

Defect Details

| | |
|---------------------------------|---|
| NC No. | 8000790951 |
| NC Date | 11/06/2022 |
| NC Submission Date | |
| Part No. | F2LY02502B |
| Part Name | SOCKET HEADED BOLT - RE J1A |
| Supplier Name & Code | 100846-SANGKAJ ENGINEERING PVT.LTD. |
| ETL Plant | 1117-ETL K-228/9 Suspension |
| Defect Details | NOT AS PER SPECIFICATION-PLATING THICKNESS LESS |

1. Problem Description

| | |
|-------------------------------|-----------------------------|
| Defect Description | Zinc Plating Thickness Less |
| Detection Stage | Customer End |
| Problem Severity | Function |
| NG Quantity | 23200 |
| Is Defect Repeatative? | Yes |
| Defect Sketch / Photo | |

Supplier Communication Details

| | |
|--------------------------------|--------------------------|
| Quality Head Email ID | vishwas@sangkaj.com |
| Plant Head/CEO Email ID | pardeshinr@sangkaj.com |
| MD Email ID | anirudh.2007@hotmail.com |

2. Stock Details & action taken for NG parts

| Location | ETL End | Warehouse | Transit | Supplier FG | Supplier WIP | Total |
|------------------|---------|-----------|---------|-------------|--------------|-------|
| Total Qty | 24800 | 0 | 0 | 400 | 3700 | 28900 |
| Check Qty | 50 | 0 | 0 | 5 | 10 | 65 |
| NG Qty | 10 | 0 | 0 | 0 | 0 | 10 |

Action taken on NG part

| | |
|------------------------|----|
| Scrap | 10 |
| Rework | 0 |
| Under Deviation | 0 |

Containment Action

All finish stage material taken for plating rework from ETL and SEPL, as it is not possible to verify 100% for plating thickness

3. Process Flow

Process Flow Description

Raw material inward--wire draw--Forging--Rolling--Heat treatment--plating- final inspection and PDI--packing and dispatch

4. Process Details

| | |
|----------------------------|-----------------|
| Process / Operation | Plating process |
| Outsource | Yes |
| Machine / Cell | Outsource |
| Machine / Cell No. | Outsource |

5. Problem Analysis

| Type | Possible Cause | Fact Verification | Jud |
|--------|---|---|-----|
| Method | process parameters are not as per specification | validation check for corrected parameters | X |

6. Inspection Method Analysis (Current)

| | |
|--|----------------|
| Inspection Method | Other |
| Other Inspection Method | XRF inspection |
| Check Point at Final Inspection | Yes |
| Checking Freq. | Sampling |
| Sampling | No |
| Sample Size | 10nos |

7. Root Cause Analysis (Occurance)

| | |
|-------------------------------|--|
| Why 1 | Low thickness observed on plated components |
| Why 2 | Process done on parts as per regular lot size |
| Why 3 | Because of small parts its required different lot size & current supply |
| Why 4 | Proper validation not done for small parts |
| Why 5 | during validation thickness checked on regular DFT which shows OK reading |
| Root Cause (Occurance) | 1) Proper validation not done for small parts. 2) Parts checked on regular thickness tester. |

Root Cause Analysis (Outflow)

| | |
|-----------------------------|---|
| Why 1 | Low thickness observed on plated components |
| Why 2 | Not detected by regular thickness tester (DFT) |
| Why 3 | XRF thickness reading is less than regular thickness tester reading |
| Why 4 | |
| Why 5 | |
| Root Cause (Outflow) | XRF thickness reading is less than regular thickness tester reading |

8. Countermeasure (Occurrence , Outflow & System side Actions)

| Type | Countermeasure Details | Responsibility | Target Date | Actual Date | Status |
|------|------------------------|----------------|-------------|-------------|--------|
|------|------------------------|----------------|-------------|-------------|--------|

| | | | | | |
|-----------|--|------------------------|------------|------------|-----------|
| Occurance | Plating will done on Valid parameters & its records maintained as per requirements . | M/S Krishna Indstires | 13/06/2022 | 12/06/2022 | Completed |
| Outflow | checking done on XRF thickness tester before dispatch the material , | M/S Krishna Industires | 13/06/2022 | 12/06/2022 | Completed |

9. Inspection Method After Customer Complaint

| | |
|--|---|
| Change In Inspection System | Yes |
| Change Details | Plating thickness checking start with XRF on sampling basis |
| Inspection Method | Instrument |
| Other Inspection Method | |
| Check Point at Final Inspection | Yes |
| Checking Freq. | Sampling |
| Sampling | No |
| Sample Size | 10nos |

10. Evidence of Countermeasure

| | |
|---------------------------|---|
| Occurance (Before) | Validation not done properly 172_Occurance_Before.pptx |
| Occurance (After) | Proper validation done for small parts 172_Occurance_After.pdf |
| Outflow (Before) | Checking method by regular DFT meter 172_Outflow_Before.pdf |
| Outflow (After) | Checking method change to XRF from regular DFT meter 172_Outflow_After.pdf |

11. Horizontal Deployment

| | |
|---|-----------------|
| Horizontal Deployment Required | Yes |
| Applicable Machine / Model / Plant | All small parts |

12. Document Review

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|-------------------------------|------------------------------------|
| Documents | ControlPlan, WISOP, InspCheckSheet |
| Specify Other Document | Validation document |

13. Effectiveness Of Action

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|------------------------------|-----|
| Reviewed Quantity | 150 |
| Reason for submission | Ok |