To,

Mr. Allah Bakhsh Naeem
Arco Engineering
UBL Building, Islamabad.

Reference # CED/TFL **7197** (Dr. M. Kashif) Dated: 08-07-2025
Reference of the request letter # Arco/Ropetesting2025 Dated: 08-07-2025

Tension Test Report (Page – 1/1)

Date of Test 11-07-2025
Description Steel Wire Rope Tensile Test

Sr. No.	Nominal Diameter	Measured weight			Breaking Load	Remarks / Coil No.
	(mm)	Weight (g)	Length (cm)	(kg/m)	(kg)	
1	**12**	**557.0**	**112.0**	**0.50**	**7600**	**-**
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-			-	-
Only one sample for Test						

Test Performed and Verified by:

To,

Mr. M. Ali Hummzah (Site Incharge)
Swiss Builders
Construction of 4-Storey Industrial Building at Industrial Estate Phool Mandi Chowk, Sagian Wala Bypass Road, Lahore

Reference # CED/TFL **7199** (Dr. M Kashif) Dated: 08-07-2025
Reference of the request letter # Nil Dated: 03-07-2025

Tension Test Report (Page-1/1)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.362**	**3**	**0.368**	**0.110**	**0.106**	**3800**	**4700**	**76138**	**78818**	**94171**	**97485**	**0.8**	**10.0**	-
2	**0.368**	**3**	**0.371**	**0.110**	**0.108**	**3700**	**4600**	**74135**	**75410**	**92167**	**93753**	**0.9**	**11.3**	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Zaheer Abbas (Sr. Manager Construction)
Educational Services (Pvt.) Ltd.
Beaconhouse School System (Construction at Sargodha Campus)

Reference # CED/TFL **7204** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # Nil Dated: 09-07-2025

Tension Test Report (Page-1/1)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.377	3	0.375	0.110	0.111	3700	4700	74135	73709	94171	93630	1.3	16.3	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 1 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Muhammad Zubair (Assistant Engineer Civil)
Government College University, Faisalabad
Construction of Academic Block No.07 at New Campus Government College University, Faisalabad

Reference # CED/TFL **7205** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # GCUF/EC/7081 Dated: 17-03-2025

Tension Test Report (Page-1/1)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.376**	**3**	**0.375**	**0.110**	**0.11**	**3600**	**4800**	**72131**	**71847**	**96175**	**95795**	**1.3**	**16.3**	**FF Steel**
2	**0.384**	**3**	**0.379**	**0.110**	**0.113**	**3700**	**4900**	**74135**	**72270**	**98178**	**95709**	**1.4**	**17.5**	**FF Steel**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Muhammad Asif (Site Incharge)
Canal 44 Luxury Apartments
-

Reference # CED/TFL **7206** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # Nil Dated: 09-07-2025

Tension Test Report (Page-1/1)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.410**	**3**	**0.392**	**0.110**	**0.12**	**4000**	**5400**	**80145**	**73198**	**108196**	**98818**	**1.2**	**15.0**	-
2	**0.411**	**3**	**0.392**	**0.110**	**0.121**	**3900**	**5300**	**78142**	**71095**	**106193**	**96616**	**1**	**12.5**	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Sub Divisional Officer
Highway Sub Division, Narowal
Construction of Carpet Road From Narowal - Shakargarh Road to Kothay Khurd via Kothay Kalan Including Link to Kartarpur Corridor (Length = 6.10 KM) in District Narowal

Reference # CED/TFL **7208** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # 125/NL Dated: 08-07-2025

Tension Test Report (Page-1/8)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.367	3	0.370	0.110	0.108	3000	4600	60109	61378	92167	94113	1.3	16.3	3"/8
2	0.369	3	0.371	0.110	0.108	3000	4600	60109	61024	92167	93571	1.2	15.0	3"/8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Sub Divisional Officer
Highway Sub Division, Narowal
Construction / Reconstruction of Road From Kandhala to Kotli via Jaspal (Length = 2.30 KM) in District Narowal

Reference # CED/TFL **7208** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # 119/NL Dated: 08-07-2025

Tension Test Report (Page-2/8)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.435**	**3**	**0.403**	**0.110**	**0.128**	**2800**	**4100**	**56102**	**48275**	**82149**	**70688**	**1.6**	**20.0**	**3"/8**
2	**0.433**	**3**	**0.403**	**0.110**	**0.127**	**2800**	**4000**	**56102**	**48468**	**80145**	**69240**	**1.4**	**17.5**	**3"/8**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Sub Divisional Officer
Highway Sub Division, Narowal
Construction of Road From Burewali Upto Link Road (Length = 2.00 KM) in District Narowal

