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# **A320 SLAT GRA ATA 27**

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**RTW 2023**

# **LIEBHERR**

**Liebherr - Aerospace**

# AGENDA

- Overview
- Component Description
- Investigation and Root Cause
- Way-forward
- Timeline

# OVERVIEW

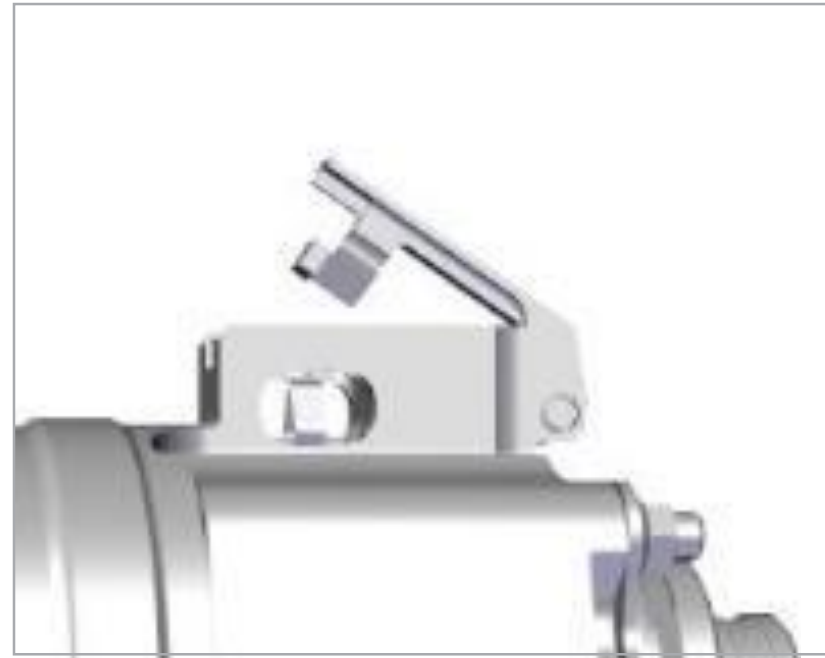
## COMPONENT

A320 GEAR ROTARY ACTUATOR  
830D0000-01/-02



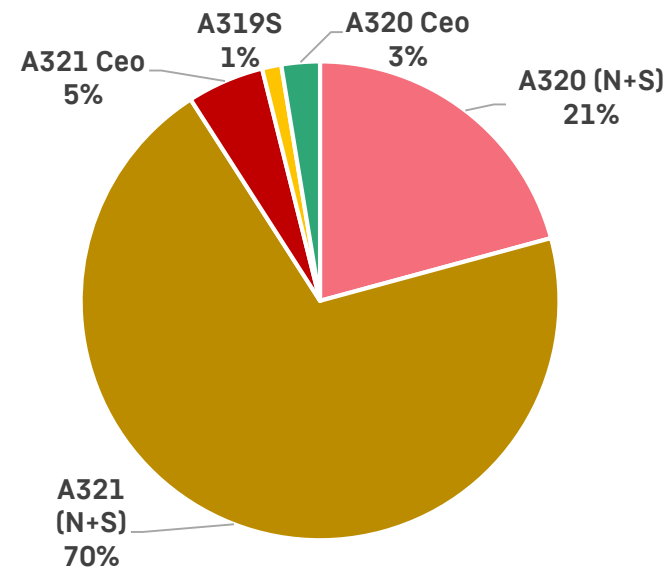
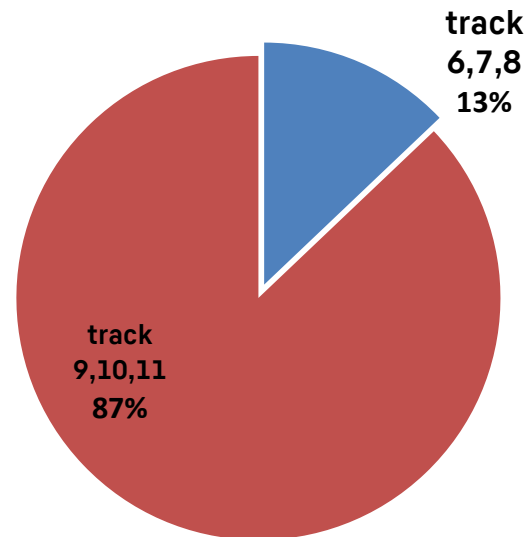
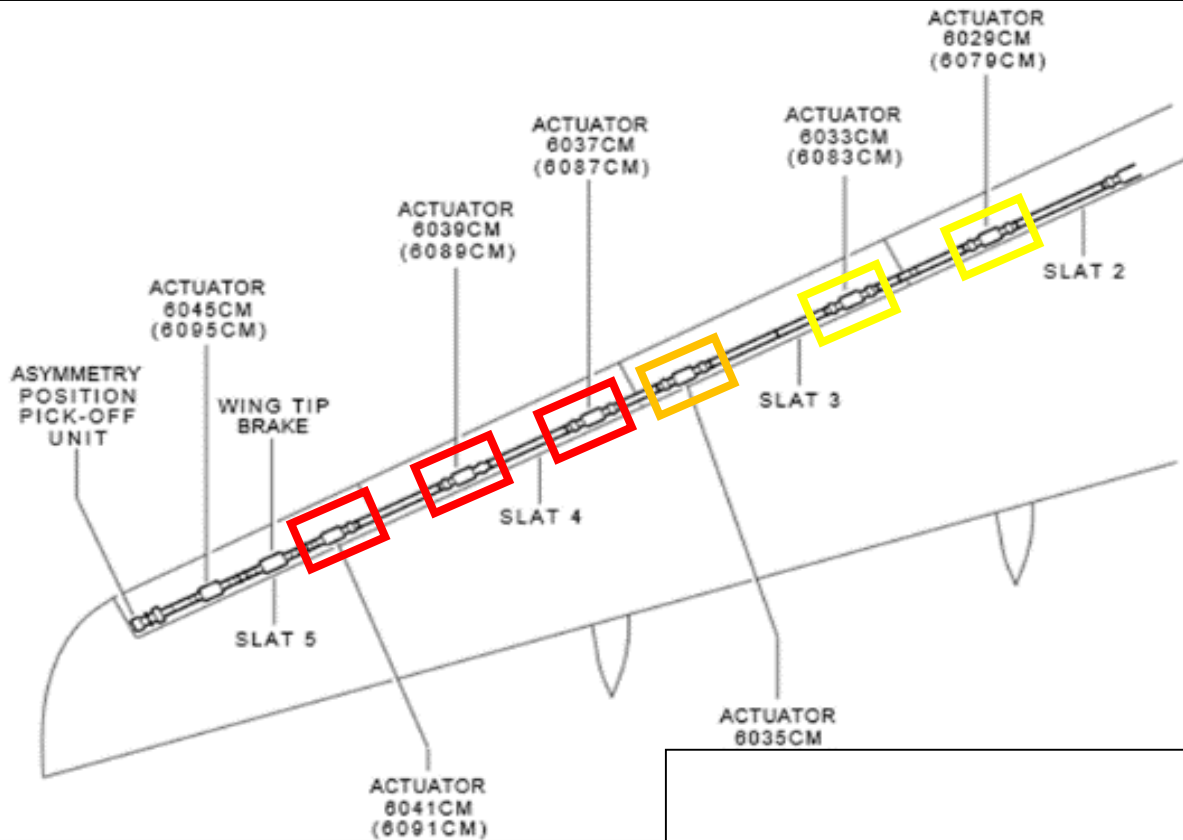
## SLAT JAM

LOCKOUT INDICATOR ACTIVATED  
MOSTLY ON A321 TRACKS 9, 10, 11:

