



**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/03/36254  
2021

Dated: 19-03-

Dated of Test: 26-03-2021

To  
Manager  
Sinohydro Corporation Limited, Pakistan  
Procurement of Plant, Design, Supply, Installation, Testing and Commission of Three (03)  
220 kV Transmission Lines Associated with Lahore North Substation

Subject:- CALIBRATION OF CONCRETE CYLINDER CRUSHING MACHINE OF  
250000 lbs (MARK: CED/TFL/03/36253)

Reference to your letter No. ADB-301B/2018/209, dated: 18/03/2021 on the subject cited above. One Concrete Cylinder Crushing Machine has been calibrated by using standard calibration device. The results are tabulated as under:

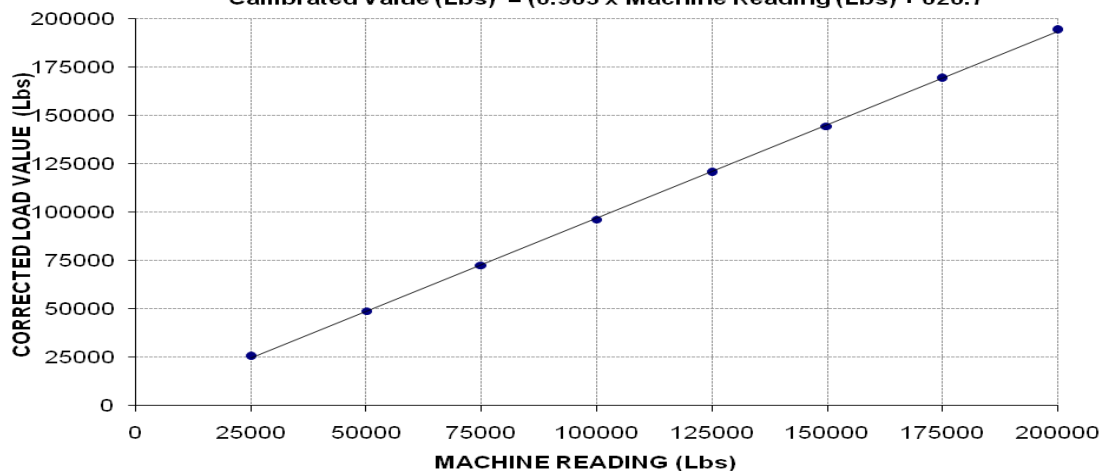
Total Range : Zero - 250000 (lbs)

Calibrated Rang : Zero - 200000 (lbs)

Machine Reading	25000	50000	75000	100000	125000	150000	175000	200000
Corrected Load Value	25500	48881	72739	96385	120609	144502	169317	194348

**CALIBRATION CURVE FOR CONCRETE CYLINDER CRUSHING MACHINE  
(0-250000 Lbs)**

$$\text{Callibrated Value (Lbs)} = (0.963 \times \text{Machine Reading (Lbs)}) + 626.7$$



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

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To,  
 Operations Manager  
 Velosi Integrity & Safety Pakistan (Pvt) Ltd  
 Lahore  
 (M/s AutoCare Experts)

Reference # CED/TFL **36257** (Dr. M Rizwan Riaz)  
 Reference of the request letter # VISP-L-C-21-50

Dated: 22-03-2021  
 Dated: 16-03-2021

**Tension Test Report** (Page – 1/1)

Date of Test 26-03-2021  
 Gauge length 2 inches  
 Description Welded Steel Pipe Steel Strip Tensile and Bend Test

Sr. No.	Designation	Size of Strip	X Section Area	Breaking Load	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)	(mm)	(mm <sup>2</sup> )	(kg)	(MPa)	(inch)		
1	4	16.00x7.60	121.60	9000	726.07	0.50	25.00	Failure at the location other than weld
2		13.70x7.50	102.75	7200	687.42	0.50	25.00	Failure at the location other than weld
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
<b>Only two samples for tensile and four samples for bend test</b>								
<b>Bend Test</b>								
Strip taken from Welded Steel Pipe (4") Root Bend Test Through 180° is Satisfactory								
Strip taken from Welded Steel Pipe (4") Root Bend Test Through 180° is Satisfactory								
Strip taken from Welded Steel Pipe (4") Face Bend Test Through 180° is Failed								
Strip taken from Welded Steel Pipe (4") Face Bend Test Through 180° is Satisfactory								

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To,  
 Sub Divisional Officer  
 Highway Sub Division No. I  
 Gujrat  
 (Rehabilitation / Reconstruction of Road from Head Marala Road to Shair More via Kassoki  
 Length = 3.81 kms in District Gujrat)  
 Reference # CED/TFL **36268** (Dr. M Rizwan Riaz) Dated: 25-03-2021  
 Reference of the request letter # 42/GTI Dated: 22-02-2021

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

Date of Test 26-03-2021  
 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	0.381	3	0.378	0.11	0.112	3000	4400	60200	59060	88200	86700	1.30	16.3	
2	0.381	3	0.378	0.11	0.112	3000	4400	60200	59020	88200	86600	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,  
 Manager QC  
 Country Developers (Pvt) Ltd  
 PGC Gujranwala Campus

Reference # CED/TFL **36269** (Dr. M Rizwan Riaz)  
 Reference of the request letter # CD-20-Testing/FJCE-013

Dated: 25-03-2021  
 Dated: 22-02-2021

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

Date of Test 26-03-2021  
 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	0.374	3	0.374	0.11	0.110	3400	4700	68200	68180	94200	94300	1.00	12.5	FF Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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To,  
 Principal Architect  
 Z.H. Kazmi & Associates  
 Construction of New Godowns & Infrastructure at Allied Bank Limited Warehouse 18-Hazari,  
 Jhang

Reference # CED/TFL **36271** (Dr. M Rizwan Riaz)  
 Reference of the request letter # Nil

Dated: 25-03-2021  
 Dated: 25-02-2021

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

Date of Test 26-03-2021  
 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	0.376	3	0.375	0.11	0.110	3300	4900	66200	65900	98200	97900	1.30	16.3	
2	0.367	3	0.371	0.11	0.108	3200	4800	64200	65380	96200	98100	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,  
 Principal Architect  
 Z.H. Kazmi & Associates  
 Construction of New Godowns & Sheds & Pavements at Allied Bank Limited Warehouse  
 Munirabad

Reference # CED/TFL **36272** (Dr. M Rizwan Riaz)  
 Reference of the request letter # Nil

Dated: 25-03-2021  
 Dated: 25-02-2021

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

Date of Test 26-03-2021  
 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	0.392	3	0.383	0.11	0.115	3800	4700	76200	72760	94200	90000	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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