QFR No - 8000782618

Defect Details

NC No.	8000782618
NC Date	03/04/2022
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	NOT AS PER SPECIFICATION-BEND FOUND AT CUSTOMER END DUE TO PARLL.

1. Problem Description

Defect Description	Bend Found at Customer End due to Parallelism, Squarness NG i.e. Parallelism :- 1.66, 2.04, 2.41 Squarnes :- 7.5, 6.8, 8.0 it is repeatative at M/s ETLS end.
Detection Stage	Customer End
Problem Severity	Function
NG Quantity	3
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

Supplier Communication Details

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

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	3080	0	0	0	700	3780
Check Qty	3080	0	0	0	700	3780
NG Qty	71	0	0	0	6	77

Action taken on NG part

Scrap	77
Rework	0
Under Deviation	0

Containment Action
All the parts at Customer end inspected height gauge set up. 3080 parts checked and found 71 parts NG. Available internal parts segregated with Right angle and dial gauge set up. Available Qty of 700 nos. checked, 6 part found having ID undersize.

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 Operation
Outsource	No
Machine / Cell	SGM-3 / Halol
Machine / Cell No.	Grinding Cell

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Machine	Wrong end coil winding gap during coiling	Verified and found the correct winding gap at coiling stage	O
Man	Unskilled Operator	Skilled operator deputed at each stage	O
Tool	Wrong magazine plate / Bush size at Grinding stage	Verified and found the magazine plate bush oversize by 1mm.	X
Method	Wrong orientation of spring in Grinding bush.	Verified and found the spring orientation as defiened in work instruction (Bigger side upward)	O
Method	Inspection method error	Verified & found the base plate of the right angle block small in size, where some portion of the sp	X

6. Inspection Method Analysis (Current)

Inspection Method	Sp. 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	Parts with parallelism more than 1mm produced at grinding stage.
Why 2	Grinding plate bush size observed 1mm more than specified. (Bush I.D observed 56.7mm against 55.7 mm max.
Why 3	Inspection frequency for Bush size I.D monitoring found less
Why 4	
Why 5	
Root Cause (Occurance)	Inspection frequency for Bush size I.D monitoring found less

Root Cause Analysis (Outflow)

Why 1	Parallelism out of specification part escaped from inspection
Why 2	Dial gauge reading observed less with compare to readings at height gauge

Why 3	Verified & found the base plate of the right angle block small in size, where some portion of the spring base was resting outside of the base plate.
Why 4	
Why 5	
Root Cause (Outflow)	Verified & found the base plate of the right angle block small in size, where some portion of the spring base was resting outside of the base plate.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	New grinding plate with new Bushes with correct I.D produced and installed at Grinding stage.	Mr. Dixit	28/04/2022	28/04/2022	Completed
Occurance	Inspection frequency increased from 1 month to every set up of grinding. Control for Bush I.D monitoring added in Control plan.	Mr. Maulesh	28/04/2022	28/04/2022	Completed
Outflow	New Right angle block with bigger Base plate introduced at inspection stage to avoid the inspection error.	Mr. Maulesh	21/04/2022	21/04/2022	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	Inspection frequency increased from 1 month to every set up of grinding. Control for Bush I.D monitoring added in Control plan New Right angle block with bigger Base plate introduced at inspection stage to avoid the inspection error.
Inspection Method	Sp. Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100%

10. Evidance of Countermeasure

Occurance (Before)	Inspection frequency for Bush size I.D monitoring found less. Grinding Bush I.D observed oversize 42_Occurance_Before.pdf
Occurance (After)	Inspection frequency increased from 1 month to every set up of grinding. Control for Bush I.D monitoring added in Control plan. New Grinding plate with correct bush I.D produced and installed. 42_Occurance_After.pdf
Outflow (Before)	Right angle block base was short, where some portion of the spring base falling out (of the base plate) during inspection. 42_Outflow_Before.jfif
Outflow (After)	New Right angle block with bigger Base plate introduced at inspection stage to avoid the inspection error. 42_Outflow_After.jfif

11. Horizontal Deployment

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

12. Document Review

Documents	ControlPlan, PMCheckSheet
Specify Other Document	No

13. Effectiveness Of Action

Reviewed Quantity	5000
Reason for submission	Accepted