



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/11/5956

Dated: 05-11-2024

Dated of Test: 11-11-2024

To

Resident Engineer
Zeeruk International (Pvt) Ltd.
Construction of 10th Avenue from I.J.P Road to Srinagar Highway, Islamabad.

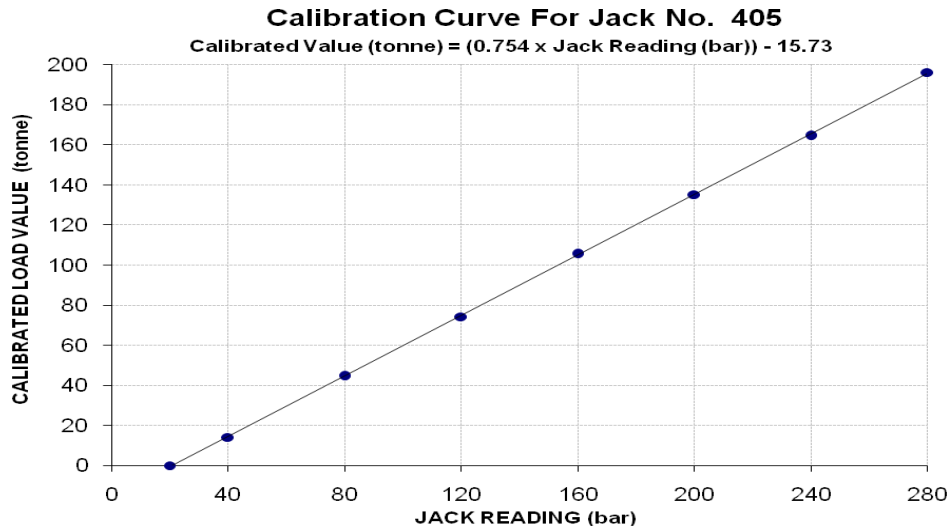
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/11/5956) (Page -1/2)

Reference to your Letter No. RE/Zeeruk/10thAvenue/2024/408, dated: 30/10/2024 on the subject cited above. One Hydraulic Jack (Jack No. 405, Gauge No. SF-405) 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) | | 20 | 40 | 80 | 120 | 160 | 200 | 240 | 280 |
|------------------------------|---------|----|-------|-------|-------|--------|--------|--------|--------|
| Calibrated Load | (kg) | 0 | 14000 | 44600 | 74200 | 105600 | 135200 | 164400 | 196200 |
| | (tonne) | 0 | 14.00 | 44.60 | 74.20 | 105.60 | 135.20 | 164.40 | 196.20 |
| Calibrated Pressure (bar) | | 0 | 19 | 60 | 99 | 141 | 181 | 220 | 262 |

The Ram Area of Jack = 734.35 cm²



I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Ref: CED/TFL/11/5956

Dated: 05-11-2024

Dated of Test: 11-11-2024

To

Resident Engineer
Zeeruk International (Pvt) Ltd.
Construction of 10th Avenue from I.J.P Road to Srinagar Highway, Islamabad.

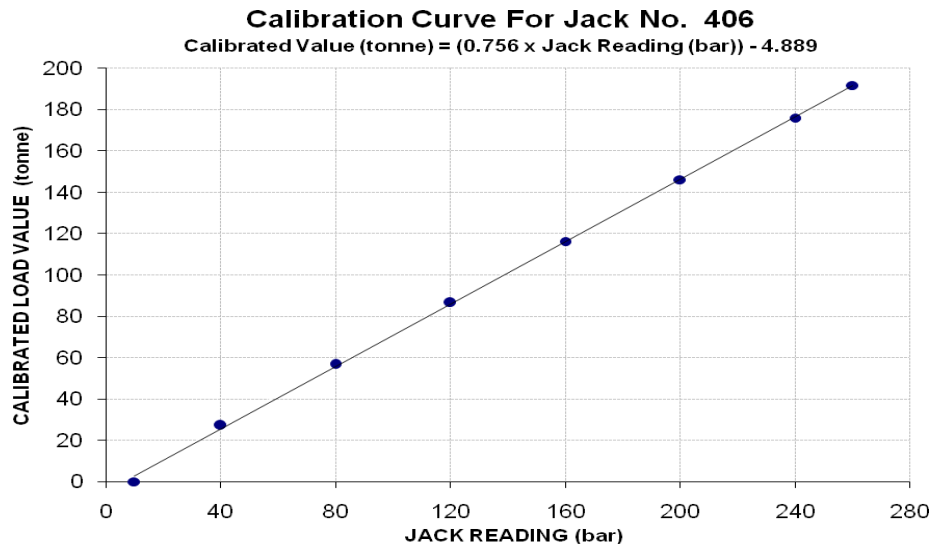
Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/11/5956) (Page -2/2)

