Volvo300mania

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	MT 1070 10	e and wheel bearings, 340
	MT, 1979-19	

This manual is a photocopy of the original service manual

Order No. TP35091/1

We reserve the right to make alterations

Group 70 General

General Data

TIGHTENING TORQUES

In this manual 2 kinds of tightening torques are shown:

- I. Tighten to 40 Nm (4.0 kgm), indicates that a torque wrench must be used when tightening.
- II. Tightening torque 40 Nm (4.0 kgm), indicates a guide value. Tightening need not be done with a torque wrench.

Specifications

FRONT SUSPENSION

	B14 (up to 1977)	B14 (from 1977)	B19
Stabilizer Rod diametermm	φ21	φ20	φ23
Coil spring			
Free length mm	366 £ó	350 6.5	357 6.5
Number of coils	10.4	10.7	11.6
Coil diameter mm	116	116	116

Note: always use two springs with the same colour code for any one car.

Shock absorber

Piston diameter	mm	Ø32
Piston rod diameter	mm	ф22

BUSPENSION

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	asymmetric, parabolic rolled leaf spring
ær of leaves	1 (1) 1 1
ith, up to chassis No. 435625mm	1260
from chassis No. 435625	1250
*th mm	60

Note: leaf springs must be renewed as a pair (with the same colour code).

Shock absorbers

Shock absorbers must be renewed as a pair. Always fit two shock absorbers with the same part numbers to avoid differences in damping force setting.

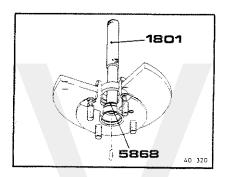
TIGHTENING TORQUES

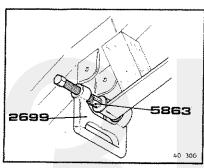
	Nm	kgm
Front suspension Brake caliper attachment (—1980)	68	6.8
Brake caliper attachment (1980—)	118	11.8
Rear suspension		
Axle shaft nuts, B14	245	24.5
B19	220	22.0
Bearing housing/brake backplate boits	52	5.2

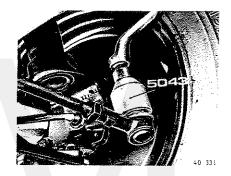


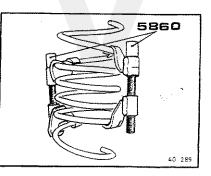
Special tools

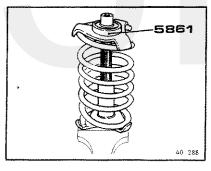
999	Description · Application
1801	Universal handle: for use with drifts 5868 and 5869
2699	Auxiliary pressing tool: for use with drift 5863
5043	Auxiliary pressing tool: for removing steering rod end
5860	Compressor: for coil spring
5861	Compressor: for coil spring
5862	Special ring spanner: for shock absorber union nut
5863	Drift: for use with pressing tool 2699
5866	Auxiliary pressing tool: for removing steering swivel ball joint
5867	Drift: for fitting and removing spring eye rubber bushes
5868	Drift: for removing outer front wheel bearing
5869	Drift: for removing inner front wheel bearing
5938	Drift: for fitting front wheel bearing cups

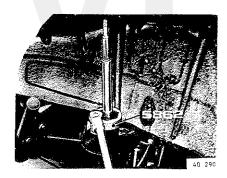


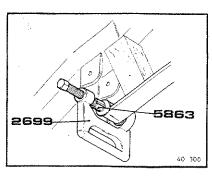


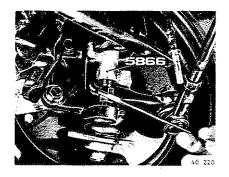


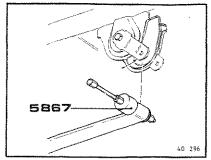


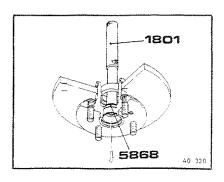


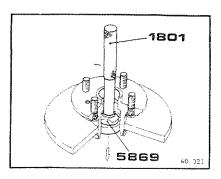


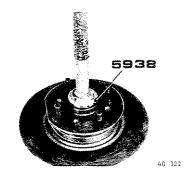








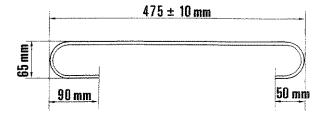




5868 5869 5938

A. Upper thrust bearing, coil spring and/or shock absorber cartridge renewal

Special tools: 5043, 5860, 5861 and 5862

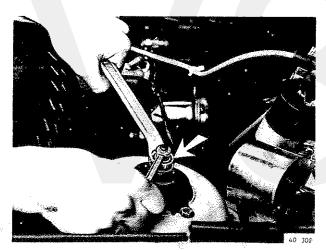


Introduction

When carrying out jobs which require the upper attachment of the strut to be released a hook is needed to prevent the strut falling too far to one side. This could damage the brake hose and/or steering swivel ball joint.

The hook can be made from $\phi 6$ mm wire as shown in the sketch.

40 281



Release shock absorber at top

Unscrew the retaining nut of the shock absorber piston rod a few turns.

Remove the shock absorber retaining bolts.

