

POSSIBLE CV JOINT DEGRADATION

CVJ



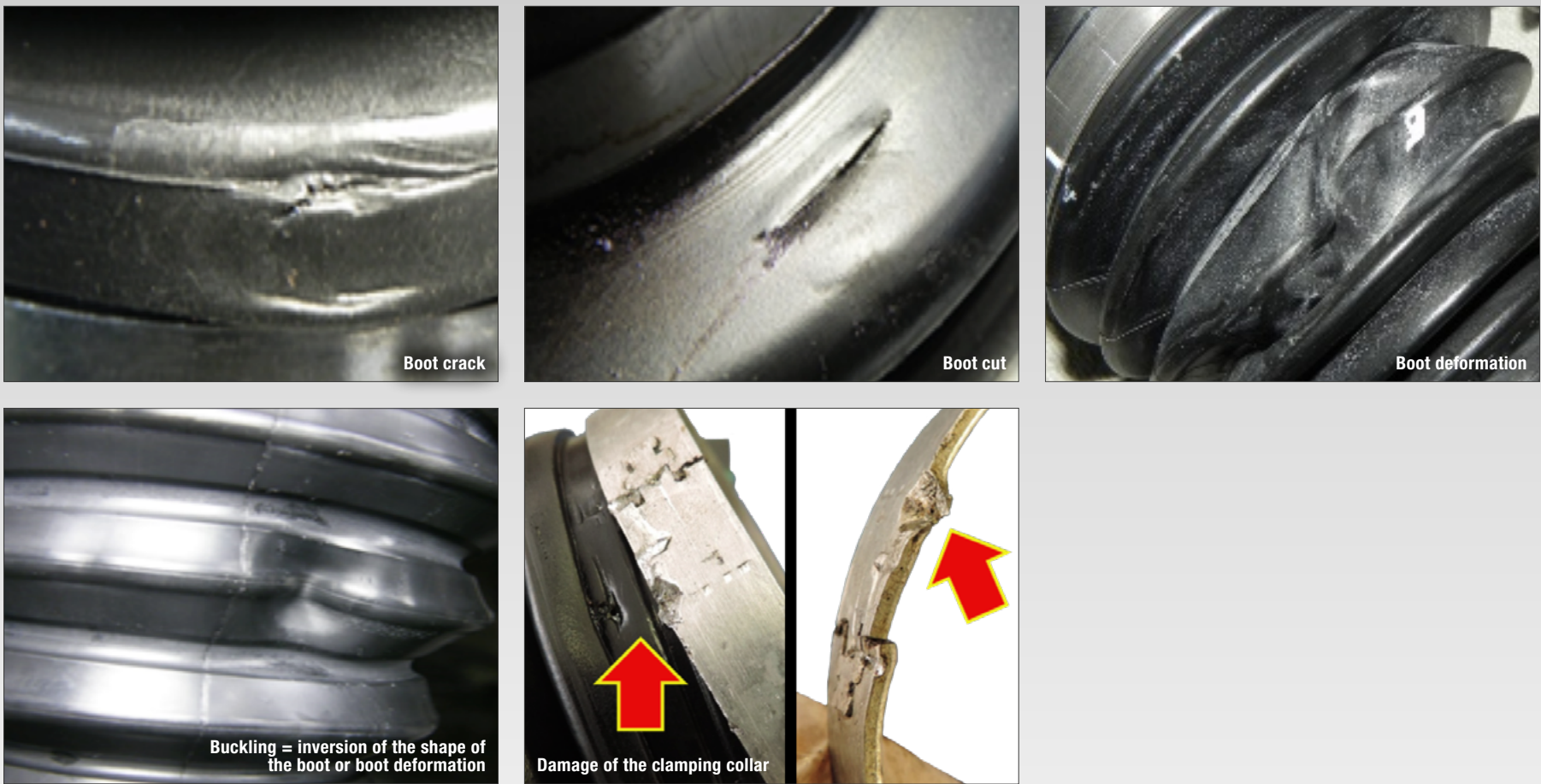
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With You

CV joints fail for many reasons. NTN-SNR has analyzed them and gives you technical advice to resolve them. NTN-SNR provides you with complete CV joint kits to make your work easier. Our kits include everything you need for a correct repair (replacement parts, hardware, collar and grease). We recommend that you always use these specific NTN-SNR components for an optimal repair.

