#### **Defect Details**

NC No.	7000870351
NC Date	12/10/2022
NC Submission Date	
Part No.	520JF00123
Part Name	PISTON GROOVED
Supplier Name & Code	100176-GKN SINTER METALS PRIVATE LIMI
ETL Plant	1126-ETL Pantnagar
<b>Defect Details</b>	RUSTY-Rusty

# 1. Problem Description

<b>Defect Description</b>	Rusty
<b>Detection Stage</b>	Receipt
Problem Severity	Aesthetic
NG Quantity	1614
Is Defect Repeatative?	Yes
Defect Sketch / Photo	

# Supplier Communication Details

Quality Head Email ID	Rajendra.Sethiya@gknpm.com
Plant Head/CEO Email ID	Pratik. Dharanga on kar@gknpm.com
MD Email ID	Rajesh.Mirani@gknpm.com

### 2. Stock Details & action taken for NG parts

Location	ETL End	Warehouse	Transit	Supplier FG	Supplier WIP	Total
Total Qty	24000	0	0	40000	38000	102000
Check Qty	24000	0	0	40000	38000	102000
NG Qty	1696	0	0	0	0	1696

#### Action taken on NG part

Scrap	1696
Rework	0
Under Deviation	0

#### **Containment Action**

All stock lying at ETL segregated for rusty issue, GKN FG stock quarantined & verified. Quality Alert raised at Tier 1 & Final inspection

#### 3. Process Flow

#### Process Flow Description

Forming - Sintering - Sizing -Machining - Oil dipping -Packing - PDI Inspection

#### 4. Process Details

Process / Operation	Machining
Outsource	Yes
Machine / Cell	Oil dipping
Machine / Cell No.	NA NA

## 5. Problem Analysis

Туре	Possible Cause	Fact Verification	Jud
Method	Dewatering NG	Gemba conducted with CGT at Supplier End observed excess qty loaded for dewatering	X
Material	Parts Metallurgy NG	Parts are OK to the metallurgical check and found ok	0
Man	Skipped in inprocess and Final inspection	During inprocess inspection parts was rust free but possibility to rust further	0
Man	Untrained Operator	Operator skill matrix is ok	0
Method	Wrong DW oil grade used	Dewatering Oil grade DW27 is found with correct grdae	0

## 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	100

# 7. Root Cause Analysis (Occurance)

Why 1	Parts are not completely dipped into dewatering tank
Why 2	Excess part quantity taken for Oil dipping
Why 3	Parts in tray carrying for dewatering is taken more
Why 4	As per daily schedule of production, less capacity of dewatering
Why 5	Only single dewatering tank was available
Root Cause (Occurance)	Excess part quantity taken for Oil dipping

## Root Cause Analysis (Outflow)

Why 1	Skipped in in process and Final inspection
Why 2	Parts was found ok during inspection
Why 3	Parts was rust free after final inspection
Why 4	After final inspection , parts was ok at GKN pdi
Why 5	Parts gets rusty after clearing the material from PDI
Root Cause (Outflow)	Parts gets rusty after clearing the material from PDI

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

Туре	Countermeasure Details	Responsibility	Target Date	Actual Date	Status
Occurance	1.Oil dipping tanks will be marked with red , yellow and green oil leval.	B Avhad	06/01/2023		Completed
Occurance	Refreshment training is provided to all operators and inspectors thru One Point lesson and quality alert.	B Avhad	16/12/2022		Completed
Occurance	Addiitional one Dewatering Tank will be made available	B Avhad	07/12/2022		Completed

### 9. Inspection Method After Customer Complaint

Change In Inspection System	No
Change Details	NA
Inspection Method	Other
Other Inspection Method	NA
Check Point at Final Inspection	No
Checking Freq.	Sampling
Sampling	No
Sample Size	0

### 10. Evidance of Countermeasure

Occurance (Before)	No Marking/Identification on Oil Tank 284_Occurance_Before.pdf
Occurance (After)	Oil dipping tanks will be marked with red , yellow and green oil level. 284_Occurance_After.pdf
Outflow (Before)	NA 284_Outflow_Before.pdf
Outflow (After)	NA 284_Outflow_After.pdf

### 11. Horizontal Deployment

Horizontal Deployment Required	No
Applicable Machine / Model / Plant	NA

#### 12. Document Review

Documents	ControlPlan, PFMEA
Specify Other Document	NA

#### 13. Effectiveness Of Action

Reviewed Qu	antity

Found OK