PORSCHE 924

924

DESCRIPTION

Independent torsion bar type rear suspension. Torsion bars mount in rear crossmember tube and anchor in center of tube by a splined hub. Outer ends of torsion bar mount into splined hubs integral with spring plates. Spring plates are bolted to control arm at a flange. Control arms pivot in mounts on crossmember tube and are integral with stub axle housing. Hydraulic shock absorbers mount on control arm and to upper body.

ADJUSTMENTS

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See Wheel Alignment Specifications and Procedures in WHEEL ALIGNMENT Section.

REMOVAL & INSTALLATION

SHOCK ABSORBERS

Removal – Raise vehicle and place on safety stands. Remove wheel. Remove both bottom and top mounting nuts and bolts, then slide shock absorber from vehicle.

Installation – Inspect for hydraulic leaks and replace shock absorber if excessive leaking is apparent. Check shock absorber for smooth, even operation. To install, reverse removal procedure.

CONTROL ARM

Removal – **1)** Remove cotter pin and loosen rear hub nut. Raise vehicle and place on safety stands. Remove wheel. Remove shock absorber.

2) Remove bolts mounting axle drive shaft to stub axle. Separate axle drive shaft from stub axle and wire out of way. Use protective cap to cover exposed end of axle drive shaft.

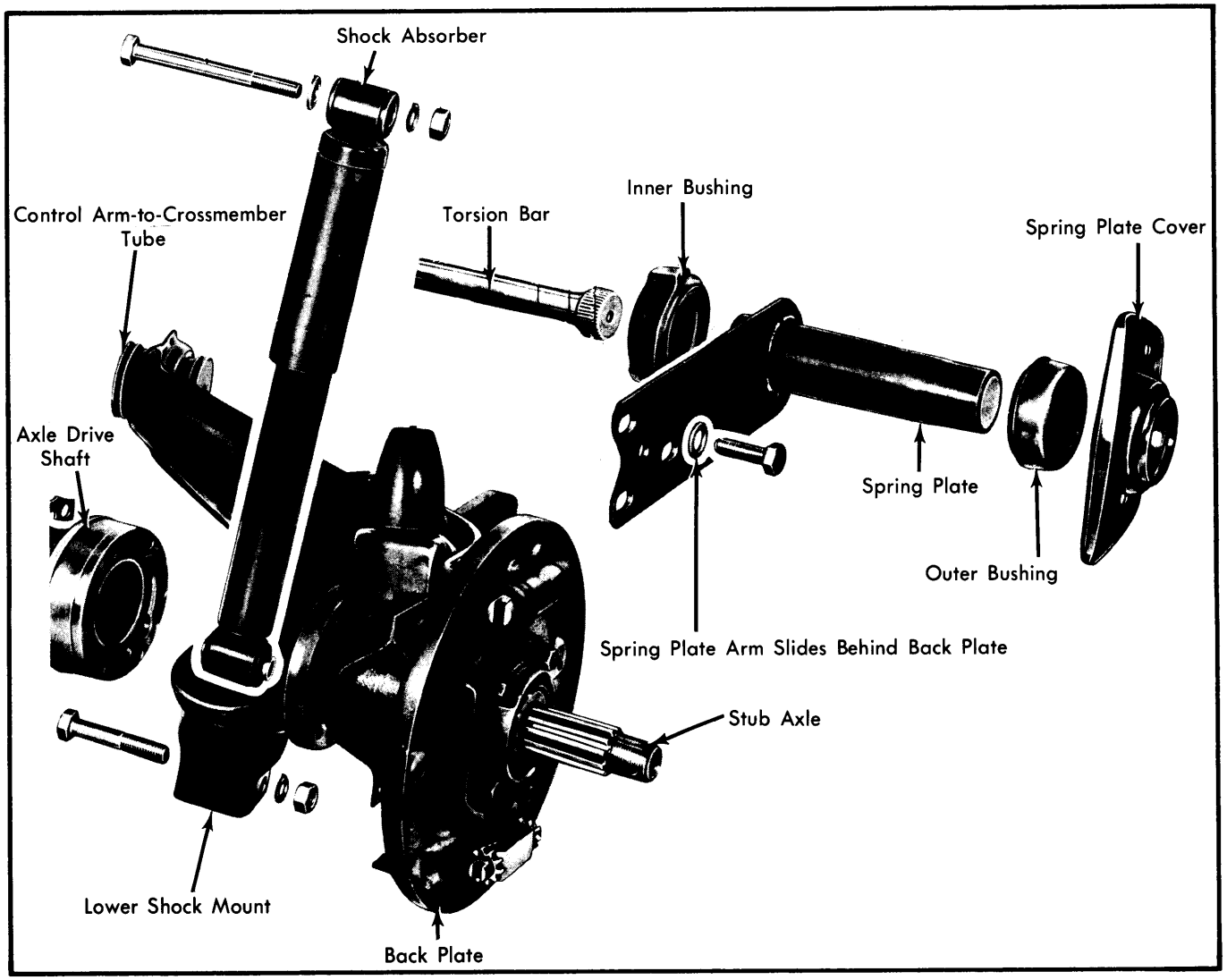

Fig. 1 Exploded View of 924 Rear Suspension

PORSCHE 924 (Cont.)

3) Remove drum and disconnect parking brake and hydraulic lines. Index mark spring plate in relation to a point on control arm. Remove control arm pivot bolt and remove arm from vehicle.

Installation – To install, reverse removal procedure. Tighten pivot bolt and lock in place by staking to edge to metal shoulder on bracket. Align spring plate marks with those on control arm. Bleed brake system.

TORSION BARS & SPRING PLATES

Removal – **1)** Raise and support vehicle. Take off wheel. Scribe mark alignment position of spring plate in control arm for reassembly. Disconnect spring plate from control arm.

