



# EICHER TRACTOR AND MOTOR LIMITED

## DEFECTS AND SCRATCH

→ *Project Report Presentation* ←

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# EICHER TRACTOR MODEL

## 380



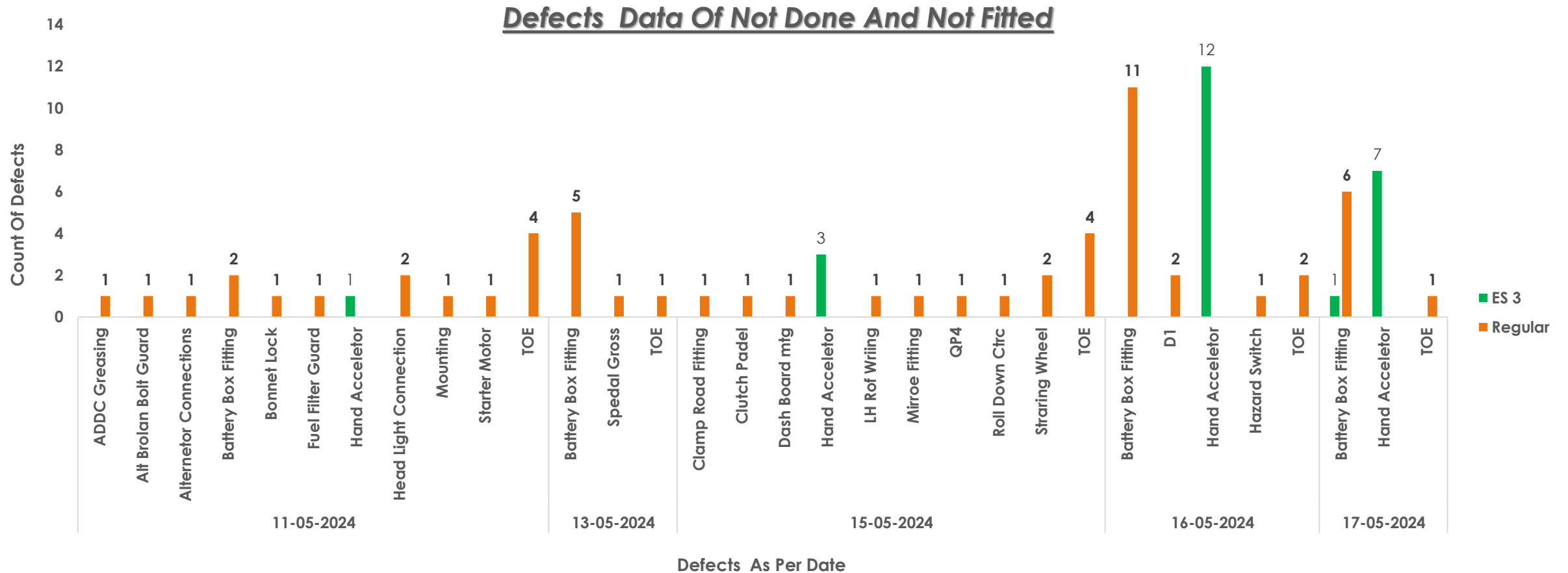
### 《 Model Description 》

- Model Number : 380
- Brand Name : Eicher
- Power Range : 29.42Kw
- HP Range : 40 hp
- Number of Speeds : 8 Forward & 2 Reverse
- Forward Speed : 38.84 Kmph
- Total Weight : 1930 kg
- Fuel Tank Capacity : 45 L





