



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

To,  
M/S YAMAC Engineering and Construction.  
Faisalabad

Reference # CED/TFL **3506** (Dr. Rizwan Azam)  
Reference of the request letter # Nil

Dated: 20-06-2023

Dated: 20-06-2023

**Tension Test Report** (Page – 1/1)

Date of Test 26-06-2022  
Gauge length 2 inches  
Description Welded SS Pipe Steel Strip Bend Test

<b>Bend Test</b>
Strip taken from Welded SS Pipe Root Bend Test Through 180° is Satisfactory
Strip taken from Welded SS Pipe Face Bend Test Through 180° is Satisfactory
<b>Only two samples for tensile and two samples for bend test</b>

**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



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

To,

Chief Resident Engineer  
Osmani & Company (Pvt) Ltd  
Construction of Boundary Wall along Periphery of Allama Iqbal Industrial City near  
Sahiwala Interchange M-4 Motorway, Faisalabad. Procurement No. AIIC-05

Reference # CED/TFL **3530** (Dr. Rizwan Azam)

Dated: 23-06-2023

Reference of the request letter # CRE/AIIC-05/Lab/419

Dated: 19-06-2023

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

Date of Test 26-06-2023

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in <sup>2</sup> )		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	0.385	3	0.380	0.11	0.113	3900	5600	78200	75910	112300	109000	1.00	12.5	Kamran Steel
2	0.384	3	0.379	0.11	0.113	4400	5800	88200	85990	116300	113400	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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,  
 Resident Engineer  
 NESPAK  
 Construction of Flyover / Underpass at Akbar Chowk Lahore.  
 (Revised: Signal Free Corridor)

Reference # CED/TFL **3531** (Dr. Rizwan Azam)  
 Reference of the request letter # 3772/103/ACF/SA/04/84

Dated: 23-06-2023  
 Dated: 19-06-2023

**Tension Test Report** (Page # 1/3)

Date of Test 26-06-2023  
 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	0.372	3	0.373	0.11	0.109	3500	5000	70200	70510	100200	100800	1.30	16.3	Batala Premium
2	0.373	3	0.374	0.11	0.110	3500	4900	70200	70400	98200	98600	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.**

Note:

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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
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To,  
 Resident Engineer  
 NESPAK  
 Construction of Flyover / Underpass at Akbar Chowk Lahore.  
 (Revised: Signal Free Corridor)

Reference # CED/TFL **3531** (Dr. Rizwan Azam)  
 Reference of the request letter # 3772/103/ACF/SA/04/89

Dated: 23-06-2023  
 Dated: 19-06-2023

**Tension Test Report** (Page # 2/3)

Date of Test 26-06-2023  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in <sup>2</sup> )		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	4.266	10	1.264	1.27	1.254	37000	55200	64300	65040	95800	97100	1.50	18.8	Batala Premium
2	4.265	10	1.263	1.27	1.254	36600	55000	63600	64360	95500	96800	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

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

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To,  
 Resident Engineer  
 NESPAK  
 Construction of Flyover / Underpass at Akbar Chowk Lahore.  
 (Revised: Signal Free Corridor)

Reference # CED/TFL **3531** (Dr. Rizwan Azam)  
 Reference of the request letter # 3772/103/ACF/SA/04/90

Dated: 23-06-2023  
 Dated: 19-06-2023

**Tension Test Report** (Page # 3/3)

Date of Test 26-06-2023  
 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	5.325	11	1.412	1.56	1.565	46600	64000	65900	65620	90500	90200	1.90	23.8	Batala Premium
2	5.327	11	1.412	1.56	1.566	47400	64600	67000	66730	91300	91000	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#11 Bar Bend Test Through 180° is Satisfactory														

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

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

To,  
Manager  
Allied Bank  
Construction of ABL Upper Mall Lahore Plot No. 199, 200.

