

Defect Details

| | |
|---------------------------------|---|
| NC No. | 8000882626 |
| NC Date | 15/07/2024 |
| NC Submission Date | |
| Part No. | F2FA10933M |
| Part Name | FORK PIPE MACHINED - J1A |
| Supplier Name & Code | 101030-TUBE INVESTMENTS OF INDIA LTD |
| ETL Plant | 1117-ETL K-228/9 Suspension |
| Defect Details | NOT AS PER SPECIFICATION-DU BUSH OD O/S |

1. Problem Description

| | |
|-------------------------------|----------------|
| Defect Description | DU BUSH OD O/S |
| Detection Stage | Receipt |
| Problem Severity | Safety |
| NG Quantity | 32 |
| Is Defect Repeatative? | Yes |
| Defect Sketch / Photo | |

Supplier Communication Details

| | |
|--------------------------------|-------------------------------|
| Quality Head Email ID | AmitVD@tii.murugappa.com |
| Plant Head/CEO Email ID | guptaajay@tii.murugappa.com |
| MD Email ID | mukeshahuja@tii.murugappa.com |

2. Stock Details & action taken for NG parts

| Location | ETL End | Warehouse | Transit | Supplier FG | Supplier WIP | Total |
|------------------|---------|-----------|---------|-------------|--------------|-------|
| Total Qty | 600 | 0 | 0 | 0 | 0 | 600 |
| Check Qty | 600 | 0 | 0 | 0 | 0 | 600 |
| NG Qty | 32 | 0 | 0 | 0 | 0 | 32 |

Action taken on NG part

| | |
|------------------------|----|
| Scrap | 32 |
| Rework | 0 |
| Under Deviation | 0 |

Containment Action

All Stock available at ETL end & Inhouse checked for the DU Bush OD Parameter

3. Process Flow

4. Process Details

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|----------------------------|------------------|
| Process / Operation | Machining |
| Outsource | No |
| Machine / Cell | CNC Machine Cell |
| Machine / Cell No. | Machine No.22/23 |

5. Problem Analysis

| Type | Possible Cause | Fact Verification | Jud |
|---------|--|---|-----|
| Machine | The Feed Value Not OK | the feed Value of turning was over defined up to 0.18 Inch/Min | X |
| Method | Due to not get detected by the operator during the inspection by define frequency. | Due to sampling basis inspection carried out for 1 Nos. after 30 Nos. | X |

6. Inspection Method Analysis (Current)

| | |
|--|-----------|
| Inspection Method | Gauge |
| Other Inspection Method | |
| Check Point at Final Inspection | Yes |
| Checking Freq. | Sampling |
| Sampling | No |
| Sample Size | 1 Nos./30 |

7. Root Cause Analysis (Occurance)

| | |
|-------------------------------|--|
| Why 1 | DU Bush OD oversize |
| Why 2 | DU Bush OD oversize |
| Why 3 | On the machine, the feed of turning was found to be higher. |
| Why 4 | The feed Value of turning was over-defined up to 0.18 Inch/Min |
| Why 5 | |
| Root Cause (Occurance) | The feed Value of turning was over-defined up to 0.18 Inch/Min |

Root Cause Analysis (Outflow)

| | |
|-----------------------------|--|
| Why 1 | DU Bush OD oversize |
| Why 2 | Due to not get detected by the operator during the inspection by define frequency. |
| Why 3 | Due to sampling basis inspection carried out for 26 Nos. after 500 Nos. |
| Why 4 | |
| Why 5 | |
| Root Cause (Outflow) | Due to sampling basis inspection carried out for 1 Nos. after 30 Nos. |

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

| Type | Countermeasure Details | Responsibility | Target Date | Actual Date | Status |
|-----------|--|----------------|-------------|-------------|-----------|
| Outflow | Before the Complaint Machining stage, the inspection frequency was set as Sampling Plan 26/500 Nos., which is not adequate for detection. DU bush OD Parameter Inspection frequency revised & Doubled by 52/500 Nos. | Mr. Dethe SS | 23/07/2024 | 23/07/2024 | Completed |
| Occurance | After Validation feed Value of turning was defined as 0.16 inch/Min instead of 0.18 Inch/Min | Mr. Rathod | 23/07/2024 | 23/07/2024 | Completed |

9. Inspection Method After Customer Complaint

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|--|--|
| Change In Inspection System | Yes |
| Change Details | Before the Complaint Machining stage, the inspection frequency was set as Sampling Plan 26/500 Nos., which is not adequate for detection. DU bush OD Parameter Inspection frequency revised & Doubled by 52/500 Nos. |
| Inspection Method | Gauge |
| Other Inspection Method | |
| Check Point at Final Inspection | Yes |
| Checking Freq. | Sampling |
| Sampling | No |
| Sample Size | 52 Nos/500 |

10. Evidence of Countermeasure

| | |
|---------------------------|--|
| Occurance (Before) | The feed Value of turning was over-defined up to 0.18 Inch/Min 935_Occurance_Before.pdf |
| Occurance (After) | After Validation feed Value of turning was defined as 0.16 inch/Min instead of 0.18 Inch/Min 935_Occurance_After.pdf |
| Outflow (Before) | Before the Complaint Machining stage, the inspection frequency was set as Sampling Plan 26/500 Nos., which is not adequate for detection 935_Outflow_Before.pdf |
| Outflow (After) | DU bush OD Parameter Inspection frequency revised & Doubled by 52/500 Nos. 935_Outflow_After.pdf |

11. Horizontal Deployment

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

12. Document Review

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|-------------------------------|-----------------------|
| Documents | WISOP, InspCheckSheet |
| Specify Other Document | Sampling Plan |

13. Effectiveness Of Action

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|------------------------------|-----|
| Reviewed Quantity | 144 |
| Reason for submission | ok |

