



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 Pakistan Wire Industries (Pvt) Limited
Karachi

Reference # CED/TFL **4860** (Dr. Usman Akmal)
Reference of the request letter # WRD/010/LAB026

Dated: 27-03-2024

Dated: 27-03-2024

Tension Test Report (Page – 1/1)

Date of Test 02-04-2024

Description Steel Wire Rope (IWRC Ungalvanized) Tensile Test

Sr. No.	Nominal Diameter	Measured weight	Breaking Load	Remarks / Coil No.
	(mm)	(kg/m)	(kg)	
1	20 (6x19)	1.63	24800	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only one sample for Test				

Witness by Muhammad Wasim Khan (Pakistan Wire Industries)

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
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To,

M/S Pakistan Wire Industries (Pvt) Limited
Karachi

Reference # CED/TFL **4861** (Dr. Usman Akmal)
Reference of the request letter # WRD/010/LAB027

Dated: 27-03-2024

Dated: 27-03-2024

Tension Test Report (Page – 1/1)

Date of Test 02-04-2024

Description Steel Wire Rope (IWRC Ungalvanized) Tensile Test

Sr. No.	Nominal Diameter	Measured weight	Breaking Load	Remarks / Coil No.
	(mm)	(kg/m)	(kg)	
1	26 (6x26)	2.72	40300	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only one sample for Test				

Witness by Muhammad Wasim Khan (Pakistan Wire Industries)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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Ref: CED/TFL/03/4885

Dated: 29-03-2024

Dated of Test: 02-04-2024

To

ARE
MM Pakistan (Pvt) Ltd.
Comprehensive Sewerage System in Khanewal City PCP

Subject: - CALIBRATION OF HYDRAULIC JACK WITH GAUGE
(MARK: TFL/04/4885)

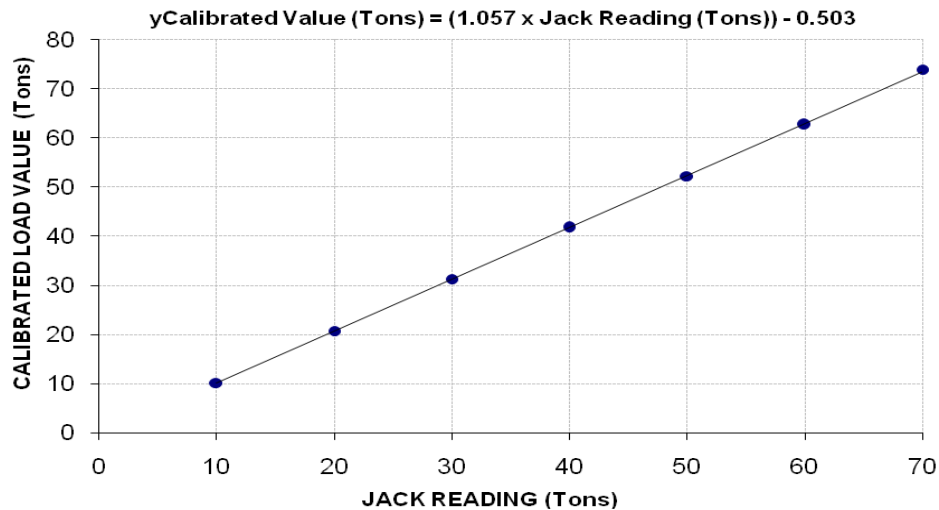
Reference to your Letter No. PCP/KW-115/2024, Dated: 27/03/2024 on the subject cited above. One Hydraulic Jack(P.N.3P290820, S.N. 15HP 33662) with Gauge no. EN837-1 as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 80 (Ton)
Calibrated Range : Zero - 70 (Ton)

Hydraulic Jack Reading (Ton)		10	20	30	40	50	60	70
Calibrated Load	(kg)	9200	18800	28400	37900	47400	56900	67100
	(Ton)	10.1	20.7	31.3	41.7	52.2	62.7	73.9

1000 Kg = 1.1011 Ton (Witness by Zia-Mohi-Din (Senior Draftsman), Saeed Ahmed (ARE / MMP) and M Hanif (Al-Shan Construction Company))

Calibration Curve For Jack



I/C Testing Laboratories
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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To,

M/S NESPAK-CMEC
Punjab Thermal Power (Pvt) Ltd.
Construction of 1263 MW Punjab Thermal Power Plant, Jhang

Reference # CED/TFL **4888** (Dr. Asif Hameed)
Reference of the request letter # CMEC/UET/24031301

Dated: 01-04-2024
Dated: 13-03-2024

Tension Test Report (Page -1/1)

Date of Test 02-04-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.403	10	9.87	0.12	0.119	3300	5300	60627	61360	97370	98600	1.30	16.3	Ittehad Steel Heat No. 14
2	0.402	10	9.85	0.12	0.118	3400	5300	62464	63400	97370	98900	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

Witness by Muhammad Iqbal (Admin – CMEC)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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To,

Site Admin
Innovative (R) Construction Company
“Shoring Works at Kingdom Arena, RUDA, Lahore.”

Reference # CED/TFL **4892** (Dr. Usman Akmal)
Reference of the request letter # ICL/KA/PW/0424/01

Dated: 01-04-2024
Dated: 01-04-2024

Tension Test Report (Page -1/1)

Date of Test 02-04-2024
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	0.375	3	0.375	0.11	0.110	3600	5000	72200	71910	100200	99900	1.20	15.0	
2	0.367	3	0.370	0.11	0.108	3500	4900	70200	71560	98200	100200	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,

M/S Hussain Construction Company
Lahore
(Allied Health School CMH Lahore.)

Reference # CED/TFL **4894** (Dr. Usman Akmal)
Reference of the request letter # Nil

Dated: 01-04-2024
Dated: 01-04-2024

Tension Test Report (Page -1/1)

Date of Test 02-04-2024
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	0.369	3	0.372	0.11	0.108	3600	4700	72200	73180	94200	95600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,

Material Engineer
NESPAK – EPCM Consultant
Punjab Intermediated Cities Improvement Investment Program (PICIP)
Consultancy Services for Engineering, Procurement and Construction Management
Trunk Main Sewer, Effluent Pumping Station and Allied Work (Lot-04), 4 Road Project

Reference # CED/TFL **4895** (Dr. Usman Akmal)

Dated: 01-04-2024

Reference of the request letter # 3976/11/MIA/SWL/Lot-04/01/940

Dated: 08-03-2024

Tension Test Report (Page -1/1)

Date of Test 02-04-2024

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

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	0.393	3/8	0.384	0.11	0.116	3400	5000	68200	64830	100200	95400	1.30	16.3	Aziz Steel
2	0.372	3/8	0.373	0.11	0.109	3000	4700	60200	60550	94200	94900	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Ref: CED/TFL/04/4897

Dated: 01-04-2024

Dated: 02-04-2024

To

M/S China Gezhouba Group Company Limited, Pakistan
DESCON

Construction of Mohmand Dam Hydropower Project - Contract No. ICB MDHP-01,
Construction of Civil Works Including Design, Supply and Installation of Electrical and
Mechanical Works and Hydraulic Steel Structures.

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/4897) (Page -1/2)

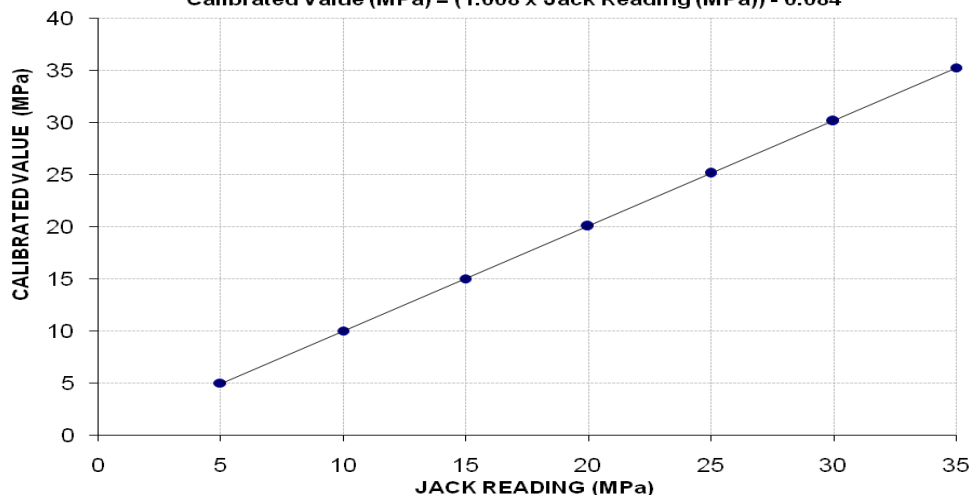
Reference to your Letter No. MDSYS-258, dated: 30/03/2024 on the subject cited above.
One Hydraulic Jack (Jack No. HJ-04, Gauge No. 2667) as received by us has been
calibrated. The results are tabulated as under:

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

Hydraulic Jack Reading (MPa)	5	10	15	20	25	30	35
Calibrated Load (kg)	15200	30400	45600	61000	76400	91600	107200
Calibrated Pressure (Mpa)	5.00	10.00	15.01	20.07	25.14	30.15	35.28

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. HJ-04 (Gauge # 2667)
Calibrated Value (MPa) = (1.008 x Jack Reading (MPa)) - 0.084



I/C Testing Laboratoires
UET Lahore, Pakistan.

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Ref: CED/TFL/04/4897

Dated: 01-04-2024

Dated: 02-04-2024

To

M/S China Gezhouba Group Company Limited, Pakistan
DESCON

Construction of Mohmand Dam Hydropower Project - Contract No. ICB MDHP-01,
Construction of Civil Works Including Design, Supply and Installation of Electrical and
Mechanical Works and Hydraulic Steel Structures.

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/04/4897) (Page -1/2)

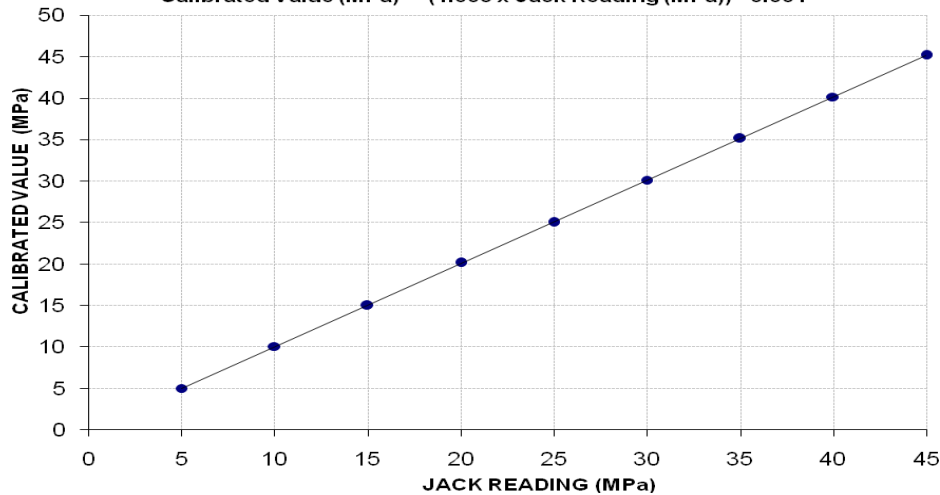
Reference to your Letter No. MDSYS-258, dated: 30/03/2024 on the subject cited above. One Hydraulic Jack (Jack No. HJ-05, Gauge No. 2668) as received by us has been calibrated. The results are tabulated as under:

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	30600	45600	61200	76000	91600	106800	122000	137200
Calibrated Pressure (Mpa)	5.00	10.07	15.01	20.14	25.01	30.15	35.15	40.15	45.15

The Ram Area of Jack = 298 cm²

Calibration Curve For Jack No. HJ-05 (Gauge # 2668)
Calibrated Value (MPa) = (1.003 × Jack Reading (MPa)) - 0.001



I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
Manager
ABL – UML P-199 & 200
Allied Bank
Construction of ABL Upper Mall Lahore Plot No. 199, 200.

Reference # CED/TFL **4899** (Dr. Asif Hameed)
Reference of the request letter # ABL-UML-AMC-QAQC; 73

Dated: 02-04-2024
Dated: 01-04-2024

Tension Test Report (Page -1/1)

Date of Test 02-04-2024
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	4.174	10	1.250	1.27	1.227	39000	57800	67700	70070	100400	103900	1.00	12.5	Batala Steel	
2	4.181	10	1.251	1.27	1.229	38400	56400	66700	68860	97900	101200	0.90	11.3		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Note: only two samples for tensile and one sample for bend test															
Bend Test															
#10 Bar Bend Test Through 180° is Satisfactory															

I/C Testing Laboratoires
UET Lahore, Pakistan.

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