2) Remove bolts mounting spring plate cover. Pry off lower stop cast into torsion bar housing. Remove spring plate and withdraw torsion bar. If torsion bar is broken, opposite side torsion bar must be removed to drive out broken piece.

Installation – **1)** Inspect torsion bar and spring plate for wear or distortion. Inspect rubber mounts for cracking or wear. Torsion bars are marked left and right and should be installed accordingly.

2) Coat torsion bar splines with grease and install into vehicle. Coat rubber supports with talcum powder. Make sure part of rubber support marked "Oben" is installed facing up. Not all supports are marked.

3) Install spring plate in position. *See Torsion Bar Adjustment in this article.* Install hub cover and secure with 2 bolts.

4) Use a suitable jack or spring compressor (VW655/3) to raise spring plate and install remaining hub cover bolts. To install remaining components, reverse removal procedure. Recheck rear wheel alignment.

TORSION BAR ADJUSTMENT

NOTE – *Adjust both torsion bars on vehicles with high milage.*

1) Using suitable protractor (VW261), place protractor on lower edge of door sill. Adjust protractor so bubble in glass tube marked "Axle Housing/Angle" is in center. Note reading that will indicate vehicle deviation from horizontal.

2) Rotate level carrier on protractor by specified value for spring plate angle (23°). With spring plate cover removed, place protractor on spring plate. Lift spring plate enough to remove play from splines.

3) If front of vehicle is lower, add door sill measurement to spring plate value. If rear of vehicle is lower than front, subtract door sill measurement from spring plate value. Correct spring plate angle if measured value differs from specified value by more than 5/8".

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Torsion Bar Crossmember Tube-to-Body	54 (7.5)
Spring Plate Cover	25 (3.5)
Control Arm-to-Torsion Bar Crossmember Tube	44 (6.1)
Spring Plate-to-Control Arm	76-90 (10.5-12.5)
Lower Shock Absorber Moutning	44 (6.1)
Upper Shock Absorber Mounting	44 (6.1)