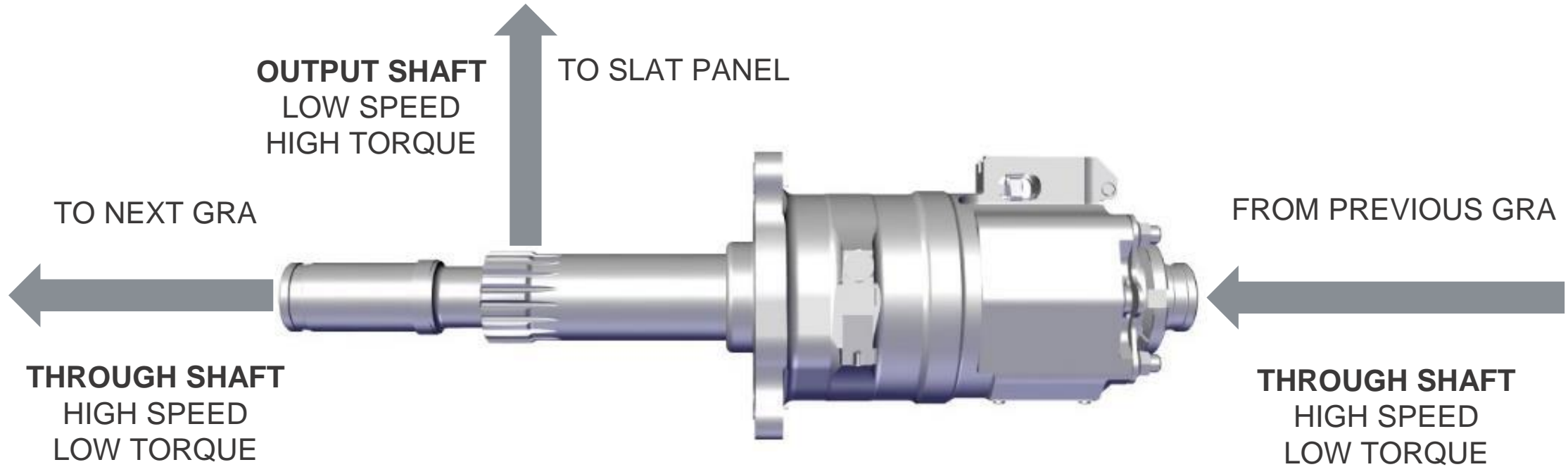


# OVERVIEW

- Mainly slat track 9/10/11
- 77 reported slat Jam cases from 2014 to 2021

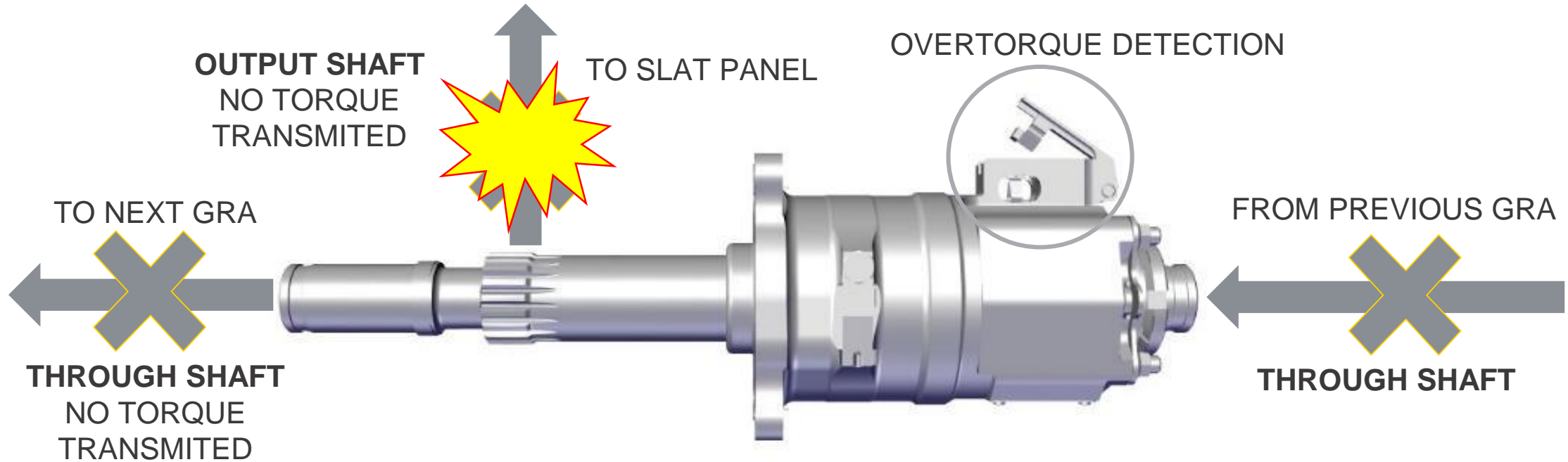


# DESCRIPTION: A320 GRA



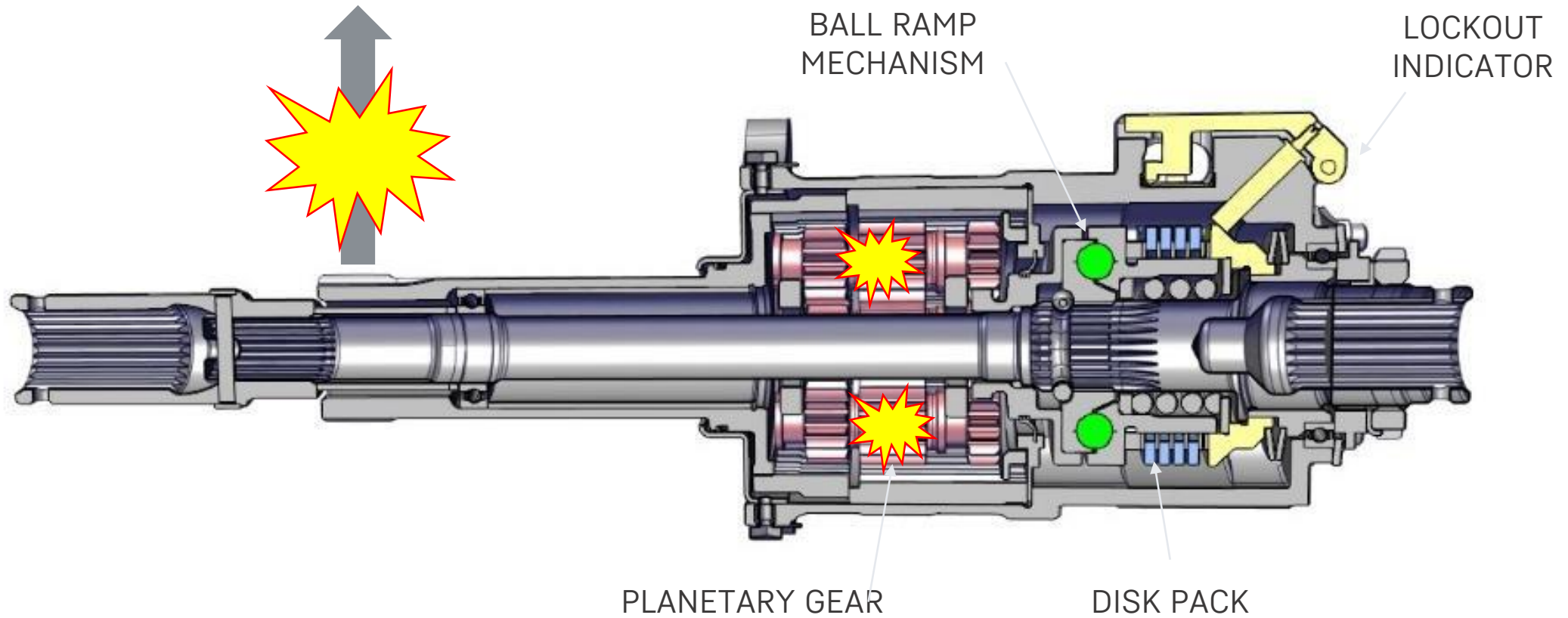
## NORMAL OPERATION

# DESCRIPTION: A320 GRA



## ABNORMAL OPERATION

# DESCRIPTION: A320 GRA



# INVESTIGATIONS & ROOT CAUSE

- 43% of returned GRAs jammed @ -40°C test \*
- Moisture found on 45% GRAs during disassembly.\*

