi Ring Road (38.3 km) Main Carriageway (MCW) from Baanth (N-5) to Thalian (M-2)

Reference # CED/TFL **6292** (Dr. Usman Akmal) Dated: 06-01-2025
Reference of the request letter # 4713/RRR/IUK/25/178 Dated: 02-01-2025

Graph (Page – 4/4)



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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Assistant Director (QCD)
WASA, LDA, Lahore.
(M/s S.S RCC Pipe Factory.)

Reference # CED/TFL **6293** (Dr. Usman Akmal) Dated: 06-01-2025
Reference of the request letter # QCD/2721 Dated: 30-12-2024

Tension Test Report (Page -1/1)

Date of Test 07-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test

Sr. No.	Weight	Diameter/ Size (inch)		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.071	5/32	0.163	-------	0.021	680	800	-------	71990	--------	84700	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
5/32" Dia Bar Bend Test Through 180º is Satisfactory														

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

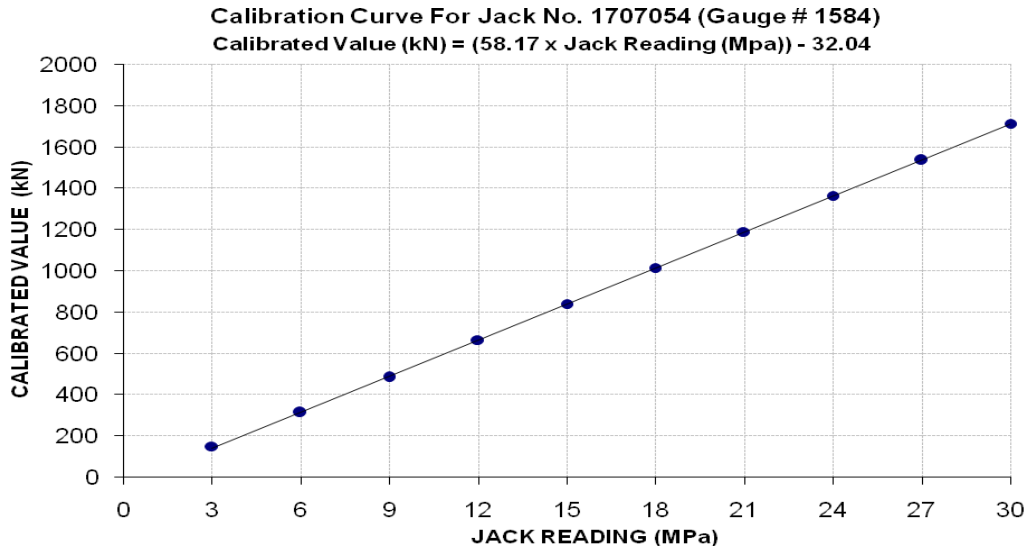
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page -1/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 1707054, Gauge No. 1584) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 30 (MPa)

Hydraulic Jack Reading (MPa)		3	6	9	12	15	18	21	24	27	30
Calibrated Load	(kg)	15400	32000	49400	67800	85600	103600	121200	139200	156800	174800
	(kN)	151	314	485	665	840	1016	1189	1366	1538	1715
Calibrated Pressure (Mpa)		2.6	5.4	8.4	11.5	14.5	17.6	20.6	23.7	26.7	29.7

The Ram Area of Jack = 577 cm^2



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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

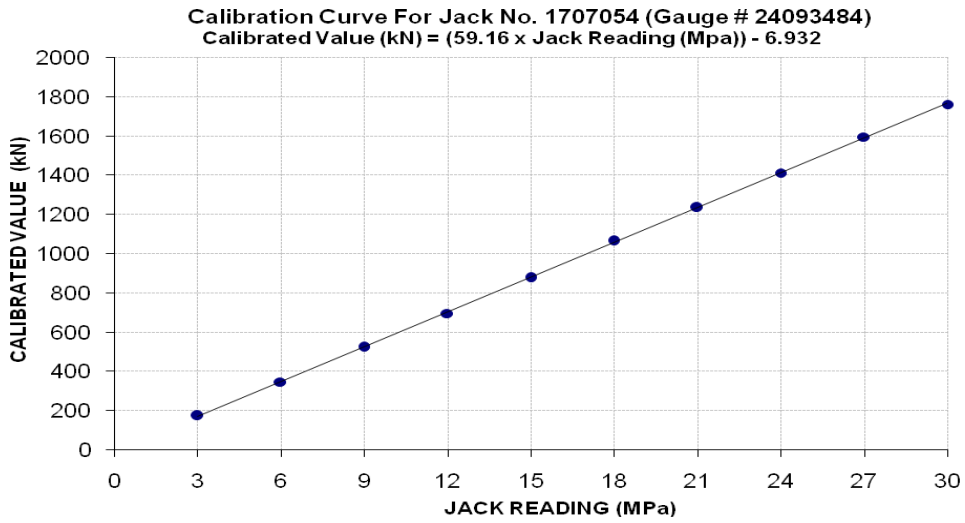
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page -2/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 1707054, Gauge No. 24093484) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 30 (MPa)

