



INSPECTION REPORT

Table with 4 columns: To, From, Attn, Report Date. Values include xxxxxxxx and Troika Inspection Service Co., Ltd.

Table with 2 columns: Field Name, Value. Fields include Project No., Vendor Name, Factory Name, Factory Address, Order No. / PO No., Product description, Inspection Date.

1.0 Scope of Inspection:

(Brief description of details of inspections, tests etc. carried out/witnessed)

Main inspection table with columns: Equipment description, I.T.P. line number, Inspection Activity, Results. Includes rows for Quantity check, Packing check, Marking check, Visual quality check, Dimension check, Thread fit check, H.D.G. thickness test witness, Hardness test witness, Tensile test witness, Proof load test witness of nuts.



2.0 Reason for visit

The purpose of this visit is to carry out the the fianl inspection for the nut, bolt and washer listed in PO XXXX according to purchaser order and specification.

3.0 Documentation used

Table with 4 columns: DOCUMENT NUMBER, REV. No., TITLE, Approval Status. Rows include DIN931, DIN933, DIN934, DIN125A and XXXXXXXX.

4.0 Details of inspection performed

4.1 Quantity Check:

Table with 5 columns: Item, Description of the goods, Order Qty., Inspection Qty. (Packed, Unpacked). Rows list various bolt and nut specifications and their quantities.

4.2. Packing Check:

Inner: Certain quantity pcs of bolts were put in carton with a plastic bag of nuts and a plastic bag of washers. (item 5 only bolts in carton)
Outer: Cartons were packed in wood pallets wrapped with plastic films.

4.3 Marking Check:

Marking on the pallet (a printed paper adhere to the pallet):

No. 30-80# PALLET PACKING LIST

3.8

Table with 5 columns: TYPE, SIZE, FINISHED, Q'TY/CTN, CTNS. Row: DIN933-8.8, M16X70, H.D.G., 130SETS, 36



Marking on the carton (had a label):

DIN933-8.8 HEX BOLTS &
 DIN934-8 HEX NUTS & 2PCS DIN 125A WASHER H.D.G
 SIZE: M16X70
 Q'TY: 130SETS

Marking on the bolts:

“SUN”, ”8.8”/ “Sh” “8.8”/ “Sh” “10.9” (convex on the hexagonal head)

4.4 Visual Quality:

Totally 315 pcs of samples were randomly selected for visual quality check according to ANSI/ASQC Standard Z1.4-1993 Level I, no obvious defect found.

4.5 Dimension Check:

Totally 32 sets of samples were selected randomly for dimension check according to ANSI/ASQC Standard Z1.4-1993 S-3, the result were as follows, the required values are according to DIN931 /DIN933 /DIN934 /DIN125A.

| Item | Description of the goods | Sample | | s | e | K | L | L1 (thread) |
|------|--------------------------|--------|----------|-----------------|-----------------|------------------------------|------------------------------|-----------------|
| 1 | M12 STAR 50 bolts | 18 | required | 19.00 18.67 | Min21.1 | 7.68 7.32 | 50.5 49.5 | |
| | | | Actual | 18.71- 19.00 | 21.29- 21.59 | 7.54-7.68 | 49.70- 50.34 | |
| 2 | M14 STAR 60 bolts | 3 | required | 22.00 21.67 | min24.49 | 8.98 8.62 | 60.6 59.4 | |
| | | | Actual | 21.90- 21.96 | 24.96- 24.98 | 8.89-8.90 | 60.00- 60.25 | |
| 3 | M16 STAR 70 bolts | 3 | required | 24.00 23.67 | Min26.75 | 10.18 9.82 | 70.6 69.4 | |
| | | | Actual | 23.90- 23.99 | 27.30- 27.34 | 9.87- 10.15 | 69.70- 69.84 | |
| 4 | M24 STAR 90 bolts | 6 | required | 36.00 35.38 | Min39.98 | 15.22 14.78 | 90.7 89.3 | |
| | | | Actual | 35.63- 35.73 | 40.81- 41.13 | 14.99- 15.12 | 89.18- 89.66 1pc:89.18 | 58.93- 59.97 |
| 5 | M24 STAR 100 bolts | 2 | required | 36.00 35.38 | Min39.98 | 15.22 14.78 | 100.7 99.3 | |
| | | | Actual | 35.64- 35.65 | 40.94- 40.96 | 14.54- 15.00 | 99.51- 99.80 | 60.27- 61.67 |
| Item | Description of the goods | Sample | | s | e | H | | |
| 1 | M12 STAR 50 nuts | 18 | required | 19.00 18.67 | Min21.1 | 10.00 9.64 | | |
| | | | Actual | 18.78- 18.90 | 21.48- 21.74 | 10.33- 10.66 | | |
| 2 | M14 STAR 60 nuts | 3 | required | 22.00 21.67 | Min24.49 | 11.00 10.30 | | |
| | | | Actual | 21.90- 21.94 | 24.90- 21.94 | 10.77- 11.02 1pc:11.02 | | |
| 3 | M16 STAR 70 | 3 | required | 24.00 | Min26.75 | 13.00 | | |