- Recommendation: ship affected units in sealed plastic bags to avoid water evaporation
- Reminder: Report every slat jam event to Airbus

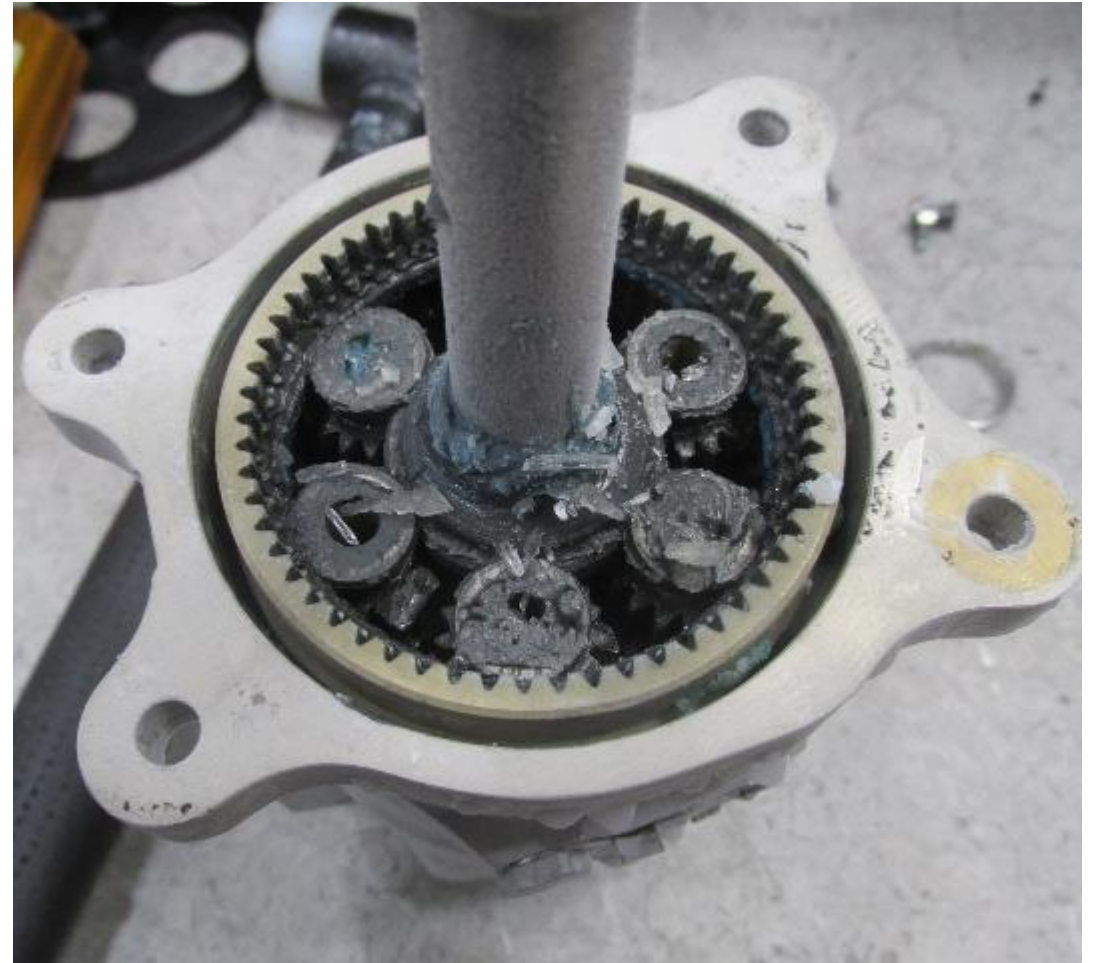


\*: data based on returned GRAs due to slat jam (total units:55)



