



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

To,
 Project Manager /Team Leader
 Barqaab Consulting Services (Private Limited).
 Design, Supply and Installation of 500 kV Quad Bundle Circuit Nowshera T/Line and
 Replacement of Ground Wire of Existing 500kV Tarbela – Peshawar T/Line with OPGW
 (Tower Foundation)

Reference # CED/TFL 2207 (Dr. Ali Ahmed) Dated: 31-10-2022
 Reference of the request letter # WB-05B/BQB/NETRACON/0049 Dated: 26-10-2022

Tension Test Report (Page -1/1)

Date of Test 02-11-2022
 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	0.372	3	0.373	0.11	0.109	3300	5300	66200	66560	106200	106900	1.50	18.8	
2	0.384	3	0.379	0.11	0.113	3300	5200	66200	64440	104200	101600	1.40	17.5	
3	4.203	10	1.254	1.27	1.235	43400	57600	75400	77430	100000	102800	1.50	18.8	
4	4.238	10	1.259	1.27	1.246	43600	58400	75700	77150	101400	103400	1.40	17.5	
5	4.242	10	1.260	1.27	1.247	43400	58000	75400	76720	100700	102600	1.40	17.5	

Note: only five sample for tensile and five samples for bend test

Bend Test

#3 Bar Bend Test Through 180° is Satisfactory

#3 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

Witness by Tariq Ilyas Cheema (Jr. Engr. Barqaab)

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.
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STRUCTURAL ENGINEERING DIVISION
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Ref: CED/TFL/11/2208

Dated: 31-10-2022

Date of Test: 02-11-2022

To,

Project Manager
Urban Dwellings DHA
M/s PDC.

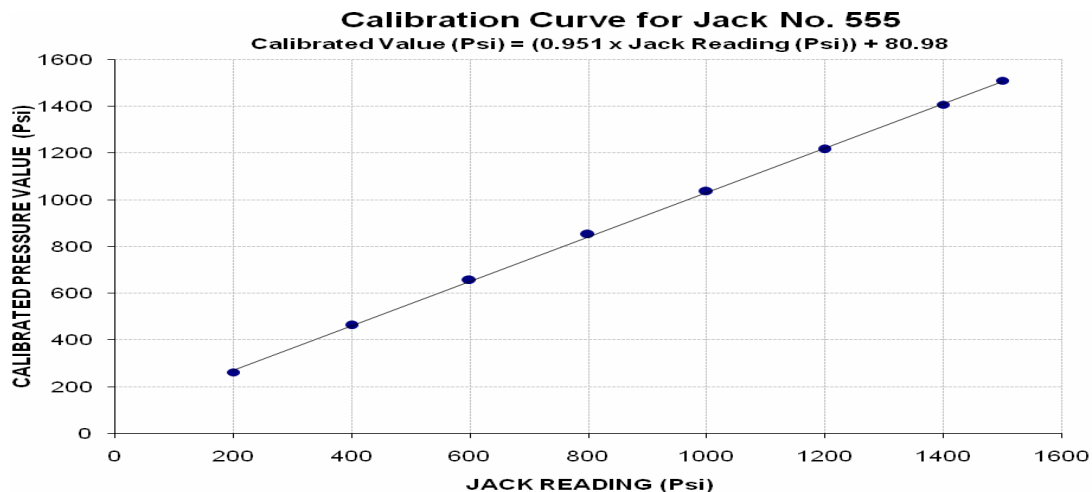
Subject: - CALIBRATION OF HYDRAULIC JACK WITH PRESSURE GAUGE
(MARK: TFL/11/2208) (Page # 1/2)

Reference to your Letter No. Nil, Dated: 31/10/2022 on the subject cited above. One Hydraulic Jack No. 555 with Pressure Gauge No. EN 837-1 as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 6000 (Psi)
Calibrated Range : Zero - 1500 (Psi)

Pressure Gauge Reading (Psi)	200	400	600	800	1000	1200	1400	1500
Calibrated Load (kg)	32000	56400	80000	103800	126200	148200	171600	184000
Calibrated Pressure (Psi)	263	463	656	852	1036	1216	1408	1510

The Ram Area for Calibration = 268.66 in²



I/C Testing Laboratories
UET Lahore, Pakistan.

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Ref: CED/TFL/11/2208

Dated: 31-10-2022

Date of Test: 02-11-2022

To,

Project Manager
Urban Dwellings DHA
M/s PDC.