# DEFECTS OCCURRING DURING OBSERVATION

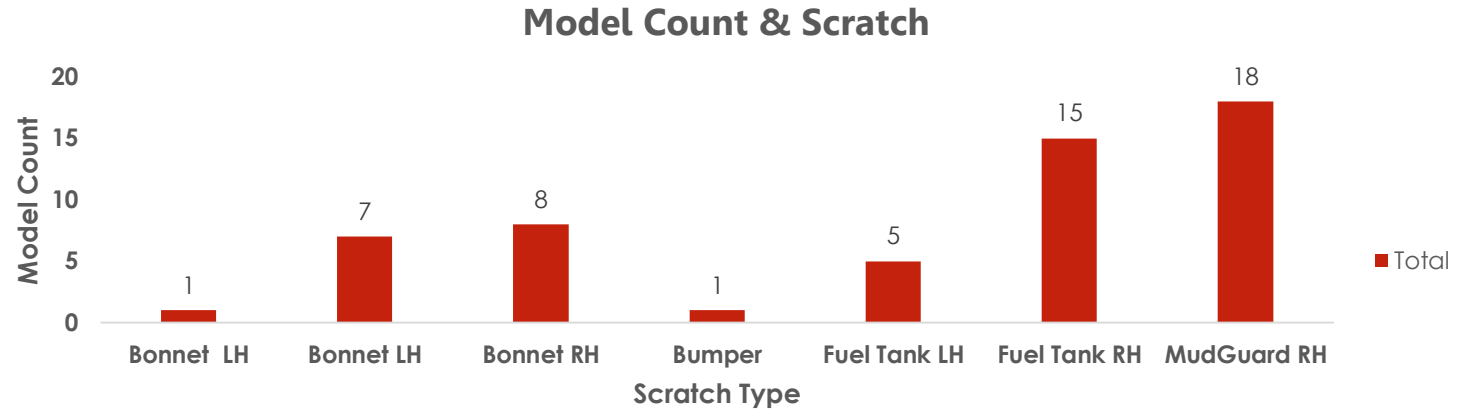


# **MOSTLY OCCUR DEFECTS**

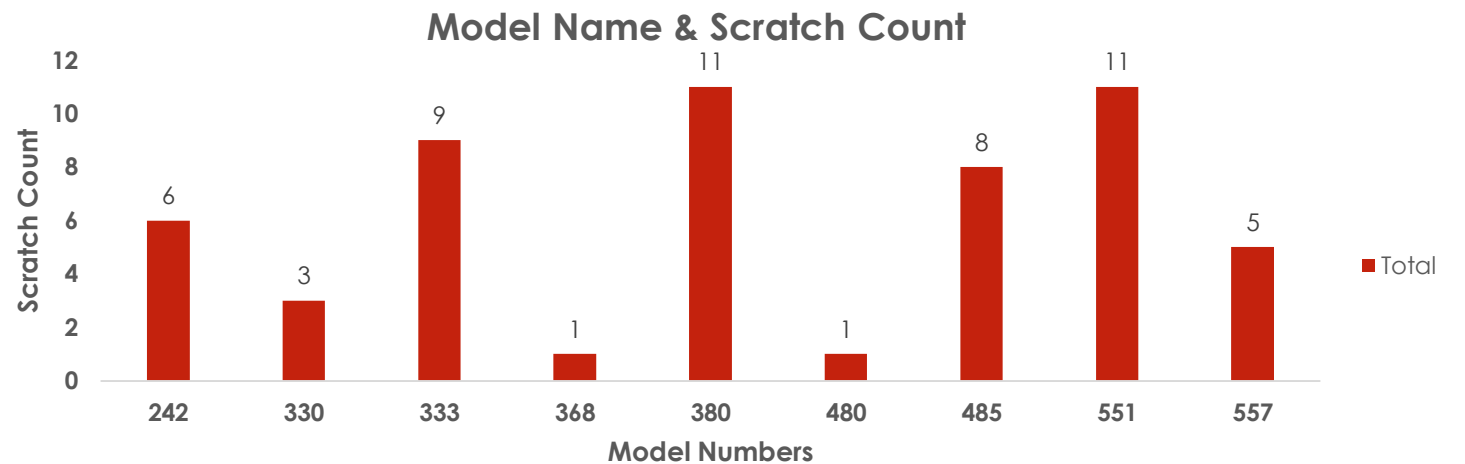
- **Hand Accelerator Rubber Out (ES 3)**
- **Battery Box Fitment Issues Such As Battery Clamp Bands , Mounting Issue**
- **At Some Stations QP And TOE Not Done Issue Occuring During Observation**
- **Recovery Tools And Proper Greasing Not Done**
- **Fuel Tanks , Mud Guard , Bonnet , Fuel Tank cover , Bonnet Paint Issue**
- **Mostly Observed Issue Fuel Tank & Fuel Tank Cover Scratched (Minor And Major)**
- **Sticker Alignment, TT Kit Foul And , Bonnet Lock Issues**

