QFR No - 8000892843

Defect Details

NC No.	8000892843
NC Date	25/09/2024
NC Submission Date	
Part No.	S3JL00731B
Part Name	PISTON ROD FINISH GROUND
Supplier Name & Code	100993-MAYUR INDUSTRIES
ETL Plant	1118-ETL E-92,93 Suspension
Defect Details	LENGTH UNDERSIZE-T.LENGTH U/SSPE=179.00+/-0.20 OBS=176.66

1. Problem Description

Defect Description	Total Length undersize obs.- 176.66 against Spec- 179.00 ± 0.20
Detection Stage	Receipt
Problem Severity	Fitment
NG Quantity	28
Is Defect Repeatative?	No
Defect Sketch / Photo	

Supplier Communication Details

Quality Head Email ID	qa@mayurgroup.co.in
Plant Head/CEO Email ID	mayurind2013@outlook.com
MD Email ID	rautrao@hotmail.com

2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	400	0	0	0	0	400
Check Qty	400	0	0	0	0	400
NG Qty	28	0	0	0	0	28

Action taken on NG part

Scrap	28
Rework	0
Under Deviation	0

Containment Action
"To verify and segregate all suspected piston rod materials at both ETL`s end and our end. Problematic materials will be scrapped, and measures will be taken to prevent the same issue from recurring."

3. Process Flow

Process Flow Description
Process Flow: Piston Rod Manufacturing Incoming Material 1. Receipt of Raw Material 2. Receiving Material Inspection Material Handling 1. Raw Material Storage (RM Storage) Machining Operations 1. Bandsaw Cutting 2. CNC Machining - 1 (CNC-1) 3. CNC Machining - 2 (CNC-2) 4. Milling 5. Threading - 1 6. Threading - 2 Grinding Operations 1. Rough Grinding 2. Semi-Finish Grinding 3. Finish Grinding Quality Control 1. Final Inspection Outgoing Material 1. Packing 2. Dispatch This process flow map can help identify potential bottlenecks, optimize production, and ensure quality control.

4. Process Details

Process / Operation	Grinding Operation
Outsource	No
Machine / Cell	Grinding & Threading Cell
Machine / Cell No.	Grinding machine 4

5. Problem Analysis

Type	Possible Cause	Fact Verification	Jud
Method	Occurrence	Error proofing for occurrence of material defect	X
Method	System	Place for stage wise process parts is fixed	X
Method	Unskilled Operator	operator is aware of the cause of defects	O
Method	Detection	System of effective In process inspection exist	O

6. Inspection Method Analysis (Current)

Inspection Method	Instrument
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	Sampling
Sampling	No
Sample Size	5/200

7. Root Cause Analysis (Occurance)

Why 1	Mixing problem of lesser length difference piston rods occurred because material was kept in the adjacent bins.
Why 2	Processing of less length difference piston rods was planned on adjacent machines simultaneously.
Why 3	Identification system of piston rods to enhanced.
Why 4	Fixed place for deferent type of piston rods with respect to their process stage
Why 5	Awareness of concern person to be enhanced in this regards.
Root Cause (Occurance)	Mixing of piston rods because of less length difference and scope of improvement in the part identification system

Root Cause Analysis (Outflow)

Why 1	Length of piston rod to be inspected after finish grinding and to be added in the in process inspection report.
Why 2	Sample size in the final inspection is to be enhanced.
Why 3	
Why 4	
Why 5	
Root Cause (Outflow)	System of in process inspection and final inspection is to be closely monitored.

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

Type	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	1) Machine loading plan for identical length piston rods is done such that said piston rods are not processed on adjucent machines simultaniously. 2) Identification of piston rods (Tagging system) is closely monitored. 3) Stage wise area for different type of piston rod is marked and fixed. 4) Online training to the concern persons is provided and awareness in regards with consequences of the problems is done.	Mr. Ganesh Wagh	02/10/2024	02/10/2024	Completed
Outflow	1) Length inspection after finish grinding is enhanced (Inprocess inspection). 2) Final inspection stage sample size is increaed from 10 nos to 20 nos in 200 nos. 3) OPL is displayed at the respective working places in regards with the occurred problem.	Mr. Milind Barde	04/10/2024	04/10/2024	Completed

9. Inspection Method After Customer Complaint

Change In Inspection System	Yes
Change Details	Length inspection after finish grinding is enhanced (In process inspection).
Inspection Method	Instrument
Other Inspection Method	
Check Point at Final Inspection	Yes
Checking Freq.	Sampling
Sampling	No
Sample Size	10/200

10. Evidance of Countermeasure

Occurance (Before)	1) Machine loading plan for identical length piston rods is not done such that said piston rods are processed on adjacent machines simultaneously. 2) Identification of piston rods (Tagging system) is monitored. 3) Stage wise area for different type of piston rod is not marked. 1115_Occurance_Before.pdf
Occurance (After)	1) Machine loading plan for identical length piston rods is done such that said piston rods are not processed on adjucent machines simultaniously. 2) Identification of piston rods (Tagging system) is closely monitored. 3) Stage wise area for different type of piston rod is marked and fixed. 4) Online training to the concern persons is provided and awareness in regards with consequences of the problems is done. 1115_Occurance_After.pdf
Outflow (Before)	1) Length inspection after finish grinding is not done (In process inspection). 2) Final inspection stage sample size is increased from 05 no`s in 200 nos. 1115_Outflow_Before.pdf
Outflow (After)	1) Length inspection after finish grinding is enhanced (In process inspection). 2) Final inspection stage sample size is increased from 10 no`s to 20 no`s in 200 nos. 3) OPL is displayed at the respective working places in regards with the occurred problem. 1115_Outflow_After.pdf

11. Horizontal Deployment

Horizontal Deployment Required	No
Applicable Machine / Model / Plant	GRINDING MACHINE

12. Document Review

Documents	ControlPlan, PFMEA
Specify Other Document	OPL Displayed

13. Effectiveness Of Action

Reviewed Quantity	150
Reason for submission	evidence of counter measure not matched as per action taken.