Hydraulic Jack Reading (MPa)		3	6	9	12	15	18	21	24	27	30
Calibrated Load	(kg)	17800	35400	53400	71000	89400	108600	126000	144000	162800	179600
	(kN)	175	347	524	697	877	1065	1236	1413	1597	1762
Calibrated Pressure (Mpa)		3.0	6.0	9.1	12.1	15.2	18.5	21.4	24.5	27.7	30.5

The Ram Area of Jack = 577 cm^2



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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

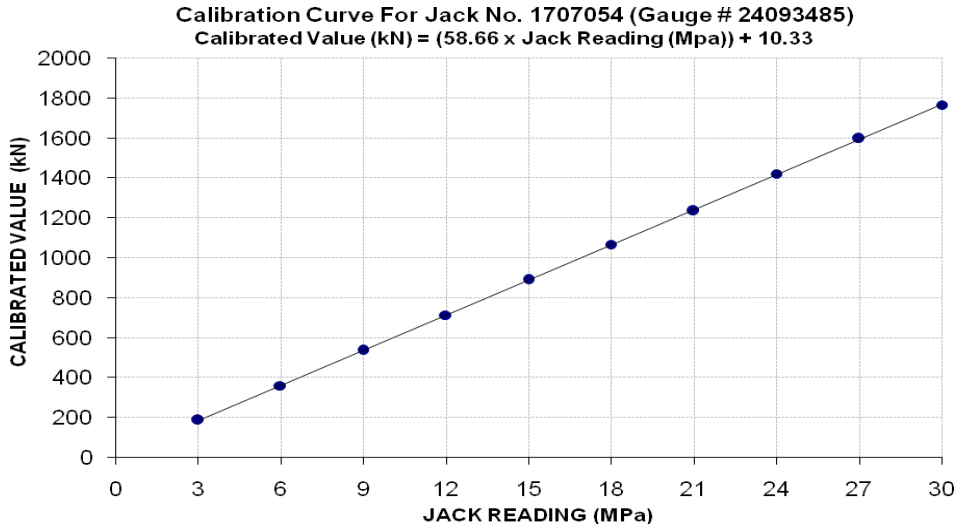
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page -3/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 1707054, Gauge No. 24093485) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 30 (MPa)

Hydraulic Jack Reading (MPa)		**3**	**6**	**9**	**12**	**15**	**18**	**21**	**24**	**27**	**30**
Calibrated Load	**(kg)**	**19200**	**36800**	**54800**	**72800**	**90800**	**108800**	**126000**	**144800**	**163000**	**180200**
	(kN)	**188**	**361**	**538**	**714**	**891**	**1067**	**1236**	**1420**	**1599**	**1768**
Calibrated Pressure (Mpa)		**3.3**	**6.3**	**9.3**	**12.4**	**15.4**	**18.5**	**21.4**	**24.6**	**27.7**	**30.6**

The Ram Area of Jack = 577 cm^2



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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

