QFR No - 8000782060

Defect Details

NC No.	8000782060
NC Date	27/03/2022
NC Submission Date	
Part No.	S2HT52107B
Part Name	OUTER SPRING K0PG
Supplier Name & Code	101048-STUMPP SCHUELE AND SOMAPPA SPR
ETL Plant	1136-ETL Suspension Sanand
Defect Details	DIMETER UNDERSIZE-INNERDIA UNDERSIZE

1. Problem Description

Defect Description	ID Under Size
Detection Stage	Inprocess
Problem Severity	Fitment
NG Quantity	1
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	pathan.ak@ssssprings.com
Plant Head/CEO Email ID	udham.singh@ssssprings.com
MD Email ID	rln@ssssprings.com

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	2016	0	0	0	1200	3216
Check Qty	2016	0	0	0	1200	3216
NG Qty	1	0	0	0	1	2

Action taken on NG part

Scrap	2
Rework	0
Under Deviation	0

Containment Action
Available internal parts segregated 100 %. Available Qty of 1200 nos checked, 1 part found having ID undersize. All the springs will be provided with small line on small ID end for next 3 lots.

3. Process Flow

Process Flow Description
Recipt & inspection - Visual - Storage of material - Winding RH - Stress Relieving - Grinding - Shot peening - Scragging - Lo,OD,e1 & bend sorting and correction - Stress Relieving (LTA) - Powder coating - Final Inspection - Packing

4. Process Details

Process / Operation	Grinding
Outsource	No
Machine / Cell	SGM-2 (Grinding machine)
Machine / Cell No.	Grinding

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Machine	Wrong Set up during coiling	Verified and found the correct setting was done.	O
Man	Unskilled Operator	Skilled operator deputed at coiling stage	O
Tool	Wrong or damaged magazine plate at Grinding stage	Verified and found the correct magazine plate for grinding of this part	O
Method	Wrong orientation of spring in Grinding bush.	End moved inside due to wrong placement of spring in grinding bush	X
Method	Part mix up	Verified & found that NG parts mixed-up with OK parts.	X

6. Inspection Method Analysis (Current)

Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100%

7. Root Cause Analysis (Occurance)

Why 1	Problem occur during grinding operation.
Why 2	Spring in Guide bush placed with wrong orientation (Bigger side down in place of upward)
Why 3	spring orientation during grinding not specified & documented
Why 4	
Why 5	
Root Cause (Occurance)	spring orientation during grinding not specified & documented

Root Cause Analysis (Outflow)

Why 1	Problem occur during 100% ID inspection at powder coating.
Why 2	Captured ID tight parts mixed-up with Ok parts.
Why 3	Both the parts were kept nearby on inspection table by operator.

Why 4	No separator for the OK and NG parts at inspection table.
Why 5	
Root Cause (Outflow)	No separator for the OK and NG parts at inspection table.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	Work instruction revised to add the spring orientation (Bigger side up) in Grinding bush during grinding operation & training provided to the operators accordingly.	Mr. Dixit	07/04/2022	07/04/2022	Completed
Occurance	ID inspection and Control added at Grinding Stage, Control plan revised for the same.	Mr. Maulesh	06/04/2022	06/04/2022	Completed
Outflow	Separator provided on inspection table with proper identification to avoid mix-up	Mr. Shashank	06/04/2022	06/04/2022	Completed
Outflow	Awareness training given to the operators to keep NG parts in red bin.	Mr. Shashank	07/04/2022	06/04/2022	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	Sampling inspection for ID started at Grinding stage, control plan revised for the same.
Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100%

10. Evidance of Countermeasure

Occurance (Before)	No ID inspection at Grinding stage, Spring orientation in Grinding was not specified in Work instruction 26_Occurance_Before.pdf
Occurance (After)	ID inspection started at Grinding stage, Control plan revised for the same. Work instruction revised to add the spring orientation (Bigger side up) in Grinding bush during grinding operation & training provided to the operators accordingly. 26_Occurance_After.jpg
Outflow (Before)	OK and reworkable parts were kept at the same inspection table without any separator. 26_Outflow_Before.png
Outflow (After)	Separator provided on inspection table to place OK and reworkable parts separate to avoid mix-up of OK and NG parts 26_Outflow_After.png

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	Inspection for ID started for all the OC springs.

12. Document Review

Documents	ControlPlan, WISOP
Specify Other Document	No

13. Effectiveness Of Action

Reviewed Quantity	5000
Reason for submission	Accepted