



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
 Lahore Development Projects (TEPA/LDA)

Reference # CED/TFL **35003** (Dr. Qasim Khan)
 Reference of the request letter # 4084/BSAM/104/30

Dated: 18-06-2020
 Dated: 06-06-2020

Tension Test Report (Page – 1/1)

Date of Test 29-06-2020
 Gauge length 2 inches
 Description Aluminum Sheet Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)	(mm)	(mm ²)	(kN)	(kN)	(MPa)	(MPa)	(in)		
1	3	22.40x3.00	67.20	8.67	9.15	129.02	136.16	0.35	17.50	
2		22.40x3.00	67.20	8.47	8.80	126.04	130.95	0.40	20.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test										
Bend Test										

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Ref: CED/TFL/06/35051

Dated: 06-06-2020

Dated of Test: 29-06-2020

To,
Resident Engineer
(CAREC) Petaro - Sehwan Section-1
Jv of DONGIL, TCI, LOYA, ELECTRA & DONGSUNG

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/35051)** (Page -1/2)

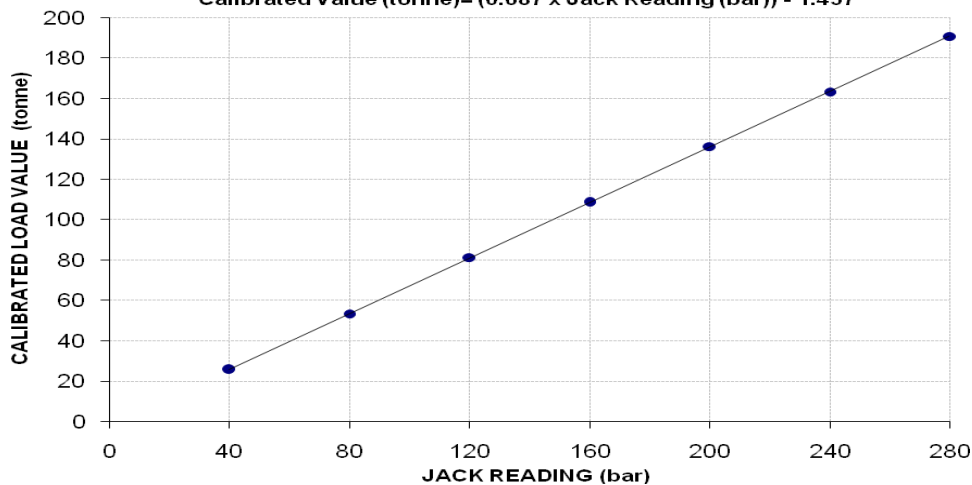
Reference to your Letter No. RE/PSS1/2020/395, Dated: 24/06/2020 on the subject cited above. One Hydraulic Jack (Jack No. AES 315, Gauge No. AES-315) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 280 (bar)

Hydraulic Jack Reading (bar)	40	80	120	160	200	240	280	
Calibrated Load	(kg)	25800	53400	81400	108600	136200	163400	190800
	Tonne	25.80	53.40	81.40	108.60	136.20	163.40	190.80
Calibrated Pressure (bar)	37	77	118	157	197	236	276	

1 Tonne = 1000 kg, The Ram Area of Jack = 678.67 cm²

Calibration Curve For Jack No. AES 315
Calibrated Value (tonne) = (0.687 × Jack Reading (bar)) - 1.457



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Ref: CED/TFL/06/35051

Dated: 06-06-2020

Dated of Test: 29-06-2020

To,
Resident Engineer
(CAREC) Petaro - Sehwan Section-1
Jv of DONGIL, TCI, LOYA, ELECTRA & DONGSUNG

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/35051)** (Page -2/2)

Reference to your Letter No. RE/PSS1/2020/395, Dated: 24/06/2020 on the subject cited above. One Hydraulic Jack (Jack No. AES 316, Gauge No. AES-316) as received by us has been calibrated. The results are tabulated as under:

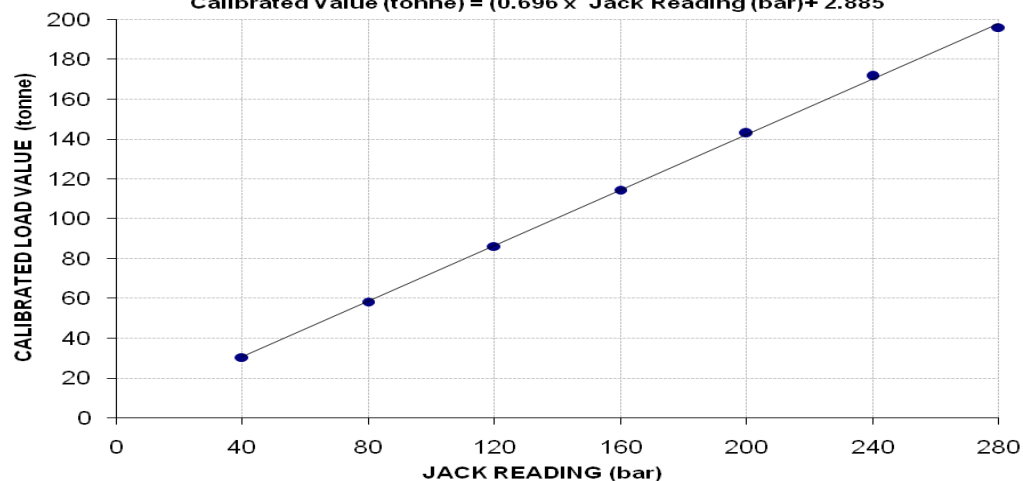
Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 280 (bar)

Hydraulic Jack Reading (bar)	40	80	120	160	200	240	280	
Calibrated Load	(kg)	30400	58400	86200	114600	143000	171600	196000
	Tonne	30.40	58.40	86.20	114.60	143.00	171.60	196.00
Calibrated Pressure (bar)	44	84	125	166	207	248	283	

1 Tonne = 1000 kg, The Ram Area of Jack = 678.67 cm²

Calibration Curve For Jack No. AES 316

Calibrated Value (tonne) = (0.696 × Jack Reading (bar)) + 2.885



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To,
 Chief Resident Engineer (Civil) Panjnad Barrage
 Trimmu Panjnad Barrages Consultants
 Trimmu and Panjnad Barrages Improvement Project (TPBIP)

Reference # CED/TFL **35052** (Dr. Qasim Khan)
 Reference of the request letter # TPBC/CRE2020/TECH/760

Dated: 26-06-2020
 Dated: 22-06-2020

Tension Test Report (Page -1/1)

Date of Test 29-06-2020
 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	0.365	3	0.370	0.11	0.107	4200	5300	84200	86190	106200	108800	0.80	10.0	Mughal Steel
2	0.363	3	0.368	0.11	0.107	4300	5400	86200	88940	108200	111700	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
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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To,
M/S Defence Housing Authority.
Lahore Cantt
(Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI (M/s Construct))

Reference # CED/TFL **35053** (Dr. Qasim Khan)
Reference of the request letter # 408/241/E/Lab/932/5451

Dated: 26-06-2020
Dated: 25-06-2020

Tension Test Report (Page -1/1)

Date of Test 29-06-2020
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	0.396	3	0.385	0.11	0.116	3600	5400	72200	68180	108200	102300	1.30	16.3	Kamran Steel
2	0.395	3	0.384	0.11	0.116	3800	5300	76200	72160	106200	100700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Project Manager
 Liberty Builders
 Construction of Zee Avenue-Ramada Hotel & Suites 17-A Cooper Road, Lahore

Reference # CED/TFL **35055** (Dr. Qasim Khan)
 Reference of the request letter # ST/UET/20200629

Dated: 29-06-2020
 Dated: 29-06-2020

Tension Test Report (Page -1/1)

Date of Test 29-06-2020
 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	0.376	3	0.375	0.11	0.110	3400	4700	68200	67890	94200	93900	0.90	11.3	AF-3S
2	0.404	3	0.389	0.11	0.119	3900	5400	78200	72400	108200	100300	0.80	10.0	
3	0.376	3	0.375	0.11	0.111	3700	4800	74200	73760	96200	95700	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
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To,
M/S M. Saleem Construction Company
Sheikhupura

Reference # CED/TFL **35056** (Dr. Qasim Khan)
Reference of the request letter # Nil

Dated: 29-06-2020
Dated: 26-06-2020

Tension Test Report (Page -1/1)

Date of Test 29-06-2020
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in ²)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.365	3/8	0.370	0.11	0.107	4000	5100	80200	82100	102200	104700	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

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