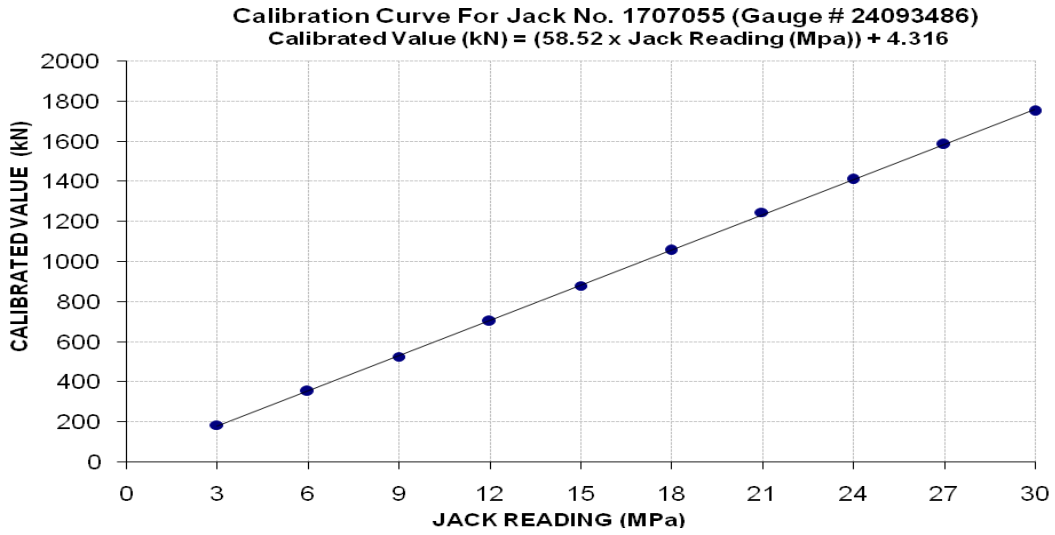
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page -4/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 1707055, Gauge No. 24093486) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 30 (MPa)

Hydraulic Jack Reading (MPa)		3	6	9	12	15	18	21	24	27	30
Calibrated Load	(kg)	18800	36000	53600	71600	89800	107800	127200	143800	161600	178600
	(kN)	184	353	526	702	881	1058	1248	1411	1585	1752
Calibrated Pressure (Mpa)		3.2	6.1	9.1	12.2	15.3	18.3	21.6	24.4	27.5	30.4

The Ram Area of Jack = 577 cm^2



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

2. The above results pertain to sample /samples supplied to this laboratory.

3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

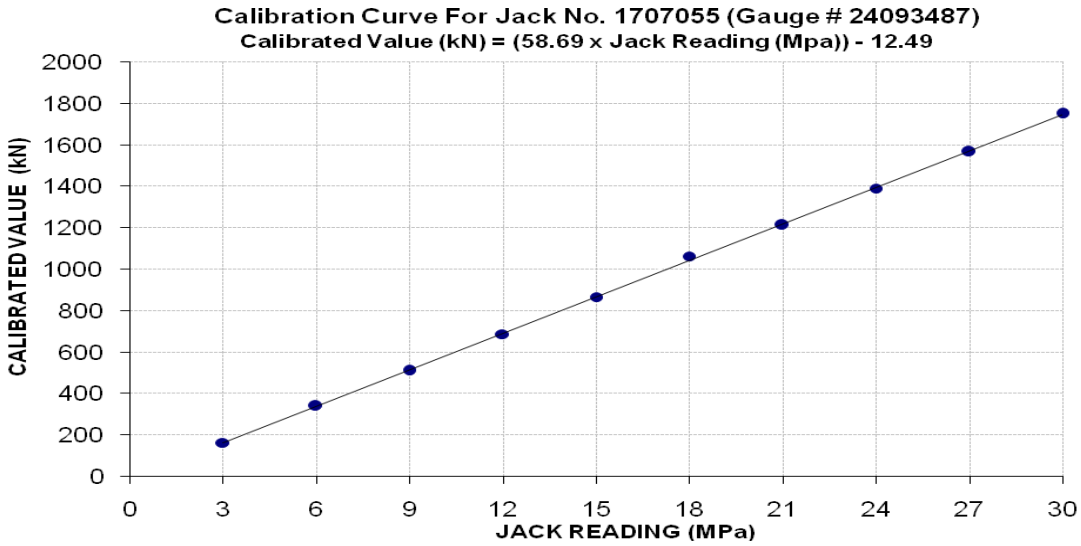
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page -5/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 1707055, Gauge No. 24093487) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 30 (MPa)

Hydraulic Jack Reading (MPa)		3	6	9	12	15	18	21	24	27	30
Calibrated Load	(kg)	16800	34800	52000	70000	88400	108500	123800	141800	159800	178600
	(kN)	165	341	510	687	867	1064	1214	1391	1568	1752
Calibrated Pressure (Mpa)		2.9	5.9	8.8	11.9	15.0	18.4	21.0	24.1	27.2	30.4