Reference # CED/TFL **7208** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # 121/NL Dated: 08-07-2025

Tension Test Report (Page-3/8)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.367	3	0.371	0.110	0.108	2700	4200	54098	55151	84153	85790	1.3	16.3	3"/8
2	0.370	3	0.372	0.110	0.109	2800	4400	56102	56828	88160	89301	1.3	16.3	3"/8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Sub Divisional Officer
Highway Sub Division, Narowal
Construction of Road From Police Line to Chak Safdhar Via Takia Plot (Length = 1.40 KM)
in District Narowal

Reference # CED/TFL **7208** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # 117/NL Dated: 08-07-2025

Tension Test Report (Page-4/8)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.369**	**3**	**0.372**	**0.110**	**0.108**	**2800**	**4400**	**56102**	**56894**	**88160**	**89405**	**1.5**	**18.8**	**3"/8**
2	**0.364**	**3**	**0.369**	**0.110**	**0.107**	**2800**	**4300**	**56102**	**57647**	**86156**	**88529**	**1.2**	**15.0**	**3"/8**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Sub Divisional Officer
Highway Sub Division, Narowal
onstruction of Carpet Road From Narowal - Shakargarh Road to Village Dodhay & Panwan
(Length = 2.10 KM) in District Narowal

Reference # CED/TFL **7208** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # 127/NL Dated: 08-07-2025

Tension Test Report (Page-5/8)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	**0.366**	**3**	**0.370**	**0.110**	**0.107**	**2700**	**4200**	**54098**	**55392**	**84153**	**86166**	**1.4**	**17.5**	**3"/8**
2	**0.369**	**3**	**0.372**	**0.110**	**0.108**	**2700**	**4200**	**54098**	**54855**	**84153**	**85330**	**1.4**	**17.5**	**3"/8**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Sub Divisional Officer
Highway Sub Division, Narowal
Rehabilitation / Improvement of Road From Village Maloke to Village Dhaala, Total Length =4.10KM, (Taken Up Length =0.90 KM) in District Narowal

Reference # CED/TFL **7208** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # 123/NL Dated: 08-07-2025

Tension Test Report (Page-6/8)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.365	3	0.370	0.110	0.107	2800	4400	56102	57519	88160	90387	1.4	17.5	3"/8
2	0.366	3	0.370	0.110	0.108	2700	4200	54098	55286	84153	86000	1.2	15.0	3"/8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Sub Divisional Officer
Highway Sub Division, Narowal
Restoration / Improvement of Road From Adda Qila Kalarwala (Narowal - Muridke Road) to Baddomallhi Toll Plaza (New Laohre Road) (Length = 18.50 KM) in District Narowal

Reference # CED/TFL **7208** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # 129/NL Dated: 08-07-2025

Tension Test Report (Page-7/8)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.366	3	0.370	0.110	0.107	2700	4200	54098	55407	84153	86188	1.4	17.5	3"/8
2	0.372	3	0.373	0.110	0.109	2800	4500	56102	56530	90164	90853	1.4	17.5	3"/8
3	4.155	10	1.247	1.270	1.221	31200	52200	54146	56321	90590	94229	0.8	10.0	Plain
4	4.117	10	1.241	1.270	1.21	40800	77000	70806	74326	133628	140272	0.4	5.0	Plain
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 4 Samples for Tensile and 2 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory
10 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Sub Divisional Officer
Highway Sub Division, Narowal
Restoration / Improvement of Circular Road Narowal (Length = 7.00 KM) in District Narowal

Reference # CED/TFL **7208** (Dr. M Kashif) Dated: 09-07-2025
Reference of the request letter # 132/NL Dated: 08-07-2025

Tension Test Report (Page-8/8)

Date of Test 11-07-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in^2)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.365	3	0.370	0.110	0.107	2700	4100	54098	55483	82149	84252	1.4	17.5	3"/8
2	0.367	3	0.370	0.110	0.108	2700	4200	54098	55212	84153	85885	1.4	17.5	3"/8
3	4.142	10	1.245	1.270	1.217	26600	42200	46163	48170	73235	76420	1.2	15.0	Plain
4	4.104	10	1.239	1.270	1.206	40400	74800	70111	73831	129810	136697	0.8	10.0	Plain
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 4 Samples for Tensile and 2 Samples for Bend test														

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory
10 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

Ref: CED/TFL/07/7210 Dated: 10-07-2025

Dated of Test: 11-07-2025 (Dr. M. Kashif)