BOOT FAILURE



DRIVING IMPRESSIONS

- Noise - rubbing of convolutions
- Grease leakage to the ground

PRODUCT FAILURE

- Degradation of the boot
- Tearing/cutting of the boot
- Abrasion of the boot
- Inversion of the shape of the boot
- Damage of the clamping collar
- Collar rotation

CAUSES

- Exterior attacks on the boot
- Internal attack if the product degrades - rupture of one of the components inside (race, balls, loss of material due to friction)
- Friction / abrasion with large steering input
- Extreme conditions of use / outside of manufacturer's specifications (extreme deviation, speed or temperatures)
- Damage to the collar of the boot / improper tightening of the collar

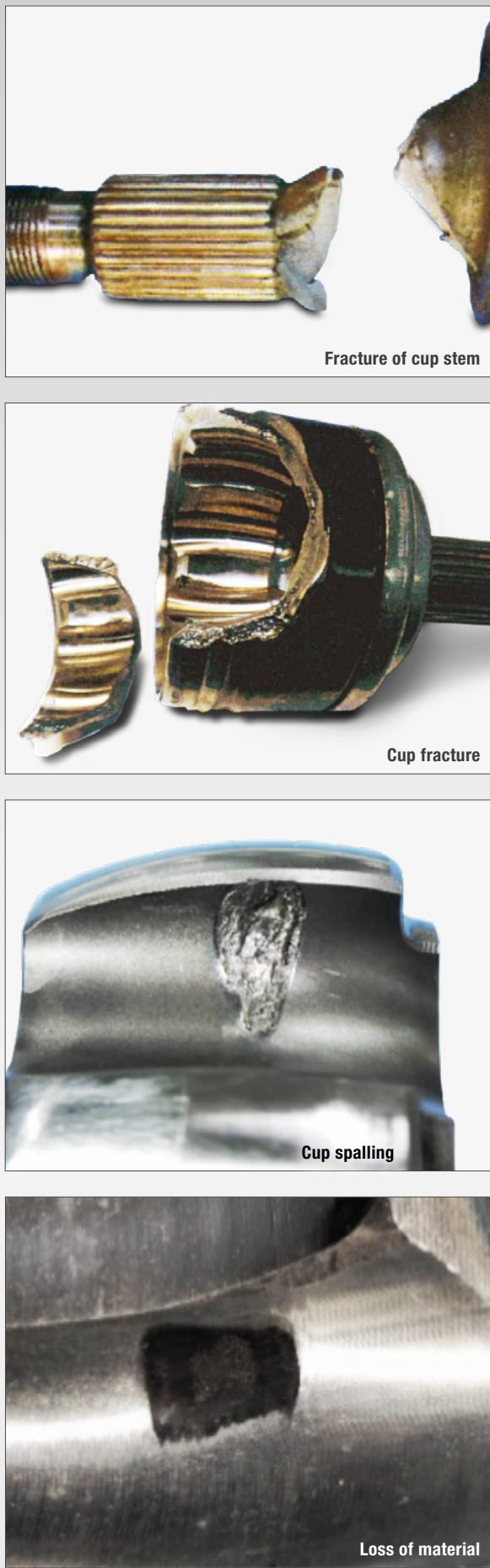
PRODUCT IMPACT

- Loss of primary functions of the boot
 - Maintain grease inside the joint for its proper operation
 - Protect the joint from the exterior environment

RECOMMENDATIONS

- Replacement of the boot in case of external or internal degradation and filling with grease
- Replacement of the collar and filling with grease
- Check the tightening torque specifications

DURABILITY FAILURE



DRIVING IMPRESSIONS

- Noise
- Steering wheel vibrations
- Floor and/or dashboard vibrations

PRODUCT FAILURE

- Degradation of cup and cup stem
- Degradation of driveshaft

CAUSES

- Transmission of very high and/or very frequent torques
 - This fatigues and degrades the material faster
- Corrosion
- Poor interfacing with the hub
- Too high tension on the joint stem

PRODUCT IMPACT

- Degradation of contact surfaces resulting in noise and vibrations
- Degradation of hardened surfaces – spalling, seizing, loss of material
- Fracture of cup stem
- Fracture of part of the cup
- Fracture of part of the shaft

RECOMMENDATIONS

- If the shaft is damaged, replace the complete driveshaft along with the safety nut (available in our DK kits)
- If one of the joints is damaged, replace the complete joint (cup, boot, collar, grease, circlip...) and fill the joint with grease

