Programmed repairs Propeller shaft
Models 107, 114, 115, 116, 123, 124, 126, 129, 201

Complaint:

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Humming at decel, speed range from 120 km/h to 90 km/h
Model 116 with engine 110 and automatic transmission

Cause/Remedy:

Buckling angle of rear propeller shaft too large owing to unfavorably coinciding tolerances.

Change buckling angle on rear propeller shaft by adding washers (3 mm thick) at rear studs between rear axle carrier and rear axle center piece.

Renew rear flexible coupling, if badly distorted.

Complaint:

Acceleration juddering in the speed range of 15-20 km/h or 30-50 km/h
Models 114/115 and 116.02

Cause

1. The articulation angle of the universal joint on the propeller shaft intermediate bearing is excessive in the speed range of 15 - 20 km/h.

Remedy

a) **On models 114/115**

Mount shims of a suitable height of 2-6 mm between the rear engine mount and frame floor.
Shims are to be shop-made (figure 1).
Hexagon bolts are to be extended corresponding to the shim thickness.

Note

At full steering lock, there must still be a **minimum clearance of 5 mm** between the drag link and oil pan. If this minimum distance is not maintained, both front engine mounts are to be checked or replaced.

b) **On model 116.02**

Replace 10 mm aluminum shims between the rear engine mount and rubber mount by a 6 mm or 4 mm aluminum washer (take bolt length into account appropriately).
On models 116.020/024/025 it may be necessary to remove any 4 mm aluminum shim (figure 2, item 5).

2. Juddering when accelerating between 30 - 50 km/h is caused by uneven coiled thread fiber packs in the flexible coupling.

Remedy

Replace front and rear flexible couplings.

Figure 1

A = Shim (shop-made)

Dimension "a" = 2-6 mm

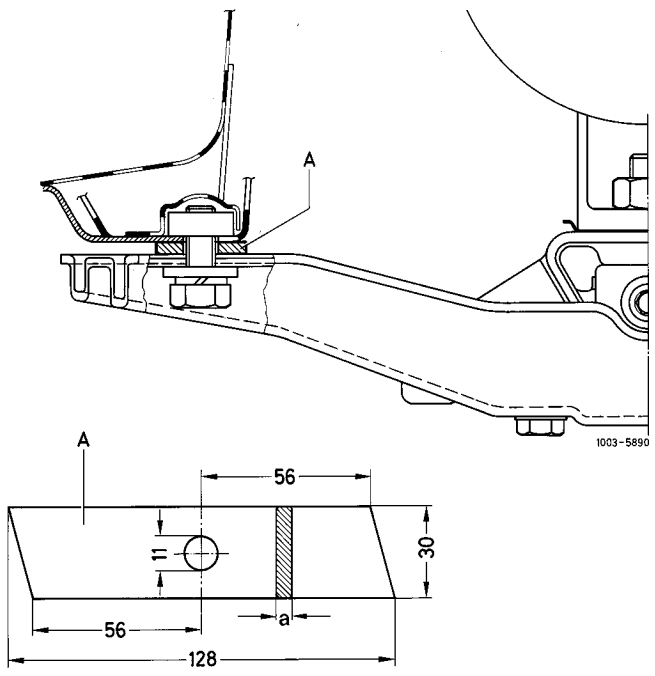
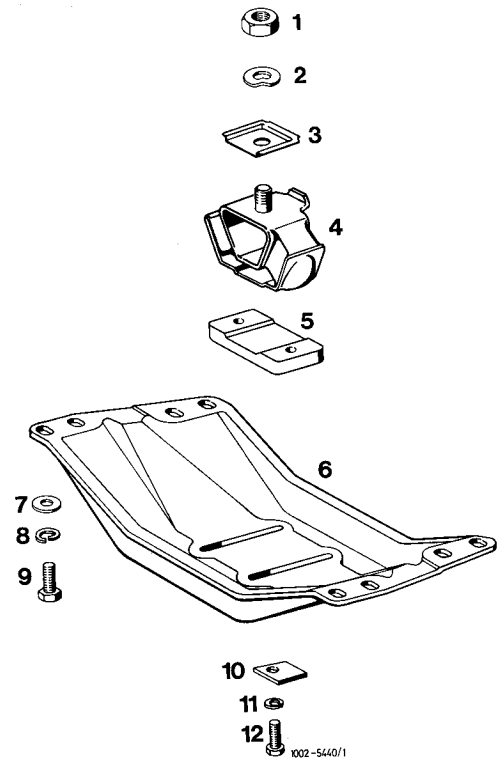


