QFR No - 8000893990

## Defect Details

| | |
|---|---|
| **NC No.** | 8000893990 |
| **NC Date** | 01/10/2024 |
| **NC Submission Date** | |
| **Part No.** | F20602602B |
| **Part Name** | STEERING SHAFT - K201C |
| **Supplier Name & Code** | 101228-JAIN PRECISION AND FORGINGS PV |
| **ETL Plant** | 1118-ETL E-92,93 Suspension |
| **Defect Details** | THREADING NOT OK-M16 THREDING U/S |

## 1. Problem Description

| | |
|---|---|
| **Defect Description** | Threading Not Ok M16 |
| **Detection Stage** | Inprocess |
| **Problem Severity** | Fitment |
| **NG Quantity** | 6 |
| **Is Defect Repeatative?** | No |
| **Defect Sketch / Photo** | |

## Supplier Communication Details

| | |
|---|---|
| **Quality Head Email ID** | groupqaheadm134@gmail.com |
| **Plant Head/CEO Email ID** | jainpfl.m134@gmail.com |
| **MD Email ID** | jain@singlaforging.com |

## 2. Stock Details & action taken for NG parts

| Location | ETL End | Warehouse | Transit | Supplier FG | Supplier WIP | Total |
|---|---|---|---|---|---|---|
| **Total Qty** | 3400 | 0 | 0 | 500 | 150 | 4050 |
| **Check Qty** | 3400 | 0 | 0 | 500 | 150 | 4050 |
| **NG Qty** | 6 | 0 | 0 | 0 | 0 | 6 |

Action taken on NG part

| | |
|---|---|
| **Scrap** | 6 |
| **Rework** | 0 |
| **Under Deviation** | 0 |

| Containment Action |
|---|
| Immediate check the pipe line stock at ETL as well as our end and provided color code identification on each part. |

## 3. Process Flow

| Process Flow Description |
|---|
| 1) Inward Insp 2) Cutting 3) Flaring 4) Boring & Facing 5) Bush Pressing 6) Welding 7) CNC - Bush boring , Threading & Facing 8) CNC - Turning 9) Buffing 10) Powder Coating 11) Inward Ins. 12) Final Inspection 13) Oiling 14) PDIR Inspection 15) Dispatch. |

## 4. Process Details

| | |
|---|---|
| **Process / Operation** | CNC - Bush Boring & Threading |
| **Outsource** | No |
| **Machine / Cell** | CNC |
| **Machine / Cell No.** | CNC |

## 5. Problem Analysis

| Type | Possible Cause | Fact Verification | Jud |
|---|---|---|---|
| Tool | ~~~ | ~~~ | O |
| Method | With adjusting thread gauging inspection | With adjusting thread gauging inspection | X |
| Man | Unskilled Operator | Less Awareness | X |
| Material | ~~~ | ~~~~ | O |
| Machine | Entry chamfer of threading no provision | Chamfer Was not given on drawing | X |

## 6. Inspection Method Analysis (Current)

| | |
|---|---|
| **Inspection Method** | Gauge |
| **Other Inspection Method** | |
| **Check Point at Final Inspection** | Yes |
| **Checking Freq.** | 100% |
| **Sampling** | No |
| **Sample Size** | 100/100 |

## 7. Root Cause Analysis (Occurance)

| | |
|---|---|
| **Why 1** | M16 Thread Tight |
| **Why 2** | Go gauge not engaging to thread |
| **Why 3** | Chamfer of entry threading no provision |
| **Why 4** | |
| **Why 5** | |
| **Root Cause (Occurance)** | M16 entry threading chamfer not provided . |

## Root Cause Analysis (Outflow)

| | |
|---|---|
| **Why 1** | M16 Thread Tight |
| **Why 2** | Mixed up, not inspected, parts in Ok lot |
| **Why 3** | OK & not ok parts kept openly on inspection table . |
| **Why 4** | No provision to keep |
| **Why 5** | |
| **Root Cause (Outflow)** | Mix up not inspected parts |

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

| Type | Countermeasure Details | Responsibility | Target Date | Actual Date | Status |
|---|---|---|---|---|---|
| Occurance | On CNC machine bush boring Dia 14.50 mm Entry Chamfer included 1x45°. Program revised | Jitendra Sahu | 28/09/2024 | 28/09/2024 | Completed |
| Outflow | 1) Inspection Table modified with divisions 2)station wise parameter & Inspector defined . 3)All material at customer end cross checked | Sandeep Davane | 29/09/2024 | 29/09/2024 | Completed |

## 9. Inspection Method After Customer Complaint

| | |
|---|---|
| **Change In Inspection System** | Yes |
| **Change Details** | Visual Inspection has been added to check entry chamfer of thread. |
| **Inspection Method** | Gauge |
| **Other Inspection Method** | |
| **Check Point at Final Inspection** | Yes |
| **Checking Freq.** | 100% |
| **Sampling** | No |
| **Sample Size** | 100/100 |

## 10. Evidance of Countermeasure

| | |
|---|---|
| **Occurance (Before)** | M16 entry threading chamfer not provided .<br>1125_Occurance_Before.pptx |
| **Occurance (After)** | On CNC machine bush boring Día 14.50 mm Entry Chamfer included 1x45°. Program revised<br>1125_Occurance_After.pptx |
| **Outflow (Before)** | Mix up not inspected parts<br>1125_Outflow_Before.pptx |
| **Outflow (After)** | 1)Inspection Table modified with divisions 2)station wise parameter & Inspector defined .<br>1125_Outflow_After.pptx |

## 11. Horizontal Deployment

| | |
|---|---|
| **Horizontal Deployment Required** | Yes |
| **Applicable Machine / Model / Plant** | PRF Steering Shaft |

## 12. Document Review

| | |
|---|---|
| **Documents** | ControlPlan, WISOP, InspCheckSheet |
| **Specify Other Document** | OPL , Q Alert |

## 13. Effectiveness Of Action

| | |
|---|---|
| **Reviewed Quantity** | 2000 |
| **Reason for submission** | No any threading related issue found after action taken. |