The Ram Area of Jack = 577 cm^2



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

2. The above results pertain to sample /samples supplied to this laboratory.

3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

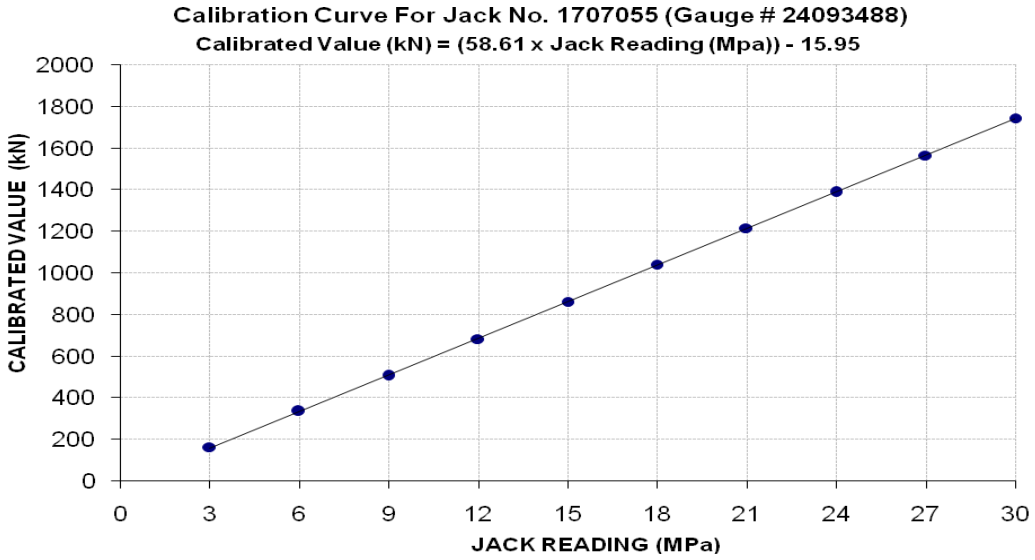
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page -6/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 1707055, Gauge No. 24093488) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 60 (MPa)
Calibrated Range : Zero - 30 (MPa)

Hydraulic Jack Reading (MPa)		3	6	9	12	15	18	21	24	27	30
Calibrated Load	(kg)	16800	34200	51600	69800	88000	106200	124000	141600	159600	177800
	(kN)	165	336	506	685	863	1042	1216	1389	1566	1744
Calibrated Pressure (Mpa)		2.9	5.8	8.8	11.9	15.0	18.1	21.1	24.1	27.1	30.2

The Ram Area of Jack = 577 cm^2



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

2. The above results pertain to sample /samples supplied to this laboratory.

3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

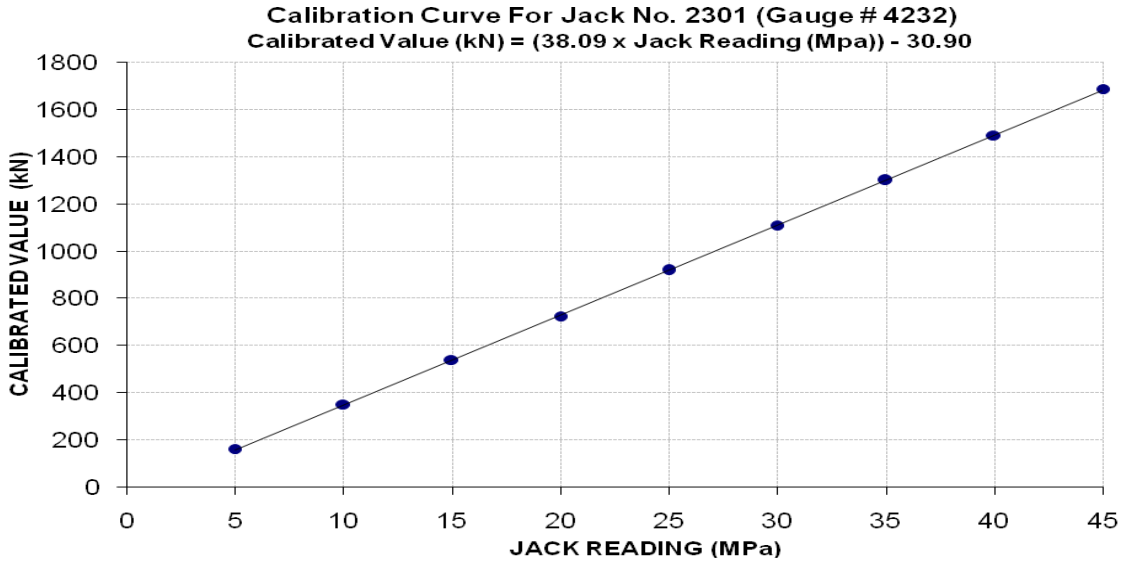
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page -7/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 2301, Gauge No. 4232) 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)**	**16600**	**35800**	**55200**	**74000**	**93800**	**113200**	**132600**	**152000**	**172200**
	(kN)	**163**	**351**	**542**	**726**	**920**	**1110**	**1301**	**1491**	**1689**
Calibrated Pressure (Mpa)		**4.3**	**9.3**	**14.4**	**19.2**	**24.4**	**29.4**	**34.5**	**39.5**	**44.8**