## INVESTIGATIONS & ROOT CAUSE

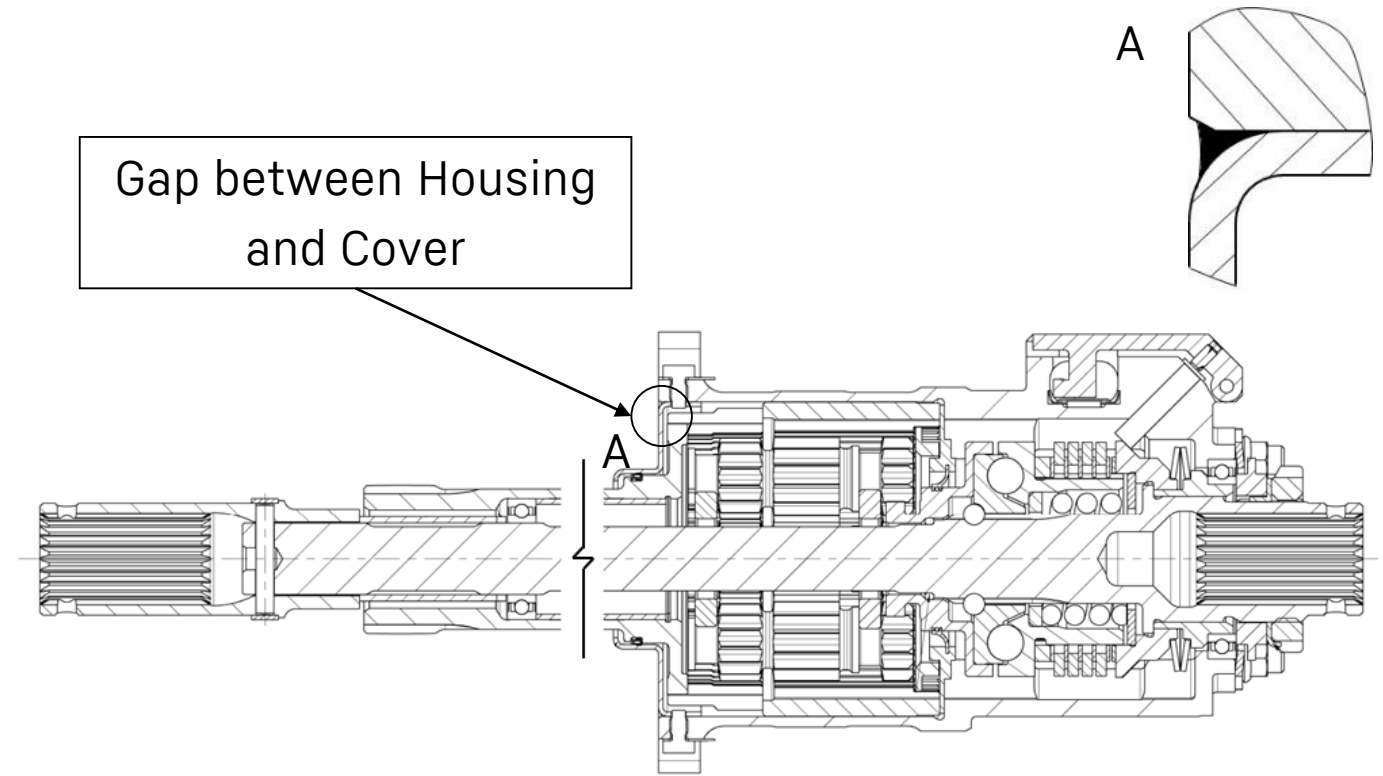
- Root cause on GRA level: Frozen water
- Root Cause contributor on A/C level: Increased wing bending (sharklets) - Refer to Airbus TFU 27.80.00023 for more information



# WAY-FORWARD

## Solution:

- Change the grease from AeroShell 33 back to Nyco GN22
- Sealing the gap between the Housing and the Cover.



PNR 830E0000-01: Planetary gear filled with lubricating grease NYCO GN22

# TIMELINE

