QFR No - 7001055337

Defect Details

NC No.	7001055337
NC Date	19/09/2024
NC Submission Date	
Part No.	520AE00400
Part Name	CORE PLATE REDUCED 612
Supplier Name & Code	100959-AAR CEE ENGINEERING WORKS UNIT
ETL Plant	1132-ETL K-226/1 TRANSMISSION
Defect Details	NON FILLING-Non Felling ,Blow Hole

1. Problem Description

Defect Description	Heavy Non filling ,Blow Hole & crack observed
Detection Stage	Receipt
Problem Severity	Function
NG Quantity	416
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	qc@aarceeengg.com
Plant Head/CEO Email ID	planthead.diecasting@aarceeengg.com
MD Email ID	vaibhav.arora@aarceeengg.com

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	416	5000	10000	0	0	15416
Check Qty	416	5000	10000	0	0	15416
NG Qty	416	0	0	0	0	416

Action taken on NG part

Scrap	416
Rework	0
Under Deviation	0

Containment Action
All available stock will be quarantine and seggrigation100%

3. Process Flow

Process Flow Description
1)raw material receipt 2)Storage of Raw Material3)Holding Cum Melting 4) PDC 5) 1st trimming 6) Shot Blasting for burr removing 7)Final Inspection & Packing 8) Stress Relieving 9)Sound Testing10)Shot Blasting 11)Barreling12)2nd Trimming

4. Process Details

Process / Operation	CASTING
Outsource	Yes
Machine / Cell	HPDC
Machine / Cell No.	7

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Method	Trapped air in the mold or die cavity.	Air entrapment	X
Man	Improper Inspection	Inspection not done properly	X

6. Inspection Method Analysis (Current)

Inspection Method	Other
Other Inspection Method	visual
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	125

7. Root Cause Analysis (Occurance)

Why 1	Air entrapment
Why 2	turbulent metal flow
Why 3	inadequate gas removal
Why 4	Dissolved gases in molten metal (nitrogen)
Why 5	higher temps increase gas solubility
Root Cause (Occurance)	higher temps increase gas solubility

Root Cause Analysis (Outflow)

Why 1	Blow hole in core plate
Why 2	Human error
Why 3	Lack of attention or focus
Why 4	Lack of training or experience
Why 5	
Root Cause (Outflow)	Lack of training or experience

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	1. Optimize temperature control. 2.W.I has been updated for temperature control. 3.Training Provided to the Operator. 4)monitor and control casting temperature	ANIRUDH/RITIK	23/09/2024	23/09/2024	Completed
Occurance	1.Regular training and refresher courses 2. Performance monitoring and feedback(poision test) 3.Q-Sustenance monitoring Check sheet has been Implemented. 4. Quality Inspector initial marking done on each & every piece.	Nishant	22/09/2024	22/09/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	No
Change Details	no
Inspection Method	Other
Other Inspection Method	visual
Check Point at Final Inspection	Yes
Checking Freq.	100%
Sampling	No
Sample Size	125

10. Evidance of Countermeasure

Occurance (Before)	Temperature inspection frequency less in process inspection report 1104_Occurance_Before.xls
Occurance (After)	1. Optimize temperature control. 2.Training Provided to the Operator. 3)monitor and control casting temperature 1104_Occurance_After.xls
Outflow (Before)	Inadequate inspector performance monitoring 1104_Outflow_Before.xls
Outflow (After)	1.Regular training and refresher courses 2. Performance monitoring and feedback(poision test) 3.Q-Sustenance monitoring Check sheet has been Implemented. 4. Quality Inspector initial marking done on each & every piece. 1104_Outflow_After.xls

11. Horizontal Deployment

Horizontal Deployment Required	Yes
Applicable Machine / Model / Plant	k70,3w4s

12. Document Review

Documents	WISOP, InspCheckSheet
Specify Other Document	dock audit

13. Effectiveness Of Action

Reviewed Quantity	5000

Reason for submission	Ok