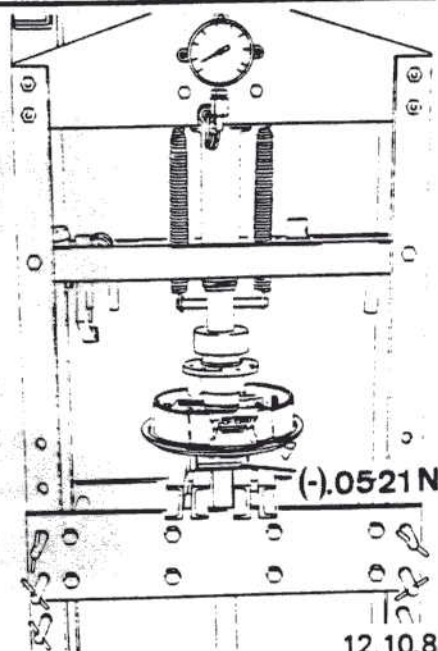
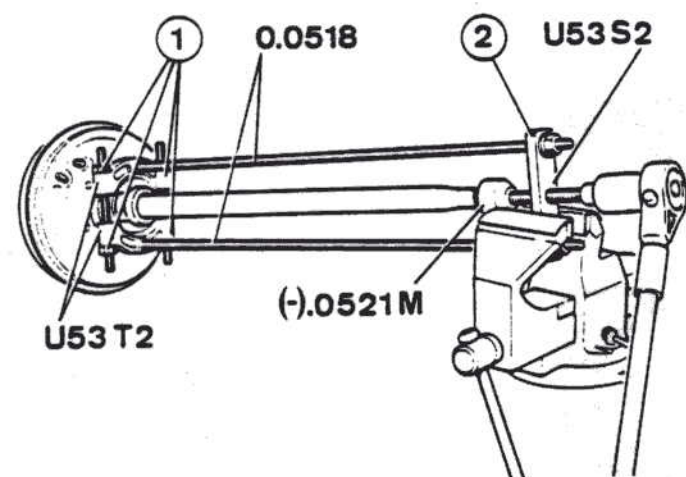


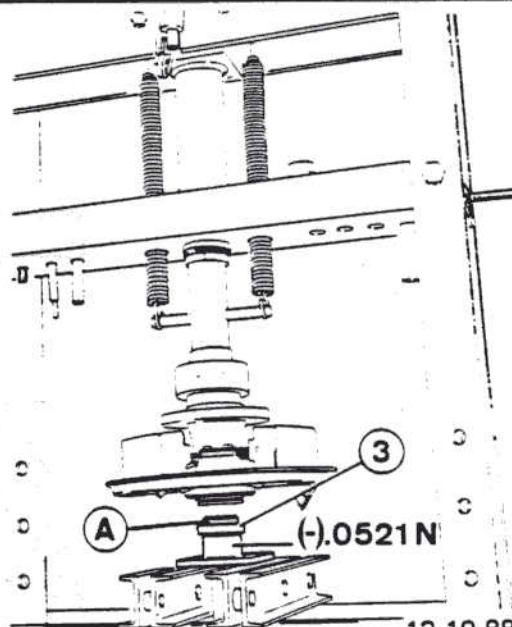
12.10.88 CAR 2



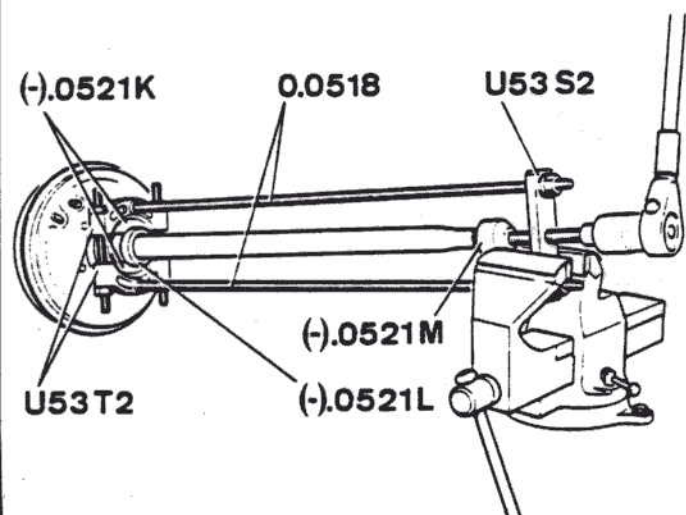
12.10.88 CAR 5



12.10.88 CAR 1



12.10.88 CAR 4



12.10.88 CAR 11

Pages

A - COMPLETE UNIT

Data

Removing-refitting the complete rear axle

A4.001 to 007

B - HUBS

Removing-refitting

Removing-refitting a rear hub

E4.001 to 007(1)

Overhauling

Overhauling a rear hub

E5.001 to 005

J — HALF SHAFTS AND HALF SHAFT TUBES

Removing - refitting a half shaft

Overhauling

A1.002

5

**REAR AXLE
DATA AND SPECIAL FEATURES**

J5

DATA**PRIOR REQUIREMENTS BEFORE CHECKING AND ADJUSTING**

The tyre inflation pressures are to be correct.

Toe-in/out (not adjustable) : ± 1 mm

SPECIAL FEATURES

The rear axle is of the lowered type : Fig. I and III

The centreline « A » of the stub axle is higher than the centreline of the axle tube B.

Wheel hubs : Fig. II

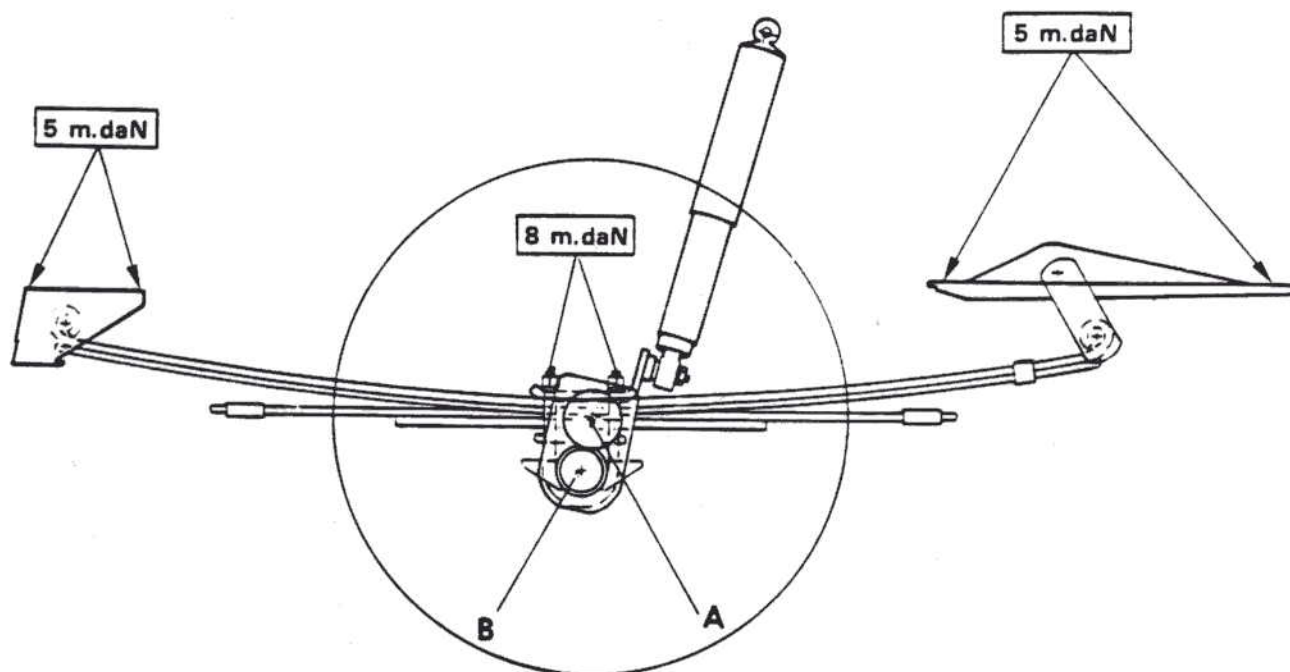
Bearing operating play : 0.025 to 0.10 mm