5049

A2

A 1

Press steering rod end out of steering swivel

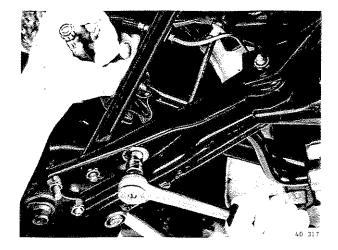
Remove the split pin and castle nut.

Press the rod end out of the steering swivel with auxiliary pressing tool **5043**.

Note: when carrying out repairs at the left-hand side of the car the speedometer cable must also be removed from the steering swivel.

To do this release the grease cap together with the drive pinion and pull the cable out of the steering swivel.





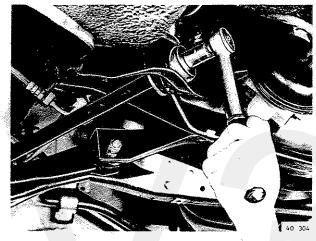
Remove lower nut from stabilizer link

Note: prevent the link from turning with the aid of a mole wrench.

Remove the washer.

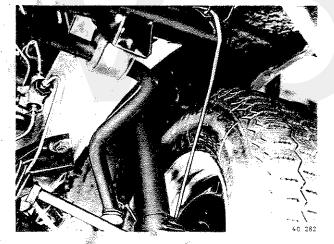


Unscrew nut at rear of reaction rod a few turns



A5

Fit wire hook between strut and front (engine) cross member

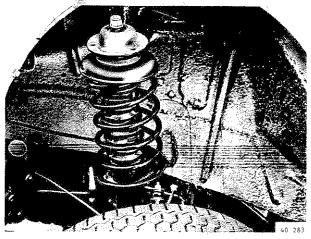


A6

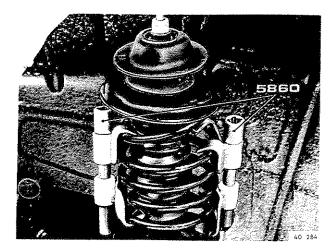
Pull out strut to side

Support the car.

Lower the car lift until the front wheel is free of the ramp.





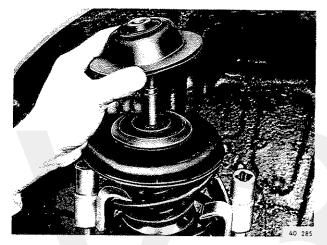


Compress coil spring so that the upper spring retainer is no longer under tension

Use spring compressors 5860.

Note: the spring compressors must be located opposite each other.

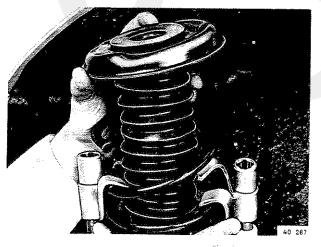




Remove upper shock absorber attachment

Remove the nut and washer from the shock absorber piston rod.





Remove upper spring retainer with dust gaiter

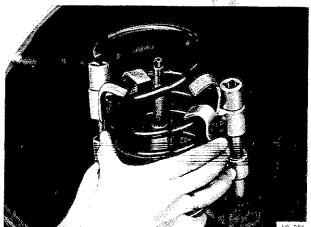
Remove the washers, dust cover plate and thrust bearing.

Release the clamp on the dust gaiter.

When replacing the thrust bearing alone the clamp need not be released.



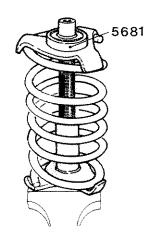
Remove coil spring and rubber bump stop



A11

A12

A13

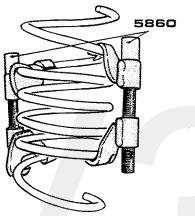


Remove spring compressor 5860

Clamp the spring compressor **5861** in a bench vice. Locate the coil spring in spring compressor **5861**. Compress the coil spring so that spring compressor **5860** is released.

Remove spring compressor 5860.

40 288



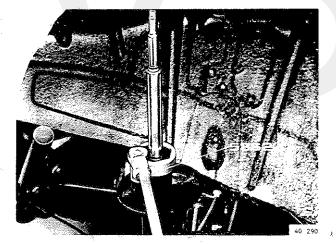
Renew coil spring

Remove the bolt and upper plate from spring compressor 5861.

Remove the old coil spring and locate a new one. Locate the upper plate and bolt and compress the spring.

Locate spring compressor 5860. Remove spring compressor 5861.

40 289

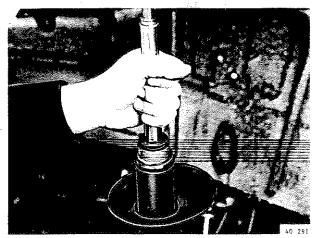


Remove shock absorber union nut

Use ring spanner 5862.

Note: when it concerns the right-hand shock absorber, this must be restrained with a pipe between the wheel rim and the bottom of the strut to prevent damage to the brake hose.

A14

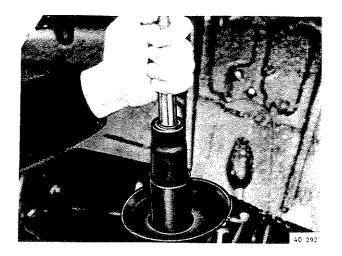


Remove shock absorber cartridge together with seal, O-ring and retaining sleeve

Clean the inside of the strut.

Note: a shock absorber cartridge which has already been renewed is removed as a single unit with seal, O-ring and retaining sleeve.





