



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/10/37153

Dated: 05-10-2021

Dated of Test: 05-10-2021

To
Deputy Director (QCD)
Water & Sanitation Agency
Faisalabad
(M/s Waqas RCC Pipe Manufacturing Factory Opposite Ismail Mosque, Daewoo Road Faisalabad)

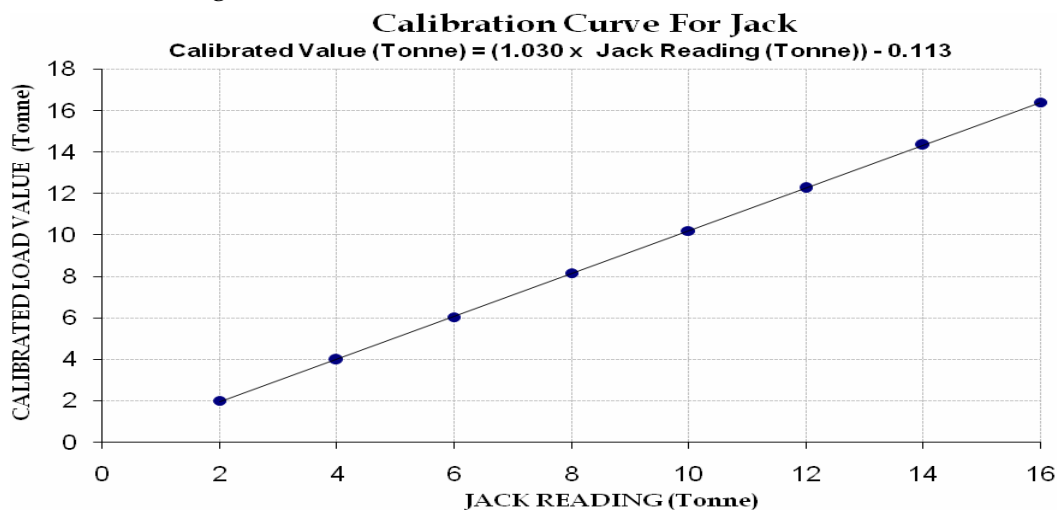
Subject: - CALIBRATION OF HYDRAULIC JACK WITH GAUGE
(MARK: TFL/10/37153)

Reference to your Letter No. 451/DD (QCD)/WASA/2021, Dated: 18/09/2021 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 - 20 (Tonne)
Calibrated Range : Zero - 16 (Tonne)

Hydraulic Jack Reading (Psi)		2	4	6	8	10	12	14	16
Calibrated Load	kg	1998	3970	6040	8160	10181	12252	14323	16393
	Tonne	2.00	3.97	6.04	8.16	10.18	12.25	14.32	16.39

1 Tonne = 1000 kg



I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Pr. Engineer (Civil), WASO
 PAEC, Chashma
 “Construction of Boundary Wall, 02 nos. Watch Towers & Reception of Officer Hostel at
 PNPFC, Wan Bhachran”
 (AL-Moiz Steel, Heat No. 1595)
 Reference # CED/TFL **37148 (Dr. Ali Ahmed)**
 Reference of the request letter # WASO-WBACH-21-096/1745

Dated: 05-10-2021
 Dated: 04-10-2021

Tension Test Report (Page -1/1)

Date of Test 06-10-2021
 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 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	0.371	3/8	0.373	0.11	0.109	3300	5000	66200	66680	100200	101100	1.40	17.5	
2	0.373	3/8	0.373	0.11	0.110	3400	5000	68200	68430	100200	100700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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Department of Civil Engineering
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To,
 Resident Engineer
 AZ Engineering Associates
 Construction of Multi Complex (MPC), Building (Phase-I) at Quaid-e-Azam Business Park
 (Qabp) on M-2 Motorway, Sheikhpura

Reference # CED/TFL **37149** (Dr. Ali Ahmed)
 Reference of the request letter # RE/AZEA/MPC-104

Dated: 05-10-2021
 Dated: 30-09-2021

Tension Test Report (Page -1/1)

Date of Test 06-10-2021
 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 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	0.366	3/8	0.370	0.11	0.108	3200	5200	64200	65510	104200	106500	1.00	12.5	F.S.L
2	0.365	3/8	0.369	0.11	0.107	3200	5200	64200	65790	104200	107000	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 Laboratories
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
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To,
M/S Al-Hamd General Engineering Services
Lahore
(Mezzan Dairy farm Halla Pattoki)

Reference # CED/TFL 37150 (Dr. Ali Ahmed)
Reference of the request letter # Nil

Dated: 05-10-2021
Dated: 04-10-2021

Tension Test Report (Page -1/1)

Date of Test 06-10-2021
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 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	0.364	3	0.369	0.11	0.107	3200	4900	64200	65850	98200	100900	1.40	17.5	
2	0.367	3	0.370	0.11	0.108	3200	5000	64200	65440	100200	102300	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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To,
 Sub Divisional Officer
 Highway Sub Division
 Gojra
 (Widening / Improvement of Mochiwala Road (Section Pensra Mor to Motorway Crossing)
 Tehsil Gojra District Toba Tek Singh (Length = 5.00 km) Part-II (Bridge Work)

Reference # CED/TFL **37151** (Dr. Ali Ahmed)
 Reference of the request letter # 01

Dated: 05-10-2021
 Dated: 25-09-2021

Tension Test Report (Page -1/1)

Date of Test 06-10-2021
 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	3800	4800	76200	76230	96200	96300	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Senior Site Engineer
 AF Builders
 Civil Work at Shell-Zaman Filling Station Lahore

Reference # CED/TFL 37152 (Dr. Ali Ahmed)
 Reference of the request letter # Nil

Dated: 05-10-2021
 Dated: 05-10-2021

Tension Test Report (Page -1/1)

Date of Test 06-10-2021
 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 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	0.366	3	0.370	0.11	0.108	3300	5400	66200	67630	108200	110700	1.10	13.8	
2	0.365	3	0.370	0.11	0.107	3300	5300	66200	67810	106200	108900	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Dia Bar Bend Test Through 180° is Satisfactory														

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To,
 Project Manager
 China Energy Engineering Group
 Northeast No. 2 Electric Power Construction Co., Ltd
 Procurement of Plant – Design, Manufacture, Supply, Installation, Testing & Commissioning of
 500kV Double Circuit Quad Bundle Transmission Line from Suki Kinari Hydro Power Station to
 Interconnection Point of Existing Neelum Jhelum 500kV Double Circuit Quad Bundle
 Transmission Line (approx. 75km)
 Reference # CED/TFL **37156** (Dr. Irfan ul Hussan) Dated: 06-10-2021
 Reference of the request letter # DD-401A-FA-619 Dated: 05-10-2021

Tension Test Report (Page -1/1)

Date of Test 06-10-2021
 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 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	0.356	3	0.365	0.11	0.105	3590	4350	72000	75540	87200	91600	1.00	12.5	SJ Steel
2	0.365	3	0.370	0.11	0.107	3740	4680	75000	76790	93800	96100	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Bend Test

#3 Bar Bend Test Through 180° is Satisfactory

Witness by Sohaib Ali (Sub Engineer NESPAK)

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