QFR No - 8000844147

Defect Details

NC No.	8000844147
NC Date	12/09/2023
NC Submission Date	
Part No.	520FZ01002
Part Name	HUB CLUTCH WITH INNER RING REML 6/7 PL
Supplier Name & Code	100656-MADHURA DIE CAST PVT.LTD
ETL Plant	1132-ETL K-226/1 TRANSMISSION
Defect Details	NOT AS PER SPECIFICATION-RING LOOSE

1. Problem Description

Defect Description	Warranty complaint -Ring Loose issue in Hub Clutch
Detection Stage	Warranty
Problem Severity	Function
NG Quantity	1
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	madhuradiecast@gmail.com
Plant Head/CEO Email ID	madhuradiecast@gmail.com
MD Email ID	madhuradiecast@gaikegroup.in

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	500	1000	0	500	300	2300
Check Qty	500	1000	0	500	300	2300
NG Qty	1	0	0	0	0	1

Action taken on NG part

Scrap	1
Rework	0
Under Deviation	0

Containment Action
100% segregation done at customer End & Supplier End.

3. Process Flow

Process Flow Description
1.Casting 2.fetling 3. CNC 1st Set-up 4.CNC 2nd Set-up 5. Ring Pressing 6.Broaching 7. CNC OD Turning 6.Final Inspection

4. Process Details

Process / Operation	CNC
Outsource	No
Machine / Cell	CNC 2 ND SET UP
Machine / Cell No.	06

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Method	Due to overheated which inner ring id got expanded.	verified & found not ok	X
Tool	Jaw loose in running	Check and verify found ok	O
Man	Unskilled operator was operate machine	Skill Matrix is verified & found ok	O
Material	Burr on clamping area	Verify the component found ok	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	1:1

7. Root Cause Analysis (Occurance)

Why 1	Ring Loose issue in Hub Clutch
Why 2	Ring inner dia increased by 0.031 mm & outer dia increased by 0.022 mm
Why 3	The Mating part (Bearing) resting on inner ring od got seized .
Why 4	Due to overheated which inner ring id got expanded
Why 5	
Root Cause (Occurance)	Due to overheated which inner ring id got expanded

Root Cause Analysis (Outflow)

Why 1	Ring Loose issue in Hub Clutch
Why 2	100% inspection not done at all stages
Why 3	
Why 4	
Why 5	
Root Cause (Outflow)	100% inspection not done at all stages

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Outflow	1. 100% inner ring id checking started at inward inspection with air gauge. 2. 100% id inspection with air gauge at load cell stage before ring pressing. 3. 100% inspection of inner ring outer dia at CNC Stage after grinding. 4. 100% inspection of inner ring outer dia at final inspection stage before dispatch.	Quality Supervisor	15/10/2023	09/10/2023	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	started 100% inner ring id & od Inspection at all stages
Inspection Method	Gauge
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	1:1

10. Evidance of Countermeasure

Occurance (Before)	Action plan PPT is attached for this problem 551_Occurance_Before.pptx
Occurance (After)	For complete root cause action & analysis we need to checked mating part(bearing) which is resting on inner ring OD 551_Occurance_After.jpg
Outflow (Before)	100% inspection not done at all stages 551_Outflow_Before.xls
Outflow (After)	1. 100% inner ring id checking started at inward inspection with air gauge. 2. 100% id inspection with air gauge at load cell stage before ring pressing. 3. 100% inspection of inner ring outer dia at CNC Stage after grinding. 4. 100% inspection of inner ring outer dia at final inspection stage before dispatch. 551_Outflow_After.xls

11. Horizontal Deployment

Horizontal Deployment Required	No
Applicable Machine / Model / Plant	CNC

12. Document Review

Documents	ControlPlan, PFMEA, InspCheckSheet
Specify Other Document	QA ALERT

13. Effectiveness Of Action

Reviewed Quantity	
Reason for submission	