

Defect Details

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|---------------------------------|---|
| NC No. | 8000862067 |
| NC Date | 07/02/2024 |
| NC Submission Date | |
| Part No. | 520DZ01712 |
| Part Name | FORK BOLT DF181085 |
| Supplier Name & Code | 100189-SANGKAJ STEEL PVT LTD. |
| ETL Plant | 1117-ETL K-228/9 Suspension |
| Defect Details | NOT AS PER SPECIFICATION-M26 THREAD FITMENT ISSUE |

1. Problem Description

| | |
|-------------------------------|-----------------------|
| Defect Description | M26 thread fitment NG |
| Detection Stage | Inprocess |
| Problem Severity | Fitment |
| NG Quantity | 150 |
| Is Defect Repeatative? | Yes |
| Defect Sketch / Photo | |

Supplier Communication Details

| | |
|--------------------------------|------------------------------|
| Quality Head Email ID | qualityassurance@sangkaj.com |
| Plant Head/CEO Email ID | qualityassurance@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 | 250 | 0 | 0 | 200 | 0 | 450 |
| Check Qty | 250 | 0 | 0 | 200 | 0 | 450 |
| NG Qty | 150 | 0 | 0 | 200 | 0 | 350 |

Action taken on NG part

| | |
|------------------------|-----|
| Scrap | 0 |
| Rework | 150 |
| Under Deviation | 0 |

Containment Action

100 % sorting at ETL end with special identification. Also 100% sorting done at M/s Sangkaj Steel End with special identification.

3. Process Flow

Process Flow Description

RM Store - RM Inspection - Traub - Pre roll dia Grinding -Tapping M10 - Thread Rolling M26 - Plating - Final inspection - Dispatch.

4. Process Details

| | |
|----------------------------|----------------|
| Process / Operation | Thread Rolling |
| Outsource | No |
| Machine / Cell | Thread Rolling |
| Machine / Cell No. | Rolling - 02 |

5. Problem Analysis

| Type | Possible Cause | Fact Verification | Jud |
|----------|---|---|-----|
| Tool | Wrong tool used for operation. | Wrong tool used for operation. | O |
| Machine | Machine parameter not okay at Grinding stage . | Parameter observed at operation stage & found okay. | O |
| Machine | Machine parameter not okay at machining stage. | Parameter observed at operation stage & found okay. | O |
| Method | inspection method not okay | Less sampling frequency. | X |
| Man | Skipped from inspection. | NG part found at customer end. | X |
| Material | Wrong material used. | Verified the TC report & Found okay. | O |
| Machine | Machine parameter not okay at machining stage . | Parameter observed at operation stage & found okay. | O |
| Machine | Part dimn not as per drawing | Pre roll dimn observed at higher side. | X |
| Method | Loading & Unloading method not okay. | During Gemba visit at operation stage loading & unloading method observed okay. | O |

6. Inspection Method Analysis (Current)

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|--|----------|
| Inspection Method | Gauge |
| Other Inspection Method | |
| Check Point at Final Inspection | Yes |
| Checking Freq. | Sampling |
| Sampling | No |
| Sample Size | 05 Nos |

7. Root Cause Analysis (Occurance)

| | |
|-------------------------------|--|
| Why 1 | M26 Threading not okay. |
| Why 2 | After plating threading not qualified in mating part. |
| Why 3 | On part minor dia found at higher side. |
| Why 4 | On part Pre roll dia observed at higher side |
| Why 5 | Operator is not aware about effect of parts makes at higher side of specification. |
| Root Cause (Occurance) | Operator is not aware about effect of parts makes at higher side of specification. |

Root Cause Analysis (Outflow)

| | |
|--------------|---|
| Why 1 | M26 Threading not okay. |
| Why 2 | Skipped from Inspection |
| Why 3 | defect not detect in during final inspection. |

| | |
|-----------------------------|--------------------------|
| Why 4 | Less sampling frequency. |
| Why 5 | |
| Root Cause (Outflow) | Less sampling frequency. |

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

| Type | Countermeasure Details | Responsibility | Target Date | Actual Date | Status |
|-----------|---|----------------|-------------|-------------|-----------|
| Occurance | Pre roll diameter to be maintain at lower side of specification. | Mr Raut. | 23/01/2024 | 23/01/2024 | Completed |
| Outflow | Sampling inspection frequency increase at final inspection from 05 nos to 50 nos. | Mrs Mukta | 23/01/2024 | 23/01/2024 | Completed |
| Occurance | Training & Awareness given to operator. | Mr Anil | 22/01/2024 | 22/01/2024 | Completed |

9. Inspection Method After Customer Complaint

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|--|-------------|
| Change In Inspection System | No |
| Change Details | N/A |
| Inspection Method | Other |
| Other Inspection Method | Mating part |
| Check Point at Final Inspection | Yes |
| Checking Freq. | Sampling |
| Sampling | No |
| Sample Size | 50 Nos |

10. Evidance of Countermeasure

| | |
|---------------------------|--|
| Occurance (Before) | Operator is not aware about effect of parts makes at higher side of specification. 661_Occurance_Before.pdf |
| Occurance (After) | Pre roll diameter to be maintain at lower side of specification. 661_Occurance_After.pdf |
| Outflow (Before) | Less inspection sampling frequency on mating part. 661_Outflow_Before.pdf |
| Outflow (After) | Sampling inspection frequency increase at final inspection from 05 nos to 50 nos 661_Outflow_After.pdf |

11. Horizontal Deployment

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|---|--------------------------------------|
| Horizontal Deployment Required | Yes |
| Applicable Machine / Model / Plant | Applicable for all type of fork bolt |

12. Document Review

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|-------------------------------|------------------------------------|
| Documents | ControlPlan, PFMEA, InspCheckSheet |
| Specify Other Document | N/A |

13. Effectiveness Of Action

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|------------------------------|-----------------------|
| Reviewed Quantity | 596 |
| Reason for submission | Verified and found ok |