| | | | | | | | | |
|------|--------------------------|--------|----------|--|--------------------------|-------------|--|--|
| | nuts | | | 23.67 | | 12.30 | | |
| | | | Actual | 23.83-23.90 | 27.15-27.37 | 12.82-12.86 | | |
| 4 | M24 STAR 90 nuts | 6 | required | 36.00 | Min39.55 | 19.00 | | |
| | | | | 35.00 | | 17.70 | | |
| | | | Actual | 35.21-35.32 | 40.33-40.38 | 18.05-18.67 | | |
| Item | Description of the goods | Sample | | d1 | d2 | s | | |
| 1 | M12 STAR 50 nuts | 18 | required | 13 | 24 | 2.5 | | |
| | | | Actual | 12.66-13.10 1pc:12.66 1pc:12.83 | 23.74-24.43 1pc:24.43 | 2.36-2.55 | | |
| 2 | M14 STAR 60 nuts | 3 | required | 15 | 28 | 2.7 2.3 | | |
| | | | Actual | 14.88-14.94 | 27.88-27.98 | 2.67-2.70 | | |
| 3 | M16 STAR 70 nuts | 3 | required | 17 | 30 | 3 | | |
| | | | Actual | 16.85-17.03 1pc:16.85, 1pc:16.98 | 29.50-29.55 | 3.10-3.31 | | |
| 4 | M24 STAR 90 nuts | 6 | required | 25 | 44 | 4 | | |
| | | | Actual | 25.06-25.13 | 43.63-43.87 | 3.88-4.01 | | |

Remark:

The bold figure in above form means the value exceeded standard limits, the result need to be confirmed by buyer.

4.6 Thread Fit Check:

Totally 32 sets of sample bolts were selected randomly for Thread fit check according to ANSI/ASQC Standard Z1.4-1993 S-3, 1 pc of M16 nut can't pass the bolt (3 samples), 2 pcs of M24 bolts can't pass nuts (6 samples), there was 1 thread damaged in each of these 2 bolts, after damaged thread repaired, these two bolts can pass nuts. The results need to be confirmed by client.

4.7 H.D.G. Thickness test witness:

Totally 6 sets of samples (Item 3: M16 STAR 70, Item 4: M24 STAR 90) were selected randomly for H.D.G. Thickness test, for Item 1 and 2 there is no sufficient plain surface to execute this test; For Item 5 no H.D.G. paint.

| | Unit (mm) | SAMPLES | Thickness (BOLTS) | Thickness (NUTS) | Thickness (WASHERS) |
|---|-------------|---------|-------------------|------------------|---------------------|
| 3 | M16 STAR 70 | 3 | 0.049~0.087 | 0.064~0.081 | 0.053~0.079 |
| 4 | M24 STAR 90 | 3 | 0.058~0.083 | 0.051~0.088 | 0.060~0.080 |

