QFR No - 8000832053

## Defect Details

| | |
|---|---|
| **NC No.** | 8000832053 |
| **NC Date** | 08/06/2023 |
| **NC Submission Date** | |
| **Part No.** | 520DZ00212 |
| **Part Name** | FORK BOLT K60-(DS181012) |
| **Supplier Name & Code** | 101263-SINGLA PRECISION SCREWS |
| **ETL Plant** | 1117-ETL K-228/9 Suspension |
| **Defect Details** | NOT AS PER SPECIFICATION-INCOMPLETE THEADING OBSERVED |

## 1. Problem Description

| | |
|---|---|
| **Defect Description** | M10 Threading operation incomplete |
| **Detection Stage** | Receipt |
| **Problem Severity** | Fitment |
| **NG Quantity** | 10 |
| **Is Defect Repeatative?** | No |
| **Defect Sketch / Photo** | |

## Supplier Communication Details

| | |
|---|---|
| **Quality Head Email ID** | quality@singlaprecision.com |
| **Plant Head/CEO Email ID** | quality@singlaprecision.com |
| **MD Email ID** | aditya@singlaprecision.com |

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

| Location | ETL End | Warehouse | Transit | Supplier FG | Supplier WIP | Total |
|---|---|---|---|---|---|---|
| **Total Qty** | 2500 | 2000 | 0 | 1500 | 1000 | 7000 |
| **Check Qty** | 2500 | 2000 | 0 | 1500 | 1000 | 7000 |
| **NG Qty** | 1 | 0 | 0 | 0 | 0 | 1 |

Action taken on NG part

| | |
|---|---|
| **Scrap** | 1 |
| **Rework** | 0 |
| **Under Deviation** | 0 |

| Containment Action |
|---|
| We checked 100 % material lying at various stages. |

## 3. Process Flow

| Process Flow Description |
| --- |
| 1. RM INCOMING 2. CNC TURNING 3. TAPPING 4. THREAD ROLLING 5. PLATING 6. RE-TAPPING CHECK 7. FINAL INSPECTION 8. PACKING |

## 4. Process Details

| | |
| --- | --- |
| **Process / Operation** | TAPPING |
| **Outsource** | No |
| **Machine / Cell** | TAPPING MACHINE |
| **Machine / Cell No.** | TP02 |

## 5. Problem Analysis

| Type | Possible Cause | Fact Verification | Jud |
| --- | --- | --- | --- |
| Method | INSPECTION PLAN NOT EFFECTIVE | VALIDATED AND FOUND INSPECTION PLAN NOT EFFECTIVE SO PART SKIPPED FROM INSPECTION | X |
| Material | RM GRADE AND SIZE NOT OK | VALIDATED AND FOUND OK | O |
| Man | UNAWARENESS OF OPERATOR | VALIDATED AND FOUND OPERATOR WAS NEW AND PUT THE INCOMPLETE OPERATION PART IN FINISHED PARTS | X |
| Tool | TOOL MAY WEAR | VALIDATED AND FOUND OK | O |
| Machine | NUT BOLTS MAY LOOSE | Nut of limit switch got loose due to which slide plate got tilted and tap not came to its position. | O |

## 6. Inspection Method Analysis (Current)

| | |
| --- | --- |
| **Inspection Method** | Gauge |
| **Other Inspection Method** | |
| **Check Point at Final Inspection** | Yes |
| **Checking Freq.** | Sampling |
| **Sampling** | No |
| **Sample Size** | 5 PCS/HOUR |

## 7. Root Cause Analysis (Occurance)

| | |
| --- | --- |
| **Why 1** | M10 THREAD INCOMPLETE |
| **Why 2** | PROBLEM OCCURED AT TAPPING STAGE |
| **Why 3** | Nut of limit switch got loose due to which slide plate got tilted and tap not came to its position and threading operations left incomplete. |
| **Why 4** | THE OPERATOR WAS UNAWARE AND PUT THE INCOMPLETE OPERATION PART IN FINISHED PART BIN. |
| **Why 5** | SO NG PART MIXED WITH FINISHED PARTS |
| **Root Cause (Occurance)** | Nut of limit switch got loose due to which slide plate got tilted and tap not came to its position and threading operations left incomplete.THE OPERATOR WAS UNAWARE AND PUT THE INCOMPLETE OPERATION PART IN FINISHED PART BIN.SO NG PART MIXED WITH FINISHED PARTS. |

## Root Cause Analysis (Outflow)

| | |
| --- | --- |
| **Why 1** | M10 THREAD INCOMPLETE |
| **Why 2** | INSPECTION PLAN WAS NOT EFFECTIVE |
| **Why 3** | NG PART SKIPPED FROM INSPECTION |

| | |
|---|---|
| **Why 4** | SO NG PART DELIEVERED TO CUSTOMER |
| **Why 5** | |
| **Root Cause (Outflow)** | INSPECTION PLAN WAS NOT EFFECTIVE.NG PART SKIPPED FROM INSPECTION.SO NG PART DELIEVERED TO CUSTOMER. |

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

| Type | Countermeasure Details | Responsibility | Target Date | Actual Date | Status |
|---|---|---|---|---|---|
| Outflow | INSPECTION FREQUENCY CHANGED TO 100% | GANESH MAURYA | 12/06/2023 | 12/06/2023 | Completed |
| Occurance | Double nut lock tightening done to prevent the nut from loosing and Training given to Operator regarding putting the NG part into Red bin. | Ganesh Maurya | 12/06/2023 | 12/06/2023 | Completed |

## 9. Inspection Method After Customer Complaint

| | |
|---|---|
| **Change In Inspection System** | Yes |
| **Change Details** | 100% RETAPPING CHECK DONE AFTER PLATING PROCESS. |
| **Inspection Method** | Gauge |
| **Other Inspection Method** | |
| **Check Point at Final Inspection** | Yes |
| **Checking Freq.** | Sampling |
| **Sampling** | No |
| **Sample Size** | 50/1200 |

## 10. Evidance of Countermeasure

| | |
|---|---|
| **Occurance (Before)** | Nut of limit was loose.<br>469_Occurance_Before.pdf |
| **Occurance (After)** | Double nut lock tightening done to prevent it from loosing.<br>469_Occurance_After.pdf |
| **Outflow (Before)** | INSPECTION FREQUENCY WAS 5 PCS/HOUR<br>469_Outflow_Before.pdf |
| **Outflow (After)** | INSPECTION FREQUENCY UPDATED<br>469_Outflow_After.pdf |

## 11. Horizontal Deployment

| | |
|---|---|
| **Horizontal Deployment Required** | Yes |
| **Applicable Machine / Model / Plant** | FORK BOLT PRFH,FORK BOLT BOXER,FORK BOLT HMS-30 |

## 12. Document Review

| | |
|---|---|
| **Documents** | ControlPlan, WISOP |
| **Specify Other Document** | NO |

## 13. Effectiveness Of Action

| | |
|---|---|
| **Reviewed Quantity** | 100 |
| **Reason for submission** | Verified next 3 lot and found |