Figure 2

5 Aluminum shim



Complaint:

Humming noises with rough spots in the speed range between 100 and 160 km/h
Model 124

Cause/Remedy:

Summation of residual imbalance of the rear propeller shaft and joint flange of the rear axle.

Determine imbalance as described in 41-080 and eliminate.

Complaint:

Intermittent humming (interference) in the speed range between 160 - 180 km/h
Models 124.023/083, 201.02 with transmission 722.4

Cause
Unfavourable coincident frequencies (vibrations) from engine and tires and slip at the convertor.

Remedy
An improvement can be achieved:
1. If the converter is turned through 120° (max. twice) at the driver plate.
2. On models 124.023/083 and 201.029 by installing the rear engine mount, part no. 123 240 13 18 or 123 240 20 18, bracket 201 242 00 40, bolt 000912 008124, washer 201 242 00 66 and threaded nut in bracket 124 242 00 72.
On model 201.02 (except for 201.029) by installing a rear engine mount, part no. 123 240 13 18 or 123 240 20 18, engine support 201 242 06 01 with bolt 000912 008124, washer 201 242 00 66 and nut 000934 008042.

Note
When installing the rear engine mount with adjusting screw, the engine mount must be readjusted or relieved of load after approx. 1000 km.

Complaint:
Drive line vibrations in overrun conditions from higher speeds. Leakage at the rear transmission cover. Fracture of exhaust pipes.
Models 124, 201 with transmission 716, 717 (up to 08/88).

Cause
Centering of the front propeller shaft possibly not in order.
Remedy
Check condition of centering sleeve of the front propeller shaft and, if necessary, install compound bearing centering sleeve (for part no., refer to microfiche). If the larger inside dia. of the bronze bush is more than 16.5 mm, replace front propeller shaft. On vehicles with 5-cylinder diesel engines, generally replace the front propeller shaft with 1st version of the vibration damper (approx. 150 mm dia.) for the current version (approx. 135 mm dia.) (refer to technical modifications).

Complaint:

Wear at the front flexible coupling.
Models 107, 124, 126 and 201

Caise
Clamped connection of propeller shaft overtightened, preventing any longitudinal compensation.
Remedy
Do not exceed tightening torque of 30 - 40 Nm for the propeller shaft clamping nut.

Complaint:
Rumbling/rattling in the no-load condition in the engine speed range between 3200-3800 rpm.
Model 201.018 with 4- or 5-speed manual transmission (up to 09/90, refer to technical modifications)

Remedy
Install a soft pull-push flexible coupling in place of the torsionally rigid (hard) version, repair kit part no. 124 410 01 15. At the same time a new centering sleeve, part no. 124 410 07 32, must be installed. Installed dimension "a" is 30 mm (refer to figure, 41-200).