The Ram Area of Jack = 377 cm^2



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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

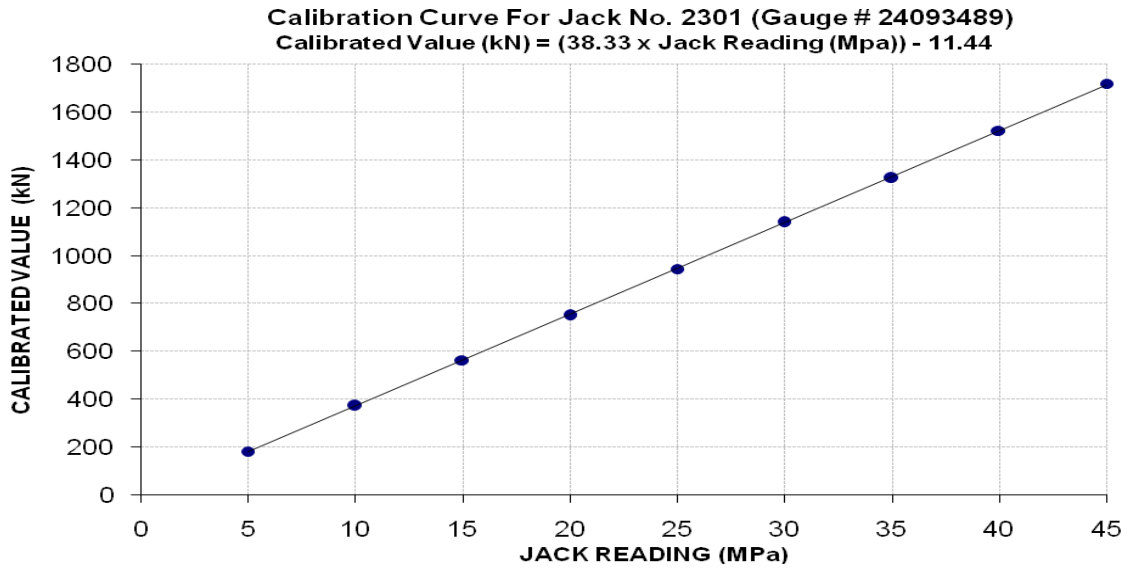
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page -8/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 2301, Gauge No. 24093489) 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)	18600	38000	57600	76600	96400	116200	135000	155200	175200
	(kN)	182	373	565	751	946	1140	1324	1523	1719
Calibrated Pressure (Mpa)		4.8	9.9	15.0	19.9	25.1	30.2	35.1	40.4	45.6

The Ram Area of Jack = 377 cm^2



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

2. The above results pertain to sample /samples supplied to this laboratory.

3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

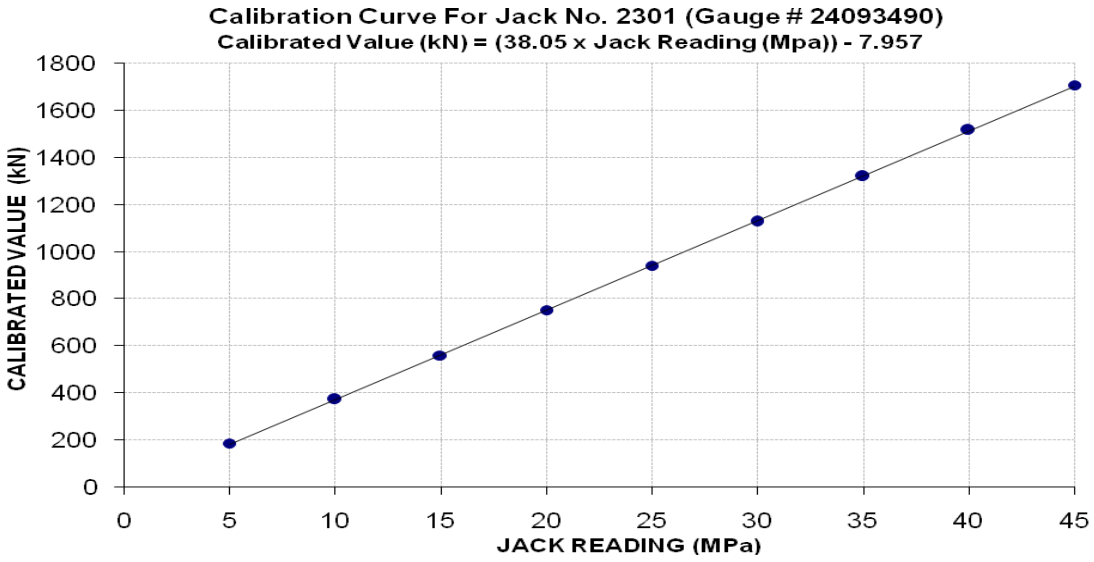
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page -9/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 2301, Gauge No. 24093490) 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)	19000	38000	57200	76800	96000	115000	134600	154600	174200
	(kN)	186	373	561	753	942	1128	1320	1517	1709
Calibrated Pressure (Mpa)		4.9	9.9	14.9	20.0	25.0	29.9	35.0	40.2	45.3