Reference # CED/TFL **3533** (Dr. Rizwan Azam)  
Reference of the request letter # ABL/AMC/MALL/18/23

Dated: 23-06-2023  
Dated: 23-06-2023

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

Date of Test 26-06-2023  
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	4.355	10	1.277	1.27	1.280	39000	54400	67700	67150	94500	93700	1.70	21.3	Amreli Steel
2	4.283	10	1.266	1.27	1.259	38800	54400	67400	67930	94500	95300	1.60	20.0	
3	4.320	10	1.272	1.27	1.270	40200	55200	69800	69770	95800	95900	1.70	21.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only three sample for tensile test</b>														
Bend Test														

**I/C Testing Laboratoires**  
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To,  
 Resident Engineer  
 NESPAK  
 Construction of Underpass at Samanabad Morr Lahore.

Reference # CED/TFL **3534** (Dr. Rizwan Azam)  
 Reference of the request letter # 4403/03/AZ/Lab/Steel-59

Dated: 23-06-2023  
 Dated: 10-05-2023

**Tension Test Report** (Page # 1/5)

Date of Test 26-06-2023  
 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	0.374	3	0.374	0.11	0.110	3600	4700	72200	72100	94200	94200	1.20	15.0	Kisan
2	0.367	3	0.370	0.11	0.108	3400	4500	68200	69530	90200	92100	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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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer  
 NESPAK  
 Construction of Underpass at Samanabad Morr Lahore.

Reference # CED/TFL **3534** (Dr. Rizwan Azam)  
 Reference of the request letter # 4403/03/AZ/Lab/Steel-66

Dated: 23-06-2023  
 Dated: 30-05-2023

**Tension Test Report** (Page # 2/5)

Date of Test 26-06-2023  
 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	0.367	3	0.370	0.11	0.108	3600	4500	72200	73610	90200	92100	0.90	11.3	Kisan
2	0.362	3	0.368	0.11	0.107	3600	4600	72200	74490	92200	95200	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														

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

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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
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**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer  
 NESPAK  
 Construction of Underpass at Samanabad Morr Lahore.

Reference # CED/TFL **3534** (Dr. Rizwan Azam)  
 Reference of the request letter # 4403/03/AZ/Lab/Steel-41

Dated: 23-06-2023  
 Dated: 12-04-2023

**Tension Test Report** (Page # 3/5)

Date of Test 26-06-2023  
 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	0.374	3	0.374	0.11	0.110	3100	4700	62200	62230	94200	94400	1.40	17.5	5 Ster
2	0.381	3	0.377	0.11	0.112	3100	4800	62200	61060	96200	94600	1.20	15.0	
3	4.260	10	1.263	1.27	1.252	41400	57400	71900	72880	99700	101100	1.50	18.8	Ittefaq
4	4.241	10	1.260	1.27	1.247	40400	56400	70200	71430	97900	99800	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only four samples for tensile and two samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

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

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To,  
 Resident Engineer  
 NESPAK  
 Construction of Underpass at Samanabad Morr Lahore.

Reference # CED/TFL **3534** (Dr. Rizwan Azam)  
 Reference of the request letter # 4403/03/AZ/Lab/Steel-37

Dated: 23-06-2023  
 Dated: 30-03-2023

**Tension Test Report** (Page # 4/5)

Date of Test 26-06-2023  
 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	0.379	3	0.377	0.11	0.111	4400	5400	88200	87010	108200	106800	0.90	11.3	Kisan
2	0.373	3	0.373	0.11	0.110	4300	5300	86200	86540	106200	106700	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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

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

To,  
 Resident Engineer  
 NESPAK  
 Construction of Underpass at Samanabad Morr Lahore.

