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## Drivetrain vibrations

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Topic number	LI40.00-P-058807
Version	1
Design group	40.00 General
Date	04-14-2014
Validity	MODEL 461, 463
Reason for change	Document completely revised
Reason for block	

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### Complaint:

Vibrations from the drivetrain (transfer case, propeller shafts, axles).

### Cause:

Please analyze using the recommendations/ sequence described under "Remedy".

### Remedy:

#### 1. Visual inspection:

Visual inspection of tires, rims, axles, transmission/transfer case mounts and propeller shafts for damage and leaks.

Check of all fastenings for firm seating.

#### 2. Installation position of transfer case:

Visual inspection (from rear) of installation position of transfer case (alignment of transfer case, installed straight).

#### 3. Drivetrain:

Eliminate all stresses in drivetrain.

#### 4. Check wheels:

If possible, install the wheels from another OK vehicle.

Balance wheels (on the vehicle if possible) and check radial and lateral runout.

Check wheel bearing play.

#### 5. Propeller shafts:

Check matched installation position of propeller shafts (markings on flanges, if visible).

Remove suspicious propeller shaft and perform test drive with interaxle differential lock engaged.

Check universal joints of removed propeller shaft for play and damage.

Check concentricity of axle flange (max. 0.07 mm).

Same procedure with the other propeller shaft (removal, test drive, check universal joints and flange concentricity).

## 6. Constant Velocity propeller shaft:

Remove constant velocity propeller shaft and check for play.

Check flange on automatic transmission for play. Transfer case: Remove transfer case and measure flanges for concentricity (0.07 mm).

## 7. Transfer case:

Remove transfer case and measure flanges for concentricity (max. 0.07 mm).

Symptoms
Power transmission / Power transmission, noise / Throbbing/intermittent humming
Power transmission / Power transmission, noise / Howling/whistling
Power transmission / Power transmission, noise / Rattling
Power transmission / Power transmission, function / Vibrations
Chassis/suspension / Suspension characteristic / Shakes
Power transmission / Power transmission, noise / Humming/droning
Power transmission / Power transmission, noise / Grinding
Power transmission / Drive shaft / Propeller shaft / Propeller shaft - function / Out of round/vibrates
Power transmission / Drive shaft / Propeller shaft / Propeller shaft - noises / Humming/droning
Power transmission / Drive shaft / Axle shaft / Axle shaft, function / Out of round/vibrates
Power transmission / Drive shaft / Axle shaft / Axle shaft, noise / Humming/droning
Power transmission / Drive shaft / Axle shaft / Axle shaft, noise / Knocking/banging
Chassis/suspension / Wheels/tires / Tire properties / Vibration/out-of-balance

WIS-References			
Document number	Title	Note	Allocation
ra40.514630301z	3.1 - Rebalancing of wheels, models 461, 463	Work instructions for remedy 1	Remedy
AR33.30-P-0086A	Check concentricity of flange	Work instructions for remedy 3 (front axle)	Remedy
AR35.30-P-4671F	Check/adjust concentricity of drive flange	Work instructions for remedy 3 (rear axle)	Remedy
AR28.50-P-1100B	Check concentricity of flange	Work instructions for remedy 4 (transfer case)	Remedy
AR28.10-P-0300B	Remove/install transfer case rubber mount	Work instructions for remedy 6	Remedy

Validity		
Vehicle	Engine	Transmission
G (461)	*	*
G (463)	*	*