STATIC/FATIGUE FAILURE



DRIVING IMPRESSIONS

- The driver will be unaware of component fatigue, but it will eventually result in a fracture:
- Loss of primary function - loss of mobility
 - Immobilization of the vehicle without early indications (no warning signs)

PRODUCT FAILURE

- Fracture of one of the components (cup/connecting spline/tulip)

CAUSES

- Utilization of the product outside of the manufacturer's specifications
- Incidental maneuver (example: impact start or running over kerb)

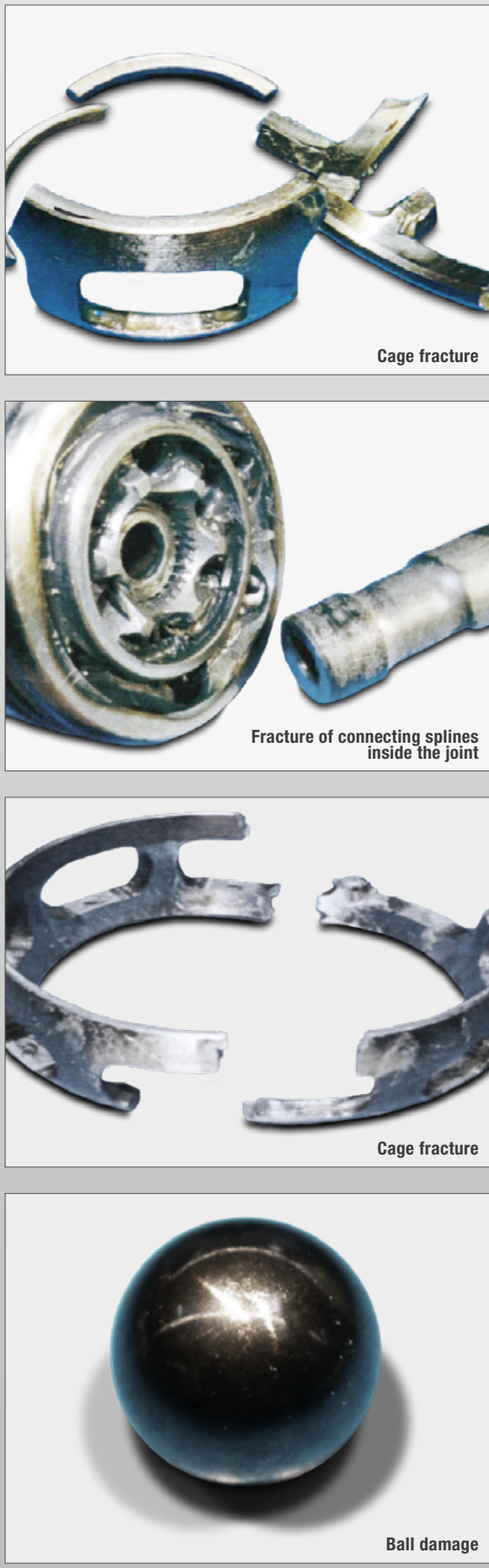
PRODUCT IMPACT

- Fracture of cup stem
 - Fracture of a connecting spline
 - Fracture of part of the cup
- Result: No longer transmits torque from the gearbox to the wheels

RECOMMENDATIONS

- If the shaft or cup is severely damaged, replace the complete driveshaft along with the safety nut (available in our DK kits)
- If the cup is slightly damaged, replace the complete joint (cup/tulip, boot, collar, grease, circlip...) and fill the joint with grease

INTERNAL COMPONENT FAILURE



DRIVING IMPRESSIONS

- Noise
- Steering wheel vibrations
- Floor and/or dashboard vibrations

PRODUCT FAILURE

- Degradation of component inside the joints - cup and/or tulip
 - Cup: Race, cage, balls, circlip, connecting splines
 - Tulip: Spider, spring, circlip, roller

CAUSES

- Transmission of very high and/or very frequent torques
- Shocks or jolts coming from outside

PRODUCT IMPACT

- Impact of internal components on the operation of the joint
 - Loss of internal material
 - Internal degradation of boot or cup/tulip
 - Loss of function of the joint
 - Internal friction

RECOMMENDATIONS

- Obligatory replacement of the complete CV joint

FIND OUR CV JOINT REMOVAL AND INSTALLATION TUTORIALS ON YouTube :



Wheel side joint:
Removal and installation on the driveshaft



Driveshaft:
Removal and installation on the vehicle



Removal of the differential side boot
and installation on the driveshaft



Removal of the wheel side boot
and installation on the driveshaft

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