



**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/09/36987

Dated: 02-09-2021

Dated of Test: 03-09-2021

To  
**Assistant Director (QCD)**  
**WASA, LDA, Lahore**  
**(M/s Allah Hoo Yasir Pipe Factory)**

Subject: - **CALIBRATION OF HYDRAULIC JACK WITH GAUGE**  
**(MARK: TFL/08/36987)**

Reference to your Letter No. QCD/1232-33, Dated: 01/09/2021 on the subject cited above. One Hydraulic Jack with Gauge as received by us has been calibrated. The results are tabulated as under:

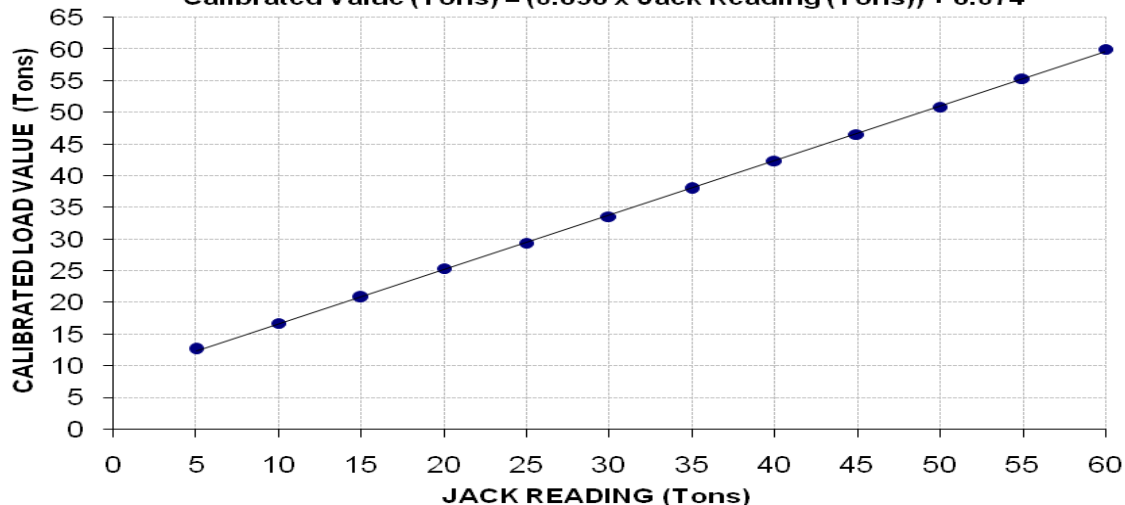
**Total Range : Zero - 100 (Ton)**  
**Calibrated Range : Zero - 60 (Ton)**

Hydraulic Jack Reading (Ton)	5	10	15	20	25	30	35	40	45	50	55	60
Calibrated Load (kg)	11500	15200	18900	23100	26700	30500	34500	38500	42300	46200	50300	54500
Calibrated Load (Ton)	12.66	16.74	20.81	25.44	29.40	33.58	37.99	42.39	46.58	50.87	55.39	60.01

1000 Kg = 1.1011 Ton

**Calibration Curve For Jack**

**Calibrated Value (Tons) = (0.858 x Jack Reading (Tons)) + 8.074**



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

Note:

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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,  
 Resident Engineer  
 Associated Consulting Engineers ACE Limited  
 Establishment of Daanish School (Boys & Girls) at Mankera District Bhakkar (M/s ZKHB)

Reference # CED/TFL **36988** (Dr. M Rizwan Riaz) Dated: 02-09-2021  
 Reference of the request letter # ACE/RE-PDS/MNK/BHK/21/438 Dated: 30-08-2021

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

Date of Test 03-09-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.387	3/8	0.381	0.11	0.114	4000	5300	80200	77530	106200	102800	0.90	11.3	
2	0.372	3/8	0.373	0.11	0.109	3600	4900	72200	72650	98200	98900	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**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.**

Note:

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To,  
 Sub Divisional Officer  
 Highway Sub Division,  
 Okara

(Widening and Improvement of Road from Pull Joyia to Jandraka (Length = 7.80 km)(Group-2, km no. 3.50 to 7.80 = 4.30 km) Tehsil & District Okara)

Reference # CED/TFL **36990** (Dr. M Rizwan Riaz)

Dated: 02-09-2021

Reference of the request letter # 171/OK

Dated: 04-08-2021

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

Date of Test 03-09-2021

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	0.386	3	0.380	0.11	0.113	4000	5000	80200	77730	100200	97200	1.00	12.5	
2	0.387	3	0.381	0.11	0.114	4000	5100	80200	77470	102200	98800	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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**University of Engineering and Technology Lahore, 54890**  
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To,  
M/S FF Steel  
Lahore

Reference # CED/TFL **36992** (Dr. M Rizwan Riaz)  
Reference of the request letter # Nil

Dated: 02-09-2021  
Dated: 02-09-2021

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

Date of Test 03-09-2021  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.367	3/8	0.371	0.11	0.108	4200	5600	84200	85840	112300	114500	1.00	12.5	
2	0.365	3/8	0.369	0.11	0.107	4200	5600	84200	86350	112300	115200	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

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

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

To,  
 Project Manager TCPL  
 Tameer Construction (Pvt) Ltd.  
 Construction of Extension of Spinning Unit-02 of Alhamd Corporation (Pvt) Ltd at Khaki Paigan  
 Road, off Jampur Road, D.G. Khan

Reference # CED/TFL **36994** (Dr. M Rizwan Riaz) Dated: 02-09-2021  
 Reference of the request letter # TCPL/CONST-ALHAMD/21/0806 Dated: 02-09-2021

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

Date of Test 03-09-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.387	3/8	0.381	0.11	0.114	3600	4900	72200	69670	98200	94900	1.20	15.0	
2	0.389	3/8	0.382	0.11	0.114	3600	4800	72200	69360	96200	92500	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

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

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To,  
 Project Manager TCPL  
 Tameer Construction (Pvt) Ltd.  
 Construction of Production Hall & Raw Material Store at Waves Singer Pakistan (Pvt) Ltd. At  
 Mustafabad Lalyani Kasur Road.

Reference # CED/TFL **36995** (Dr. M Rizwan Riaz) Dated: 02-09-2021  
 Reference of the request letter # TCPL/CONST-WAVES/21/080 Dated: 31-08-2021

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

Date of Test 03-09-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.385	3/8	0.380	0.11	0.113	3500	4500	70200	68100	90200	87600	1.10	13.8	
2	0.380	3/8	0.377	0.11	0.112	3600	4600	72200	71100	92200	90900	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

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**Pakistan. Ph: 92-42-99029202**

To,  
 GM  
 Professional Xonstruction Services (Pvt) Ltd  
 Khalil & Naushaba's House Aitchison College Lahore

Reference # CED/TFL **37003** (Dr. M Rizwan Riaz)  
 Reference of the request letter # PCS/21/Eng-94-A

Dated: 03-09-2021  
 Dated: 03-09-2021

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

Date of Test 03-09-2021  
 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	0.382	3	0.378	0.11	0.112	3900	5100	78200	76600	102200	100200	1.10	13.8	
2	0.381	3	0.377	0.11	0.112	3800	5000	76200	74880	100200	98600	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

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