



**ROWAN Gorilla VI
Dropped Dolly Guard
16th April 2012**

**Alan Johnson
HSE Specialist
Drops Forum
6th December 2012**



Rowan Companies plc

*Photo provided by Hyundai Heavy Industries.

What Happened

Whilst running in the hole to tag cement plug, a metal plate that protects the dolly roller on the lower bow side of the dolly track became detached falling to the rig floor.

The plate fell 35ft coming to rest under the dolly track beside the iron roughneck. No persons in the area as the Red Zone procedure were being adhered to.

The plate weighed 1.7 kg and the plate size was 4" x 10" x 1/4".



Dropped Dolly Guard Plate



Position Plate Came to Rest Beside Iron Roughneck



Incident Time Line

- **15th April** Squeak/Noise Heard From Track Job Stopped & Investigated (nothing found), Track Greased and Operations Continued
- **16th April** **Catcher Plate Fell**
- **17th April** Replaced Dolly Roller Assembly (only the assembly which had dropped plate)
- **24th April** Again Noise Heard From Track, Racked Back TD, Continued Pulling Casing with Block
- **26th April** Lowered Dolly Carriage and Changed All Roller Assemblies on TDS.



Dropped Dolly Guard Plate



Dolly rollers and Plate Position Before Plate Fell.

Dolly Roller Plate Position



Dropped Dolly Guard Plate



**Dolly Roller Plate
Position Before**



**Dolly Roller Plate
Position After.**

Underlying Causes of the Incident

Design Restricts Inspection of Dolly Rollers

Cyclic Fatigue Cracking (Repeated Reverse Bending) on Plate

Method of Inspection Not Defined by Manufacturer

OEM Design Only Allows Inspection Once Removed From Carriage

Impact Damage During Operations

Worn Dolly Roller Through Transition Point of Tracks

Roller Replacement Frequency Outside OEM Recommendations



Root Causes of the Incident

Design with Catcher Plate Not Suitable for Visual Inspection in Position.

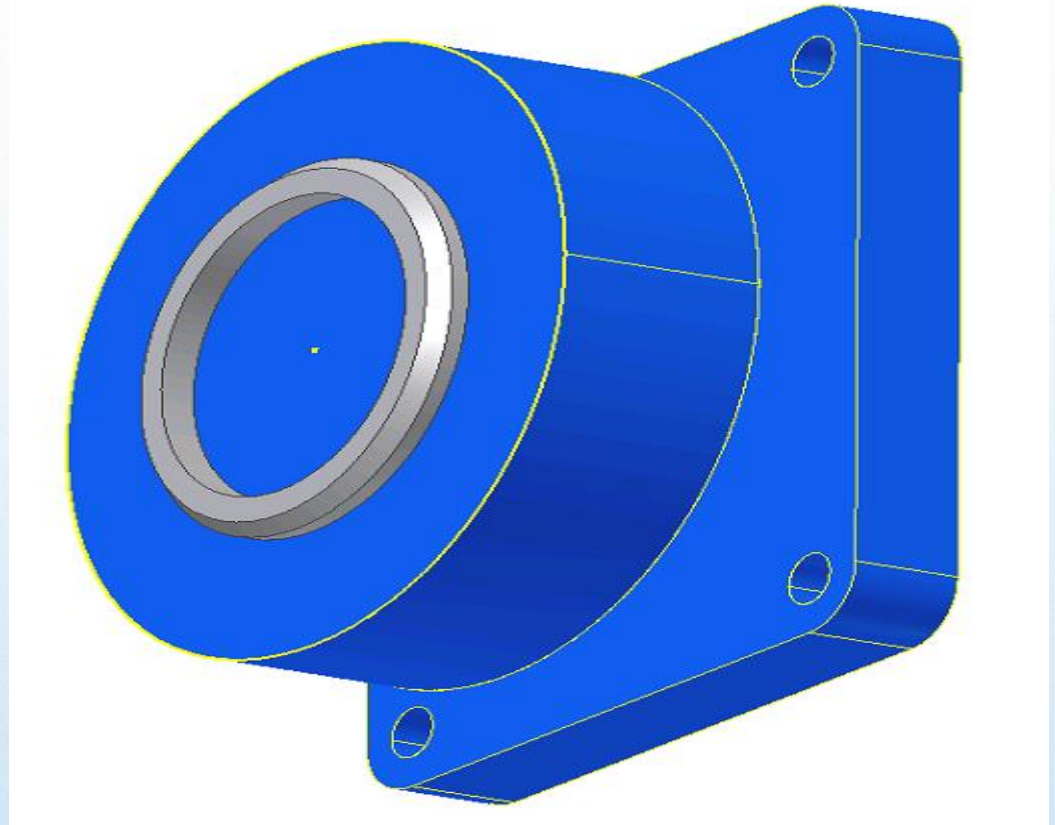
SAP TDS PM Did Not Take into Account Previous Inspection Period When The PM Routine Was Added To The System