# SCRATCH REPORT DATA

Scratch Type	Count of Model Number	
Bonnet LH	7	
Bonnet RH	8	
Boonet LH	1	
Bumper	1	
Fuel Tank LH	5	
Fuel Tank RH	15	
MudGuard RH	18	



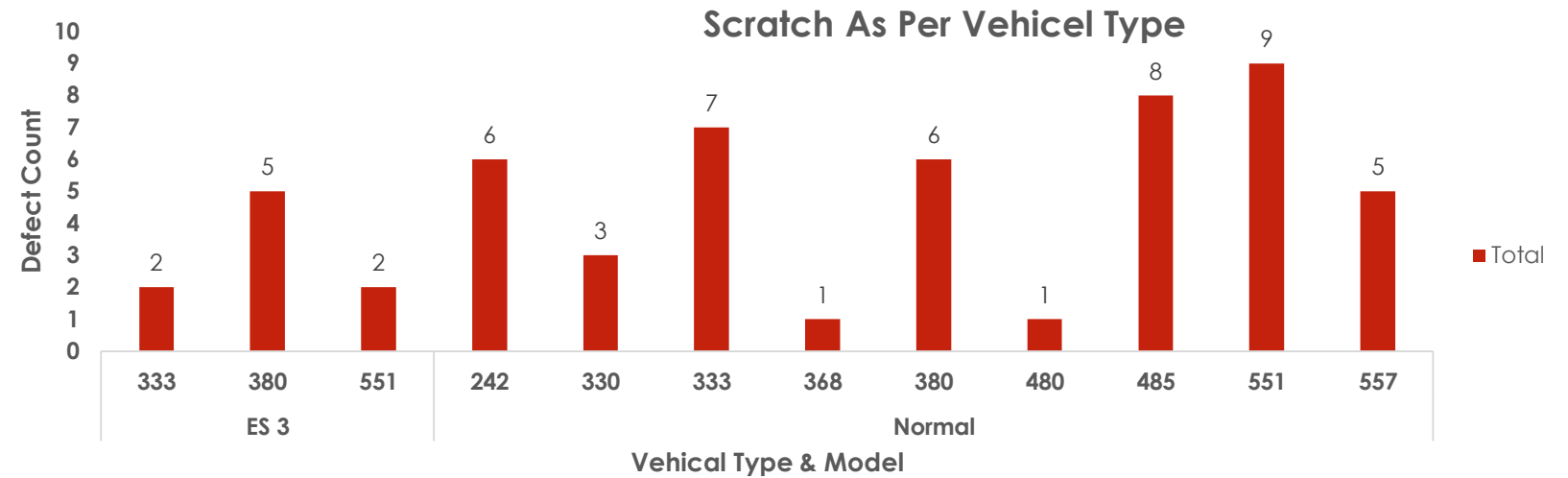
Model Number	Scratch	Count of	
242		6	
330		3	
333		9	
368		1	
380		11	
480		1	
485		8	
551		11	
557		5	



