

DRIVE AXLE - REAR
Article Text
1991 Volkswagen Vanagon
For Volkswagen Technical Site
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Saturday, March 18, 2000 09:08PM

ARTICLE BEGINNING

1991 DRIVE AXLES
RWD Axle Shafts

Vanagon

TROUBLE SHOOTING

DRIVE AXLE (RWD) TABLE

AA

PROBLEM

| Possible Cause | Action |
|----------------|--------|
|----------------|--------|

KNOCKING OR CLUNKING

| | | |
|----------------------------------|------|-----------------|
| Differential Side Gear Clearance | | Check Clearance |
|----------------------------------|------|-----------------|

| | | |
|-------------------|-------|----------------------|
| Worn Pinion Shaft | | Replace Pinion Shaft |
|-------------------|-------|----------------------|

| | | |
|---------------------|-------|----------------|
| Axle Shaft End Play | | Check End Play |
|---------------------|-------|----------------|

| | | |
|--------------------|-------|--------------------------|
| Missing Gear Teeth | | Check Diff./Replace Gear |
|--------------------|-------|--------------------------|

| | | |
|---------------------|-------|----------------|
| Wrong Axle Backlash | | Check Backlash |
|---------------------|-------|----------------|

| | | |
|----------------------|-------|-------------------|
| Misaligned Driveline | | Realign Driveline |
|----------------------|-------|-------------------|

CLUNKING DURING ENGAGEMENT

| | | |
|---------------------|-------|---------------------------|
| Side Gear Clearance | | Check Side Gear Clearance |
|---------------------|-------|---------------------------|

| | | |
|--------------------------|-------|----------------|
| Ring and Pinion Backlash | | Check Backlash |
|--------------------------|-------|----------------|

| | | |
|-------------------------|-------|-----------------------|
| Worn/Loose Pinion Shaft | | Replace Shaft/Bearing |
|-------------------------|-------|-----------------------|

| | | |
|---------------|-------|-------------------|
| Bad "U" Joint | | Replace "U" Joint |
|---------------|-------|-------------------|

| | | |
|--------------------|-------|----------------|
| Sticking Slip Yoke | | Lube Slip Yoke |
|--------------------|-------|----------------|

| | | |
|------------------------|-------|---------------|
| Broken Rear Axle Mount | | Replace Mount |
|------------------------|-------|---------------|

| | | |
|--------------------------|-------|--------------|
| Loose Drive Shaft Flange | | Check Flange |
|--------------------------|-------|--------------|

CLICK/CHATTER ON TURNS

| | | |
|----------------------------------|------|-----------------|
| Differential Side Gear Clearance | | Check Clearance |
|----------------------------------|------|-----------------|

| | | |
|------------------------|-------|-----------------------|
| Worn Clutch Plates (1) | | Replace Clutch Plates |
|------------------------|-------|-----------------------|

| | | |
|---------------------------|-------|------------------|
| Wrong Diff. Lubricant (1) | | Change Lubricant |
|---------------------------|-------|------------------|

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RHYTHMIC KNOCK OR CLICK

Flat Spot on Rear

Wheel Bearing Replace Wheel Bearing

HUM/LOW VIBRATION AT ALL SPEEDS

Faulty Wheel Bearings Replace Bearings

Faulty "U" Joint Replace "U" Joint

Faulty Drive Shaft Balance Drive Shaft

Faulty Companion Flange Replace Flange

Faulty Slip Yoke Flange Replace Flange

(1) - Limited slip differential only.

AA

REMOVAL, DISASSEMBLY, REASSEMBLY & INSTALLATION

DRIVE AXLE SHAFTS

Removal & Installation

1) Remove axle flange bolts and remove axle shafts from differential. Remove rear wheels and axle nuts. Remove brake drum. Disconnect brake line.

2) Remove axle shaft assembly with wheel bearing hub assembly from trailing arm. Remove axle shaft assembly from wheel bearing hub assembly. To install, reverse removal procedure.

Disassembly & Reassembly

Remove axle shaft boot. Remove circlip from CV joint. Remove protective cap from CV joint using a drift. Support CV joint with axle assembly on Support Stand (VW 402). Using Driver (VW 408A), press CV joint off axle shaft. To reassemble, reverse disassembly procedure. Use new circlips during assembly.

STUB AXLE SHAFTS & BEARINGS

Removal & Installation

Remove wheel hub, wheel bearings and brake backing plate from wheel bearing hub assembly. Using Driver (VW 411), press stub axle from wheel bearing hub assembly. To install, reverse removal procedure.

Disassembly

Remove grease seals from wheel bearing hub assembly. Remove inner race from outer wheel bearing and spacer sleeve. Using a brass drift and hammer, remove outside wheel bearing. Press out inner wheel bearing.

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Reassembly

1) Install inner wheel bearing, grease bearing and press until seated. Grease outer bearing and fill space between inner and outer bearings with grease.

2) Press outer bearing in until seated. Install spacer sleeve and inner race of outer wheel bearing. Press in flush on wheel side and against circlip on flange side. Press stub axle into wheel bearing hub assembly until seated.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

| Application | | Ft. Lbs. (N.m) | |
|--|-------|----------------|-------|
| Axle Nut | | 360 | (490) |
| Axle Flange Bolt | | 33 | (45) |
| Brake Backing Plate Bolt | | | |
| From Backing Plate Side | | 47 | (63) |
| From Wheel Bearing Hub Assembly Side | | 15 | (20) |
| Wheel Bearing Hub Assembly-To-Trailing | | | |
| Arm Bolt | | 101 | (136) |
| Wheel Lug Nut | | 33 | (45) |

END OF ARTICLE