

## Defect Details

<b>NC No.</b>	8000892985
<b>NC Date</b>	25/09/2024
<b>NC Submission Date</b>	
<b>Part No.</b>	F1LG00902B
<b>Part Name</b>	SEAT PIPE -K86A
<b>Supplier Name &amp; Code</b>	100538-NARINDER PARKASH AND CO
<b>ETL Plant</b>	1136-ETL Suspension Sanand
<b>Defect Details</b>	BROKEN-HEAD SIDE SEAT PIPE BROKEN

## 1. Problem Description

<b>Defect Description</b>	Crack from head side
<b>Detection Stage</b>	Receipt
<b>Problem Severity</b>	Safety
<b>NG Quantity</b>	1
<b>Is Defect Repeatative?</b>	No
<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>	10000	15000	20000	15000	10000	70000
<b>Check Qty</b>	10000	15000	20000	15000	10000	70000
<b>NG Qty</b>	1	0	0	0	0	1

## Action taken on NG part

<b>Scrap</b>	1
<b>Rework</b>	0
<b>Under Deviation</b>	0

## Containment Action

100% inspection of available material.

## 3. Process Flow

### Process Flow Description

1) Cutting 2) Draw 3) Head Formation 4) Punching 5) Rough Grinding 6) CNC Head Turning 7) CNC Boring & Facing 8) Tapping 9) Chamfering 10) Final Grinding 11) Final Inspection 12) Cleaning 13) Oiling 14) Packing & Dispatch

## 4. Process Details

<b>Process / Operation</b>	CNC Head Turning
<b>Outsource</b>	No
<b>Machine / Cell</b>	CNC
<b>Machine / Cell No.</b>	CNC Section

## 5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Method	Head formation pin depth more	It was observed that Head Formation Pin Depth is OK	O
Method	Part with less wall thickness near groove skipped Final `Q` Gate during inspection	It was observed that part having less wall thickness near groove skipped Final `Q` Gate	X
Machine	Stroke variation	No Stroke variation observed	O
Material	Hardness more	Material Hardness observed 45HRB which is observed to be within range	O
Method	Setting part got mixed	It was observed that setting part got mixed	X

## 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>	Head Broken part
<b>Why 2</b>	Crack on part
<b>Why 3</b>	Wall thickness got less
<b>Why 4</b>	Extra machining done
<b>Why 5</b>	Setting part
<b>Root Cause (Occurance)</b>	Setting part

## Root Cause Analysis (Outflow)

<b>Why 1</b>	Head Broken part
<b>Why 2</b>	Could not be detected at final inspection
<b>Why 3</b>	Skipped at Final `Q` Gate
<b>Why 4</b>	Skipped in Groove dia sampling inspection
<b>Why 5</b>	Groove dia sampling qty less

**Root Cause (Outflow)**

Groove dia Sampling Qty less

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Outflow	100% inspection of Groove dia to be done	Mr Toti	02/10/2024	02/10/2024	Completed
Occurance	Proper disposal of setting parts to be ensured before starting new shift	Mr Harwinder	30/09/2024	30/09/2024	Completed
Occurance	Open Red Bin to be replaced with lock & key Red Bin	Mr Harwinder	30/09/2024	30/09/2024	Completed
Occurance	WI to be displayed at Work Station	Mr Princ	01/10/2024	01/10/2024	Completed
Outflow	Quality Alert to be displayed at "Q" Gate	Mr Princ	25/09/2024	25/09/2024	Completed
Occurance	Quality Alert to be displayed at CNC Section	Mr Princ	25/09/2024	25/09/2024	Completed

**9. Inspection Method After Customer Complaint**

<b>Change In Inspection System</b>	Yes
<b>Change Details</b>	100% inspection of Groove Dia
<b>Inspection Method</b>	Gauge
<b>Other Inspection Method</b>	
<b>Check Point at Final Inspection</b>	Yes
<b>Checking Freq.</b>	100%
<b>Sampling</b>	No
<b>Sample Size</b>	100%

**10. Evidence of Countermeasure**

<b>Occurance (Before)</b>	Open red bin was used. <a href="#">1113_Occurance_Before.jpg</a>
<b>Occurance (After)</b>	Open Red Bin to be replaced with lock & key Red Bin. <a href="#">1113_Occurance_After.jpg</a>
<b>Outflow (Before)</b>	Sampling inspection was followed for Groove dia. <a href="#">1113_Outflow_Before.png</a>
<b>Outflow (After)</b>	100% inspection of Groove dia is started at final inspection. <a href="#">1113_Outflow_After.png</a>

**11. Horizontal Deployment**

<b>Horizontal Deployment Required</b>	Yes
<b>Applicable Machine / Model / Plant</b>	All CNC Machine / Similar Model

**12. Document Review**

<b>Documents</b>	ControlPlan, PFMEA, WISOP, InspCheckSheet
<b>Specify Other Document</b>	No

### 13. Effectiveness Of Action

<b>Reviewed Quantity</b>	5
<b>Reason for submission</b>	HEAD SIDE SEAT PIPE BROKEN