Fit new shock absorber cartridge

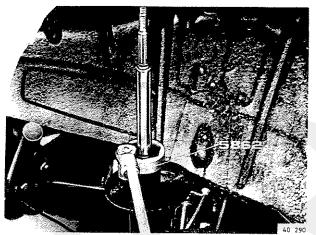
A16



Use ring spanner 5862.

Note: when it concerns the left-hand shock absorber, this must be restrained by a pipe between the wheel rim and the bottom of the strut to prevent damage to the brake hose.

Tightening torque: 120 Nm (12.0 kgm).

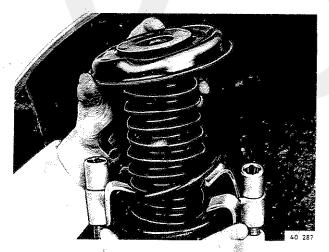


A17

Fit coil spring and upper spring retainer

Pull out the piston rod and locate the coil spring. Locate the rubber bump stop and upper spring retainer with the dust gaiter.

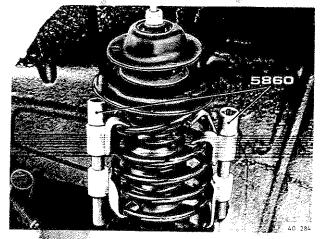
Tighten the clamp.





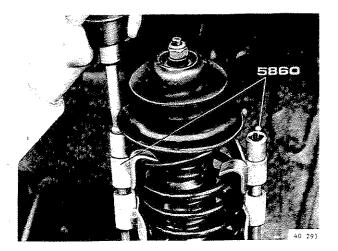
Locate thrust bearing, dust cover plate, washers and upper shock absorber attachment

Tighten the nut finger-tight on the shock absorber piston rod.



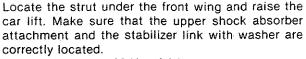


Slacken and remove spring compressor 5860



A20

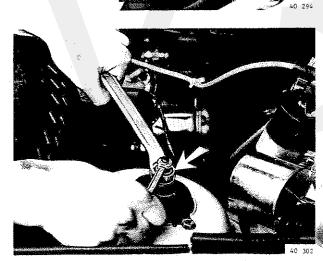
Fit and tighten bolts in upper shock absorber attachment



Tightening torque: 22 Nm (2.2 kgm).

Remove the wire hook.

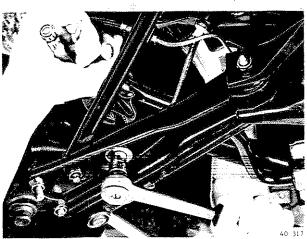
Note: coat the bolts with locking compound (Part No. 1161053/54) before fitting.



A21

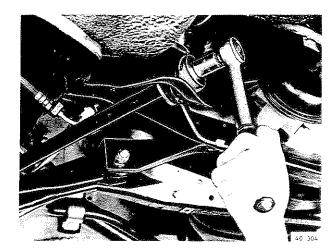
Tighten self-locking nut of shock absorber piston rod

Tightening torque: 65 Nm (6.5 kgm).



Fit and tighten washer and nut of stabilizer link.

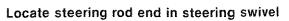
Tightening torque: 22 Nm (2.2 kgm).



Tighten rear nut on reaction rod

Tightening torque: 27 Nm (2.7 kgm).

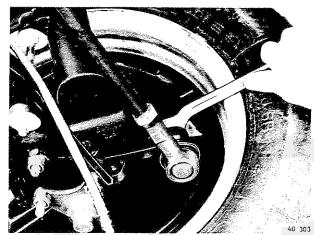
A24



Fit and tighten the castle nut.

Tightening torque: 55 Nm (5.5 kgm).

Lock the castle nut with a new split pin.



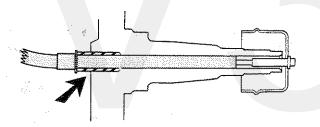
A25

Fit speedometer cable (if removed)

Lightly coat the rubber bush of the speedometer cable with vaseline before fitting.

Fit the speedometer cable.

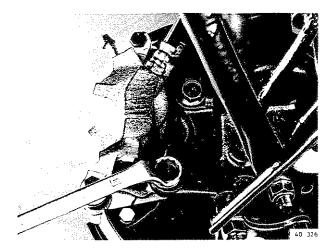
Fit the grease cap together with the drive pinion.



B1

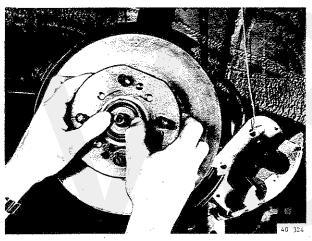
B. Steering swivel assembly renewal

Special tools: 5043, 5860, 5861 and 5866



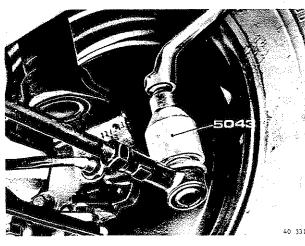
Release brake caliper

Note: never leave the caliper suspended from the brake hose.



Remove wheel hub with brake disc and dust plate

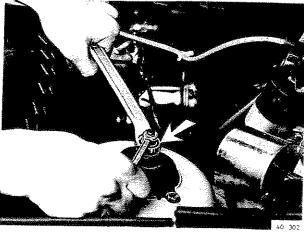
Remove the grease cap and lock nut.
Remove the hub with brake disc from the stub axle end.
Remove the dust plate.