Tightening the hub nut : See the section concerned.

NOTE : the stub axle on the right hand side has a left hand thread and is identified by a drill point mark on one side of the base plate flange.
the stub axle on the left hand side has a right hand thread.

REPLACEMENT : only the stub axle with the right hand thread is available from the Parts Department.

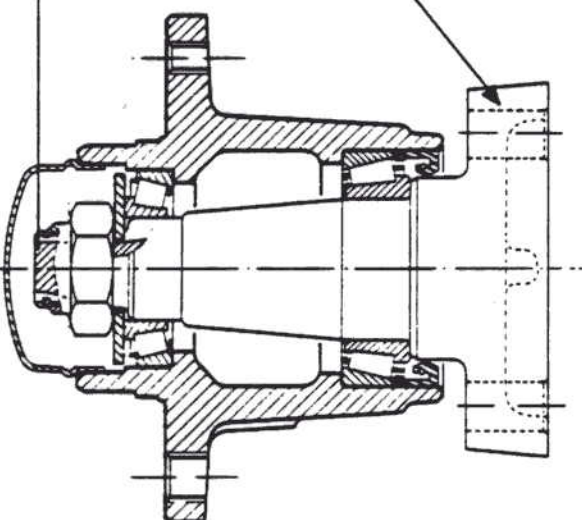
1800 kg vehicles are equipped with hubs and stub axles on which the bearings are wider.



UT 43.2

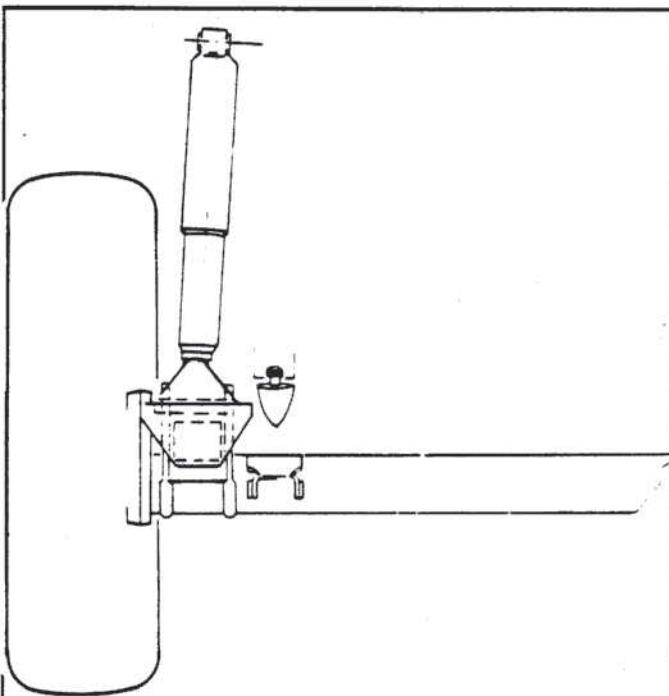
I

Ø 20 mm (→ 06/86 - Ø 12 mm : 10,5 m.daN
Ø 22 mm (06/86 →) - Ø 14 mm : 17 m.daN



UT 42-2

II



UT 43-2

III

REAR AXLE
COMPLETE UNIT
REMOVING - REFITTING

TIGHTENING TORQUES

Essential tightening torques	m.daN	Nm	lbf ft
Front and rear mounting bracket bolts	5	50	37
Shackle nut bolts	12	120	88
Spring pin nut	15	150	110
Damper lower securing nut	5	50	37
Damper upper securing bolt	5	50	37

REMOVING

Raise the rear of the vehicle and support it on stands sufficiently far off the floor for the axle, on its wheels, to be removed from under the rear of the vehicle body.

Disconnect : figs. I and II

- the brake hose (1) from the brake pipe (2),
- the brake compensator control (4) from the link (5),
- the hand brake cable (6) from swivel lever (7).

Remove : fig. II

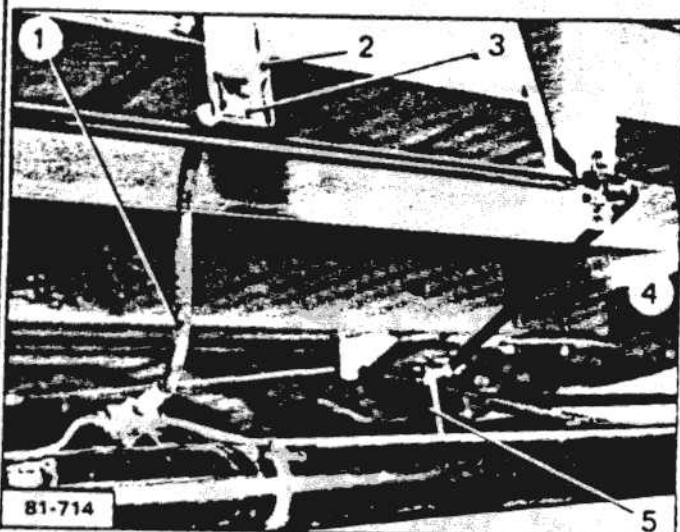
- the clip (3) which secures the hose (1) to the body,
- the dampers.

Place a trolley jack under the axle tube.

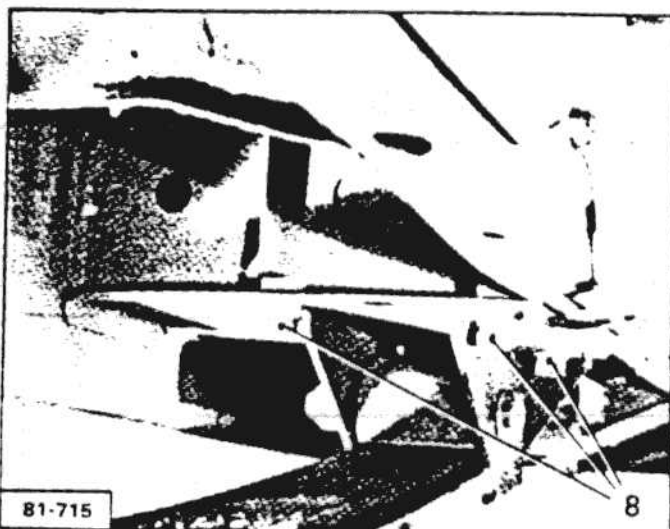
Remove : figs. III and IV

- the front mounting bracket securing bolts (8),
- the rear mounting bracket securing bolts (9).

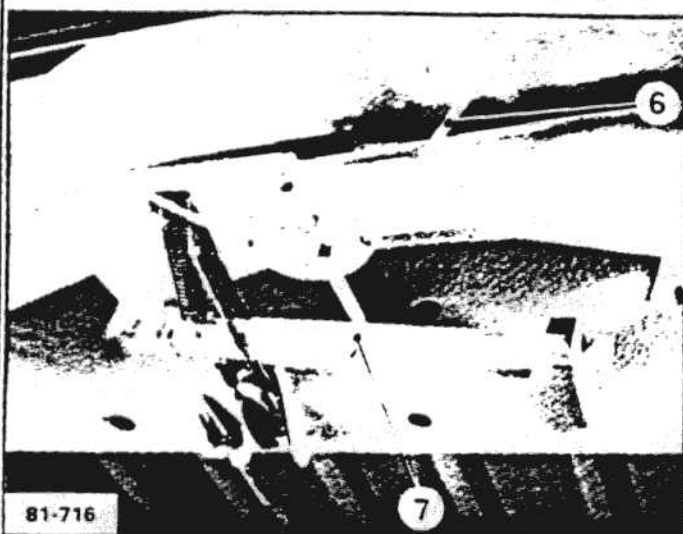
Lower the axle on to its wheels and remove it in a rearward direction from under the vehicle.



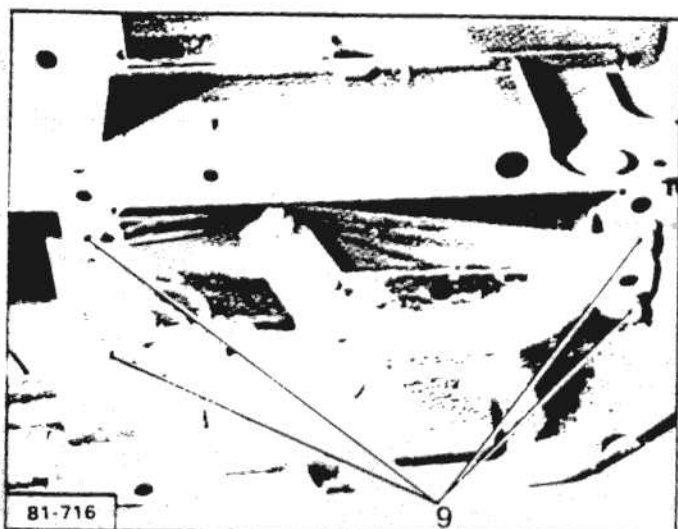
I



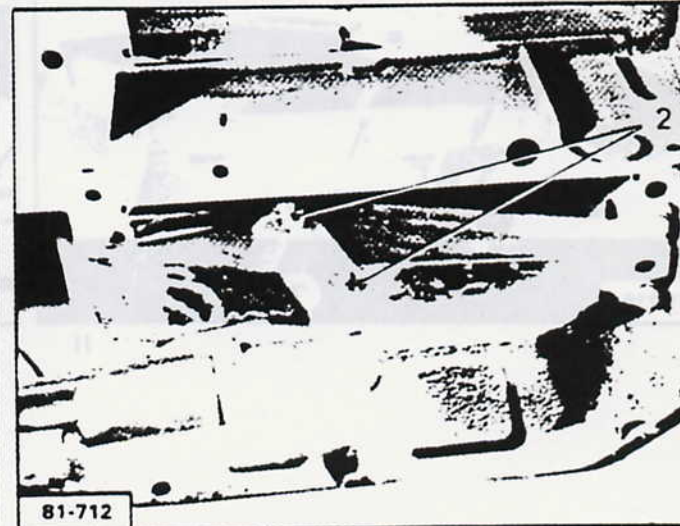
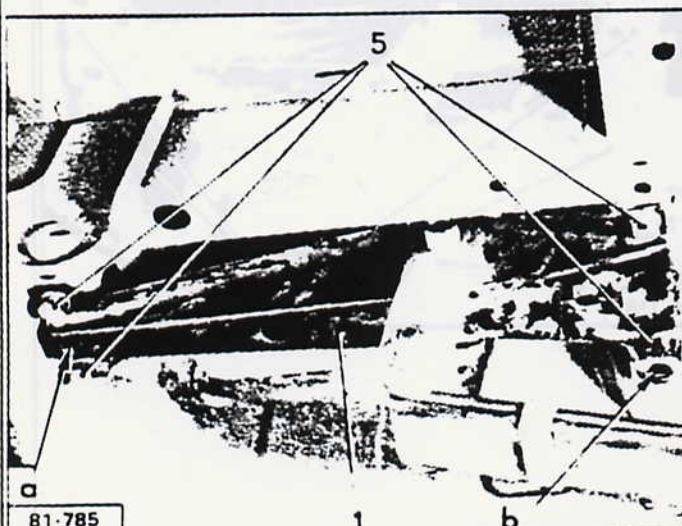
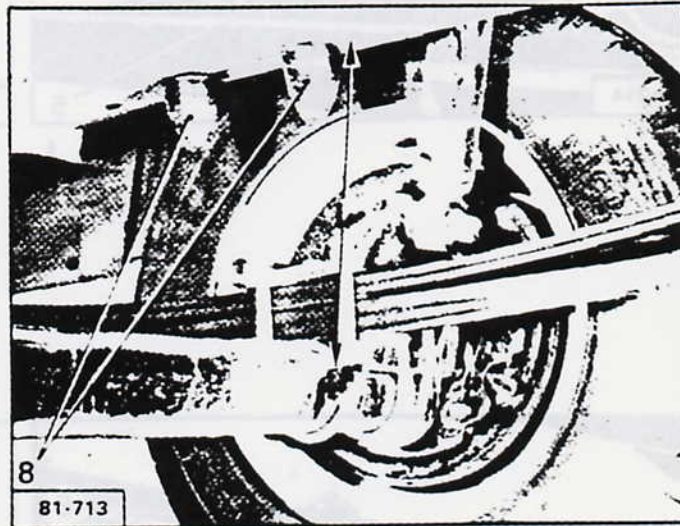
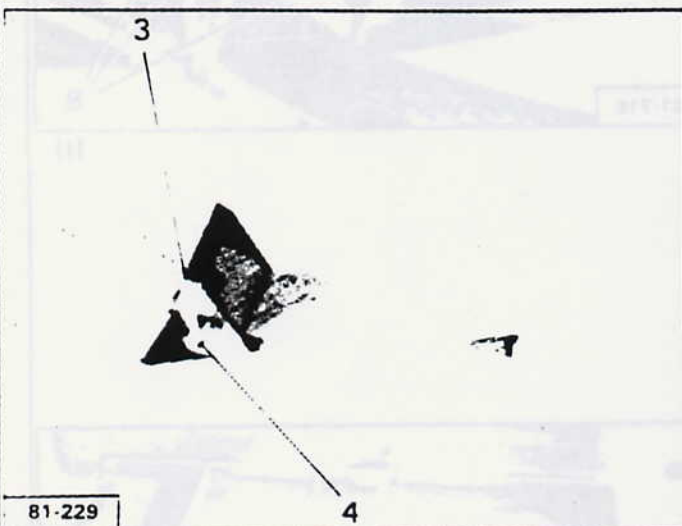
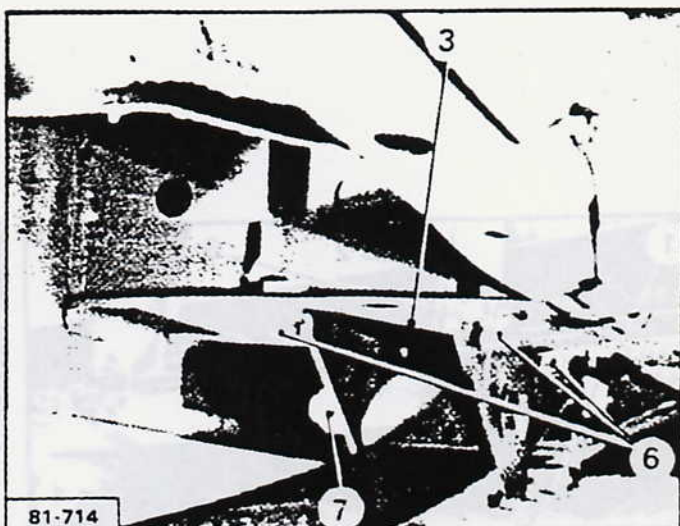
III



II



IV



FITTING

Securing the axle to the underside of the body will be easier if the shackle nuts (2) and the pin nuts (4) are loose : figs. I and II.

Push the axle under the body and, with a trolley jack, lift it until its rear mountings (1) make contact with the body.

Fit the bolts (5) : fig. III, which secure the rear mounting brackets (1), without tightening them.

Centralise the rear mounting brackets (1) by inserting : fig. III.

- a 12 mm Ø rod through the holes (a),
- a 16 mm Ø rod through the holes (b).

Tighten the securing bolts (5) to a torque of 5 m.daN (50 Nm, 37 lbf ft).

Raise the axle to bring the front mounting brackets (3) into contact with the body.

Fit the securing bolts (6) fig. IV to the front mounting brackets (3), without tightening them.

Centre the front mounting bracket (3). The bolts (6) must be in the centre of their slots.

Tighten bolt (6) to a torque of 5 m.daN (50 Nm, 37 lbf ft).

Fit the dampers, without tightening their securing nuts and bolts.

Lower the vehicle to the floor.

Essential :

To obtain the required operating life from the rubber bushes, it is essential that the following tightening operations are only carried out after the rear suspension has been compressed so that the distance between the face with which the bump stops (8) make contact on the axle and the face against which they are secured on the body is 107 mm : fig. V.

Tighten : figs. IV and VI :

- the shackle nuts (2) to a torque of 12 m.daN (120 Nm, 88 lbf ft),
- the spring pin nuts (7) to a torque of 15 m.daN (150 Nm, 110 lbf ft).
- the damper securing nuts and bolts to a torque of 5 m.daN (50 Nm, 37 lbf ft).

Release the rear suspension.

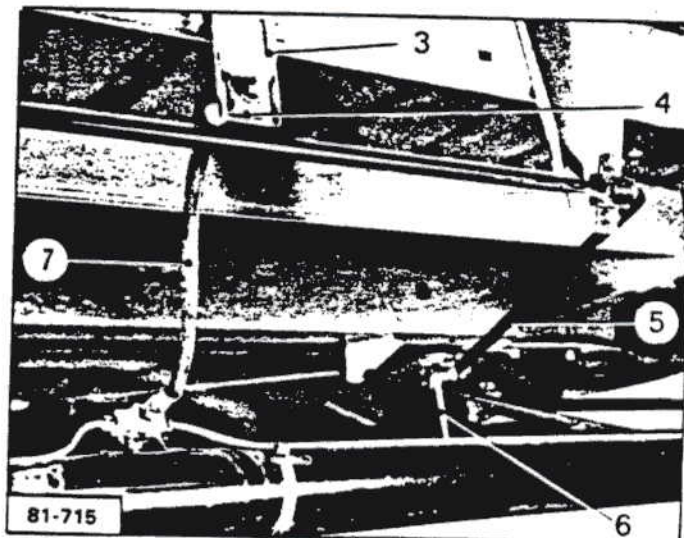
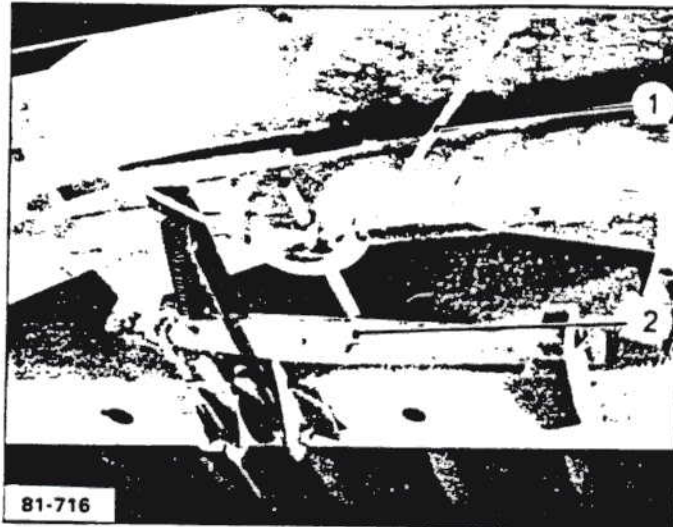
Connect : Fig. I and II

- the hand brake cable (1) to the swivel (2).
- the brake hose (7) to the feed pipe (3).
- the brake compensator control (5) to the link (6).

Fit the clip (4) that locks the brake hose (7) to the body : Fig. II.

Bleed the brakes :
(See section concerned).

Adjust the hand brake :
- 4 to 5 notches on the hand brake travel before it locks.



E4.002

5

REAR SUSPENSION LINKAGE
HUBS
REMOVING - REFITTING

J5

TOOLING

SPECIAL TOOLS

From kit

Reference : 8.0531 ZZ

USE :

D : Plug for fitting hub plugs

D2 : Plug for fitting hub plugs → Chassis no. 278.758 Fig. I

C : Gauge for adjusting the bearing play Fig. II

E : Gauge for adjusting the bearing play → Chassis no. 278758 Fig. III

(-).0902 K : Tool for locking the rear hub nut Fig. IV

RECOMMENDED TOOLING

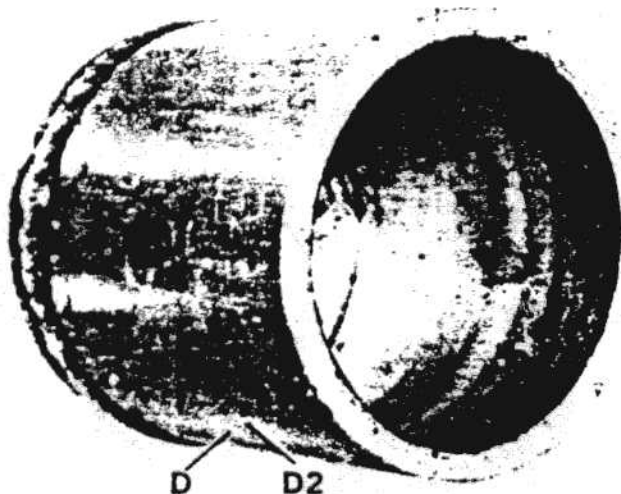
Extractor FACOM U 53 T2 Fig. V

TIGHTENING TORQUES

Torques that must be adhered to :

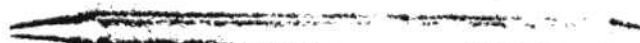
Torque in N.m (lbf.ft.)

Bolt securing the brake back plate and stub axle to the rear
axle body :{ Bolts ø 12 mm 105 (77.5)
{ Bolts ø 14 mm 170 (125)



81-955

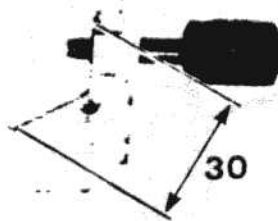
I



IV



C



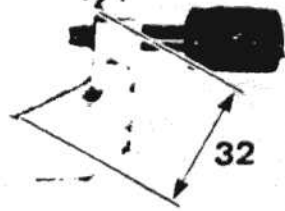
II



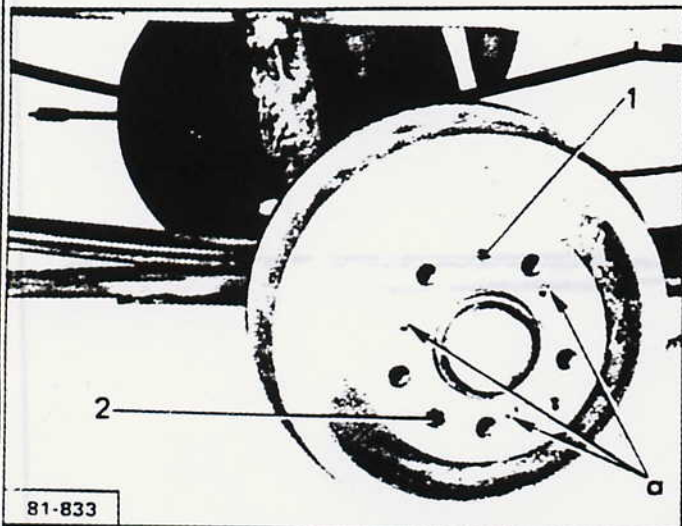
V



E

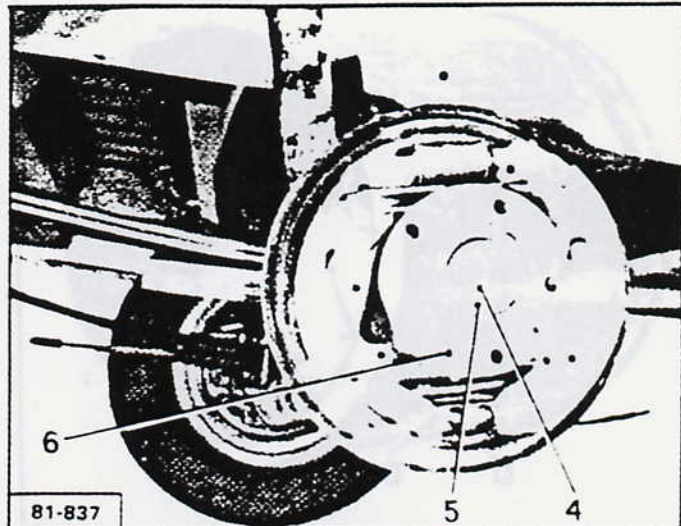


III



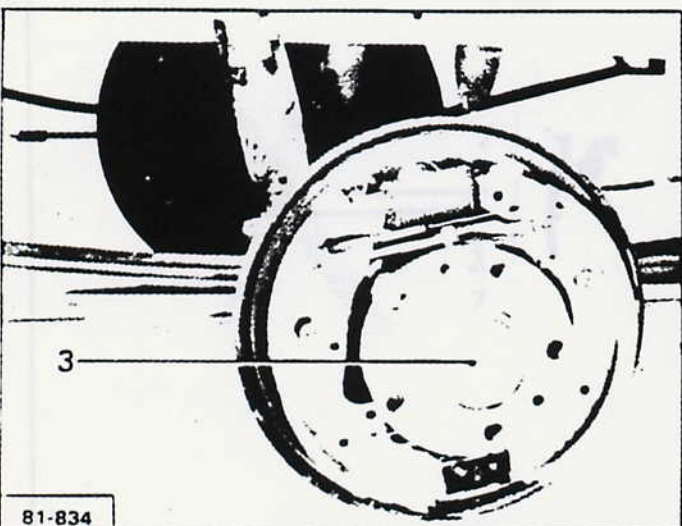
81-833

I



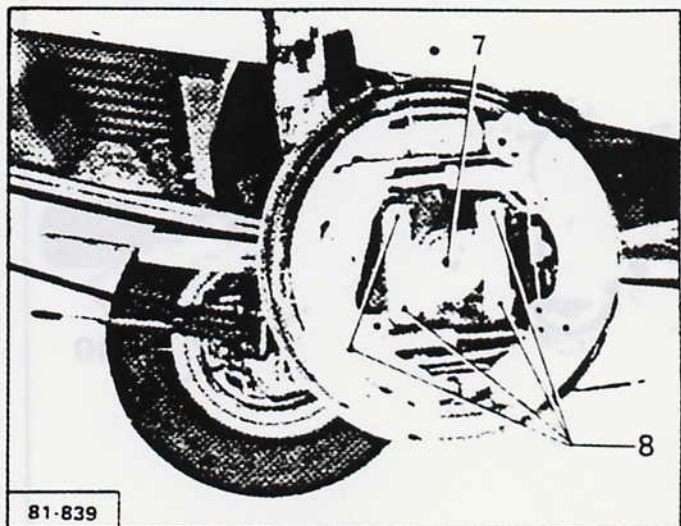
81-837

IV



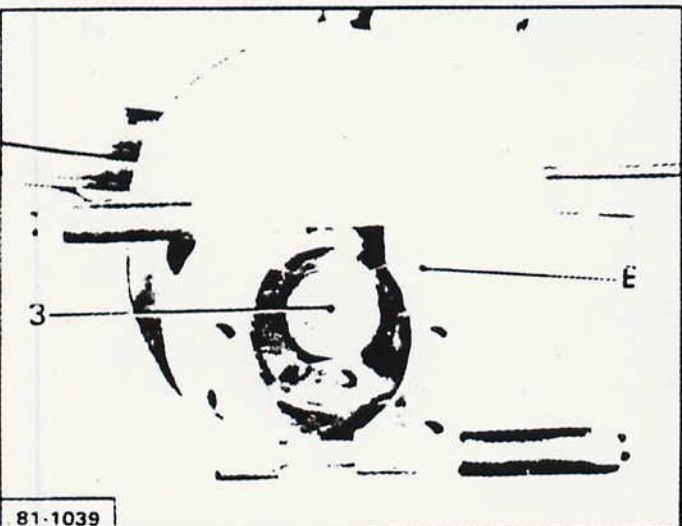
81-834

II



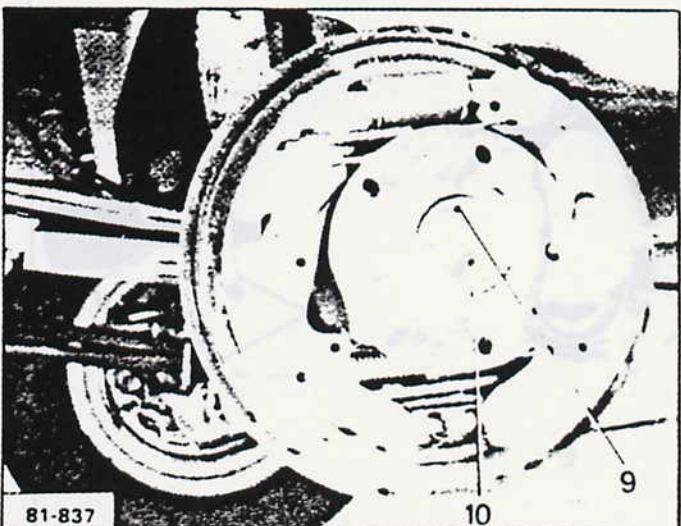
81-839

V



81-1039

III



81-837

VI

REMOVAL

Slacken the wheel bolts
Support the rear of the vehicle
with the wheels suspended
Remove the wheel

- the bolt (2),
- the wheel dog (1),
- the drum, using three bolts
($\varnothing = 10\text{mm}$, pitch = 1.25)
in the holes "a",
- the hub cap (3)

If the hub cap (3) is to be
re-used, remove it with the
FACOM U 53 T2 extractor,
Fig. III

Remove, Fig. IV

- the hub nut (4),
- the abutment washer (5),
- the hub (6) with its
bearings.

If necessary, release and
remove the bolts (8) to
remove the stub axle (7),
Fig. V.

REFITTING

Tighten the bolts (8) to
105 Nm (77 lbf ft) (fig.V)

Fit, Fig. VI :

- the hub to the stub axle
- the outer race of the
outer bearing,
- the abutment washer (9),
- a new nut (10).

Fit, Fig. I :

- the drum,
- the bolt (3),
- the wheel centraliser (2).

ADJUSTING THE BEARING CLEARANCE

WARNING : The right-hand side stub axle has left-hand threads.

OPERATIONS COMMON TO BOTH SIDES:
Fig. I


Tighten the hub nut (1) to 20 Nm (15 lbf ft) while turning the drum in both directions.

Slacken the hub nut then re-tighten it to 7 Nm (5 lbf ft).


Position the gauge C or E on the hub nut.

Turn the drum so that a wheel bolt (4) can be fitted through the slot in gauge C or E.

ADJUSTING THE RIGHT-HAND THREAD STUB AXLE

Bring the bolt (4) () to the left-hand side of the gauge slot: Fig. II


APPLY THE HANDBRAKE

Slacken the hub nut () while pivoting the gauge : Fig. III.

Tighten the bolt (4) to 10 Nm (7 lbf ft)

Lock the hub nut at 2 points (locking tool (-).0902 K) Fig.VI.

ADJUSTING THE LEFT-HAND THREAD STUB AXLE

Bring the bolt (4) () to the right-hand side of the slot in the gauge : Fig.IV.

APPLY THE HANDBRAKE

Slacken the hub nut () while pivoting the gauge : Fig. V.

Tighten the bolt (4) to 10 Nm (7lbf ft).

Lock, Fig. VI, the hub nut at 2 points using tool (-).0902 K.

FINAL OPERATIONS

Remove the gauge C or E and release the handbrake.

Fit the hub caps using drift D or D2

Fit the wheels and tighten to 160 Nm (118 lbf ft).



I

28 - 10 - 81 - P6 - R - A



IV

28 - 10 - 81 - P5 - R - A



II

28 - 10 - 81 - P9 - R - A



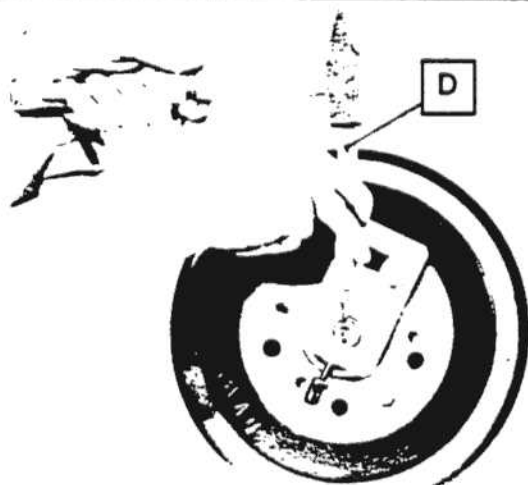
V

28 - 10 - 81 - P4 - R - A



III

28 - 10 - 81 - P7 - R - A



VI

28 - 10 - 81 - P8 - R - A

SPECIAL TOOLS

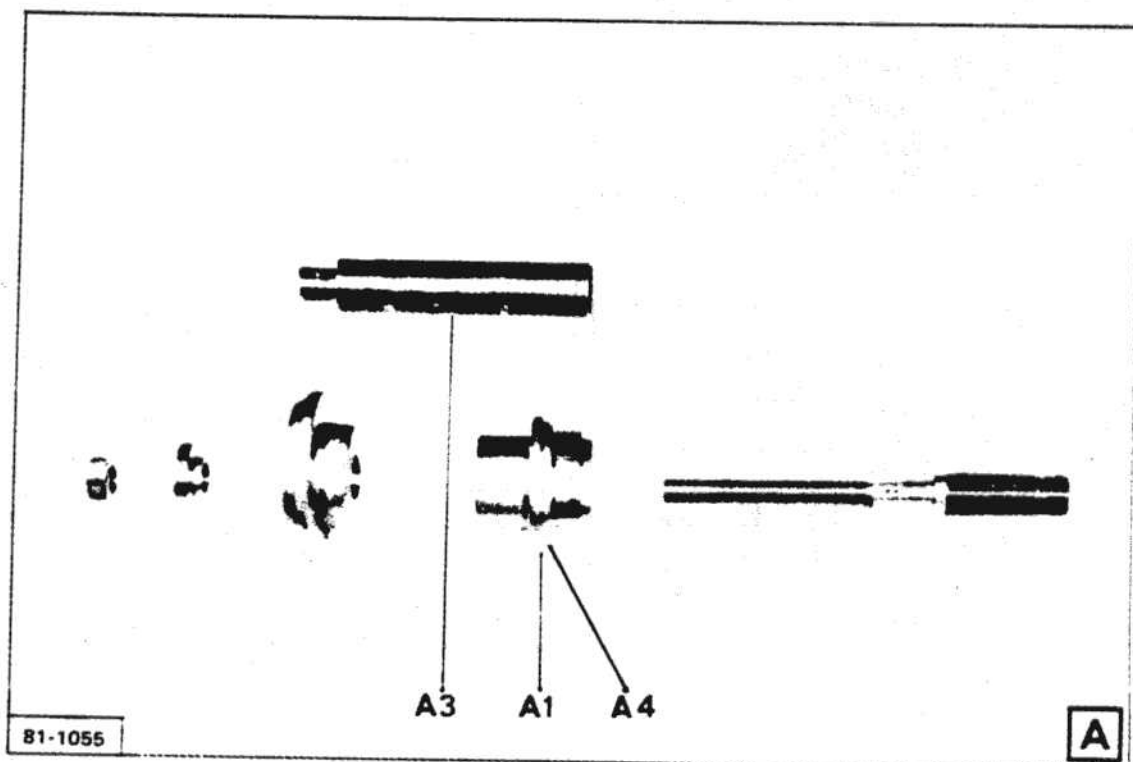
SPECIAL TOOLS

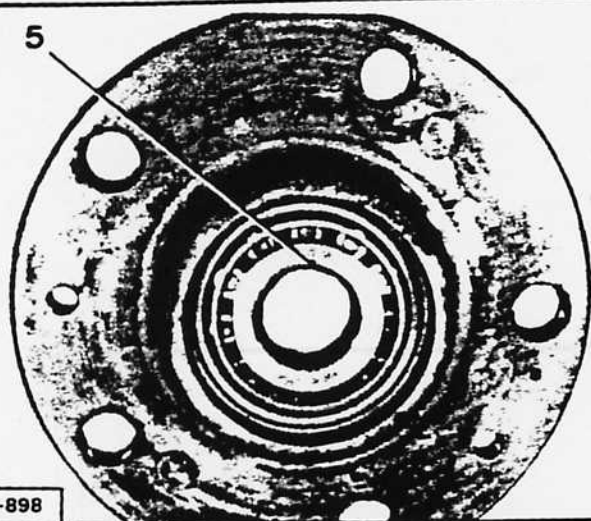
From kit 8.0531

A : A1 - Drift for fitting rear hub bearing track rings.

A3 - Mandrel for use with drift.

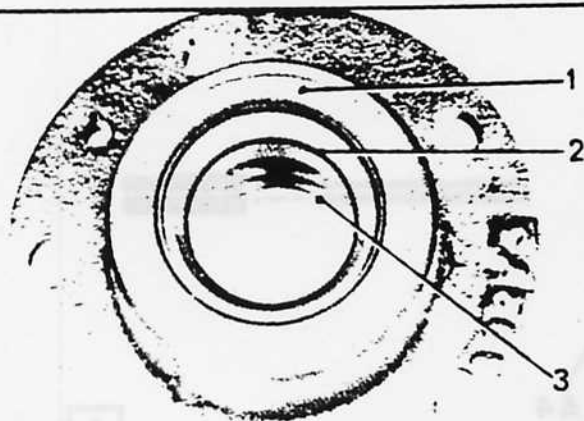
A4 : Pad for fitting the rear hub bearing track rings |→ Chassis no. 278.758





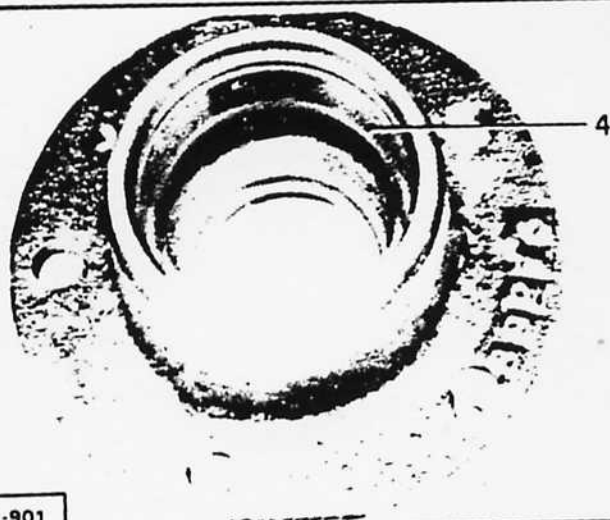
81-898

VI



81-899

II



81-901

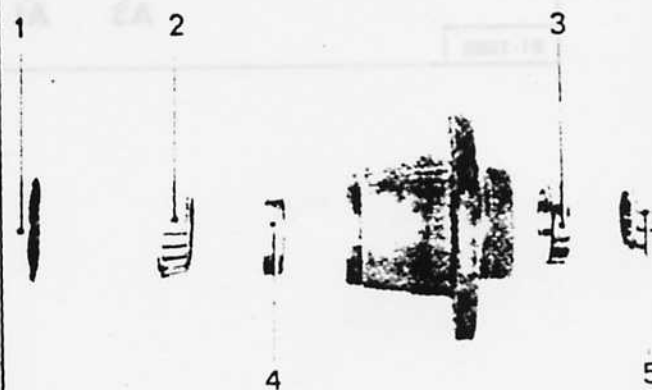
III

A3

A1

81-1054

IV



81-902

V

DISMANTLING

Remove, fig. I, the outer bearing inner track (5) and cage.

Fit, figs. II, III and IV, the outer tracks (3) and (4) using the drift and the mandrel (items A1 and A4 from kit 8.0531 ZZ)

Remove, figs. II and III

- the seal (1) and inner track (2),
- the outer track (3), by driving it out,
- the outer track (4), by driving it out.

Fit, fig. V :

- the inner track (2),
- a new seal (1).

Clean all the parts.

REASSEMBLING

Grease all the parts and partially fill the inside of the hub with ESSO MULTIPURPOSE grease 4746.

I**REMOVING**

Support the rear of the vehicle on stands.

Remove :

- the wheel
- the 2 wheel locators (1)
- the drum

IV

Fit inertia extractor FACOM U11 to the hub and secure it to the hub with the wheel bolts.

Extract the hub, half shaft and brake back plate assembly.

II

Remove the hand brake cable from its lever and knock out the cable cover end stop from the brake back plate using a pin punch.

Remove the brake fluid pipe and plug it.

V**REFITTING**

Carry out the removing operations in reverse.

IMPORTANT :

Coat the bearing locating area inside the half shaft tube → with « Autoform 549 » sealing compound.

Bleed the braking system.

Check the level of the oil in the rear final drive unit.

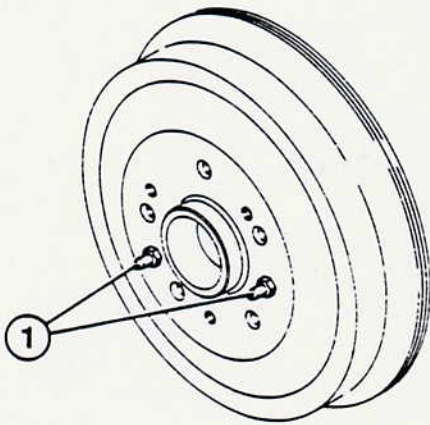
III

Remove the 4 bolts (2) that secure the brake back plate.

VI**PRECAUTION**

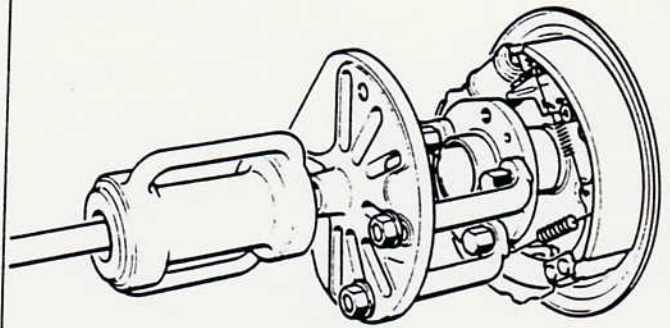
If both rear half shafts have to be removed, we recommend that the operation should be carried out one side at a time as, otherwise, one of the differential gears in the final drive unit may slip out of place.

I



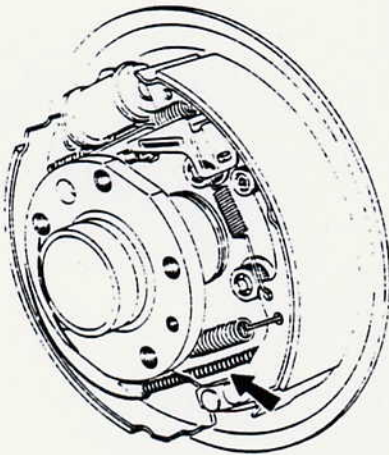
09-11-88 CAR 3

IV



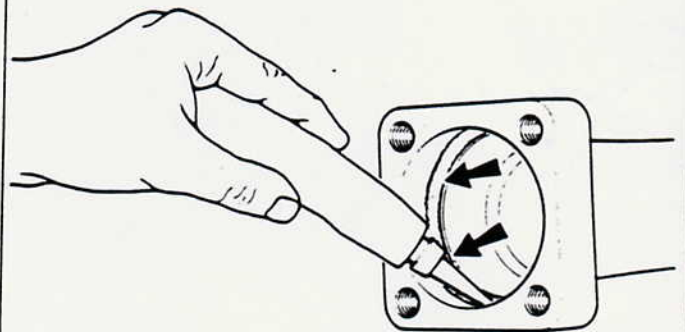
09-11-88 CAR 2

II



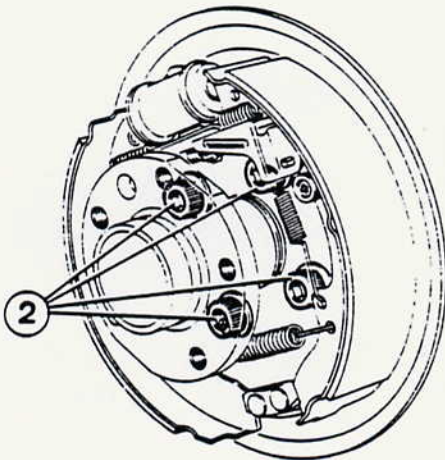
09-11-88 CAR 8

V



09-11-88 CAR 1

III



09-11-88 CAR 4

J5.002

5

4 x 4

REAR FINAL DRIVE UNIT
OVERHAULING THE HALF SHAFTS
AND HALF SHAFT TUBES

J5

**SPECIAL TOOLS FROM
KIT 8.0521**

K - set of 2 extractor shell quarter sections

L - spacer washer

M - thrust pad

N - pad for fitting the bearing and retaining ring

RECOMMENDED TOOLS

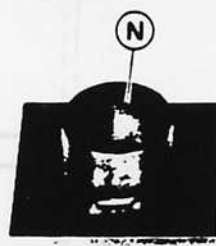
U53 S2 - cross piece for FACOM extractor, with screw.

U53 T2 - FACOM extractor.

TOOLS TO BE MADE LOCALLY

0.0518

- Set of 2 tensioner rods comprising :
 - 2 screwed rods M16 x 2, 860 mm long
 - 4 nuts HM16 x 2,
 - 4 flat washers 17 x 30 x 4



J5	REAR FINAL DRIVE UNIT OVERHAULING THE HALF SHAFTS	4 x 4	5	J5.005
<div>I</div> <p>After first removing the half shaft to be overhauled (see corresponding section) place it on a bench and grip it in a vice fitted with soft jaws.</p> <p>To facilitate removing the ring, one must first make notches in it, with a cold chisel, at 3 points approximately 120° from one another.</p>	<div>IV</div> <p>Refitting the bearing</p> <p>Important :</p> <ul style="list-style-type: none">- Position the bearing with its location on the opposite side to the brake back plate- On the press, using pad (-).0521 N, push the bearing fully in and fit it with a new seal.			
<div>II</div> <p>Assemble the set up shown in the illustration</p> <ul style="list-style-type: none">- Tighten :<ul style="list-style-type: none">- the extractor assembly nuts (1)- the nuts and lock nuts (2) on the tensioner rods- Extract the bearing retaining ring	<div>V</div> <p>Refitting the bearing retaining ring</p> <p>Assemble the same arrangement as before</p> <p>Fit the ring (3) with its extractor flange (A) on the opposite side to the tool (-).0521 N and push it fully into place.</p>			
<div>III</div> <p>Extract the bearing</p> <p>Precaution :</p> <p>Ensure that the two half shells are correctly engaged behind the ball bearing assembly.</p>	<p>Refit the half shaft assembly to the vehicle (see corresponding section).</p>			