



**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/02/36119

Dated: 23-02-2021

Dated of Test: 24-02-2021

To  
Chief Executive  
StrongForce Private limited  
Lahore

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/02/36119) (Page -1/2)

Reference to your Letter No. L21/02-11390, dated: 22/02/2021 on the subject cited above. One Hydraulic Jack (Jack No. 301, Gauge No. SF 301) as received by us has been calibrated. The results are tabulated as under:

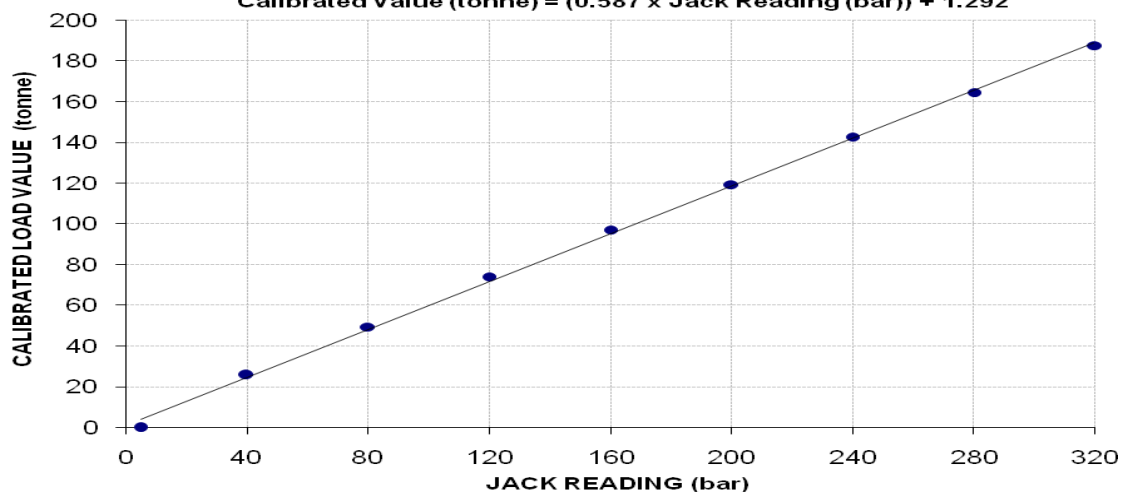
**Total Range : Zero - 1000 (bar)**  
**Calibrated Range : Zero - 320 (bar)**

Hydraulic Jack Reading (bar)	5	40	80	120	160	200	240	280	320	
Calibrated Load	(kg)	0	25800	49400	74000	97100	119400	142800	164600	187600
	(Tonne)	0	25.80	49.40	74.00	97.10	119.40	142.80	164.60	187.60
Calibrated Pressure (bar)	0	44.02	84.28	126.26	165.67	203.72	243.64	280.83	320.08	

(1 Tonne = 1000 kg) The Ram Area of Jack = 574.8 cm<sup>2</sup>

**Calibration Curve For Jack No. 301**

Calibrated Value (tonne) = (0.587 x Jack Reading (bar)) + 1.292



**I/C Testing Laboratories**  
**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  
Chief Executive  
StrongForce Private imited  
Lahore

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/02/36119) (Page -2/2)

Reference to your Letter No. L21/02-11391, dated: 22/02/2021 on the subject cited above. One Hydraulic Jack (Jack No. 302, Gauge No. SF 302) as received by us has been calibrated. The results are tabulated as under:

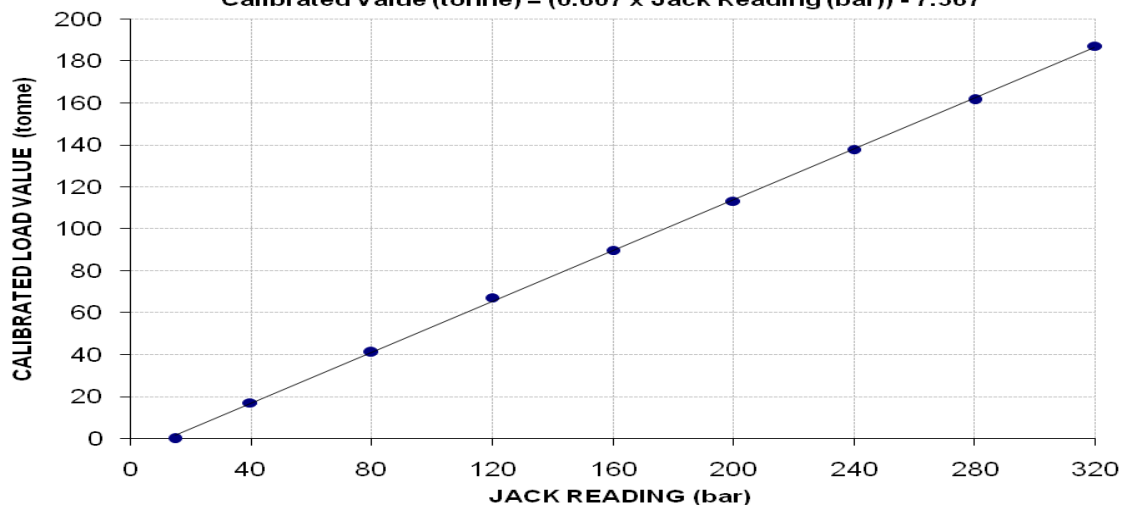
**Total Range** : Zero - 1000 (bar)  
**Calibrated Range** : Zero - 320 (bar)

Hydraulic Jack Reading (bar)	15	40	80	120	160	200	240	280	320	
Calibrated Load	(kg)	0	17200	41200	67200	89800	113400	138000	161600	187200
	(Tonne)	0	17.20	41.20	67.20	89.80	113.40	138.00	161.60	187.20
Calibrated Pressure (bar)	0	29.35	70.29	114.65	153.21	193.48	235.45	275.72	319.39	

(1 Tonne = 1000 kg) The Ram Area of Jack = 574.8 cm<sup>2</sup>

**Calibration Curve For Jack No. 302**

Calibrated Value (tonne) = (0.607 × Jack Reading (bar)) - 7.567



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

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

Reference # CED/TFL **36128, 129** (Dr. Ali Ahmed)  
 Reference of the request letter # ADB-301B/2018/188

Dated: 24-02-2021  
 Dated: 23-02-2021

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

Date of Test 24-02-2021  
 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	4.207	10	1.255	1.27	1.237	40000	53200	69500	71300	92400	94900	1.50	18.8	Agha Arcon
2	4.137	10	1.244	1.27	1.216	39000	53200	67700	70700	92400	96500	1.20	15.0	
3	4.133	10	1.244	1.27	1.215	37400	50400	65000	67850	87500	91500	1.40	17.5	
4	4.101	10	1.239	1.27	1.206	43000	56800	74700	78620	98600	103900	1.10	13.8	
5	4.165	10	1.249	1.27	1.224	38000	51400	66000	68410	89300	92600	1.60	20.0	
6	4.189	10	1.252	1.27	1.231	40800	55000	70900	73030	95500	98500	1.60	20.0	
<b>Note: only six samples for tensile and three sample for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

Witness by M. Mehtab Sikandar (Jr. Engineer NESPAK)

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

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