ВЗ

Press steering rod end out of steering swivel

Use auxiliary pressing tool: **5043**. Remove the split pin and castle nut.



5.86G



Release shock absorber at top

Unscrew the retaining nut on the shock absorber piston rod a few turns.

Remove the shock absorber retaining bolts.

Note: when carrying out repairs at the left-hand side of the car the speedometer cable must be taken out of the steering swivel.

B5

Release ball joint from steering swivel

Slacken the rear nut on the reaction rod a few turns. Remove the split pin and castle nut and press out the steering swivel ball joint as far as possible with auxiliary pressing tool **5866**.

Press the ball joint downwards and out of the steering swivel.

B6

Remove steering swivel with coil spring and shock absorber.

D.

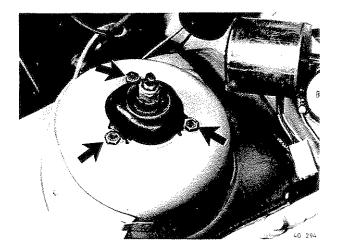
Remove coil spring

Clamp the steering swivel in a bench vice. See section A, page 8, jobs A7-A10.

В8

Locate coil spring

See section A, page 10, jobs A17-A19.



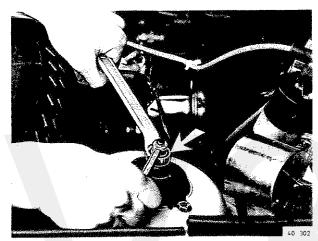
Locate steering swivel

Fit the steering swivel on the ball joint. Fit and tighten the upper shock absorber attachment bolts.

Tightening torque: 22 Nm (2.2 kgm),

Note: coat the bolts with locking compound (Part No. 1161053/54) before fitting.

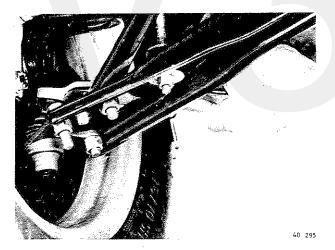
B10



Tighten nut on shock absorber piston rod

Tightening torque: 65 Nm (6.5 kgm).

B11



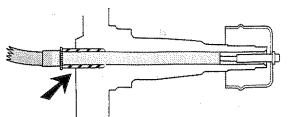
Fit ball joint to steering swivel

Fit and tighten the castle nut.

Tightening torque: 55 Nm (5.5 kgm).

Lock the castle nut with a new split pin.

B12

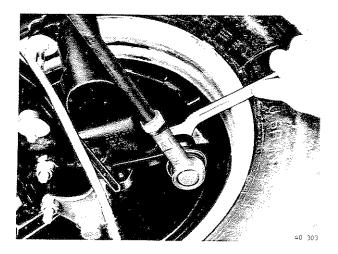


Fit speedometer cable (if removed)

Lightly coat the rubber bush of the speedometer cable with vaseline before fitting.

Fit the speedometer cable.

Fit the grease cap together with the drive pinion.



Locate steering rod end in steering swivel

Fit and tighten the castle nut.

Tightening torque: 55 Nm (5.5 kgm),
Lock the castle nut with a new split pin.

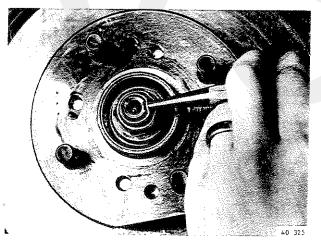
B14



Locate dust plate and hub with brake disc on stub axle end

Fit and tighten the dust plate.
Tightening torque: 16 Nm (1,6 kgm).
Locate the hub with brake disc.
Lubricate the outer bearing with wheel bearing grease (Part No. 1212388-1) and fit.
Fit the washer and a new lock nut.

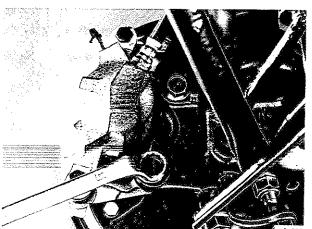
B15



Adjust front wheel bearing

Tighten the lock nut.
Tightening torque: 52 Nm (5.2 kgm).
Slacken the lock nut 90°.
Lock the nut.
Fit the grease cap.

B16



Fit brake caliper

Locate the brake caliper on the steering swivel. Fit and tighten the retaining bolts. Tighten to **68 Nm** (6.8 kgm).

From 1980: fit the dust plate to the brake caliper. Tightening torque: 16 Nm (1.6 kgm).

Fit the wheel.

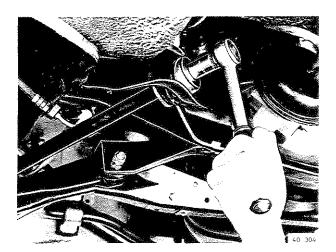
Tightening torque: 115 Nm (11.5 kgm).

Note: a new lock washer plate or new self-locking

bolts must always be used when fitting.

Lock the bolts with the lock washer plate (if fitted).





Tighten rear nut on reaction rod

Tightening torque: 27 Nm (2.7 kgm).