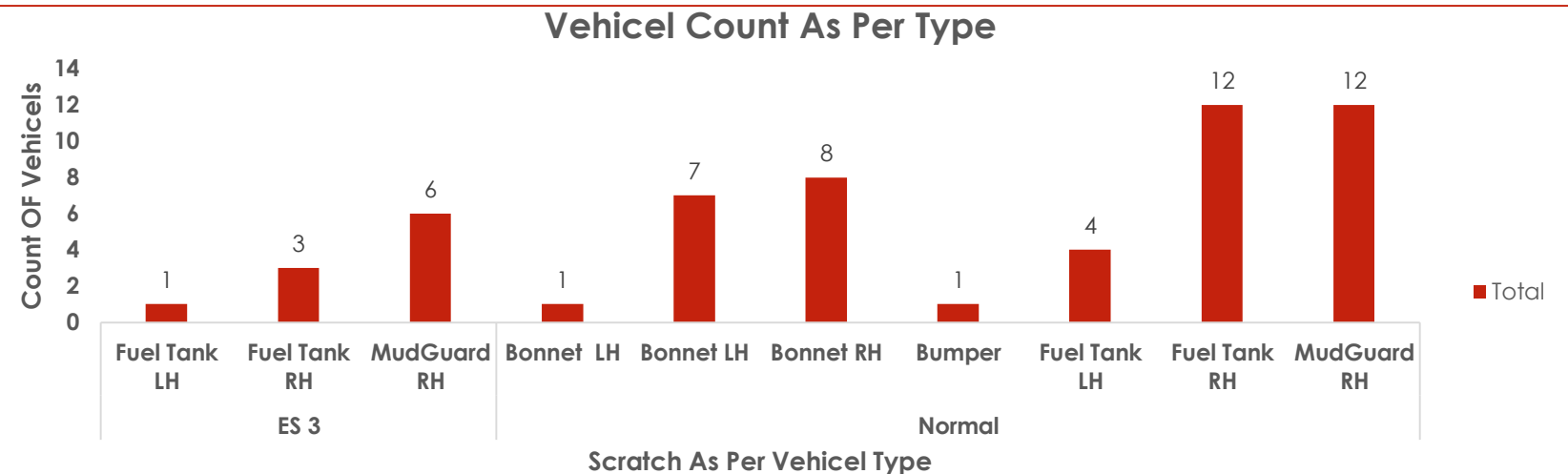
# SCRATCH REPORT

## DATA

Vehical Type	Count of Scratch
ES 3	
333	2
380	5
551	2
Normal	
242	6
330	3
333	7
368	1
380	6
480	1
485	8
551	9
557	5



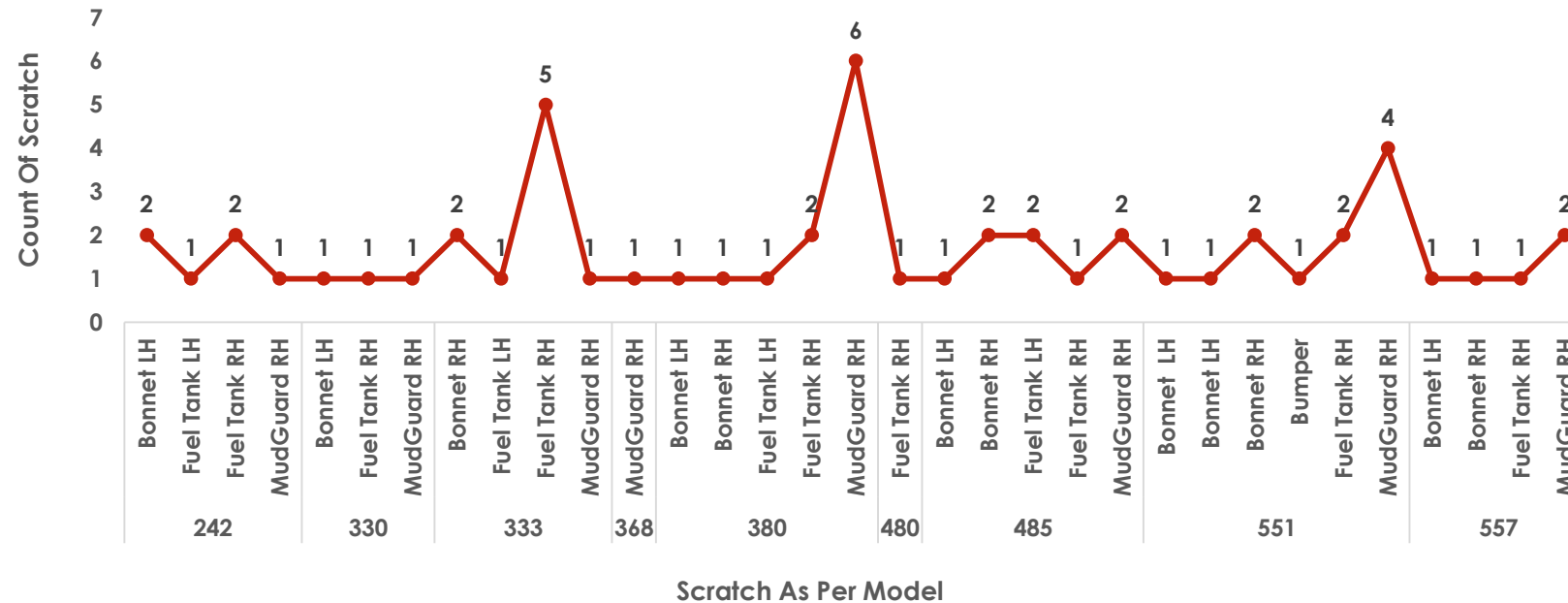
Vehicles Type	Count of Vehicles Type
ES 3	
Fuel Tank LH	1
Fuel Tank RH	3
MudGuard RH	6
Normal	
Bonnet LH	7
Bonnet RH	8
Boonet LH	1
Bumper	1
Fuel Tank LH	4
Fuel Tank RH	12
MudGuard RH	12