4.8 Hardness Test Witness:

Totally 13 sets of samples were selected randomly for hardness test according to ANSI/ASQC Standard Z1.4-1993 S-2, the result were as follows, the required values are according to ISO898.1

| item | Description of the | Sample | Required (HRC) | Actual(HRC) |
|------|--------------------|--------|----------------|-------------|
|------|--------------------|--------|----------------|-------------|



| goods | | | | | |
|-------|--------------|---|-------|-------|-----------|
| 1 | M12 STAR 50 | 5 | bolts | 22-32 | 29.7-31 |
| | | | nuts | 14-32 | 27-30.3 |
| 2 | M14 STAR 60 | 2 | bolts | 22-32 | 30.5-32 |
| | | | nuts | 14-32 | 29-30.5 |
| 3 | M16 STAR 70 | 2 | bolts | 22-32 | 29.2-31 |
| | | | nuts | 14-32 | 28.5-30.7 |
| 4 | M24 STAR 90 | 2 | bolts | 23-34 | 28-29.3 |
| | | | nuts | 11-32 | 33-33.3 |
| 5 | M24 STAR 100 | 2 | bolts | 32-39 | 36.7-37.7 |

Remark:

The bold figure in above form means the value exceeded standard limits, the result need to be confirmed by buyer.

4.9 Tensile Test Witness:

Totally 13 sets of samples were selected randomly for tensile test according to ANSI/ASQC Standard Z1.4-1993 S-2, the result were as follows, the required values are according to ISO898.1

| item | Description of the goods | Sample | Required (Mpa) | Actual(Mpa) |
|------|--------------------------|--------|----------------|-----------------|
| 1 | M12 STAR 50 Bolts | 5 | >=800 | 852.30-893.85 |
| 2 | M14 STAR 60 Bolts | 2 | >=800 | 929.58-939.45 |
| 3 | M16 STAR 70 Bolts | 2 | >=800 | 892.23-932.16 |
| 4 | M24 STAR 90 Bolts | 2 | >=830 | 870.45-884.29 |
| 5 | M24 STAR 100 Bolts | 2 | >=900 | 1130.58-1182.41 |

The results were acceptable according to ISO898.1

4.10 Nuts Proof Load Test Witness:

Totally 13 sets of samples were selected randomly for tensile test according to ANSI/ASQC Standard Z1.4-1993 S-2, the result were as follows, the required values are according to DIN267-T10 H.D.G. nuts

| item | Description of the goods | Sample | Required (Mpa) | Actual |
|------|--------------------------|--------|----------------|---------------|
| 1 | M12 STAR 50 nuts | 5 | >=800 | OK |
| 2 | M14 STAR 60 nuts | 4 | >=800 | 3OK, 1 failed |
| 3 | M16 STAR 70 nuts | 2 | >=800 | OK |
| 4 | M24 STAR 90 nuts | 2 | >=830 | OK |
| 5 | M24 STAR 100 | 0 | No nuts | |

Remark:

The bold figure in above form means the value exceeded standard limits, the result need to be confirmed by buyer.

5.0. Result of Inspection

Accepted without deviation Accepted with deviation Reject

6.0. Quality Records reviewed and attached:

- Material test certificate
- Dimension record
- Packing list

7.0 Progress Status

All of the cargo are ready for shipment if client can accept the inspection result.



8.0 Next Forecasted Inspection Date:

TBA;

9.0 Attendees

- Mr. XXX supplier inspector
- Mr. XXX TIS inspector on behalf of XXX

| | |
|---|----------------|
| Any deviation & PUNCH attached : Yes <input checked="" type="checkbox"/> No, <input type="checkbox"/> | Punch No.: XXX |
| IRN attached : Yes <input type="checkbox"/> No, <input checked="" type="checkbox"/> | IRN No.: NA |

10. Photo Report



The packed cargo;

The inner packing condition;

Showing inner packing ondition;

Bolt;



| | |
|------------------------|-----------------|
| | |
| Nut | washer |
| | |
| Tensile and yield test | Mechanical test |
| | NA |
| Hardness test | NA |



| | |
|---|------------------------------|
| <p>Prepared by : xxxxx</p> <p>Signed: xxxxxx</p> <p>Date: xxxxx</p> | <p>Reviewed by : xxxxxxx</p> |
|---|------------------------------|

TIS Sample Report