C. Renewing spring shackle rubber mounting

Special tool: 5867

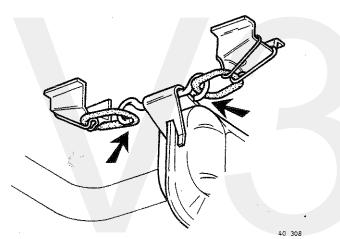




Remove plug in spare wheel recess - B19 (only when renewing spring shackle rubber mounting at right-hand side)

Remove the spare wheel.

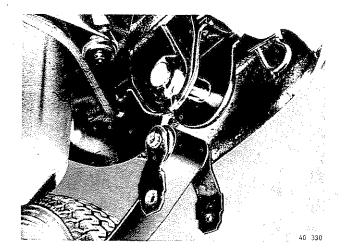
00



Release exhaust at rear (only when renewing spring shackle rubber mounting at left-hand side)

Raise the car to working height. Release the O-rings, the rubber mounting at the rear silencer and (B19 only) the retaining bolts of the middle silencer.

C3



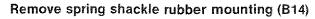
Release spring shackle and spring eye attachments

Support the body to relieve the load on the leaf spring.

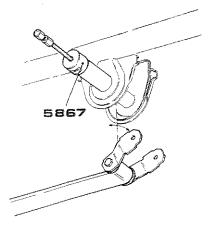
Slacken the nut on the rear spring eye. Remove the nut and bolt from the spring shackle. Swing the shackle links downwards.

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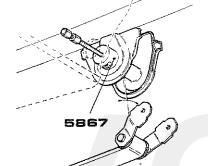




Locate drift 5867 with spacer and press out the rubber mounting.







40 36

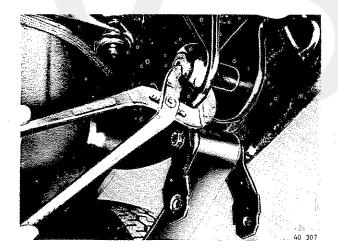


C5 19)

Remove spring shackle rubber mounting (B19)

Use drift **5867** without the spacer to press out successively the left and right-hand parts of the rubber mounting as far as possible.

Then remove these parts with a pair of pliers.



Fit new spring shackle rubber mounting

Note: for service purposes on B14 cars the one-piece rubber mounting can be replaced by the two-piece mounting which is used on B19 cars.

Lubricate the mountings with a soapy solution.

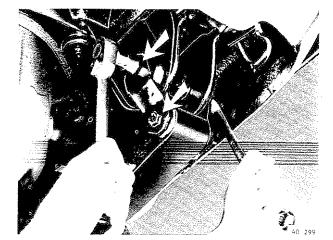
Locate the mountings with the aid of adjustable



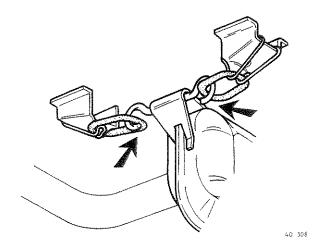
, C6

Locate spring shackle and spring eye attachments

Fit the removed bolt and nut. Remove the support. Tighten all nuts. Tightening torque: 53 Nm (5.3 kgm).



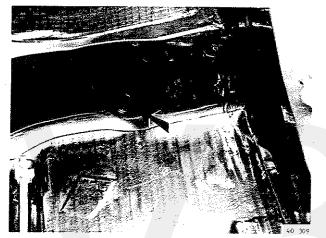
C9



Tighten exhaust at rear

Locate the O-rings, the rubber mounting at the rear silencer and (B19 only) the retaining bolts of the middle silencer.

Tightening torque: 19 Nm (1.9 kgm).



Fit plug in spare wheel recess - B19

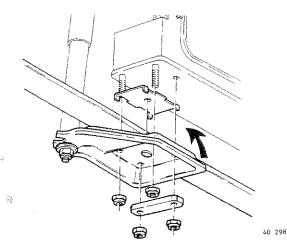
Locate the spare wheel.

D1

D2

D. Leaf spring renewal

Special tools: 1801 and 5867

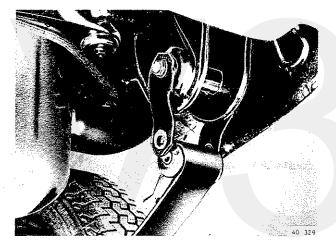


Release leaf spring from rear axle

Support the body to relieve the load on the leaf spring.

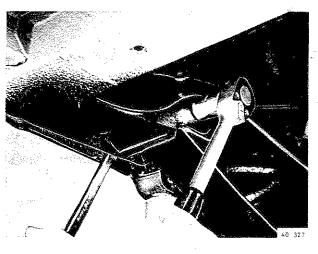
Remove the nuts from the lower spring anchor plate and turn the plate to one side.

Take out the intermediate plates.



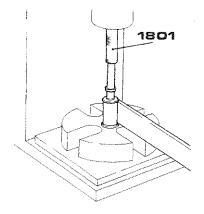
Release leaf spring from spring shackle

Slacken the nut on the spring shackle. Remove the nut from the spring eye and withdraw the bolt.



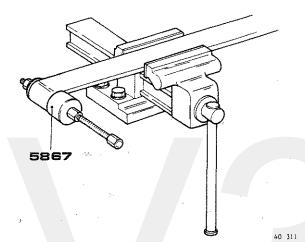
Release leaf spring at front from mounting point.