Reference to your Letter No. RE/Zeeruk/10thAvenue/2024/408, dated: 30/10/2024 on the subject cited above. One Hydraulic Jack (Jack No. 406, Gauge No. SF-406) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 260 (bar)

| Hydraulic Jack Reading (bar) | | 10 | 40 | 80 | 120 | 160 | 200 | 240 | 260 |
|------------------------------|---------|----|-------|-------|-------|--------|--------|--------|--------|
| Calibrated Load | (kg) | 0 | 27200 | 56600 | 86600 | 116200 | 146200 | 176000 | 191600 |
| | (tonne) | 0 | 27.20 | 56.60 | 86.60 | 116.20 | 146.20 | 176.00 | 191.60 |
| Calibrated Pressure (bar) | | 0 | 36 | 76 | 116 | 155 | 195 | 235 | 256 |

The Ram Area of Jack = 734.35 cm²



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To,

Contractor Representative
CCECC - HCS Jv
Expansion of Terminal Building and Allied Facilities at Allama Iqbal International
Air[port (AIIAP), Lahore

Reference # CED/TFL **5962** (Dr.M Rizwan Riaz)

Dated: 06-11-2024

Reference of the request letter # CCECCHCSJVAIIAP2024-360

Dated: 04-11-2024

Tension Test Report (Page -1/1)

Date of Test 11-11-2024

Gauge length 8 inches

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

| Sr. No. | Weight | Diameter/ Size | | Area (in ²) | | 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 | 4.196 | 10 | 1.253 | 1.27 | 1.234 | 39800 | 57400 | 69100 | 71120 | 99700 | 102600 | 1.30 | 16.3 | Kamran |
| 2 | 4.273 | 10 | 1.265 | 1.27 | 1.256 | 38200 | 53200 | 66300 | 67040 | 92400 | 93400 | 1.50 | 18.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| #10 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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Witness byJamil Akhtar (Lab-Tech. NESPAK) & Nazish Imran (ME, CCECC-HCS Jv)

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Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,

Cantonment Executive Officer
Military Lands & Cantonments Deptt
Lahore Cantonment Board
(Construction of Shops (11 x CB Plaza Sarwar Road))

Reference # CED/TFL **5967** (Dr. M Kashif)

Dated: 07-11-2024

Reference of the request letter # SCE/Tender-2024-25/D-18570

Dated: 29-10-2024

Tension Test Report (Page -1/1)

Date of Test 11-11-2024

Gauge length 8 inches

Description Deformed Steel Bar Tensile Test as per ASTM-A615

| Sr. No. | Weight | Diameter/ Size | | Area (in ²) | | 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 | 0.380 | 3 | 0.377 | 0.11 | 0.112 | 3940 | 5270 | 79000 | 77760 | 105600 | 104100 | 1.10 | 13.8 | |
| 2 | 0.379 | 3 | 0.377 | 0.11 | 0.111 | 3920 | 5270 | 78600 | 77500 | 105600 | 104200 | 1.10 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile test | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
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I/C Testing Laboratories
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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
AZ Engineering Associates
Construction / Reconstruction of Road from Mianwali D.I Khan Road at Chashma Lake to
Allu Piplan Kallurkot Road I/C 4 Nos Bridges (Old She Shah Soori Road) Length: 8.00
km District Mianwali.