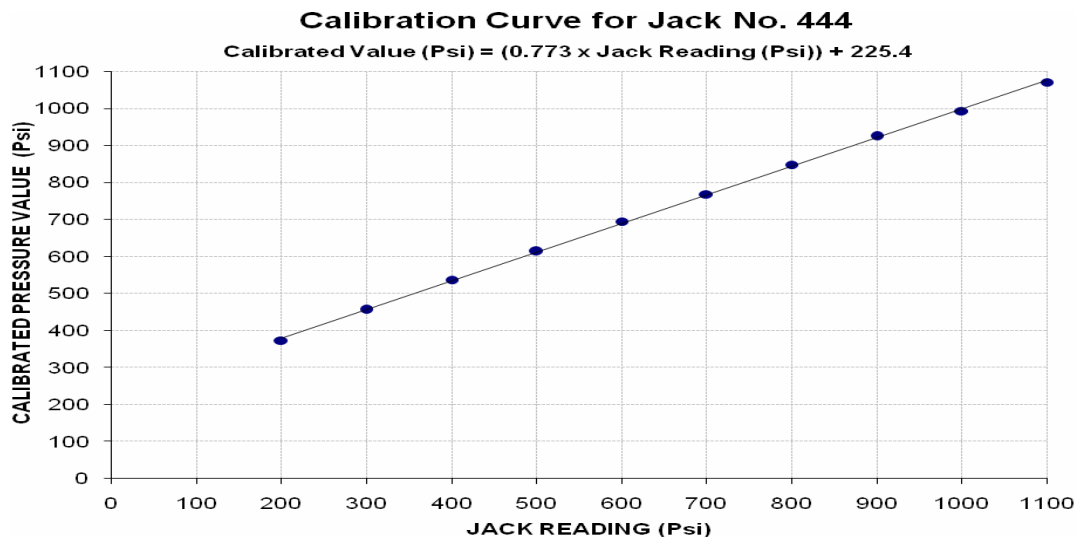
Subject: - CALIBRATION OF HYDRAULIC JACK WITH PRESSURE GAUGE
(MARK: TFL/11/2208) (Page # 2/2)

Reference to your Letter No. Nil, Dated: 31/10/2022 on the subject cited above. One Hydraulic Jack No. 444 with Pressure Gauge No. EN 837-1 as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 6000 (Psi)
Calibrated Range : Zero - 1500 (Psi)

Pressure Gauge Reading (Psi)	200	300	400	500	600	700	800	900	1000	1100
Calibrated Load (kg)	64200	78600	92600	105800	119600	132400	146200	159400	171200	184400
Calibrated Pressure (Psi)	373	456	537	614	694	768	848	925	993	1070

The Ram Area for Calibration = 379.94 in²



I/C Testing Laboratoires
UET Lahore, Pakistan.

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Test Floor Laboratory
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To,
 Assistant Executive Engineer - IV
 Central Civil Division No. II
 Pak. P.W.D., Lahore
 (Renovation / Refurbishment Up-Gradation of Existing Boundary Wall of Land NHMP (N5)
 SSP/LHQ Central-I, Chak No. 37 Tehsil Pattoki District Kasur)
 Reference # CED/TFL 2214 (Dr. Ali Ahmed) Dated: 01-11-2022
 Reference of the request letter # AEE-IV/LCCD-II/147 Dated: 24-10-2022

Tension Test Report (Page -1/1)

Date of Test 02-11-2022
 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	0.368	3/8	0.371	0.11	0.108	3100	4900	62200	63130	98200	99800	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample 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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To,
M.E
AS Enterprises
Style Textile Mill Raiwind
(AA Associates)

Reference # CED/TFL **2218** (Dr. Ali Ahmed)
Reference of the request letter # USD/ASE/16

Dated: 01-11-2022
Dated: 01-11-2022

Tension Test Report (Page -1/1)

Date of Test 02-11-2022
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	0.434	10	10.23	0.12	0.128	4100	5400	75324	70870	99207	93400	1.40	17.5	Agha Steel
2	0.421	10	10.08	0.12	0.124	4000	5200	73487	71220	95533	92600	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
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To,
 Resident Engineer,
 Orbit Housing
 The Spring Apartment Homes

Reference # CED/TFL 2224 (Dr. Ali Ahmed)
 Reference of the request letter# NIL

Dated: 02-11-2022
 Dated: 02-11-2022

Tension Test Report (Page -1/1)

Date of Test 02-11-2022
 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	0.382	3	0.378	0.11	0.112	3100	4500	62200	60810	90200	88300	1.40	17.5	
2	0.369	3	0.372	0.11	0.108	3100	4600	62200	62990	92200	93500	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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UET Lahore, Pakistan.

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