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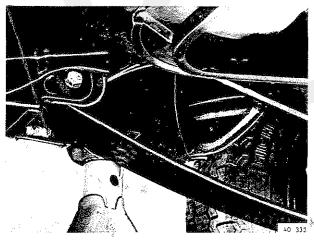
Renew spring eye rubber bush

Press out the bush with a hand press and universal handle 1801.

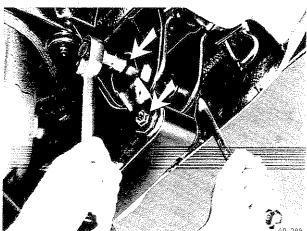


46 310

Lubricate the new rubber bush with a soapy solution. Pull in the rubber bush with drift 5867 without the spacer.



Locate leaf spring at front

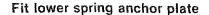


Tighten spring shackle and spring eye(s) attachments

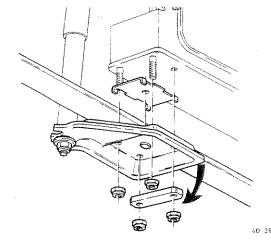
Insert the removed bolts and tighten all nuts fingertight.



D8

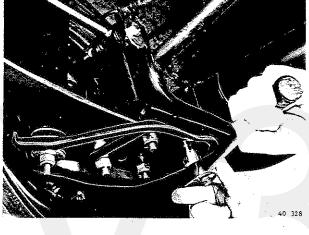


Note: if necessary renew the intermediate plates. Fit the lower spring anchor plate and nuts and tighten finger-tight.



Tighten leaf spring attachment

Remove the support. Tighten all bolts and nuts. Tightening torque: 52 Nm (5.2 kgm).



Adjust reaction rod

Variant with eccentric adjusting bolt

Locate the adjusting bolt and washers and turn them so that the eccentric disc of the retaining bolt is centrally located in the bracket.

For this purpose the two "X" dimensions must be identical.

Tighten the retaining bolt.

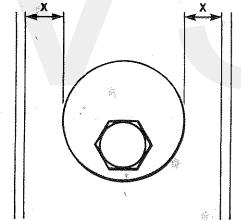
Tightening torque: 53 Nm (5.3 kgm).

Variant with elongated hole in bracket on rear axle. Make sure that the retaining bolt is free to move in and out.

Fit and tighten the retaining bolt.

Tightening torque: 53 Nm (5.3 kgm).

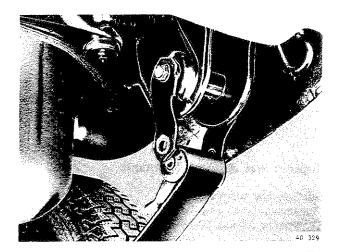
Note: ensure that the brake hose bracket is in the correct position.



D9

E. Renewing spring eye rubber bush under the car

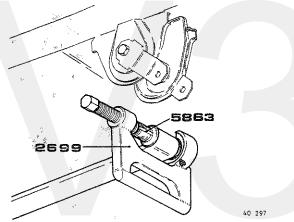
Special tools: 2699, 5863 and 5867



Release rear spring eye attachment

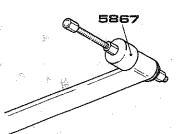
Support the body to relieve the load on the leaf spring.
Slacken the spring shackle nut.

Remove the nut and bolt from the spring eye.



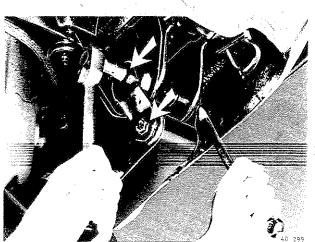
Renew rear spring eye rubber bush

Remove the rubber bush with auxiliary pressing tool 2699 and drift 5863.



Pull the rubber bush into the eye with drift 5867 without the spacer.

Note: lubricate the rubber bush with a soapy solution before fitting.



Fit spring shackle and spring eye attachments

Locate the removed bolt and nut and tighten all nuts finger-tight.

Remove the support.

Tighten the nuts.

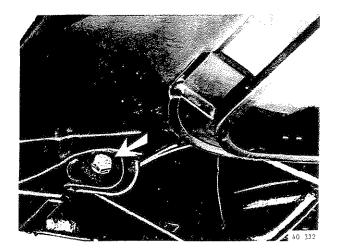
Tightening torque: 53 Nm (5.3 kgm).

E1

E2

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Release front spring eye attachment

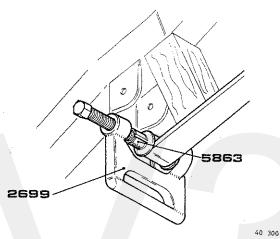
Support the body to relieve the load on the leaf spring.

Remove the bolt and nut from the spring eye.

Place a block of wood between the leaf spring and the body.

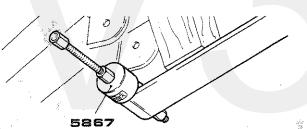
Note: in the case of the right-hand side the reaction rod must be released at the rear.





Renew front spring eye rubber bush

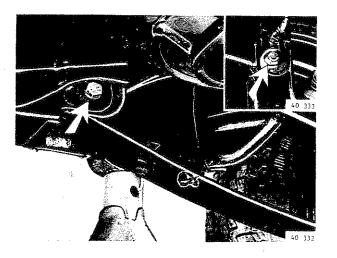
Remove the rubber bush with pressing tool **2699** and drift **5863**.



Pull the rubber bush into the eye with drift 5867 without the spacer.

Note: lubricate the rubber bush with a soapy solution before fitting.