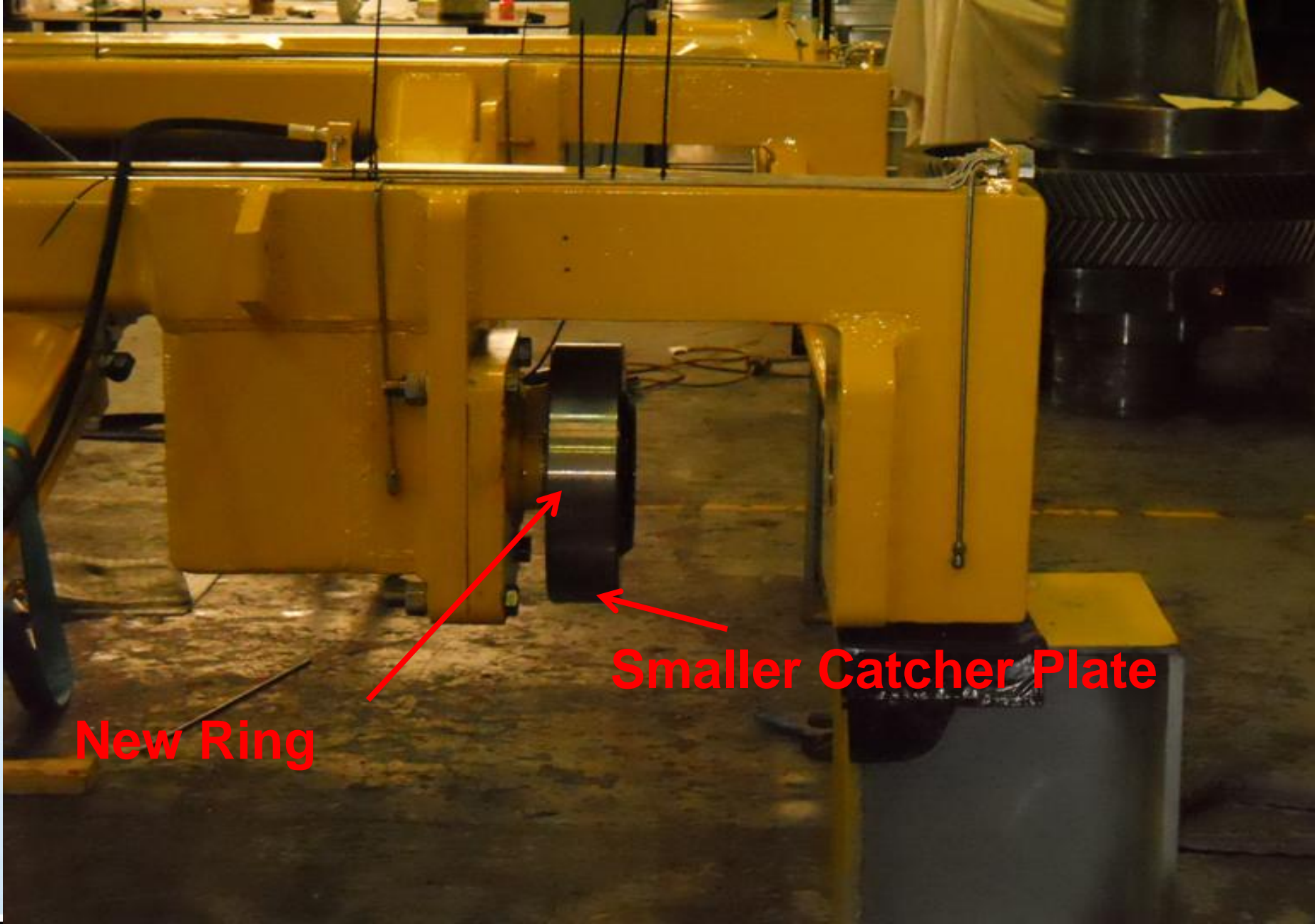
Inspection Routine & Criteria Was Not Clearly Defined in SAP System



New Roller Design

**New Roller Design,
Developed by Rowan
and approved by OEM**





New Ring

Smaller Catcher Plate



Questions

