



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/11/35610

Dated: 10-11-2020

Dated of Test: 12-11-2020

To
Muhammad Hanif Anjum
M. Hanif Anjum R.C.C. Pipe Factory Rajna Road Toba Tek Singh

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/11/35610)**

Reference to your Letter No. MHA/1041, Dated: 10/11/2020 on the subject cited above. One Hydraulic Jack as received by us has been calibrated. The results are tabulated as under:

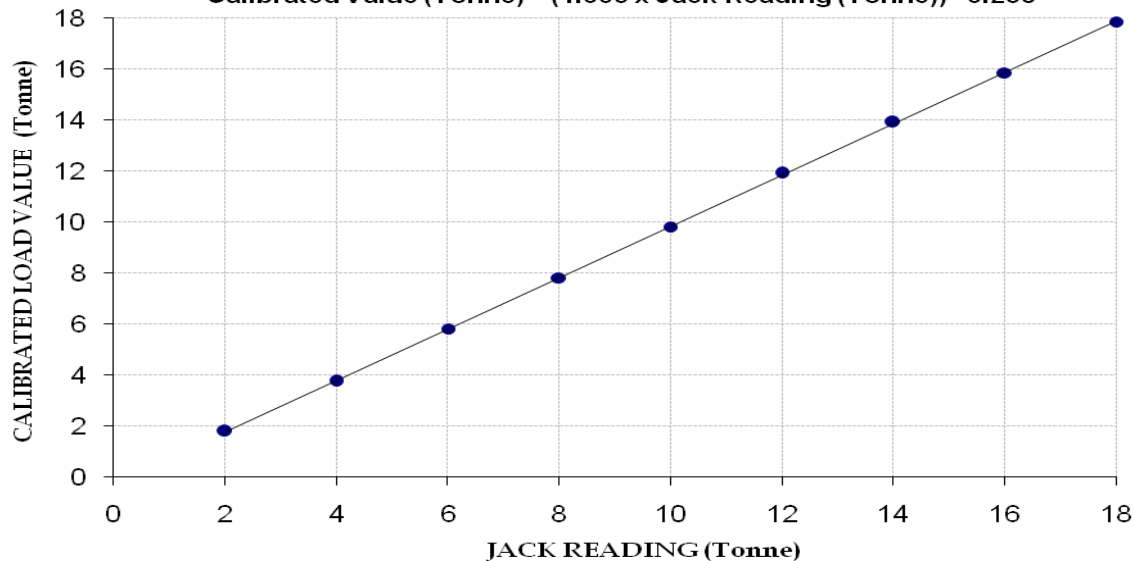
Total Range : Zero - 20 (Tonne)
Calibrated Range : Zero - 18 (Tonne)

| Hydraulic Jack Reading (Tonne) | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | |
|--------------------------------|-------|------|------|------|------|------|-------|-------|-------|-------|
| Calibrated Load | (kg) | 1800 | 3750 | 5800 | 7800 | 9800 | 11900 | 13900 | 15850 | 17850 |
| | Tonne | 1.80 | 3.75 | 5.80 | 7.80 | 9.80 | 11.90 | 13.90 | 15.85 | 17.85 |

1 Tonne = 1000 Kg

Calibration Curve For Jack

Calibrated Value (Tonne) = (1.006 x Jack Reading (Tonne)) - 0.238



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To,
 Sub Divisional Officer
 Public Health Engg: Sub Division
 Faisalabad
 ((Provision of Sewerage System at Dijkot District Faisalabad))

Reference # CED/TFL **35613** (Dr. Usman Akmal)
 Reference of the request letter # 376

Dated: 11-11-2020
 Dated: 15-09-2020

Tension Test Report (Page -1/1)

Date of Test 12-11-2020
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test

| Sr. No. | Weight (lbs/ft) | Diameter/ Size (inch) | | Area (in ²) | | Yield load (kg) | Breaking Load (kg) | Yield Stress (psi) | | Ultimate Stress (psi) | | Elongation (inch) | % Elongation | Marks |
|---|--------------------|-----------------------------|--------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|-------|
| | | Nominal | Actual | Nominal | Actual | | | Nominal | Actual | Nominal | Actual | | | |
| 1 | 0.106 | 3/16 | 0.199 | ----- | 0.031 | 800 | 1040 | ----- | 56440 | ----- | 73400 | 1.30 | 16.3 | |
| 2 | 0.114 | 3/16 | 0.207 | ----- | 0.034 | 880 | 1120 | ----- | 57670 | ----- | 73400 | 1.70 | 21.3 | |
| 3 | 0.253 | 1/4 | 0.308 | ----- | 0.074 | 1920 | 2560 | ----- | 56850 | ----- | 75800 | 1.70 | 21.3 | |
| 4 | 0.248 | 1/4 | 0.304 | ----- | 0.073 | 1840 | 2480 | ----- | 55720 | ----- | 75100 | 1.50 | 18.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only four samples for tensile test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
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To,
M/S ACME Engineering Services & Contractors
Rawalpindi