Reference # CED/TFL **3534** (Dr. Rizwan Azam)  
 Reference of the request letter # 4403/03/AZ/Lab/Steel-47

Dated: 23-06-2023  
 Dated: 14-04-2023

**Tension Test Report** (Page # 5/5)

Date of Test 26-06-2023  
 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	4.240	10	1.260	1.27	1.246	45400	60000	78800	80280	104200	106100	1.60	20.0	Ittefaq
2	4.251	10	1.261	1.27	1.250	47200	61000	82000	83260	105900	107600	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

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

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**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/06/3535

Dated: 23-06-2023

Dated of Test: 26-06-2023

To

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

**Subject: - CALIBRATION OF HYDRAULIC JACK WITH GAUGE**  
**(MARK: TFL/06/3535)**

Reference to your Letter No. QCD/1133-34, Dated: 15/06/2023 on the subject cited above. One Hydraulic Jack with Gauge as received by us has been calibrated. The results are tabulated as under:

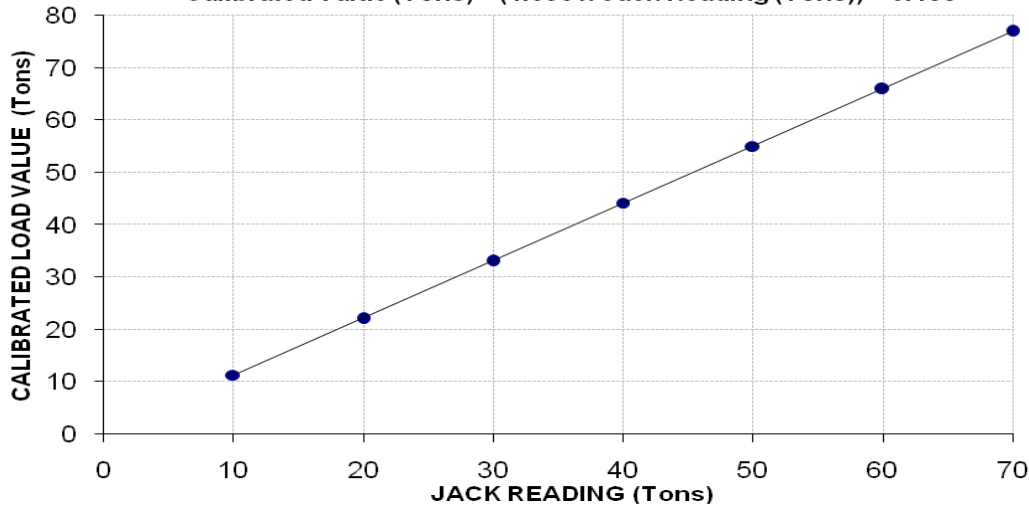
**Total Range : Zero - 200 (Ton)**  
**Calibrated Range : Zero - 70 (Ton)**

Hydraulic Jack Reading (Ton)	10	20	30	40	50	60	70
Calibrated Load (kg)	10200	20000	30000	40100	50000	59900	69900
Calibrated Load (Ton)	11.23	22.02	33.03	44.15	55.06	65.96	76.97

1000 Kg = 1.1011 Ton

**Calibration Curve For Jack**

**Calibrated Value (Tons) = (1.096 x Jack Reading (Tons)) + 0.188**



**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



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

To,  
 Asst Dir Lab  
 Defence Housing Authority, Bahawalpur  
 (M/s Sheekhoo Steel for Enlistment at DHAB)

Reference # CED/TFL **3536** (Dr. Rizwan Azam)  
 Reference of the request letter # 530/QC/MTL

Dated: 23-06-2023  
 Dated: 23-06-2023

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

Date of Test 26-06-2023  
 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	3400	4800	68200	69320	96200	97900	1.20	15.0	Sheekhoo 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**  
**UET Lahore, Pakistan.**

Note:

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

To,

Asst Dir Lab  
 Defence Housing Authority, Bahawalpur  
 (M/s Amir Steel Re-Rolling Mills for Enlistment at DHA B

Reference # CED/TFL **3538** (Dr. Rizwan Azam)  
 Reference of the request letter # 530/QC/MTL

Dated: 23-06-2023  
 Dated: 23-06-2023

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

Date of Test 26-06-2023  
 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	3200	4900	64200	64900	98200	99400	1.30	16.3	Amir Steel
-	0.364	3	0.369	0.11	0.107	3100	4800	62200	63840	96200	98900	1.30	16.3	
-	0.370	3	0.372	0.11	0.109	3200	4800	64200	64890	96200	97400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only three sample for tensile and two samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														

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

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