QFR No - 7001012537

Defect Details

NC No.	7001012537
NC Date	10/05/2024
NC Submission Date	
Part No.	550GN09102
Part Name	MAIN SPRING-(HMS-30 & HMP-30)
Supplier Name & Code	100186-SAGAR SPRINGS PRIVATE LIMITED
ETL Plant	1143-ETL Suspension Halol, Vadodara
Defect Details	LENGTH OVERSIZE-Total Length 358.5 mm against 348.7 ±2mm

1. Problem Description

Defect Description	Total Length 358.5 mm against 348.7 ±2mm
Detection Stage	Receipt
Problem Severity	Function
NG Quantity	306
Is Defect Repeatative?	No
Defect Sketch / Photo	5zrawr3bwbr43c12lheq2hfv.jpg

Supplier Communication Details

Quality Head Email ID	quality@sagarsprings.com
Plant Head/CEO Email ID	ajai.singh@sagarsprings.com
MD Email ID	sagar@sagarsprings.com

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	13600	0	0	6000	0	19600
Check Qty	13600	0	0	6000	0	19600
NG Qty	306	0	0	2	0	308

Action taken on NG part

Scrap	306
Rework	0
Under Deviation	0

Containment Action
100%inspection at ETL Halol plant

3. Process Flow

Process Flow Description
coiling, tempring, grinding, shot peening 2nd tempring, scragging, waviness, checking

4. Process Details

Process / Operation	Final inspection
Outsource	No
Machine / Cell	Final inspection
Machine / Cell No.	Final inspection

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Method	Mix up of other part	Possibility of mix up of other model mix up next to tempering	O
Method	Inspection method for height checking wrong	Height checking of spring by checking gauge is found OK	O
Man	Operator negligance	No negligence found	O

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	Other model spring get mix at tempering stage
Why 2	While line change over spring mix with existing spring
Why 3	While line change over when furnace operator goes for material movement another model parts get drop
Why 4	Small trolley used is not carry enough spring and there arise chance for mix up
Why 5	
Root Cause (Occurance)	Method for using small trolley for material movement after tempering get filled quickly till operator empty tempered material to decided location, hence in case material get mixed at furnace where spare trolley is kept

Root Cause Analysis (Outflow)

Why 1	Free length (mix up) is not checked at final oiling stage
Why 2	Free length is checked 100% at waviness correction stage and spring get mix after it
Why 3	
Why 4	
Why 5	
Root Cause (Outflow)	Model mix up is not check at final oiling stage

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	Large bin will be kept at exit of furnace which avoid frequent transportation and could store more spring at time and operator could easily work on it while change over	Production-Supervisor	12/05/2024	12/05/2024	Completed
Outflow	100% mix up is checked on final oiling stage by making spring stand vertical on plate	Packing - Crew	12/05/2024	12/05/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	Model mix up inspection started at final oiling-packing stage
Inspection Method	Other
Other Inspection Method	Visual
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	100%

10. Evidance of Countermeasure

Occurance (Before)	While line change over when furnace operator goes for material movement another model parts get drop. Small trolley used is not carry enough spring and there arise chance for mix up 796_Occurance_Before.pdf
Occurance (After)	Large bin will be kept at exit of furnace which avoid frequent transportation and could store more spring at time and operator could easily work on it while change over 796_Occurance_After.pdf
Outflow (Before)	Free length (mix up) is not checked at final oiling stage 796_Outflow_Before.pdf
Outflow (After)	100% mix up is checked on final oiling stage by making spring stand vertical on plate. 796_Outflow_After.pdf

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	All long and slender Main spring

12. Document Review

Documents	ControlPlan, PFMEA, WISOP
Specify Other Document	OPL

13. Effectiveness Of Action

Reviewed Quantity	

Reason for submission	