QFR No - 8000867378

Defect Details

NC No.	8000867378
NC Date	18/03/2024
NC Submission Date	
Part No.	520PP01902
Part Name	WHEEL CLUTCH FINISHED UPGRADE
Supplier Name & Code	100656-MADHURA DIE CAST PVT.LTD
ETL Plant	1132-ETL K-226/1 TRANSMISSION
Defect Details	CRACK-OD CRACK ISSUE

1. Problem Description

Defect Description	Crack Issue observed on OD Ø110±0.3 mm
Detection Stage	Receipt
Problem Severity	Function
NG Quantity	28
Is Defect Repeatative?	No
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	3384	2000	0	0	0	5384
Check Qty	3384	2000	0	0	0	5384
NG Qty	32	35	0	0	0	67

Action taken on NG part

Scrap	67
Rework	0
Under Deviation	0

Containment Action
1. 100% material of the 3W4S Wheel segregation done at the customer end. 2.. Started 100% of the visual checking of the crack on the OD. And Started 100% of the marking on the OD of the Components.

3. Process Flow

Process Flow Description

1. Casting 2. Fettling 3. CNC 1st Set-up 4. CNC 2nd Set-up 5.Drilling & Tapping 6.Final Inspection

4. Process Details

Process / Operation	Casting
Outsource	No
Machine / Cell	HPDC MC
Machine / Cell No.	02

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Material	Die material was not ok.	Check and verify found ok	O
Machine	Die was Overlock	Verified & Found OK	O
Tool	Die life was completed	Found Not OK	X

6. Inspection Method Analysis (Current)

Inspection Method	Instrument
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	A crack was found on the OD 110.00mm.
Why 2	The casting ejection was uneven due to which parts got cracked.
Why 3	The running die moving side insert M1 was cracked at various points.
Why 4	Die life was completed of M1 die. And the new die was under approval.
Why 5	
Root Cause (Occurance)	Die life was completed of M1 die.

Root Cause Analysis (Outflow)

Why 1	This micro-crack part was visually not arrested on the final inspection table
Why 2	Micro crack was not visible without a magnifying glass.
Why 3	
Why 4	
Why 5	
Root Cause (Outflow)	Micro crack was not visible without a magnifying glass.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	The old die (M1) was scrapped and the new die (M2) was implemented for the production.	Production supervisior	20/03/2024	18/03/2024	Completed
Outflow	1. Training and awareness were given to the Final inspector about the Visual checking of the Crack on the OD 110.00mm. 2. The magnified glass is implemented on the final inspection table for the visual checking of the micro cracks on the OD of the parts. 3. OPL is displayed.	QA Supervisor	15/03/2024	16/03/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	The magnified glass is implemented on the final inspection table for the visual checking of the micro cracks on the OD of the parts.
Inspection Method	Instrument
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	1:1

10. Evidence of Countermeasure

Occurance (Before)	The running die moving side insert M1 was cracked 714_Occurance_Before.jpeg
Occurance (After)	A new die (M2) was implemented for the production. 714_Occurance_After.jpeg
Outflow (Before)	Micro crack was not visible without magnifying glass. 714_Outflow_Before.jpeg
Outflow (After)	The magnified glass is implemented on the final inspection table for the visual checking of the micro-cracks on the OD of the parts. 714_Outflow_After.jpeg

11. Horizontal Deployment

Horizontal Deployment Required	No
Applicable Machine / Model / Plant	NO

12. Document Review

Documents	InspCheckSheet
Specify Other Document	NA

13. Effectiveness Of Action

Reviewed Quantity	2000

Reason for submission	OK