

In these SPECIAL INSTRUCTIONS the fitting parts are indicated for each type of car.

- parts below the aux. spring: BOTTOM assembly (polybag)
for fitting on the *original* shock/strut, see type in column BOTTOM and page 3
for fitting on a *non-original* shock/strut, see TABLE on page 2 and page 3
- parts on top of the aux. spring: TOP assembly (polybag)
see type in column TOP and page 4, 5, 6

<u>Model</u>	<u>Year</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>REMARKS</u>
ALFA ROMEO Alfa 164	87-	F	1a	.
BMW 1502 - 2002Ti(ii)	66-77	A/C	11a,b	.
BMW 7 Serie I E23	77-86	D	1b.1	2
BMW 7 Serie II E32	86-	D	1b.1	2
CITROËN Visa Chrono, GT + GTI	08/78-91	F	1c.1	.
FIAT Croma	85-	I	1a	.
LADA Samara, Diva	86-	E	1c.1	.
LANCIA Prisma, Delta	80-93	E	1a	3
LANCIA Thema	84-	I	1a	.
MAZDA 323 Sedan/Hatchb. BG	89-	F	1c.1	.
MAZDA 929 Sedan HB	82-87	.	1a	.
NISSAN Sunny/Florida B12/N13 + Wagon	86-91	I	1a	.
SEAT Toledo	91-	D	1b.3	P.T.O.
VW Golf I, Jetta I, Scirocco I	74-84	C	1c.3	4
VW Golf II, Jetta II, Scirocco II	84-91	D	1b.3	5, P.T.O.
VW Golf III, Vento	91-	D	1b.3	5, P.T.O.
VW Passat III Sedan + Variant	81-88	D/E	1c.3	1
VW Passat IV Sedan + Variant	88-	E	1c.3	6
VW Santana	82-85	D/E	1c.3	1

REMARK 1

Remove strut, do not remove main spring. Remove *bumpstop+dustcover (*not to be re-used). Fit rubberring 6, BOTTOM parts type C resp. type D/E, aux. spring, TOP parts 1c.3, bumpstop with spacer 7A.

REMARK 2

Remove strut. Remove main spring and *bumpstop+dustcover (*not to be re-used). Remove bumpstop rebound cap from the shockabsorber body. Fit rubberring 6, BOTTOM parts type D, aux. spring, TOP parts 1b.1, bumpstop 8 with spacer 7B.

REMARK 3

Remove rear wheels, disconnect stabilizer bar (4 bolts), parallel links, brake caliper unit and hand brake cable bracket (1 screw). Put matching marks on the mounting insulator and the upper spring seat, compress main spring, unscrew 3 upper nuts and lower the strut into the wheel arch. Remove main spring, *bumpstop+dustcover (*not to be re-used) and bumpstop rebound collar. Fit BOTTOM parts type E, aux. spring, TOP parts 1a. After mounting: check/adjust rear wheel alignment.

REMARK 4

Remove strut. Remove main spring, *bumpstop+dustcover (*not to be re-used). Fit rubberring 6, BOTTOM parts type C, aux. spring, TOP parts 1c.3, bumpstop with spacer 7A.

REMARK 5

Remove strut, remove upper spring seat, do not remove main spring. Remove *bumpstop+dustcover (*not to be re-used). Fit rubberring 6, BOTTOM parts type D, aux. spring, TOP parts 1b.3, bumpstop with spacer 7A.

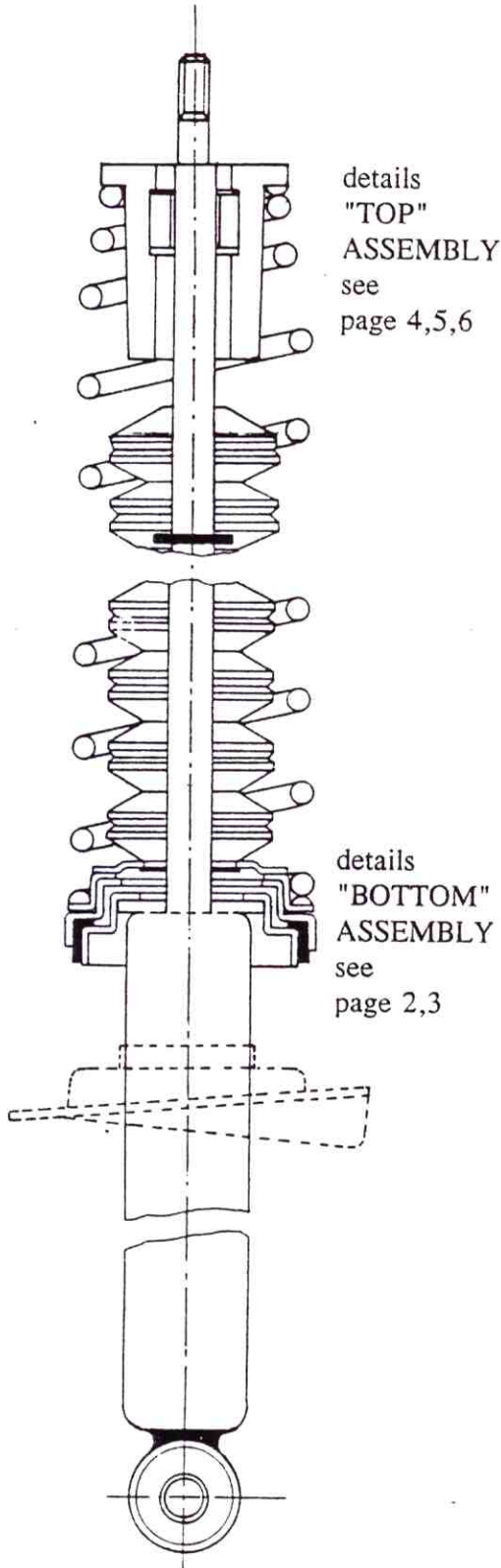
REMARK 6

First remove car seat belt housing and cover (orig. drawing saloon page 70-26, Passat Variant page 70-25). Saloon: remove the 'automatic belt straightening device' from its bracket by unscrewing the bolt in the boot (trunk) (Variant + limousine: orig. drawings page 68-5). Remove bracket (2 nuts and 2 strut bolts). Remove strut, remove upper spring seat, do not remove main spring. Remove *steel (bumpstop) cap and bumpstop+dustcover (*not to be re-used). Fit rubberring 6, BOTTOM parts type E (on original plastic collar), aux. spring, TOP parts 1c.3, bumpstop with spacer 7A.

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FITTING INSTRUCTIONS
see page SPECIAL INSTRUCTIONS !



RECOMMENDATION:

Replace faulty shocks, however remember that only new gas- or hydraulic shocks do not raise the car.

Install CARSUPPORT auxiliary springs or CARSUPPORT replacement springs for extra car support.

STRUT (Mc Pherson)

1. The normal lay-out is:
1 central nut on top of the piston rod
or
2 or 3 smaller nuts fitted to the upper spring seat. In that case do not unscrew the central nut.
2. Mark the upper spring seat(s), the spring and the lower spring seat.
3. Disconnect the strut, sometimes only partially:
see page: "SPECIAL INSTRUCTIONS"
4. Remove main spring, spring compressor may be needed:
-unscrew central nut
-place removed fitting parts in correct order
5. Fitting parts of the aux. spring set as per instructions:
-BOTTOM PARTS below the aux. spring:
see page 2 and 3
-TOP PARTS on top of the aux. spring:
see page 4 and 5

"NORMAL" SHOCKABSORBER

1. Disconnect shock, sometimes only partially:
see page: "SPECIAL INSTRUCTIONS"
2. Remove steel/plastic dustcover:
see page 6
3. Fitting parts of the aux. spring set as per instructions:
-BOTTOM PARTS below the aux. spring:
see page 2 and 3
-TOP PARTS on top of the aux. spring:
see page 6

NOT ALL PARTS OF THIS SET WILL BE USED

ATTENTION:

Only for original struts or replacement struts with the same measurements.

For struts with different measurements, see GENERAL INSTRUCTIONS page 2 table and page 3.

SEAT Toledo	91-
VW Golf II, Jetta II, Scirocco II	83-91
VW Golf III, Vento	91-

E

PARTS (x2)

(drawing at actual size: GENERAL INSTRUCTIONS page 2)

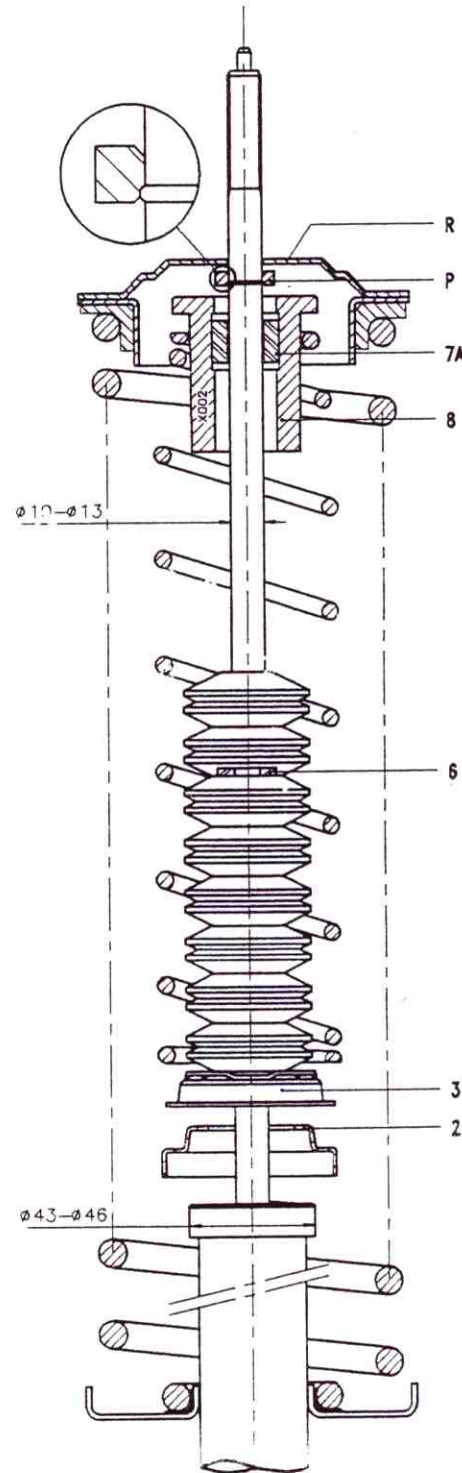
- (2) large steel cap
- (3) seat with bellow fitted
- (6) small rubber ring
- (7A) plastic bush with small inner diameter (65S-7A)
- (8) rubber bumpstop (x002)
- (P) original high washer with chamber
- (R) original main spring seat

INSTRUCTIONS

1. Remove strut.
2. Remove upper spring seat, do not remove main spring. Remove bumpstop and dustcover (not to be re-used).
3. Fit rubber ring(6) halfway down the piston rod. Mount large steel cap(2) and seat with bellow(3)
4. Check whether plastic bush(7A) fits over the piston rod and push it in the chamber of the rubber bumpstop(8) (for example with a bench-vice).
5. Place auxiliary spring with widest side down.
6. Fit original washer(P).
ATTENTION: Beware that the circlip fits properly into the chamber.
Re-mount original main spring seat(R)

Loadensing brake valve if present:

After fitting or removing the auxiliary springs check and adjust the loadensing brake valve as per VW's manual.



"BOTTOM" ASSEMBLY

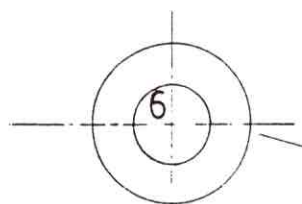
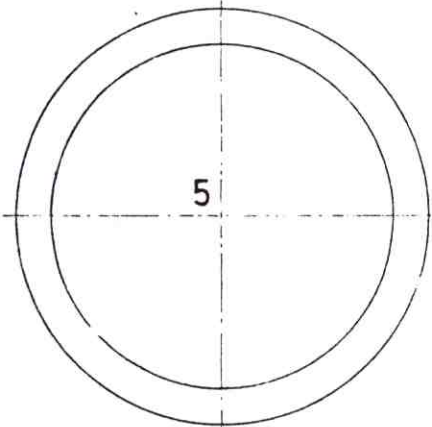
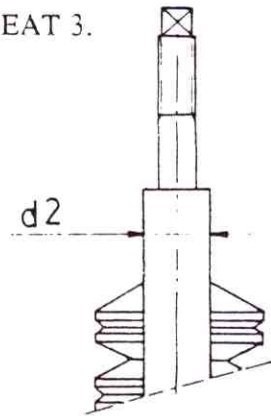
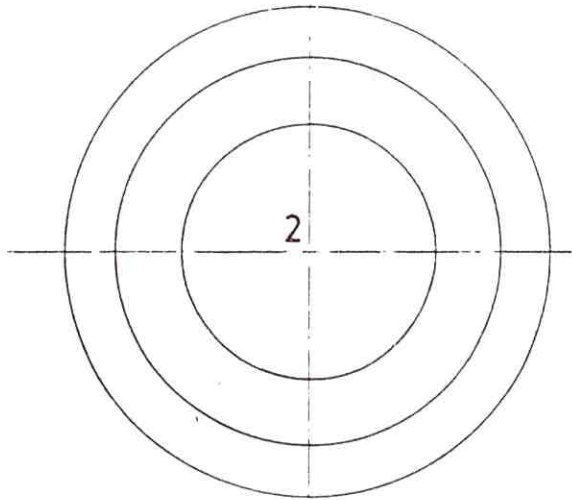
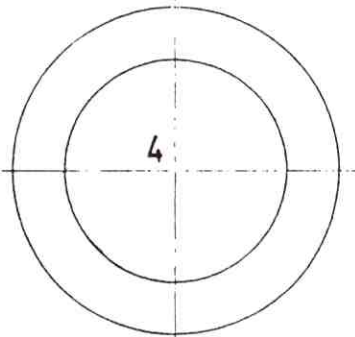
polybag containing:

- (1) steel seat, small
- (2) steel seat, large
- (3) seat with bellow fitted
- (4) rubber collar, small
- (5) rubber collar, large
- (6) rubber ring, small

Measure diameter d1 of the plastic or steel top of the shockabsorber body and select parts 1-5 as shown in the TABLE.

If diameter d1 is greater than 60 mm:
remove rebound cap if fitted.

PLACE WIDE END OF AUX. SPRING ON SEAT 3.



piston rod diameter
 $d2 = 9-16\text{mm}$
fit part 6
inside
bellow

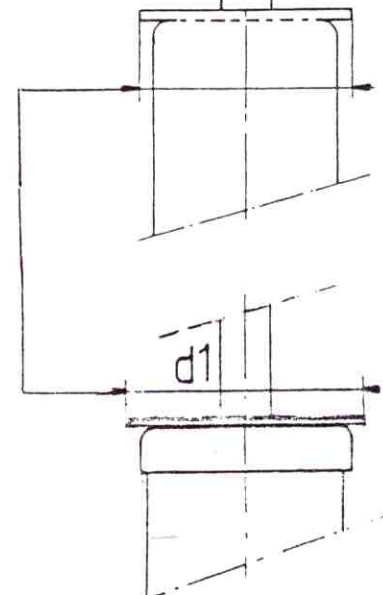
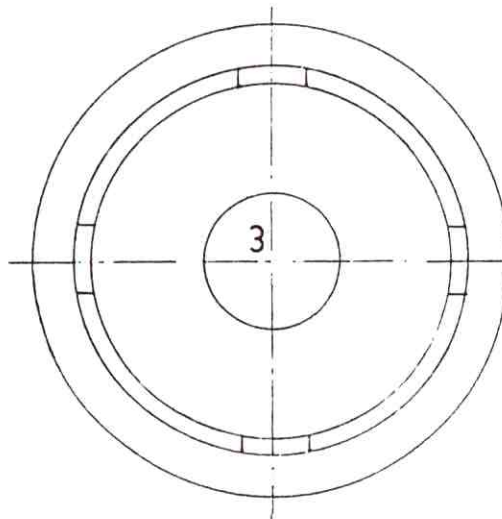
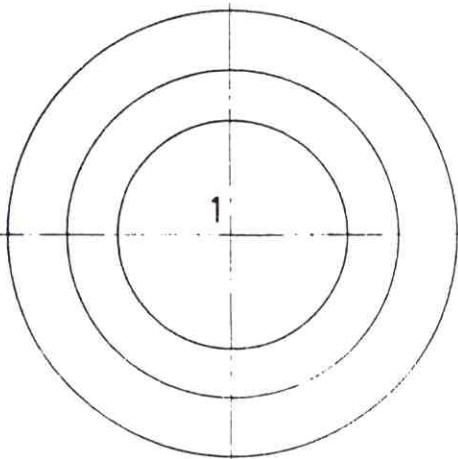
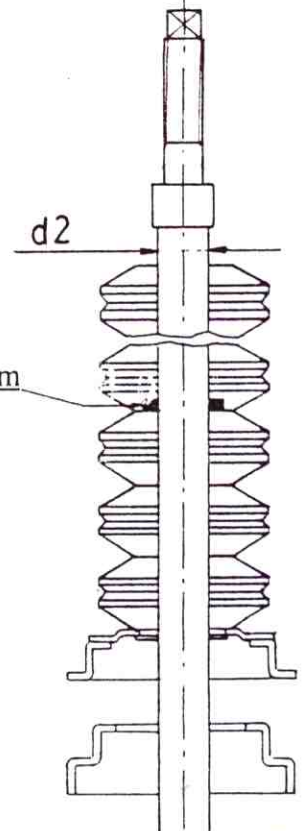


TABLE for parts required

type	diameter d1 (mm)	needed parts
A	36 - 39	1+5+2+3
B	39 - 40,5	4+2+3
C	40,5 - 43	4+3
D	43 - 46	2+3
E	46 - 48,5	3
F	48,5 - 51,5	5+1+4+3
G	51,5 - 55	1+5+2+3
H	55 - 57,5	5+2+3
I	57,5 - 60,5	2+3

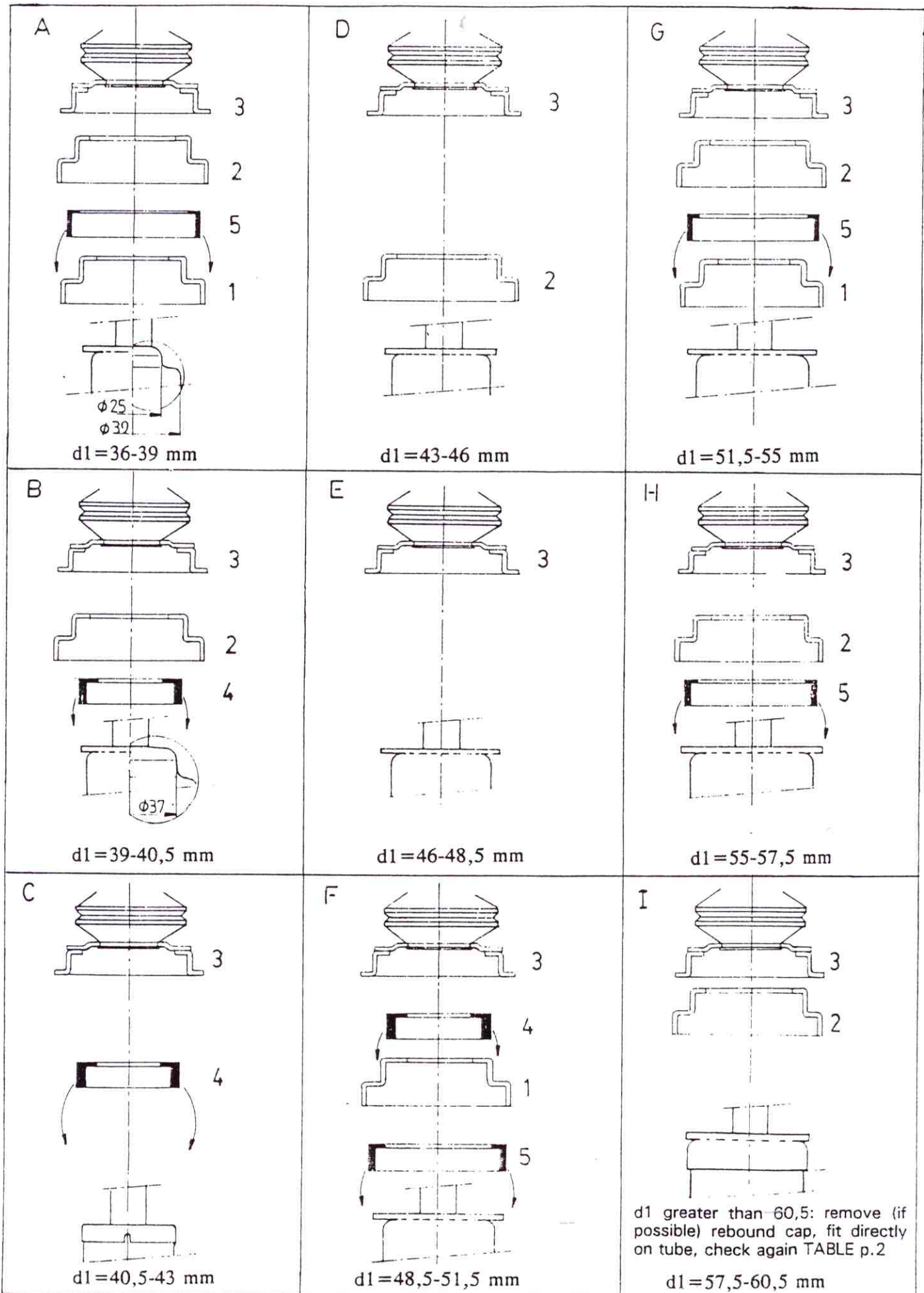
example

Measure d1: for instance $d1 = 38\text{mm}$
See TABLE: type A.
Parts 1, 5, 2 and 3 has to be fitted.
Part 4 will not be used.

On page 3 the assembly of these parts is shown: see A

"BOTTOM" ASSEMBLY
to select the parts 1-5:
check TABLE page 2

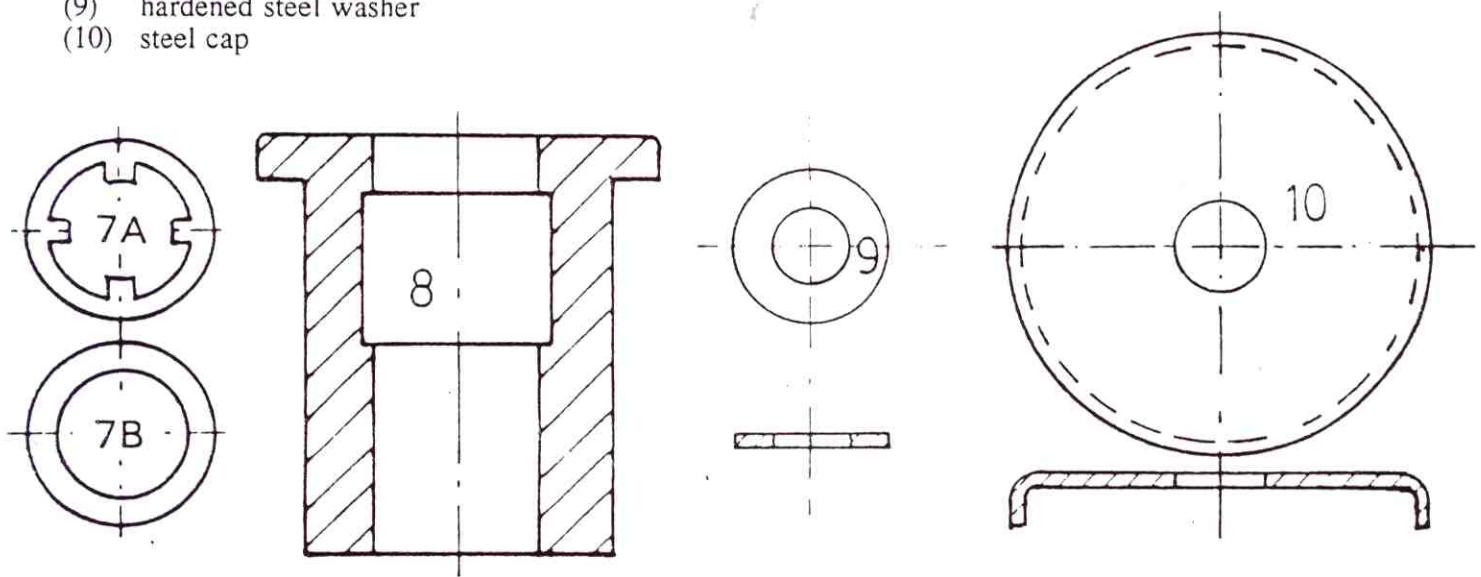
See drawing page 2 Piston rod diameter $d_2 = 9-16\text{mm}$:
stretch rubber ring 6 halfway over the piston rod then fit
the bellow. If d_2 is greater: do not fit rubber ring 6



"TOP" ASSEMBLY

polybag containing:

- (7A) plastic bush
- (7B) plastic bush
- (8) rubber bumpstop
- (9) hardened steel washer
- (10) steel cap



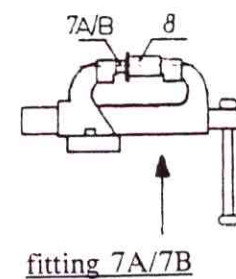
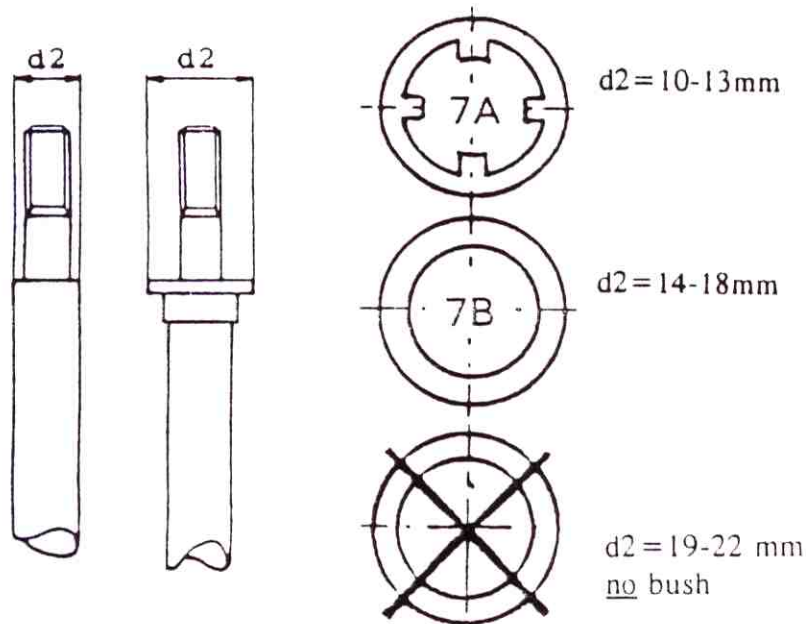
FITTING "TOP" ASSEMBLY

Select plastic bush 7A/7B or no plastic bush

There are two types of plastic bushes (7A/7B).

Select the plastic bush with the smallest piston rod clearance as follows:

1. Try to shift plastic bush 7A completely downwards over the piston rod. If it matches press 7A into bumpstop 8.
2. If 7A does not matches, try in the same way 7B.
3. If 7B does not matches do not use a plastic bush.



To select steel washer 9 and cap 10 :

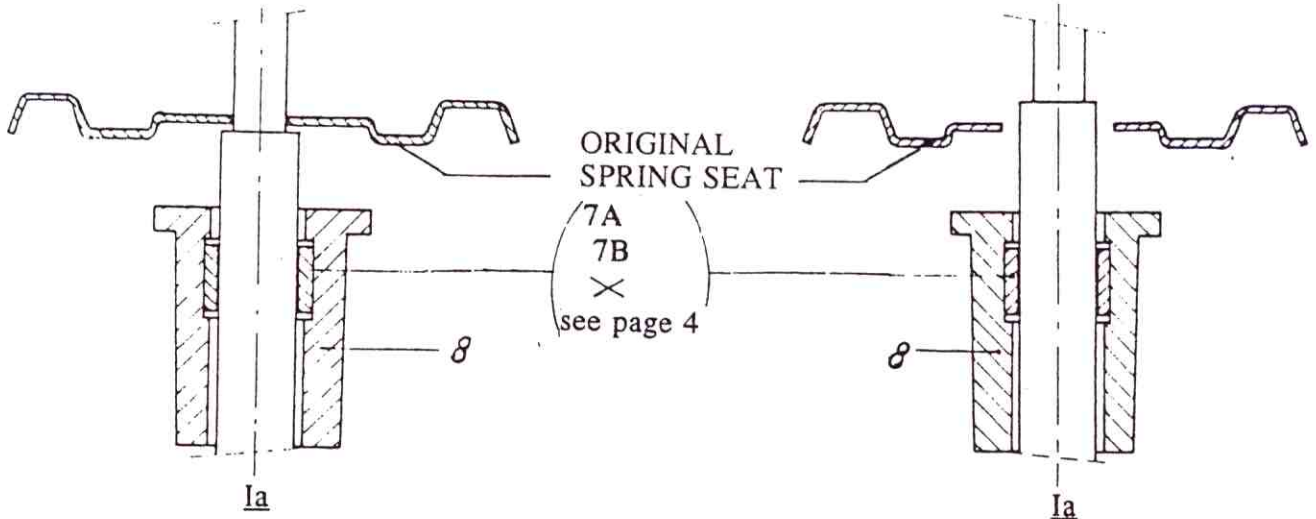
STRUT: see page 5

SHOCKABSORBER: see page 6

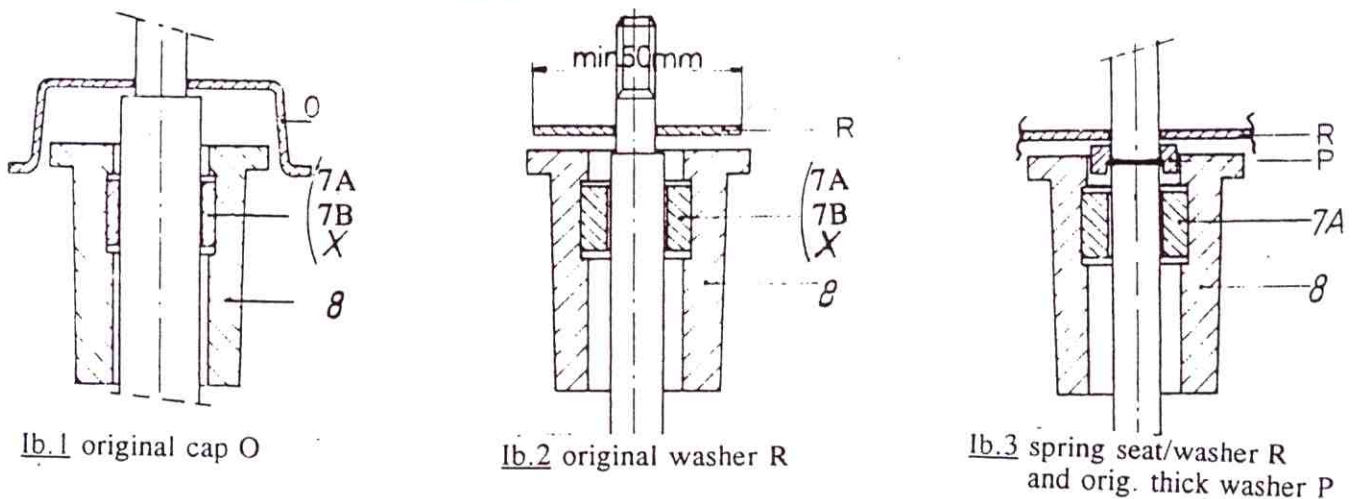
FITTING "TOP ASSEMBLY" (fitting "BOTTOM ASSEMBLY" see page 1,2,3)

- original bumpstop and dustcover will be re-placed by parts in the kit
- install aux. spring
- install bumpstop 8 with or without spacer 7A/B, see page 4
- type Ia and Ib.1,2,3: washer 9 and cap 10 not to be used
- type Ic.1,2,3: fit washer 9 (if possible) + cap 10
- re-install main spring / strut using original parts on top

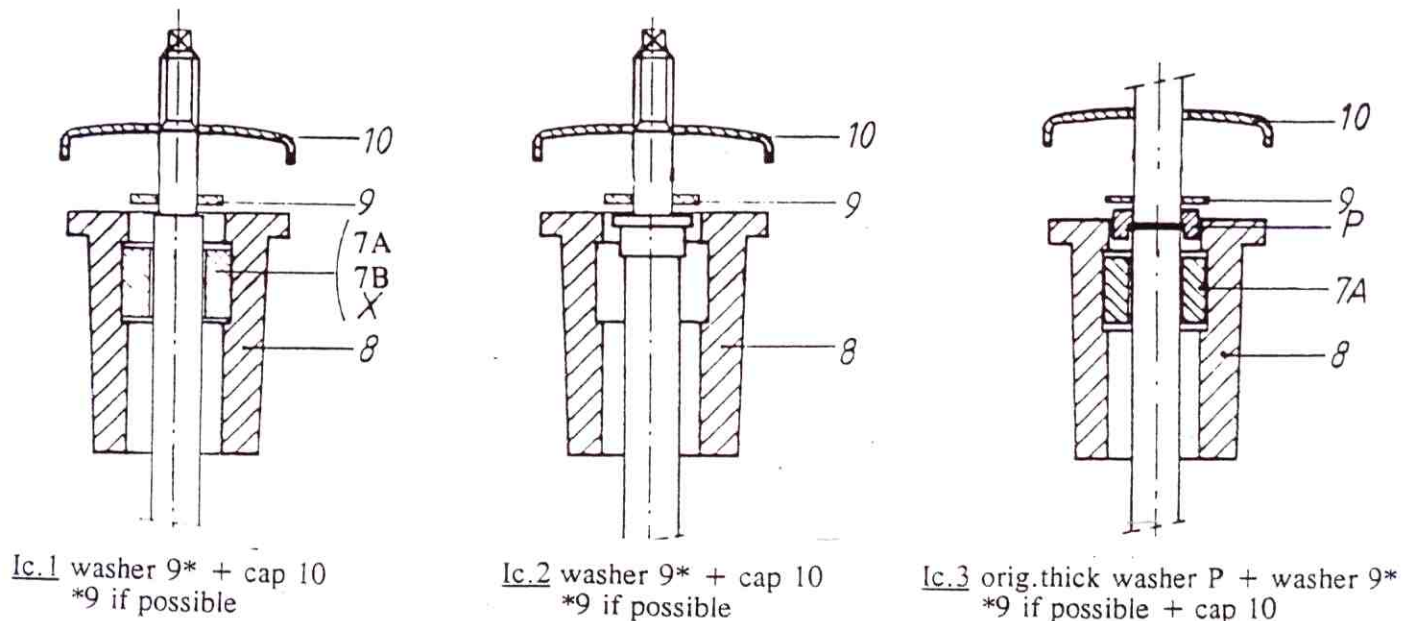
TYPE Ia. Strut without removable original bumpstop cap



TYPE Ib. Strut with removable original bumpstop cap or washer



TYPE Ic. Removable original bumpstop cap or washer is too small and has to be replaced



Ic.1 washer 9* + cap 10
*9 if possible

Ic.2 washer 9* + cap 10
*9 if possible

Ic.3 orig.thick washer P + washer 9*
*9 if possible + cap 10

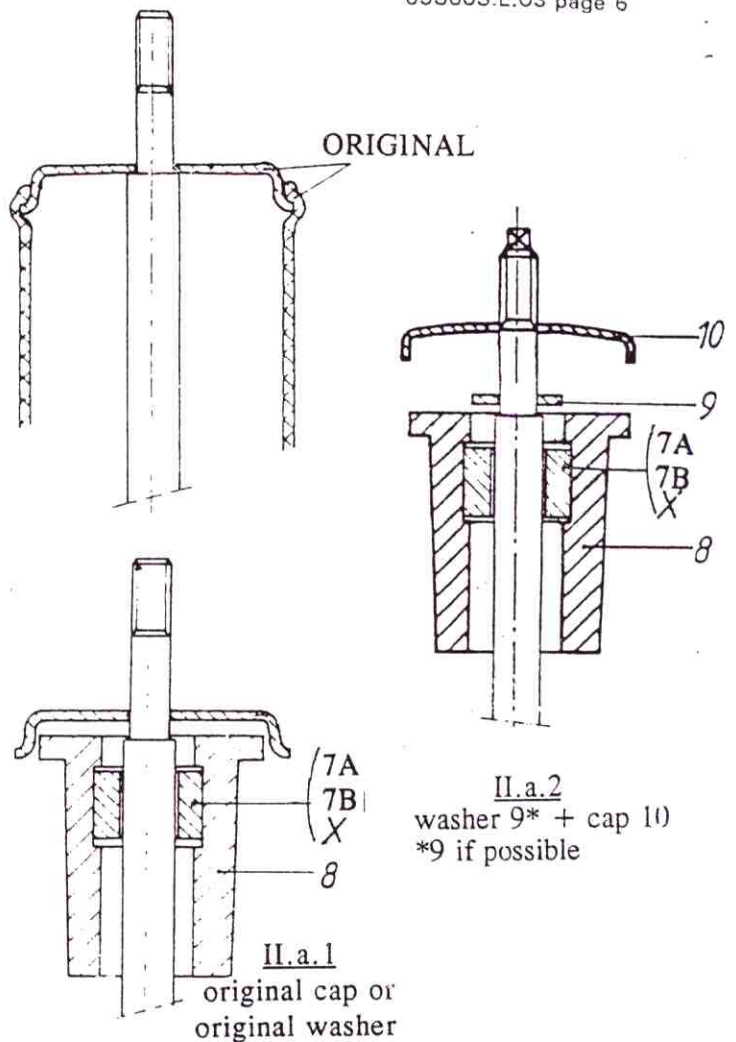
GENERAL

for SHOCKABSORBER only
(not carrying a main spring - no strut)

TYPE IIa

Shockabsorber with plastic or rubber dustcover fixed onto REMOVABLE steel cap or washer on top

- remove steel cap and pull off dustcover
- remove original bumpstop if fitted
- fit the correct "BOTTOM" parts, see page 1,2,3
- install aux. spring
- install bumpstop(8) with or without bush 7A/B, see p.4
- IIa.1:
re-install the original steel cap if bumpstop(8) fits
- IIa.2:
fit washer 9 (if possible) and cap 10 if the orig. cap is too small, see page 5: I.c.1, I.c.2, I.c.3
- re-install the shockabsorber using the original fitting parts on top



TYPE IIb

Shockabsorber with a fixed (welded) steel dustcover, or with a fixed (welded) steel cap on top and a plastic cover

- cut the cap 4 times in a square on 21 mm wide as shown
- grind or file off corners to allow the bumpstop 8 to pass
- remove original bumpstop (if fitted) by cutting lengthwise
- make sure not to damage the piston rod
- fit the correct "BOTTOM" parts, see page 1,2,3
- install aux. spring
- install bumpstop 8 without bush 7A/B
- fit washer 9 (if possible) and cap 10, see II.b
- re-install the shockabsorber using the original fitting parts on top