The Ram Area of Jack = 377 cm^2



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

2. The above results pertain to sample /samples supplied to this laboratory.

3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

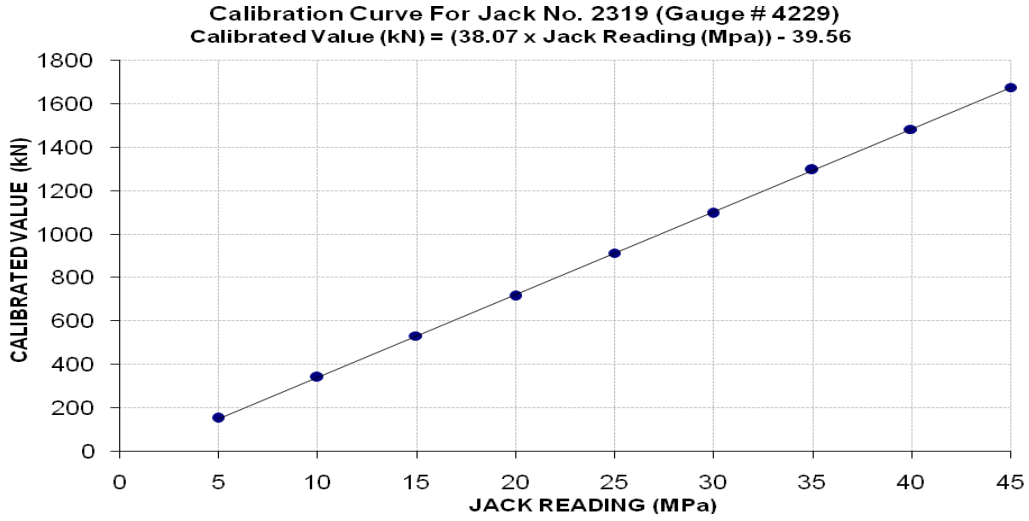
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page - 10/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 2319, Gauge No. 4229) 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)**	**15600**	**34800**	**54400**	**73000**	**93200**	**111800**	**132200**	**151200**	**170800**
	(kN)	**153**	**341**	**534**	**716**	**914**	**1097**	**1297**	**1483**	**1676**
Calibrated Pressure (Mpa)		**4.1**	**9.1**	**14.2**	**19.0**	**24.2**	**29.1**	**34.4**	**39.3**	**44.4**

