QFR No - 8000778361

Defect Details

NC No.	8000778361
NC Date	03/03/2022
NC Submission Date	
Part No.	520MD19002
Part Name	COMPRESSION SPRING (4 PLATE VAVE)
Supplier Name & Code	207123-NHK AUTOMOTIVE COMPONENTS
ETL Plant	1132-ETL K-226/1 TRANSMISSION
Defect Details	DIAMETER OVER SIZE-WIRE DIA 2.40 O/S UPTO 2.60MM

1. Problem Description

Defect Description	Wire diameter observed 2.6 mm as against 2.4 mm
Detection Stage	Inprocess
Problem Severity	Function
NG Quantity	2
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	aamerkhan@nhkspring.co.in
Plant Head/CEO Email ID	vrdhage@nhkspring.co.in
MD Email ID	j.mizutani@nhkspringindia.com

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	10000	0	0	15000	0	25000
Check Qty	10000	0	0	15000	0	25000
NG Qty	2	0	0	0	0	2

Action taken on NG part

Scrap	2
Rework	0
Under Deviation	0

Containment Action
100% Mix up sorting done .

3. Process Flow

Process Flow Description
Coiling-Stress relieving-grinding-hoscoat -preinspection-painting oiling-100% Visual sorting-Packing

4. Process Details

Process / Operation	Painting machine
Outsource	No
Machine / Cell	NA
Machine / Cell No.	NA

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Man	Chances of mix up at coiling	Verified at coiling process, lot taken separately, no chance of mix up spring. fallen spring scrap	X
Method	Chances of Mix-up at Stress relieving process	Verified at stress relieving process, lot taken separately, no chance of mix up spring. fallen spr	X
Method	Chances of Mix-up at Shot peening process.	verified at Shot peening process, there is no possibility of mix-up spring as one batch taken separa	X
Method	1.Spring mix up painting process	1.Painting process verify as spring remain at corner of painting tray	O
Man	Chances of Mix-up at Grinding process	verified at Grinding process, lot taken separately as per batch, No chance of mix up spring at Grind	X

6. Inspection Method Analysis (Current)

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

7. Root Cause Analysis (Occurance)

Why 1	Mix up spring found
Why 2	spring mix up at painting process
Why 3	Remain spring of previous lot at corner of painting tray got mix up in next lot.
Why 4	Remain spring not verified after completion of lot
Why 5	Remain spring checking requirement not identified in painting process
Root Cause (Occurance)	Remain spring checking requirement not identified in painting process

Root Cause Analysis (Outflow)

Why 1	Mix up spring found
Why 2	spring not detected in visual sorting
Why 3	Both Ok & NG spring are similar looking

Why 4	
Why 5	
Root Cause (Outflow)	Since ,spring not arrested in visual sorting as both spring are similar looking.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	1.Now remain spring check requirement added in painting process.2)Remain spring check map made & displayed & to be monitored by remain spring check sheet after completion of every lot	S F NEHRI	03/10/2022		Pending
Outflow	1.100% Gauge sorting started to arrest mix up spring as there is difference between in ID of OK & NG part. (NG Part ID Is 13.50mm & OK part ID is 14.80mm)	S F NEHRI	03/10/2022		Pending

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	100% Gauge sorting started at detection side to arrest mix up spring
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)	Remain check map not available at painting process 2_Occurance_Before.pdf
Occurance (After)	Remain check map displayed at painting process & remain spring check sheet provided 2_Occurance_After.pdf
Outflow (Before)	Only visual sorting done 2_Outflow_Before.jpg
Outflow (After)	Gauge sorting started to arrest mix up spring 2_Outflow_After.jpg

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	Horizontal deployment done at painting process for all ETL Parts.

12. Document Review

Documents	WISOP
Specify Other Document	No other document

13. Effectiveness Of Action

Reviewed Quantity	5000
Reason for submission	What is your inspection method of 100% inspection not defined and how this going to detect the problem not confirm. Also cause side action not full proof.