QFR No - 7000836047

Defect Details

| NC No. | 7000836047 |
|----------------------|-------------------------------|
| NC Date | 14/05/2022 |
| NC Submission Date | |
| Part No. | F2DZ08810B |
| Part Name | KOPG FORK BOLT |
| Supplier Name & Code | 101037-SHREE PATEL INDUSTRIES |
| ETL Plant | 1136-ETL Suspension Sanand |
| Defect Details | DEEP MARK-Line Mark at OD |

1. Problem Description

| Defect Description | DEEP MARK-Line Mark at OD i.e. Machining Unclean |
|------------------------|--|
| Detection Stage | Receipt |
| Problem Severity | Function |
| NG Quantity | 410 |
| Is Defect Repeatative? | Yes |
| Defect Sketch / Photo | |

Supplier Communication Details

| Quality Head Email ID | quality_spi@rediffmail.com |
|-------------------------|------------------------------|
| Plant Head/CEO Email ID | planthead_spi@rediffmail.com |
| MD Email ID | rspatel_spi@rediffmail.com |

2. Stock Details & action taken for NG parts

| Location | ETL End | Warehouse | Transit | Supplier FG | Supplier WIP | Total |
|-----------|---------|-----------|---------|-------------|--------------|-------|
| Total Qty | 10000 | 0 | 0 | 2618 | 0 | 12618 |
| Check Qty | 10000 | 0 | 0 | 2618 | 0 | 12618 |
| NG Qty | 1 | 0 | 0 | 2 | 0 | 3 |

Action taken on NG part

| Scrap | 3 |
|-----------------|---|
| Rework | 0 |
| Under Deviation | 0 |

Containment Action

Hold the material at all stages and inspection done accordingly .

1. Incoming RM 2. Acid Pickling 3. Water Wash 4. Lime Wash 5. Pointing 6. Draw 7. Cutting 8. Straightening 9. Inspection 10. Packing & Dispatch 11. Incoming RM 12. Traub Turning 13. CNC 1st set up 14. CNC 2nd set up 15. Plating 16. Inspection 17. Packing & Dispatch

4. Process Details

| Process / Operation | Draw |
|---------------------|--------------|
| Outsource | No |
| Machine / Cell | Draw Machine |
| Machine / Cell No. | Draw Line |

5. Problem Analysis

| Туре | Possible Cause | Fact Verification | Jud |
|---------|------------------------|---|-----|
| Man | Awareness of Inspector | Operator was not aware about inspection std | 0 |
| Machine | Die Check sheet | During process Verification no Die check point available. | 0 |
| Machine | Die Life Monitoring | During process Verification no Die life monitoring record available. | 0 |
| Method | Rod Draw | During process verification a deep line mark generated on rod during draw operation | 0 |

6. Inspection Method Analysis (Current)

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

7. Root Cause Analysis (Occurance)

| Why 1 | Deep Line mark part reached at customer end. |
|------------------------|---|
| Why 2 | Deep line mark part generate during CNC operation. |
| Why 3 | Deep line mark found on input rod . |
| Why 4 | At draw operation chips observed on rod, which remains a deep line on rod during draw process. |
| Why 5 | There was No checkpoint & WI available at draw operation to check the input & output material of rod. |
| Root Cause (Occurance) | At draw operation chips observed on rod which generate / remains a deep line on rod during draw operation |

Root Cause Analysis (Outflow)

| Why 1 | Deep Line mark part reached at customer end. |
|----------------------|--|
| Why 2 | Inspector not detected deep line mark part during final inspection . |
| Why 3 | Inspector was not aware about the defect. |
| Why 4 | No inspection std available at final inspection station. |
| Why 5 | |
| Root Cause (Outflow) | No inspection std available at final inspection station. |

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

| Туре | Countermeasure Details | Responsibility | Target Date | Actual Date | Status |
|-----------|--|------------------|-------------|-------------|-----------|
| Outflow | 1)Training provided to the final inspector about the problem and inspection std. 2) 200% visual inspection started. | Pradeep Tripathi | 18/02/2022 | 18/02/2022 | Completed |
| Occurance | 1. WI made to check the Input & Output material & also FIR ,IIR made to check the draw bar after draw process . 2. Draw Die checkpoint check sheet made . 3. Die life monitoring to be started . | Pradeep Tripathi | 18/02/2022 | 18/02/2022 | Completed |

9. Inspection Method After Customer Complaint

| Change In Inspection System | Yes |
|------------------------------------|------------------------|
| Change Details | 200% Visual Inspection |
| Inspection Method | Other |
| Other Inspection Method | Visual Inspection |
| Check Point at Final Inspection | Yes |
| Checking Freq. | 100% |
| Sampling | No |
| Sample Size | 100% |

10. Evidance of Countermeasure

| Occurance (Before) | Die Check Sheet 114_Occurance_Before.zip |
|--------------------|---|
| Occurance (After) | Die Check Sheet 114_Occurance_After.zip |
| Outflow (Before) | Inspection std 114_Outflow_Before.xlsx |
| Outflow (After) | Inspection Std 114_Outflow_After.zip |

11. Horizontal Deployment

| Horizontal Deployment Required | No |
|---------------------------------------|----|
| Applicable Machine / Model / Plant | No |

12. Document Review

| Documents | ControlPlan, PMCheckSheet, InspCheckSheet |
|------------------------|---|
| Specify Other Document | No |

13. Effectiveness Of Action