The Ram Area of Jack = 377 cm^2



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

2. The above results pertain to sample /samples supplied to this laboratory.

3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

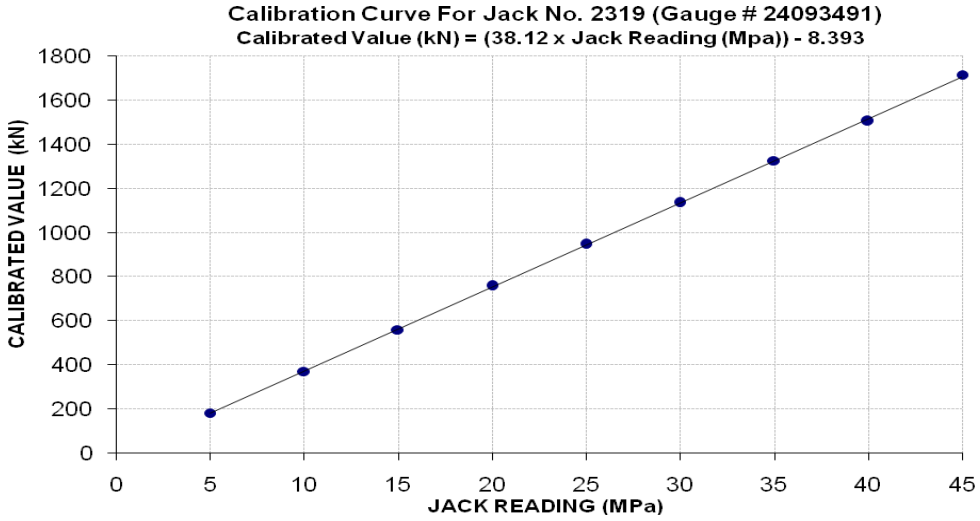
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page - 11/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 2319, Gauge No. 24093491) 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)**	**18600**	**37800**	**57200**	**77400**	**96600**	**115800**	**135200**	**153400**	**174800**
	(kN)	**182**	**371**	**561**	**759**	**948**	**1136**	**1326**	**1505**	**1715**
Calibrated Pressure (Mpa)		**4.8**	**9.8**	**14.9**	**20.1**	**25.1**	**30.1**	**35.2**	**39.9**	**45.5**

The Ram Area of Jack = 377 cm^2



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

2. The above results pertain to sample /samples supplied to this laboratory.

3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

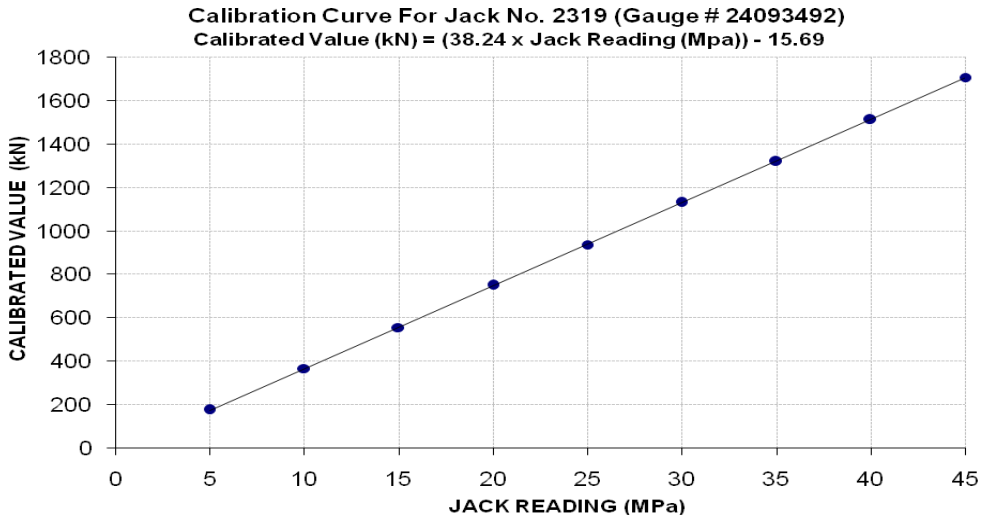
Subject: **- CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/6294)** (Page - 12/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. One Hydraulic Jack (Jack No. 2319, Gauge No. 24093492) 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)**	**18000**	**37400**	**56800**	**76600**	**95600**	**115400**	**134600**	**154200**	**174200**
	(kN)	**177**	**367**	**557**	**751**	**938**	**1132**	**1320**	**1513**	**1709**
Calibrated Pressure (Mpa)		**4.7**	**9.7**	**14.8**	**19.9**	**24.9**	**30.0**	**35.0**	**40.1**	**45.3**

The Ram Area of Jack = 377 cm^2



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

2. The above results pertain to sample /samples supplied to this laboratory.

3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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/01/6294, 6295 Dated: 06-01-2025

Dated of Test: 07-01-2025

To

Site Manager
Descon Engineering Limited
Mohmand Dam Hydro-Power Project.

Subject: **- CALIBRATION OF DIAL GAUGES (MARK: TFL/11/6068)** (Page # 13/13)

Reference to your Letter No. MDHP-DEL-LABT-242, dated: 02/01/2025 on the subject cited above. Five Dial Gauges as received by us have been calibrated on standard calibration device. The results are tabulated as under.