# SCRATCH REPORT

## DATA

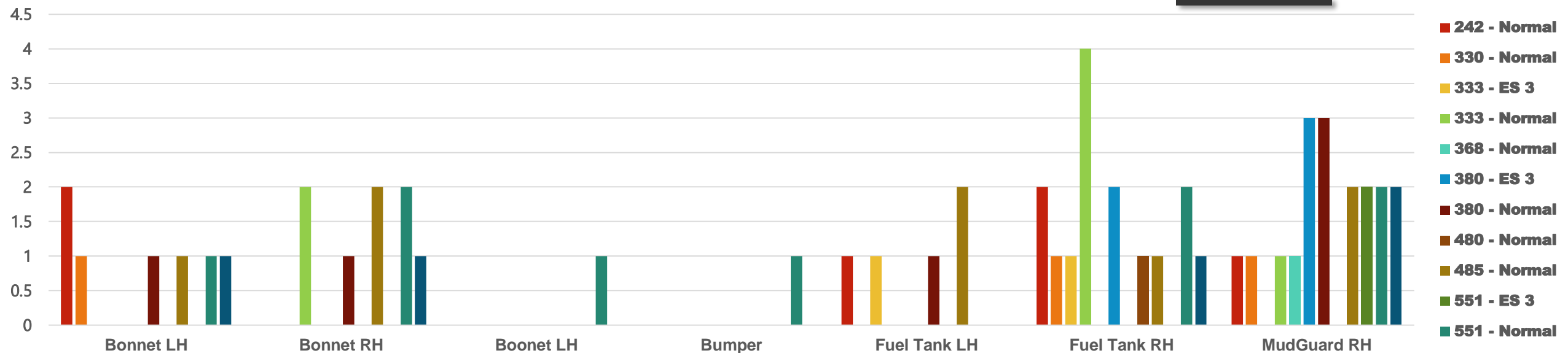
Scratch Detailed Data Collection



Model Number	Count of Scratch Position
242	
Bonnet LH	2
Fuel Tank LH	1
Fuel Tank RH	2
MudGuard RH	1
330	
Bonnet LH	1
Fuel Tank RH	1
MudGuard RH	1
333	
Bonnet RH	2
Fuel Tank LH	1
Fuel Tank RH	5
MudGuard RH	1
368	
MudGuard RH	1
380	
Bonnet LH	1
Bonnet RH	1
Fuel Tank LH	1
Fuel Tank RH	2
MudGuard RH	6
480	
Fuel Tank RH	1
485	
Bonnet LH	1
Bonnet RH	2
Fuel Tank LH	2
Fuel Tank RH	1
MudGuard RH	2
551	
Bonnet LH	1
Bonnet RH	2
Boonet LH	1
Bumper	1
Fuel Tank RH	2
MudGuard RH	4
557	
Bonnet LH	1
Bonnet RH	1
Fuel Tank RH	1
MudGuard RH	2