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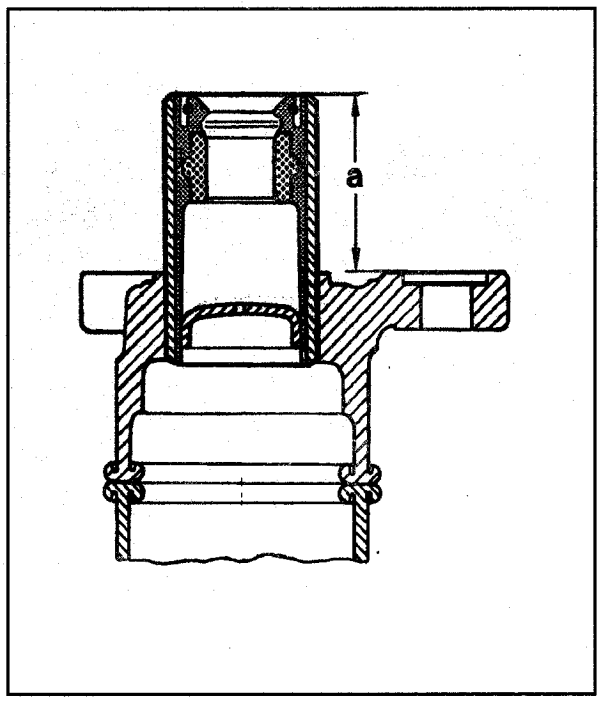
A new front propeller shaft, part no. 201 410 76 01, must be installed on vehicles with 5-speed manual transmission.

Note
A soft pull-push flexible coupling has already been installed since October 1990. No improvement results from a further replacement of the flexible coupling.



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Complaint:

Vibration or booming complaints on vehicles with dual-mass flywheel.

Typ 124, 201

Cause

Vibration damper or front propeller shaft may be installed with incorrect setting.

Check

Whether the approved propeller shaft is installed. On vehicles with 4-/5-cylinder engine, a vibration damper with an outside diameter of 133 mm must be installed on the propeller shaft flange on transmission end.

No vibration damper may be installed on vehicles with 6-cylinder engine.

Remedy

Replace front propeller shaft (for part no., refer to microfiche), if necessary.

Complaint:

Booming (rumbling) in the speed range from 110 km/h to 150 km/h.

Models 124, 201

Cause

Vibrations in drive line due to unfavourable, coincident production tolerances.

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1.First rotate the 3-legged flange of the propeller shaft connection on transmission end in relation to the propeller shaft by 120° (max. twice). If there is no improvement, then also rotate the propeller shaft on rear axle end through 120° in relation to the joint flange.

2.Balance propeller shaft on the vehicle (41-080).

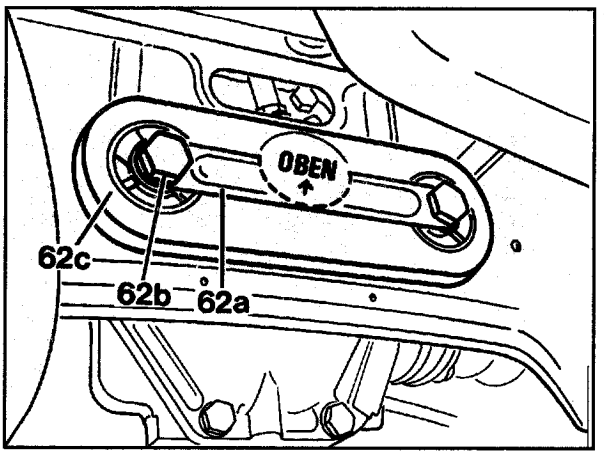
3.Screw vibration damper, part no. 124 350 03 72 (1st version) onto the rear mounting of the rear axle center piece assembly (refer to figure). Tightening torque 150 ± 10 Nm.

Note

As of 01/90, there are matching points (white colour identification) on the flexible couplings and on the joint flange of the transmission or rear axle center piece assembly as a standard production feature.

As of 09/91, there are no longer matching points on the flexible couplings.

Reason: balance quality of propeller shafts improved.



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On all T-saloons **with auxiliary heater, no damper** may be assembled on the rear axle.

On all T-saloons, only the 2nd version of the damper may be installed in conjunction with the adapter holder (for part no., refer to parts microfiche).