

## Defect Details

|                                 |                                  |
|---------------------------------|----------------------------------|
| <b>NC No.</b>                   | 8000877797                       |
| <b>NC Date</b>                  | 11/06/2024                       |
| <b>NC Submission Date</b>       |                                  |
| <b>Part No.</b>                 | F2LG05402B                       |
| <b>Part Name</b>                | SEAT PIPE - J1A & J1D            |
| <b>Supplier Name &amp; Code</b> | 100539-N P ENTERPRISES           |
| <b>ETL Plant</b>                | 1117-ETL K-228/9 Suspension      |
| <b>Defect Details</b>           | NOT AS PER SPECIFICATION-ID STEP |

## 1. Problem Description

|                               |           |
|-------------------------------|-----------|
| <b>Defect Description</b>     | ID STEP   |
| <b>Detection Stage</b>        | Inprocess |
| <b>Problem Severity</b>       | Fitment   |
| <b>NG Quantity</b>            | 3         |
| <b>Is Defect Repeatative?</b> | Yes       |
| <b>Defect Sketch / Photo</b>  |           |

## Supplier Communication Details

|                                |                          |
|--------------------------------|--------------------------|
| <b>Quality Head Email ID</b>   | quality@npcindustries.in |
| <b>Plant Head/CEO Email ID</b> | anand@npcindustries.in   |
| <b>MD Email ID</b>             | ajay@npcindustries.in    |

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

| Location         | ETL End | Warehouse | Transit | Supplier FG | Supplier WIP | Total |
|------------------|---------|-----------|---------|-------------|--------------|-------|
| <b>Total Qty</b> | 2080    | 46000     | 0       | 0           | 0            | 48080 |
| <b>Check Qty</b> | 2080    | 46000     | 0       | 0           | 0            | 48080 |
| <b>NG Qty</b>    | 3       | 23        | 0       | 0           | 0            | 26    |

## Action taken on NG part

|                        |    |
|------------------------|----|
| <b>Scrap</b>           | 26 |
| <b>Rework</b>          | 0  |
| <b>Under Deviation</b> | 0  |

## Containment Action

Segregate all material at both end

## 3. Process Flow

## Process Flow Description

Process Flow Description 1.0 Raw Material 2.0 Cutting 3.0 Drawing 4.0 Head Formation 5.0 Rough Grinding 6.0 Punching 7.0 CNC Head Turning 8.0 CNC Boring & Facing 9.0 Tapping 10.0 Chamfering 11.0 ID Deburring 12.0 Finish Grinding 13.0 Final Inspection 14.0 Cleaning 15.0 Oiling 16.0 Packing &Dispatch.

## 4. Process Details

|                            |         |
|----------------------------|---------|
| <b>Process / Operation</b> | Forging |
| <b>Outsource</b>           | No      |
| <b>Machine / Cell</b>      | Header  |
| <b>Machine / Cell No.</b>  | MDM-8   |

## 5. Problem Analysis

| Type     | Possible Cause  | Fact Verification  | Jud |
|----------|---|--|-----|
| Man      | Operator negligence   | Operator found to be non negligent                                       | O   |
| Machine  | Non detection of material unclear in ID at final Inspection | Material unclear in ID could not be detected at final inspection         | X   |
| Tool     | Damage of Pin at Forging                                    | Pin was found to be damaged which lead to accumulation of material in ID | X   |
| Machine  | Variation in Forging machine                                | No variation in Forging machine found                                    | O   |
| Material | Material composition not OK                                 | Material composition found to be OK                                      | O   |

## 6. Inspection Method Analysis (Current)

|  |        |
|--|--------|
| <b>Inspection Method</b>               | Other  |
| <b>Other Inspection Method</b>         | Visual |
| <b>Check Point at Final Inspection</b> | Yes    |
| <b>Checking Freq.</b>                  | 100%   |
| <b>Sampling</b>                        | No     |
| <b>Sample Size</b>                     | 100%   |

## 7. Root Cause Analysis (Occurance)

|                               |  |
|-------------------------------|--|
| <b>Why 1</b>                  | Step in ID   |
| <b>Why 2</b>                  | accumulation of material in ID                               |
| <b>Why 3</b>                  | Forging Pin got damaged                                      |
| <b>Why 4</b>                  | Miss alignment of PC clamping finger on the forging machine. |
| <b>Why 5</b>                  | The spring's clamping finger was loose.                      |
| <b>Root Cause (Occurance)</b> | The spring's clamping finger was loose.                      |

## Root Cause Analysis (Outflow)

|                             |  |
|-----------------------------|--|
| <b>Why 1</b>                | Step in ID   |
| <b>Why 2</b>                | Could not be detected at final inspection            |
| <b>Why 3</b>                | ID step checkpoint not available at final inspection |
| <b>Why 4</b>                |  |
| <b>Why 5</b>                |  |
| <b>Root Cause (Outflow)</b> | ID step checkpoint not available at final inspection |

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

| Type      | Countermeasure Details   | Responsibility | Target Date | Actual Date | Status    |
|-----------|--|----------------|-------------|-------------|-----------|
| Outflow   | Sampling Inspection to started with the plug gauge at the final inspection.    | Mr. Ankush     | 15/06/2024  | 12/06/2024  | Completed |
| Occurance | clamping finger Inspection checkpoint to be added in Daily machine checksheet. | Mr. Princ      | 15/06/2024  | 14/06/2024  | Completed |
| Occurance | Quality Alert to be displayed in Forging Shop                                  | Mr. Prince     | 12/06/2024  | 11/06/2024  | Completed |
| Outflow   | Quality Alert to be displayed at Final Inspection.                             | Mr. Princ      | 12/06/2024  | 11/06/2024  | Completed |

## 9. Inspection Method After Customer Complaint

|  |   |
|--|---|
| <b>Change In Inspection System</b>     | Yes   |
| <b>Change Details</b>                  | The part should be inspected using a plug gauge and undergo 100% visual inspection. |
| <b>Inspection Method</b>               | Gauge   |
| <b>Other Inspection Method</b>         |   |
| <b>Check Point at Final Inspection</b> | Yes   |
| <b>Checking Freq.</b>                  | Sampling  |
| <b>Sampling</b>                        | No  |
| <b>Sample Size</b>                     | As per std  |

## 10. Evidence of Countermeasure

|                           |  |
|---------------------------|--|
| <b>Occurance (Before)</b> | clamping finger Inspection was not done at daily basis.<br><a href="#">841_Occurance_Before.jpg</a>                        |
| <b>Occurance (After)</b>  | clamping finger Inspection checkpoint to be added in Daily machine check sheet.<br><a href="#">841_Occurance_After.jpg</a> |
| <b>Outflow (Before)</b>   | Only Visual Inspection but Step id checkpoint not available.<br><a href="#">841_Outflow_Before.png</a>                     |
| <b>Outflow (After)</b>    | Sampling Inspection to started with the plug gauge at the final inspection.<br><a href="#">841_Outflow_After.jpg</a>       |

## 11. Horizontal Deployment

|   |        |
|---|--------|
| <b>Horizontal Deployment Required</b>     | Yes    |
| <b>Applicable Machine / Model / Plant</b> | Header |

## 12. Document Review

|                               |  |
|-------------------------------|--|
| <b>Documents</b>              | ControlPlan, PFMEA, JHCheckSheet, InspCheckSheet |
| <b>Specify Other Document</b> | NO   |

## 13. Effectiveness Of Action

|                              |     |
|------------------------------|-----|
| <b>Reviewed Quantity</b>     | 100 |
| <b>Reason for submission</b> | ok  |