

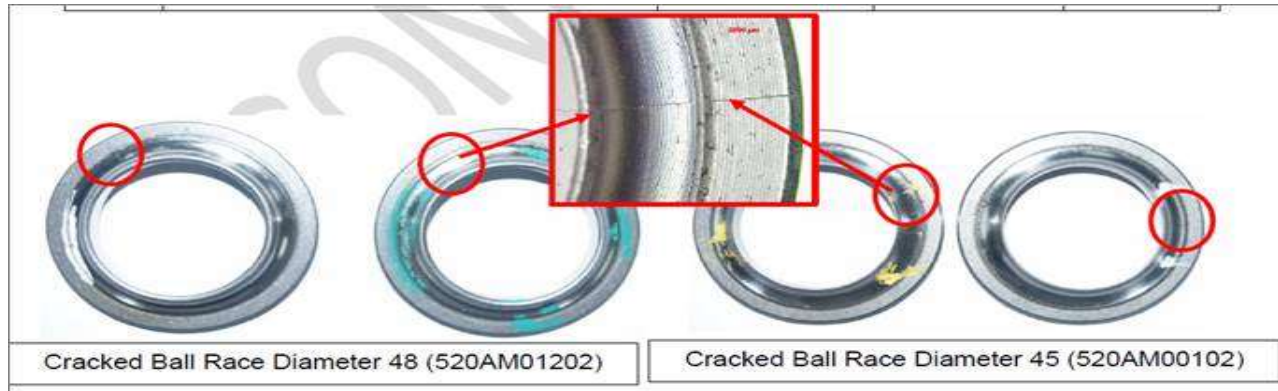
QUALITY FEEDBACK REPORT

K228, MIDC, Waluj

NC Report No	QFR/09/01	Report Date	26-Sep-22
Part Name	Ball race	Part no / Rev No.	520AM01202
Supplier Code	100264	NC Reported Date :	23-Sep-22
Supplier Name	M/S Sai Industries	Countermeasure Required By :	26-Sep-22

1. Problem Description

Details of Non Conformity :	Ball Race crack during assly.			Qty	60
Detection Stage	Receipt	ETPL Testing	In-Process	Customer	Warranty
Problem Severity	Safety	Function	ETL -Fitment	Customer -Fitment	Aesthetic
Report Type	Non-Repeatative		Repeatative		
Photograph / Sketch:					



2. Containment Action / Immediate Action

Sr. No.	Immediate Action Taken	Target Date	Responsibility
1	Verified in ETL found 60 nos.crack during assly in 1200 Nos.After received in Sai will be scrapped.In Logistic and in house No finish stock verify for crack.	23.09.2022	Deepak
2	Information has been given to heat treatment supplier for minimize case depth and core hardness.	24.09.2022	Tajane

3. Process / Operation / Stage / Machine

Process / Operation	CNC Hard Turning	Machine / Cell no	
Machine / Cell	CNC	Outsourced	Yes No

4. Root Cause Analysis

Probable Causes	Case 1	Case 2	Case 3
Why 1	Ball Race crack during assly.	Ball Race crack during assly.	
Why 2	In Final Inspection above defect not detect.	In destructive testing case depth and core harness is above specification.	
Why 3	Due to destructive testing parts not verify before frequency.	Case depth found 1.20 and core hardness found 57RC.	
Why 4	Destructive testing frequency not adequate.Currently is once In Six Month.	In heat treatment cycle not followed by supplier.	
Why 5		Carburising cycle time and quenching temperature excess than specification observed.	
Root Cause	Carburising cycle time and quenching temperature excess than specification found.		

QUALITY FEEDBACK REPORT

Doc.No. : FT/QA/02
 Rev.No. : 00
 Date : 23.10.12
 Page No. : 02 of 02

K228/229, MIDC, Waluj

NC Report No	QFR/09/01	Report Date	26-Sep-22
Part Name	Ball race	Part no / Rev No.	520AM01202
Supplier Code	100264	NC Reported Date :	23-Sep-22
Supplier Name	M/S Sai Industries	Countermeasure Required By :	26-Sep-22

5. Inspection Method Analysis at Final Inspection

Inspection Method	Pokayoke	Gauge	Special Gauge	Instrument	Other	destructive testing at out side	
Check Point at Final Inspection	Yes	No	Checking Frequency	6 Month	Sampling	Sample Size	One piece

6. Inspection Method After Customer Complaint

Inspection Method	Pokayoke	Gauge	Special Gauge	Instrument	Other	destructive testing at out side	
Check Point at Final Inspection	Yes	No	Checking Frequency	3 Month	Sampling	Sample Size	One piece

Inspection Method Change	Yes	No	
--------------------------	-----	----	--

Before	After

7. Cause Side Action

Sr. No.	Corrective / Preventive Action Taken	Target Date	Responsibility
1	Revised heat treatment control plan for to minimize Carburizing cycle time and quenching low temperature implemented . Carburising cycle(soaking) time changed 70 to 60 Minutes.Quenching temperature changed 860 to 850°C.Trial conducted for one lot & supplied with green dot mark on o/d 48 as identification.	25.09.2022	SupplierTajane
2	One piece test quarterly in NABL lab for Case depth & Core Hardness started. Corrected one lot 500 nos.supplied to ETL with green dot on o/d 48 as a indetification mark.NABL lab report submitted along with lot.	26.09.2022	Tajane
3			
4			
5			

Before	After
<p>CHT Cycle</p> <p>Carburizing cycle time - 70 Minutes.</p> <p>Quenching teperature - 860°C</p>	<p>CHT Cycle</p> <p>Carburizing cycle time - 60 Minutes.</p> <p>Quenching teperature - 850°C</p>

8. Horizontal Deployment

Horizontal Deployment Requirement	Yes	No	Applicable M/C or Model	Regular 520AM00102 Ball Race	Target Date
					26.09.22

9. Document Review (Attach relevant Documents)

Control Plan		Process Flow Chart		PM Check Sheet		Other Document
FMEA		Work Instruction		Drawing		

Omkar Gavhane	Tajane D.E.	
Raised By (Customer)	Prepared / Approved By (Supplier)	Verified By (Customer)