

Defect Details

NC No.	8000874503
NC Date	16/05/2024
NC Submission Date	
Part No.	F2PH01302B
Part Name	VALVE RETAINER (K-1015)
Supplier Name & Code	101255-MAHAVIR INDUSTRIES
ETL Plant	1117-ETL K-228/9 Suspension
Defect Details	NOT AS PER SPECIFICATION-ID UNDERSIZE (BURR REVOLVED)

1. Problem Description

Defect Description	ID undersize
Detection Stage	Inprocess
Problem Severity	Fitment
NG Quantity	10
Is Defect Repeatative?	No
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	quality@mahavirind.co.in
Plant Head/CEO Email ID	planthead@mahavirind.co.in
MD Email ID	

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	1200	0	0	1500	0	2700
Check Qty	1200	0	0	1500	0	2700
NG Qty	10	0	0	3	0	13

Action taken on NG part

Scrap	10
Rework	3
Under Deviation	0

Containment Action

All Suspected material Segregation at Customer End

3. Process Flow

Process Flow Description

RM Inward at MI K-11- Store at Janki Engineering - Parting on Traub machine - Chamfer on Drill machine - Inward Inspection at k-11-Counter Boring on CNC Machine - Plating Green Passivation - Final Inspection - Dispatch

4. Process Details

Process / Operation	Counter Boring on CNC
Outsource	No
Machine / Cell	CNC Cell
Machine / Cell No.	CNC-02

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Man	Unskilled operator	As per skilled matrix chart skilled operator	O
Tool	Wrong Insert Use For Facing Operation	Correct Insert TNMG04 use for Facing operation	O
Method	Wrong Inspection Instruments	Plain PPG use Instead of step gauge on CNC Machien	X
Material	Hard Material	Material Hardness Found 78-82 HRB	O
Machine	During Counter facing Operation Facing tool over feed	During Counter Facing operation Feed obs. 0.15mm/Rev. Instead of 0.12mm/Rev.	X

6. Inspection Method Analysis (Current)

Inspection Method	Sp. Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	Sampling
Sampling	No
Sample Size	5Nos/Hr

7. Root Cause Analysis (Occurance)

Why 1	Not as per specification -ID Undersize Burr fold At ID
Why 2	Feed Over During Valve Retainer Job Change Over.
Why 3	During Job Change Over Valve Retainer facing tool Process Parameters Not Correction in program on CNC machine.
Why 4	During Counter Operation Process Facing Tool Over Feed of Facing Tool on CNC Machine.
Why 5	
Root Cause (Occurance)	During Counter Operation Process Facing Tool Over Feed of Facing Tool on CNC Machine.

Root Cause Analysis (Outflow)

Why 1	Not as per specification -ID Undersize Burr fold At ID
Why 2	Counter ID Fold Burr not detect on final inspection
Why 3	ID Inspection By Plain PPG
Why 4	
Why 5	
Root Cause (Outflow)	ID Inspection By Plain PPG

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	Counter Facing tool process parameter Feed Reduce -0.12mm/rev. Instead of 0.15mm/rev	Production Head / Quality Head	20/05/2024	21/05/2024	Completed
Outflow	New Step Gauge Provide on CNC Machine and Final Inspection Stage	Quality Head	20/05/2024	30/05/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	Step Gauge Provide On CNC Machine
Inspection Method	Sp. Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100%

10. Evidence of Countermeasure

Occurance (Before)	During Counter Operation Process Facing Tool Over Feed of Facing Tool on CNC Machine. 808_Occurance_Before.jpg
Occurance (After)	Counter Facing tool process parameter Feed Reduce -0.12mm/rev. Instead of 0.15mm/rev 808_Occurance_After.jpg
Outflow (Before)	Required Special Gauge Not Available For Both Counter ID at time Inspection. 808_Outflow_Before.jpg
Outflow (After)	New Step Gauge Provide on CNC Machine and Final Inspection Stage 808_Outflow_After.jpg

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	All Valve Retainer Family

12. Document Review

Documents	ControlPlan, PFMEA
Specify Other Document	no

13. Effectiveness Of Action

Reviewed Quantity	50
Reason for submission	OK