To

Deputy Director (QCD)
Water and Sanitation Agency, Faisalabad
(M/s Madina RCC Pipe Manufacturing Factory Yasin Chowk 239-RB By-Pass Road, Faisalabad)

Subject: **- CALIBRATION OF HYDRAULIC JACK. (MARK: TFL/07/7210)**

Reference to your Letter No. 248/DD (QCD)/WASA/2025, Dated: 25/06/2025 on the subject cited above. One Hydraulic Jack No. 29375 as received by us has been calibrated. The results are tabulated as under:

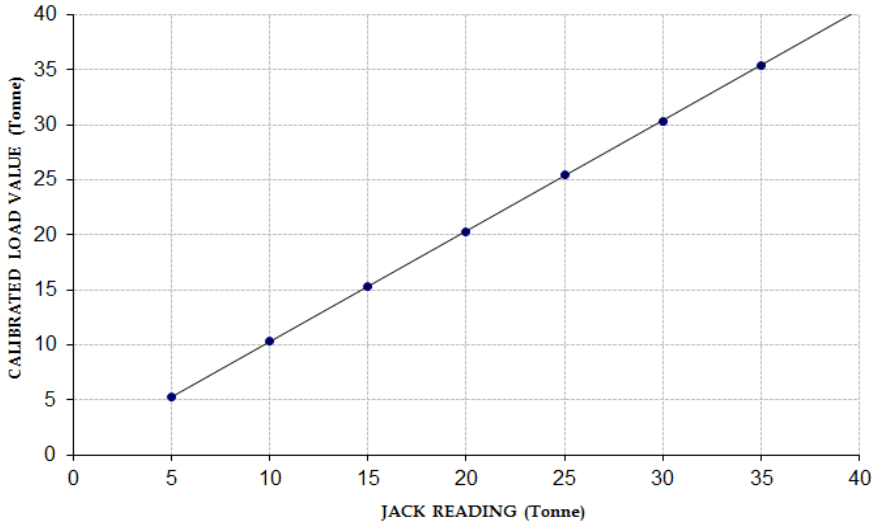
Total Range : Zero - 50 (Tonne)
Calibrated Range : Zero - 40 (Tonne)

Hydraulic Jack Reading (Tonne)		**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**
Calibrated Load	**(kg)**	**5250**	**10300**	**15300**	**20300**	**25450**	**30300**	**35400**	**40450**
	(Tonne)	**5.25**	**10.30**	**15.30**	**20.30**	**25.45**	**30.30**	**35.40**	**40.45**

1 Tonne = 1000 kg

Calibration Curve For Jack No. 29375

Calibrated Value (Tonne) = 1.0049 x Jack Reading (Tonne)) + 0.2339



Test Performed and Verified by:

Ref: CED/TFL/07/7211 Dated: 10-07-2025

Dated of Test: 11-07-2025 (Dr. M. Kashif)

To

Mr. Riaz Ahmed (General Manager)
M/s National Technocommercial Services (Private) Limited
Lahore

Subject: **- BREAKING LOAD TEST OF LUG No. MK-59 (NTS with Harding)**
(Page # 1/2)

Reference to your Letter No. NTS/DC-Lug 59/DC/25-1, dated: 10/07/2025, on the subject cited above. Two Lugs with assembly as received by us have been tested. The results are tabulated as shown below:

Sr. No.	Diameter	Length	Breaking Load	Remarks
	(mm)	(mm)	(kg)	
1	44	66.50	13700	Lug Hook Failure
2	44	66.50	12500	Lug Hook Failure
-	-	-	-	-
Only two samples for Test				

Witnessed by: Muhammad Umar (Examiner (Mech), Pakistan Navy)

Test Performed and Verified by:

Ref: CED/TFL/07/7211 Dated: 10-07-2025

Dated of Test: 11-07-2025 (Dr. M. Kashif)

To

Mr. Riaz Ahmed (General Manager)
M/s National Technocommercial Services (Private) Limited
Lahore

Subject: **- BREAKING LOAD TEST OF LUG) No. MK-43A (ATR) (NTS with Harding) (Page # 2/2)**

Reference to your Letter No. NTS/DC-Lug 43A/DC/25-2, dated: 10/07/2025, on the subject cited above. Two Lugs with assembly as received by us has been tested. The results are tabulated as shown below:

Sr. No.	Nominal Diameter	Length	Breaking Load	Remarks
	(mm)	(mm)	(kg)	
1	44	59.00	14200	Lug Hook Failure
2	44	59.00	12800	Lug Hook Failure
-	-	-	-	-
Only two samples for Test				

Witnessed by: Muhammad Umar (Examiner (Mech), Pakistan Navy)

Test Performed and Verified by: