



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

To,  
 Sub Divisional Officer  
 Highway Sub Division  
 Sambrial  
 (Construction of Carpeted Road from Kan Road to Dera Faiz Dhillown, Village Dhillam Tehsil Sambrial District Sialkot (Length 3.00 km))  
 Reference # CED/TFL 37539 (Dr. M Rizwan Riaz) Dated: 20-12-2021  
 Reference of the request letter # 61/S Dated: 24-11-2021

**Tension Test Report** (Page -1/1)

Date of Test 21-12-2021  
 Gauge length 2 inches  
 Description Tor Steel Bar Tensile and Bend Test as per BS-4461

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in <sup>2</sup> )		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	0.364	3	0.369	0.11	0.107	2480	3400	49700	51030	68200	70000	0.50	25.0	
2	0.366	3	0.370	0.11	0.108	2380	3400	47700	48790	68200	69700	0.55	27.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and two samples for Bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														

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



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To,  
 Acting Chief Resident Engineer  
 Trimmu Panjnad Barrages Consultants  
 Trimmu Panjnad Barrages Improvement Project (TPBIP)

Reference # CED/TFL **37541** (Dr. Rizwan Riaz)  
 Reference of the request letter # TPBC/CRE/NCB-01/5223

Dated: 20-12-2021  
 Dated: 16-12-2021

**Tension Test Report** (Page -1/1)

Date of Test 21-12-2021  
 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 <sup>2</sup> )		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	0.368	3	0.371	0.11	0.108	3300	5100	66200	67190	102200	103900	1.20	15.0	Ittefaq Steel
2	0.371	3	0.373	0.11	0.109	3400	5200	68200	68700	104200	105100	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

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

To,  
 Chief Resident Engineer  
 MM Pakistan (Pvt) Ltd  
 Kachhi Canal Project – Construction of Main Canal and Distribution System (Earth Work, Structures and Lining of Main Canal & Distributaries)

Reference # CED/TFL **37543** (Dr. Rizwan Riaz)  
 Reference of the request letter # KCB/RE-6B(2R)/21

Dated: 20-12-2021  
 Dated: 13-12-2021

**Tension Test Report** (Page -1/1)

Date of Test 21-12-2021  
 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 <sup>2</sup> )		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	0.364	3	0.369	0.11	0.107	2900	4300	58200	59750	86200	88600	1.50	18.8	Nonee Steel
2	0.399	3	0.387	0.11	0.117	3200	4700	64200	60110	94200	88300	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
M/s Building Standards  
Lahore  
(Construction of Residential Building Gulberg, Lahore)

Reference # CED/TFL **37544** (Dr. M Rizwan Riaz)  
Reference of the request letter # GT/LTR/211220-138

Dated: 20-12-2021  
Dated: 20-12-2021

**Tension Test Report** (Page -1/1)

Date of Test 21-12-2021  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in <sup>2</sup> )		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	0.370	3	0.372	0.11	0.109	4500	5700	90200	91110	114300	115500	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
Bend Test														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**Test Floor Laboratory**  
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**University of Engineering and Technology Lahore, 54890**  
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Ref: CED/TFL/12/37548

Dated: 20-12-2021

Dated of Test: 21-12-2021

To  
M/S Al-Riaz Engineering Services (Pvt) Ltd.  
22 km Main Multan Road Chung Lahore

Subject: - **CALIBRATION OF HYDRAULIC JACK WITH GAUGE**  
**(MARK: TFL/12/37548)**

Reference to your Letter No. Nil, Dated: 20/12/2021 on the subject cited above. One Hydraulic Jack with Gauge as received by us has been calibrated. The results are tabulated as under:

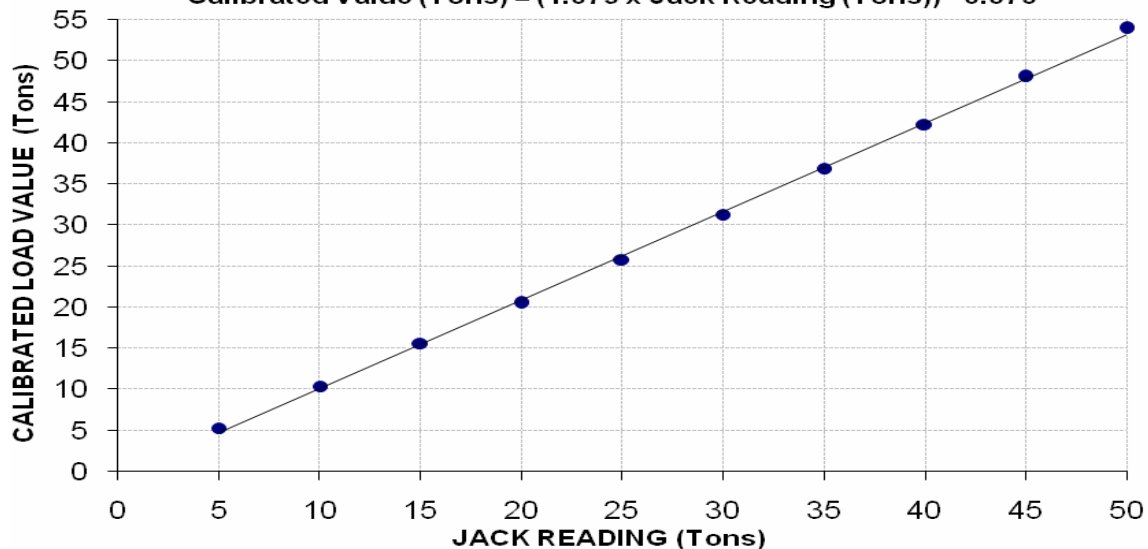
**Total Range : Zero - 70 (Ton)**  
**Calibrated Range : Zero - 50 (Ton)**

Hydraulic Jack Reading (Ton)	5	10	15	20	25	30	35	40	45	50	
Calibrated Load	(kg)	4800	9400	14200	18600	23400	28400	33500	38400	43700	49000
	(Ton)	5.29	10.35	15.64	20.48	25.77	31.27	36.89	42.28	48.12	53.95

1000 Kg = 1.1011 Ton

**Calibration Curve For Jack**

**Calibrated Value (Tons) = (1.079 x Jack Reading (Tons)) - 0.675**



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To,  
 Construction Manager  
 Zameen Quadrangle  
 Construction of Zameen Quadrangle at Plot No. 49 Gulberg-V, Zafar Ali Road, Lahore

Reference # CED/TFL **37549** (Dr. M Rizwan Riaz)  
 Reference of the request letter # ZD/ZQ/GSW/004

Dated: 20-12-2021  
 Dated: 20-12-2021

**Tension Test Report** (Page -1/1)

Date of Test 21-12-2021  
 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 <sup>2</sup> )		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	0.373	3	0.374	0.11	0.110	3300	4800	66200	66330	96200	96500	1.30	16.3	Kamran Steel
2	0.385	3	0.379	0.11	0.113	3500	4900	70200	68240	98200	95600	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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To,  
M/s Building Standards  
Lahore  
(Construction of Commercial Project in pattoki)

Reference # CED/TFL **37550** (Dr. M Rizwan Riaz)  
Reference of the request letter # GT/LTR/211220-141

Dated: 20-12-2021  
Dated: 20-12-2021

**Tension Test Report** (Page -1/1)

Date of Test 21-12-2021  
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 <sup>2</sup> )		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	0.395	3	0.385	0.11	0.116	5000	6800	100200	94870	136300	129100	0.50	6.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for Bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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