FE



Tighten spring eye attachment

Remove the block of wood.

Locate the bolt and nut and tighten finger-tight.

Remove the support.

Tighten the nuts.

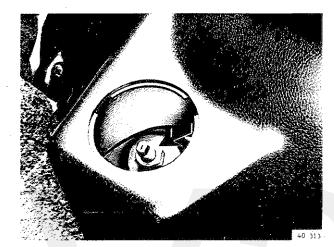
Tightening torque: 53 Nm (5.3 kgm).

E7

Adjust reaction rod

See section D, page 23, job D9

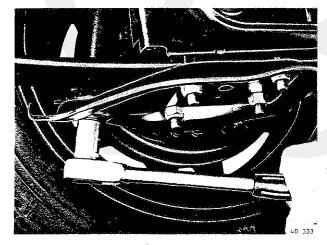
F. Rear shock absorber renewal



Release shock absorber at top

Remove the cover plate from the side panel in the

Remove the upper nuts and washer from the shock absorber spindle.



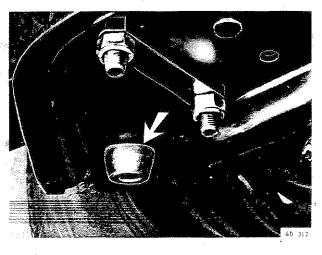
Remove shock absorber

Raise the car to working height.
Remove the lower nut(s) and washer from the shock absorber.

Take out the shock absorber.

Remove the two washers.

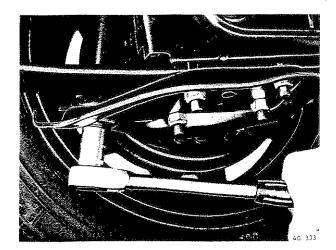
Note: it is possible for the spacers to come out-also.



Renew rubber mountings

F2

F1

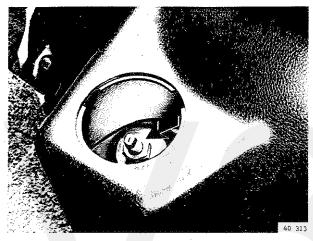


Fit and tighten new shock absorber

Fit the upper and lower washers on the shock absorber.

Locate the shock absorber in its mounting points. Fit the lower washer and nut(s) and tighten. Tightening torque: 65 Nm (6.5 kgm).



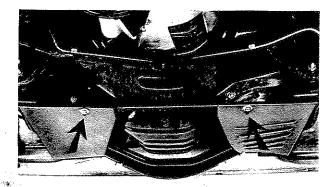


Tighten shock absorber at top end

Fit the upper washer and nut(s) and tighten. Tightening torque: 65 Nm (6.5 kgm). Fit the cover plate.

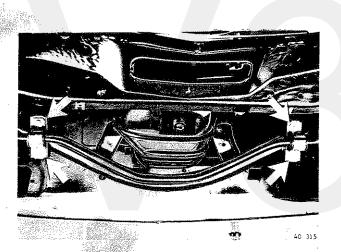
G. Stabilizer renewal

40 046

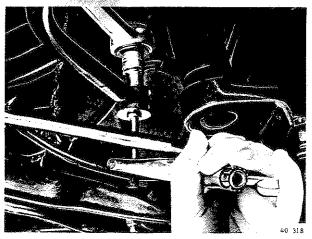


Remove both engine splash guards

B19 variant: also remove front engine splash guards.



Remove retaining bolts from stabilizer

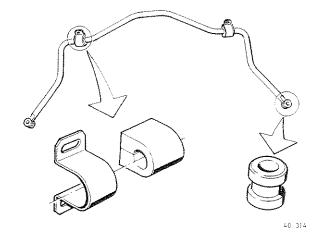


Remove upper retaining nut from stabilizer link at left and right

Note: prevent the stabilizer link from turning with the aid of a mole wrench.
Remove the washers.
Remove the stabilizer.

G2

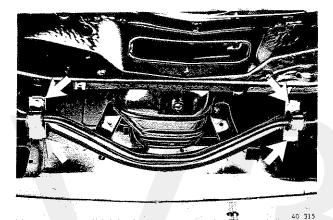




If necessary renew the retaining clamps, rubber bushes and rubber mountings of the stabilizer

Lubricate the rubber parts with a soapy solution before fitting.

G5

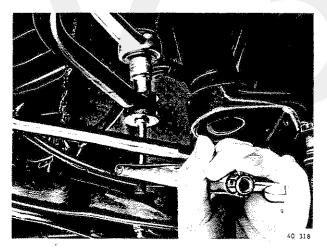


Locate new stabilizer

Fit the retaining clamps over the rubber mountings and tighten the retaining bolts.

Tightening torque: 22 Nm (2.2 kgm).

G6

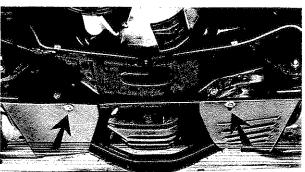


Secure stabilizer to stabilizer links

Locate the upper washers and retaining nuts and tighten.

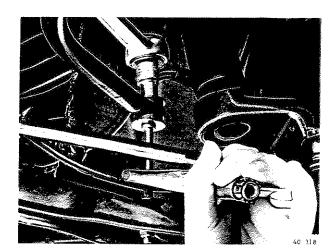
Tightening torque: 22 Nm (2.2 kgm).

G7



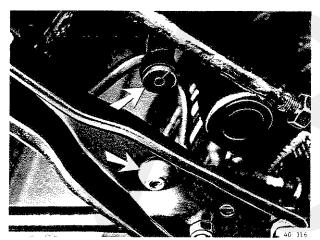
Fit engine splash guards

H. Stabilizer link renewal



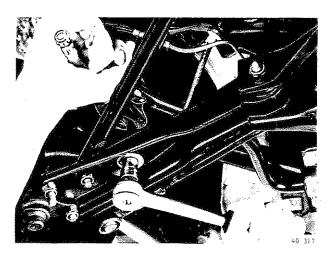
Remove stabilizer link

Note: prevent the stabilizer link from turning with the aid of a mole wrench.



Renew rubber bushes (if necessary)

Lubricate the rubber bushes with a soapy solution before fitting.



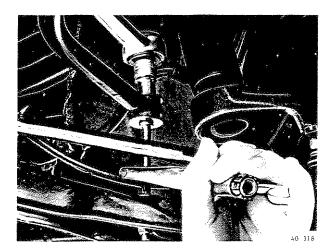
Locate stabilizer link

Locate the lower washer and retaining nut and tighten.

Tightening torque: 22 Nm (2.2 kgm).

Note: prevent the stabilizer link from turning with the aid of a mole wrench.



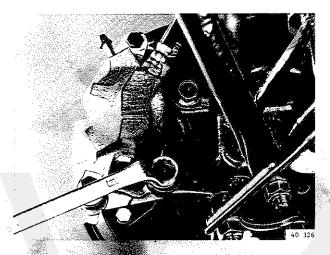


Secure stabilizer to stabilizer link

Locate the upper washer and retaining nut and tighten.
Tightening torque: 22 Nm (2.2 kgm).

J. Renewing front wheel bearings:

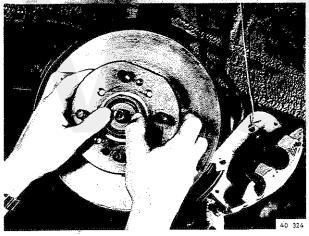
Special tools: 1801, 5868, 5869 and 5938



Release brake caliper

Remove the wheel.

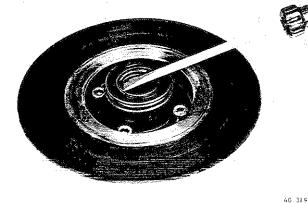
Note: never leave the brake caliper suspended from the brake hose.



Remove hub with brake disc

Remove the grease cap and lock nut.
Remove the hub with brake disc from the stub axle

Remove the washer and the outer bearing. Clean the stub axle end.

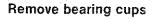


Remove grease retainer

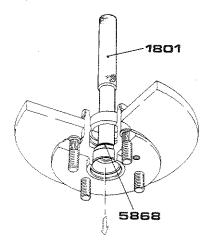
Remove inner bearing

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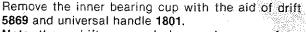


Remove the old grease from the hub. Remove the outer bearing cup with the aid of drift 5868 and universal handle 1801.



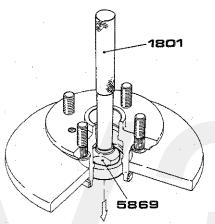
40 320

40 321



Note: these drifts can only be used on cars from chassis number 383087.

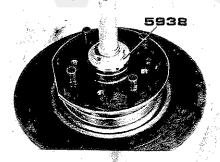
For old variants use a punch.



Locate new bearing cups

Locate the bearing cup with drift **5938** and universal handle **1801**.

Pack the grease chamber of the hub three-quarters full with wheel bearing grease (Part No. 1212388-1).



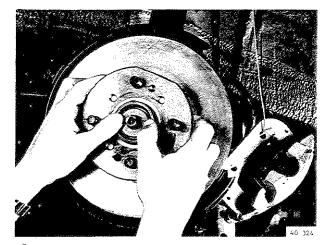


Locate the grease retainer

Grease the bearing beforehand with wheel bearing grease (Part No. 1212388-1). Locate the inner bearing in the hub.

J7





Locate hub with brake disc on stub axle end

Locate the hub with the brake disc.

Grease the outer bearing with wheel bearing grease
(Part No. 1212388-1) and fit.

Fit the washer and a new lock nut.

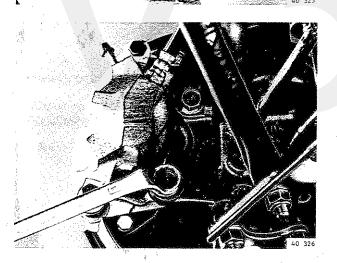
*J*9



Adjust front wheel bearing

Tighten the lock nut.
Tightening torque: 52 Nm (5.2 kgm).
Slacken the lock nut 90°.
Lock the nut.
Fit the grease cap.

.110



Fit brake caliper

Locate the brake caliper on the steering swivel. Fit and tighten the retaining bolts.

Tighten to 68 Nm (6.8 kgm).

From 1980: fit the dust plate on the brake caliper.

Tightening torque: 16 Nm (1.6 kgm).

Fit the wheel.

Tightening torque: 115 Nm (11.5 kgm).

Note: a new lock washer plate or new self-locking

bolts must always be used when fitting.

Lock the bolts with the lock washer plate (if fitted).

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