Reference # CED/TFL **5968** (Dr.M Rizwan Riaz)
Reference of the request letter # AZEA/MWL/LAB/24/0232

Dated: 07-11-2024
Dated: 07-11-2024

Tension Test Report (Page -1/1)

Date of Test 11-11-2024

Gauge length 8 inches

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

| Sr. No. | Weight | Diameter/ Size | | Area (in ²) | | 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 | 4.192 | 10 | 1.252 | 1.27 | 1.232 | 39400 | 55400 | 68400 | 70490 | 96200 | 99200 | 1.50 | 18.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only one sample for tensile and one sample for bend test | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| #10 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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Test Floor Laboratory
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Pakistan. Ph: 92-42-99029202

To,

M/S Haseen Habib Corporation (Private) Ltd.
Lahore

Reference # CED/TFL **5970** (Dr. M K Ashif)

Reference of the request letter # Nil

Dated: 07-11-2024

Dated: 07-11-2024

Tension Test Report (Page – 1/1)

Date of Test 11-11-2024

Gauge length 2 inches

Description Steel Plate Steel 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 ²) | (kN) | (kN) | (MPa) | (MPa) | (in) | | |
| 1 | SS Plate | 27.10x2.70 | 73.17 | 38.30 | 51.20 | 523 | 700 | 1.10 | 55.00 | |
| 2 | MS Plate | 26.90x4.70 | 126.43 | 35.20 | 48.70 | 278 | 385 | 0.60 | 30.00 | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| Only Two Sample for Tensile Test | | | | | | | | | | |
| | | | | | | | | | | |
| Bend Test | | | | | | | | | | |
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I/C Testing Laboratoires
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Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Resident Engineer
 NESPAK
 Expansion of Joint Chek Post Wagha, Lahore.

Reference # CED/TFL **5971** (Dr. M KAshif)
 Reference of the request letter # 4749/031/YK/01/90

Dated: 07-11-2024
 Dated: 07-11-2024

Tension Test Report (Page -1/1)

Date of Test 11-11-2024
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No. | Weight | Diameter/ Size | | Area (in ²) | | 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 | 0.364 | 3 | 0.369 | 0.11 | 0.107 | 3670 | 5010 | 73600 | 75520 | 100400 | 103100 | 1.00 | 12.5 | Kamran Steel |
| 2 | 0.375 | 3 | 0.375 | 0.11 | 0.110 | 3890 | 5200 | 78000 | 77780 | 104200 | 104000 | 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 | | | | | | | | | | | | | | |
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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
G3 Engineering Consultants (Pvt) Ltd.
The Women University Multan.

Reference # CED/TFL **5973** (Dr. M Kashif)
Reference of the request letter # REG3/WUM/473

Dated: 07-11-2024
Dated: 21-10-2024

Tension Test Report (Page -1/1)

Date of Test 11-11-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No. | Weight | Diameter/ Size | | Area (in ²) | | 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 | 0.378 | 3 | 0.376 | 0.11 | 0.111 | 3480 | 5120 | 69800 | 69060 | 102600 | 101700 | 1.30 | 16.3 | Aziz Steel |
| 2 | 0.379 | 3 | 0.377 | 0.11 | 0.111 | 3670 | 5220 | 73600 | 72610 | 104600 | 103300 | 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 | | | | | | | | | | | | | | |
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To,

Head Construction Site
ABL – UML P-199 & 200
Allied Bank
Construction of ABL Upper Mall Lahore Plot No. 199, 200.

Reference # CED/TFL **5980** (Dr. M Kashif)

Dated: 11-11-2024

Reference of the request letter # ABL-UML-AMC-QAQC-97

Dated: 11-11-2024

Tension Test Report (Page -1/1)

Date of Test 11-11-2024

Gauge length 8 inches

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

| Sr. No. | Weight | Diameter/ Size | | Area (in ²) | | 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 | 0.368 | 3 | 0.371 | 0.11 | 0.108 | 3720 | 4990 | 74600 | 75800 | 100000 | 101700 | 1.10 | 13.8 | FF Steel |
| 2 | 0.371 | 3 | 0.372 | 0.11 | 0.109 | 3670 | 4940 | 73600 | 74250 | 99000 | 100000 | 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 | | | | | | | | | | | | | | |
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