# SCRATCH REPORT

## DATA



Count of Scratch Position	Column Labels																				
	242	242 Total	330	330 Total	333	333 Total	368	368 Total	380	380 Total	480	480 Total	485	485 Total	551	551 Total	557	557 Total	Grand Total		
Row Labels	Normal		Normal		ES 3	Normal		Normal		ES 3	Normal		Normal		Normal		ES 3	Normal		Normal	
Bonnet LH	2	2	1	1							1	1		1	1		1	1	1	1	7
Bonnet RH						2	2				1	1		2	2		2	2	1	1	8
Boonet LH																1	1				1
Bumper																1	1				1
Fuel Tank LH	1	1			1		1				1	1		2	2						5
Fuel Tank RH	2	2	1	1	1	4	5			2		2	1	1	1	1	2	2	1	1	15



# SCRATCH POSITION REPORT DATA

## *ES 3 V/s Regular Vehicles*

### → ES 3 Vehicles ←

- MudGuard Scratched (6)
- Fuel Tank Scratch LH(1)
- Fuel Tank Scratch RH(3)

### → Regular Vehicles ←

- Fuel Tank Scratch (16)
- MudGuard Scratch (12)
- Bonnet Scratch (16)

# REASON'S OF SCRATCHES



## » Fuel Tank Scratch

- Mishandling During Assembly
- Improper Handling Equipment
- Rough Handling By Workers
- Kitting Trolleys Sharp Locking Knob



## » Mud Guard Scratch

- Forcely Pulling By Worker To Save Time
- Transportation and Fitting Time
- Loading And Unloading Time
- Worker Wearing Unusual Accessories



## » Bonnet Scratch

- Loading Unloading Time irresponsibility From Workers
- Ignoring Minor Scratches
- Fitting Time

# SCRATCH`S IMAGES





# MUD GUARD IMAGES





# BONNET SECTION SCRATCH ACTION

## **Action Performed To Reduce**

### **Improved Handling Procedures :-**

- ▶ Implementing Careful Handling Procedures During Assembly To Minimize The Risk Of Scratches During Transportation and Installation.

### **Protective Coverings :-**

- ▶ Utilizing Temporary Protective Coverings Or Coating On Fuel Tanks During Assembly And Transportation To Shield Them.

### **Protective Kitting Trollies:-**

- ▶ Provide Rubber Or Tapping On The Edges Of Kitting Trollies To Reduce The Scratch From Their Sharp Edges Or Knob.





# FUEL TANK SCRATCH ACTION

## Action Performed To Reduce

### Improved Handling Procedures :-

- ▶ Implementing Careful Handling Procedures During Assembly To Minimize The Risk Of Scratches During Transportation and Installation.

### Protective Coverings :-

- ▶ Utilizing Temporary Protective Coverings Or Coating On Fuel Tanks During Assembly And Transportation To Shield Them.

### Pre-Assembly & Post-Assembly



#### Inspection :-

- ▶ Inspect The Fuel Tank Before And After The Installation To Ensure That The Are Scratch Free And Undamaged.



# FUEL TANK SCRATCH ACTION



Theme	Scratch improvement	TMTL Bhopal :-May-24 Date- 29-05-24
	Before	After
Photo (s)	 A photograph showing a fuel tank with several scratches. A red oval highlights a specific area of damage on the tank's surface.	 A photograph showing the same fuel tank after modification. A green oval highlights the area where rubber grips have been installed to protect the tank from scratches.
Problem / Cause & Solution	<b>Problem statement: Fuel Tank Scratches</b> <b>Cause: Due To Sharp Knob And Edges</b> <b>Identified Solution: Trolley need to be modify</b>	<b>Solution Deployed: Provide Rubber Grips And Tapping On Edges And Knobs Of Trolley</b>
Benefit	Fuel Tank Are In Scratched Condition, Rework ppm reduced	Scratch Chances Reduces Provide More Protection To Fuel Tank During Transportation
Savings	NIL	NIL



# CHECK SHEET

Serial No.	Station	Tackle	Action Taken
01	Fuel Tank Cover	To Ensure No Metal To Metal Connection Occurred	Provide Rubber Grip and Tapping On Locking Hook
02	Mud Guard Fitment	To Ensure No Metal To Metal Connection Occurred	Cut The Extra Thick Sharp Edges Of Trolley Also Used Rubber Pipe In Kitting Trolley
03	Bonnet Fitment	To Ensure No Metal To Metal Connection Occurred	Provide Cotton Cloth And Tapping On Locking Hook





**THANK**

YOU