



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

To,

Deputy Manager  
POWERCHINA SEPCO1, Pakistan  
Design, Manufacturing, Supply, Installation, Testing and Commission of 220kV Mirpur  
Khas Substation and Extension at Hala Road Substation.

Reference # CED/TFL **2589** (Dr. Asad Ali)

Dated: 09-01-2023

Reference of the request letter # ADB-200/2018/342

Dated: 09-01-2023

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

Date of Test 10-01-2023

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 <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	0.423	10	10.10	0.12	0.124	4180	4950	76794	74140	90940	87800	1.40	17.5	
2	0.417	10	10.04	0.12	0.123	4350	5250	79917	78200	96451	94400	1.20	15.0	
3	0.417	10	10.04	0.12	0.123	4200	4690	77161	75510	86163	84400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only three samples for tensile and three samples for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														
10mm Dia Bar Bend Test Through 180° is Satisfactory														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

Witness by Ibrar Ahmed (J.E NESPAK) and M Waheed Sheikh (Power China (SEPCO1))

**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](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.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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To,  
Resident Engineer  
ACE CSM  
Secretariat Office Building Multan & Allied Work

Reference # CED/TFL **2591** (Dr. M Kashif)  
Reference of the request letter # ACE/RE/CSM/2022/443

Dated: 10-01-2023  
Dated: 03-01-2023

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

Date of Test 10-01-2023  
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	0.370	3	0.372	0.11	0.109	4180	5370	83800	84820	107600	109000	0.90	11.3	Union Steel
2	0.374	3	0.374	0.11	0.110	4250	5470	85200	85120	109600	109600	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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

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To,  
Chaudhry Talha Hassan  
Lahore

Reference # CED/TFL **2593** (Dr. M Kashif)  
Reference of the request letter # Nil

Dated: 10-01-2023  
Dated: 10-01-2023

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

Date of Test 10-01-2023  
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	3570	4940	71600	72680	99000	100600	1.30	16.3	
2	0.368	3	0.371	0.11	0.108	3520	4940	70600	71630	99000	100600	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by Chaudhry Talha Hassan and Rehan Ahmed

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

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To,

M/S Altec International  
Lahore

Reference # CED/TFL **2594** (Dr. M Kashif)  
Reference of the request letter # Nil

Dated: 10-01-2023

Dated: 10-01-2023

**Tension Test Report** (Page – 1/1)

Date of Test

10-01-2023

Description

Steel Wire Rope Tensile Test

Sr. No.	Nominal Diameter	Measured weight	Breaking Load	Remarks / Coil No.
	(mm)	(kg/m)	(kg)	
1	8.3	0.25	4300	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
<b>Only one sample for Test</b>				

**I/C Testing Laboratoires**  
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