Reference # CED/TFL **35615** (Dr. Usman Akmal)
Reference of the request letter # MT-2020-01

Dated: 11-11-2020

Dated: 09-11-2020

Tension Test Report (Page – 1/3)

Date of Test 12-11-2020
Gauge length 8 inches
Description Steel Wire Tensile Test

| Sr. No. | Diameter / size | Area | Breaking Load | Ultimate Stress | Elongation | % Elongation | Marks |
|---|-----------------|--------------------|---------------|-----------------|------------|--------------|-------|
| | (mm) | (mm ²) | (kg) | (MPa) | (inch) | | |
| 1 | 3.00 | 7.069 | 300 | 416.35 | 1.80 | 22.50 | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| Only One Sample for Tensile Test | | | | | | | |

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S ACME Engineering Services & Contractors
Rawalpindi

Reference # CED/TFL **35615** (Dr. Usman Akmal)
Reference of the request letter # MT-2020-02

Dated: 11-11-2020

Dated: 09-11-2020

Tension Test Report (Page – 2/3)

Date of Test 12-11-2020
Gauge length 8 inches
Description Steel Wire Tensile Test

| Sr. No. | Diameter / size | Area | Breaking Load | Ultimate Stress | Elongation | % Elongation | Marks |
|---|-----------------|--------------------|---------------|-----------------|------------|--------------|-------|
| | (mm) | (mm ²) | (kg) | (MPa) | (inch) | | |
| 1 | 3.00 | 7.069 | 300 | 416.35 | 1.60 | 20.00 | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| Only One Sample for Tensile Test | | | | | | | |

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S ACME Engineering Services & Contractors
Rawalpindi

Reference # CED/TFL **35615** (Dr. Usman Akmal)
Reference of the request letter # MT-2020-03

Dated: 11-11-2020

Dated: 09-11-2020

Tension Test Report (Page – 3/3)

Date of Test 12-11-2020
Gauge length 8 inches
Description Steel Wire Tensile Test

| Sr. No. | Diameter / size | Area | Breaking Load | Ultimate Stress | Elongation | % Elongation | Marks |
|---|-----------------|--------------------|---------------|-----------------|------------|--------------|-------|
| | (mm) | (mm ²) | (kg) | (MPa) | (inch) | | |
| 1 | 3.00 | 7.069 | 300 | 416.35 | 1.40 | 17.50 | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | |
| Only One Sample for Tensile Test | | | | | | | |

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Senior Resident Engineer
 ACES Pvt Ltd
 Sector-A, DHA Multan

Reference # CED/TFL **35618** (Dr. Rizwan Riaz)
 Reference of the request letter # ACES/SEC-A/LAB/003

Dated: 12-11-2020
 Dated: 09-11-2020

Tension Test Report (Page -1/1)

Date of Test 12-11-2020
 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 ²) | | Yield load (kg) | Breaking Load (kg) | Yield Stress (psi) | | Ultimate Stress (psi) | | Elongation (inch) | % Elongation | Marks |
|--|--------------------|---------------------------|--------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|-----------------|
| | | Nominal | Actual | Nominal | Actual | | | Nominal | Actual | Nominal | Actual | | | |
| 1 | 0.413 | 10 | 0.393 | 0.11 | 0.121 | 4200 | 5300 | 84200 | 76300 | 106200 | 96300 | 0.80 | 10.0 | Amreli Steel |
| 2 | 0.411 | 10 | 0.392 | 0.11 | 0.121 | 4200 | 5300 | 84200 | 76550 | 106200 | 96600 | 1.00 | 12.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| 10mm Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Senior Resident Engineer
 ACES Pvt Ltd
 Sector-A, DHA Multan

Reference # CED/TFL **35619** (Dr. Rizwan Riaz)
 Reference of the request letter # ACES/SEC-A/LAB/003

Dated: 12-11-2020
 Dated: 09-11-2020

Tension Test Report (Page -1/1)

Date of Test 12-11-2020
 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 ²) | | Yield load (kg) | Breaking Load (kg) | Yield Stress (psi) | | Ultimate Stress (psi) | | Elongation (inch) | % Elongation | Marks |
|--|--------------------|---------------------------|--------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|--------------|
| | | Nominal | Actual | Nominal | Actual | | | Nominal | Actual | Nominal | Actual | | | |
| 1 | 0.413 | 10 | 0.393 | 0.11 | 0.121 | 4300 | 5300 | 86200 | 78030 | 106200 | 96200 | 0.80 | 10.0 | Zia Steel |
| 2 | 0.414 | 10 | 0.394 | 0.11 | 0.122 | 4500 | 5300 | 90200 | 81510 | 106200 | 96000 | 0.90 | 11.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| 10mm Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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