Total Range : Zero - 100 (mm)
Calibrated Range : Zero - 50 (mm)

Standard Reading	Dial Gauge Readings				
	Dial Gauge No. I (DA037669)	Dial Gauge No. II (DA037668)	Dial Gauge No. III (DD036611)	Dial Gauge No. IV (CE072231)	Dial Gauge No. V (DD036612)
400	391	382	395	398	393
800	790	785	794	799	791
1200	1190	1185	1193	1204	1189
1600	1590	1585	1593	1602	1588
2000	1990	1985	1993	2004	1988
2400	2391	2384	2393	2402	2387
2800	2791	2785	2792	2801	2787
3200	3192	3186	3192	3202	3187
3600	3593	3585	3592	3601	3588
4000	3994	3986	3993	4002	3987
4400	4394	4387	4391	4401	4392
4800	4794	4787	4791	4800	4789
5000	4994	4987	4991	5000	4987

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

M/S Delton Construction Co.
Karachi

Reference # CED/TFL **6297** (Dr. Usman Akmal) Dated: 06-01-2025
Reference of the request letter # Nil Dated: 30-12-2024

Tension Test Report (Page -1/1)

Date of Test 07-01-2025
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	0.369	3	0.371	0.11	0.108	4400	5200	88200	89490	104200	105800	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Construction of Electric Buss Depot at Green Town, Lahore.

Reference # CED/TFL **6298** (Dr. Usman Akmal) Dated: 06-01-2025
Reference of the request letter # 4792/13/RK/05/19 Dated: 03-01-2025

Tension Test Report (Page -1/1)

Date of Test 07-01-2025
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	0.375	3	0.375	0.11	0.110	3200	5100	64200	63980	102200	102000	1.50	18.8	Aziz Steel
2	0.376	3	0.375	0.11	0.111	3300	5100	66200	65820	102200	101800	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To

General Manager Factory
Procon Engineering (Pvt) Ltd.
Master Procon Factory Lahore.

Reference # CED/TFL **6299** (Dr. Usman Akmal) Dated: 07-01-2025
Reference of the request letter # PEMH05-007 Dated: 06-01-2025

Tension Test Report (Page -1/1)

Date of Test 07-01-2025
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	0.361	3	0.368	0.11	0.106	4300	4700	86200	89310	94200	97700	0.80	10.0	
2	0.364	3	0.369	0.11	0.107	4300	4900	86200	88670	98200	101100	0.70	8.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

M/S Madina Hardware & Co.
Lahore

Reference # CED/TFL **6300** (Dr. Usman Akmal) Dated: 07-01-2025
Reference of the request letter # Nil Dated: 07-01-2025

Tension Test Report (Page -1/1)

Date of Test 07-01-2025
Gauge length 8 inches
Description Plain Steel Bar Tensile Test

Sr. No.	Weight	Diameter/ size		Area (in^2)		Yield load	Breaking Load	Yield Stress (Psi)	Ultimate Stress (Psi)	Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (mm)	Actual (mm)	Nominal	Actual	(kg)	(kg)	Actual	Actual	(inch)		
1	5.993	38	38.04	--------	1.761	48600	83600	60810	104700	1.40	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test												
Bend Test												

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

M/S Klash Private Limited.
Faisalabad

Reference # CED/TFL **6301** (Dr. Usman Akmal) Dated: 07-01-2025
Reference of the request letter # Nil Dated: 07-01-2025

Tension Test Report (Page # 1/1)

Date of Test 07-01-2025
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	0.368	3	0.371	0.11	0.108	3600	4800	72200	73310	96200	97800	1.20	15.0	
2	0.371	3	0.373	0.11	0.109	3500	4800	70200	70730	96200	97000	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

M/S United Towers
Badami Bagh, Lahore

Reference # CED/TFL **6303** (Dr. Usman Akmal) Dated: 07-01-2025
Reference of the request letter # JB-36M-T-UM-01-2025 Dated: 07-01-2025

Tension Test Report (Page -1/1)

Date of Test 07-01-2025
Gauge length 8 inches
Description Plain Steel Rod Tensile Test

Sr. No.	Weight	Diameter/ size		Area (in^2)		Yield load	Breaking Load	Yield Stress (Psi)	Ultimate Stress (Psi)	Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (mm)	Actual (mm)	Nominal	Actual	(kg)	(kg)	Actual	Actual	(inch)		
1	5.346	36	35.93	-------	1.571	38000	66200	53310	92900	1.60	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test												
Bend Test												

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
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples