QFR No - 8000780349

Defect Details

NC No.	8000780349
NC Date	18/03/2022
NC Submission Date	
Part No.	F1GN01102B
Part Name	MAIN SPRING K86A
Supplier Name & Code	101225-HELICAL SPRINGS
ETL Plant	1146-ETL Suspension Narasapura
Defect Details	LENGTH UNDERSIZE-TOTAL LENGTH LESS ISSUE

1. Problem Description

Defect Description	main spring total length less
Detection Stage	Inprocess
Problem Severity	Fitment
NG Quantity	1
Is Defect Repeatative?	No
Defect Sketch / Photo	ilia2cr5nev23hks14ow220m.xlsx

Supplier Communication Details

Quality Head Email ID	arun@helicalsprings.in
Plant Head/CEO Email ID	shaikhmoin@helicalsprings.in
MD Email ID	ataneja@helicalsprings.in

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	10000	8000	0	0	12000	30000
Check Qty	10000	8000	0	0	12000	30000
NG Qty	5	0	0	0	0	5

Action taken on NG part

Scrap	5
Rework	0
Under Deviation	0

Containment Action
100 % inspection done at ETL, warehouse & FG.

3. Process Flow

Process Flow Description
RAW MATERIAL, COILING, STRESS RELEIVING-1, END GRINDING, SHOT PEENING, SCRAGGING, LENGTH,OD & WAVYNESS CHECKING, STRESS RELEIVING-2, Surface Finish- Oiling , PDI, Packing & Dispatch.

4. Process Details

Process / Operation	Coiling
Outsource	No
Machine / Cell	NA
Machine / Cell No.	NA

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Method	Improper length setting	Improper locking of length gauge	X
Material	As per Drawing	RMTC checked found ok	O
Machine	Herdon	Found ok	O
Man	Unskilled operator	Skill Matrix checked found ok	O
Method	Improper material handing	Setup part mix with ok part	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	5

7. Root Cause Analysis (Occurance)

Why 1	length short
Why 2	During setup length short spring coiled
Why 3	Setup quantity mix with the ok material
Why 4	No provision was available for setup part storage
Why 5	
Root Cause (Occurance)	No provision was available for setup part storage

Root Cause Analysis (Outflow)

Why 1	length short
Why 2	Length gauge setting disturbed
Why 3	Improper locking of Length gauge
Why 4	No cross check method for length gauge verification
Why 5	
Root Cause (Outflow)	No cross check method for length gauge verification

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	1. Yellow bin introduced at coiling to keep suspected/setup part 2. OPL displayed at coiling 3. Training provided to the operator and recorded the same	Mr.Mahadev	23/03/2022	22/03/2022	Completed
Outflow	1. Free length tolerance band reduced from +4.0 mm to +3.50 mm 2. Dedicated length gauge will be introduced for K0LA main spring (fixed type) 3. Control plan changed and updated	Quality	24/03/2022	23/03/2022	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	No
Change Details	No Change
Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	25/Lot

10. Evidance of Countermeasure

Occurance (Before)	Yellow Bin not available. 21_Occurance_Before.pdf
Occurance (After)	.1. Yellow bin introduced at coiling to keep suspected/setup part 2. .OPL displayed at coiling 3.Training provided to to the operator and recorded the same 21_Occurance_After.pdf
Outflow (Before)	Free length Gauge band 4.0 mm 21_Outflow_Before.pdf
Outflow (After)	1. The free length tolerance band was reduced from +4.0 mm to +3.50 mm 2. A dedicated length gauge will be introduced for K0LA main spring (fixed type) 21_Outflow_After.pdf

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	All Similar Modal

12. Document Review

Documents	WISOP
Specify Other Document	OPL

13. Effectiveness Of Action

Reviewed Quantity	15000
Reason for submission	reviewed 15000 numbers no length issue found ok