

# AG. Strada

ISTRUZIONI PER L'USO E LA MANUTENZIONE  
INSTRUCTIONS FOR USE AND MAINTENANCE  
INSTRUCTIONS POUR L'EMPLOI ET L'ENTRETIEN  
INSTRUCCIONES PARA EL USO Y LA MANUTENCIÓN  
GEBRAUCHS- UND WARTUNGSANLEITUNG

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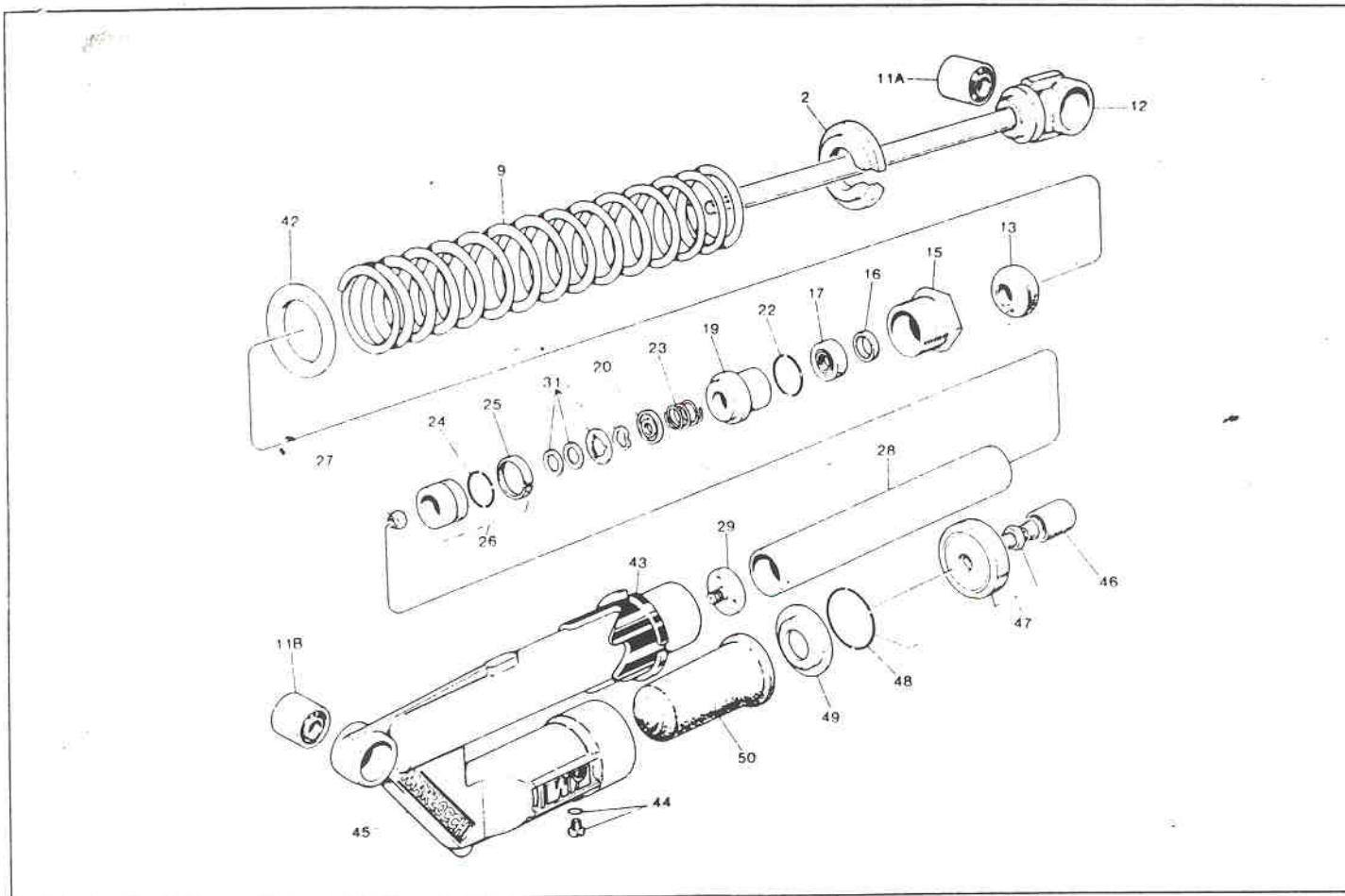
# MARZOCCHI



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COMPANY OF  **MARZOCCHIGROUP**  
ADVANCED HIGH TECHNOLOGY



## Componenti - Spare parts

Rif.	Descrizione - Description	Rif.	Descrizione - Description
02	Anello porta molla - Spring retainer	46	Cappuccio valvola - Valve cap
09	Molla - Spring	47	Tappo con valvola - Cap with valve
11A	Snodo occhio - Eyelet bushing	48	Anello OR - O-ring
11B	Snodo custodia - Shock body bushing	49	Scodellino polmone - Bladder cup
12	Asta con occhio - Damper rod	50	Polmone - Bladder
13	Paracolpi - Buffér		
15	Tappo custodia - Shock body plug		
16	Raschiapolvere - Dust seal		
17	Anello di tenuta - Oil seal		
19	Boccola di guida - Pilot boss		
20	Anello sup. pistone - Upper piston ring		
22	Anello OR - O-ring		
23	Contromolla - Rebound spring		
24	OR sottosegmento - Piston O-ring		
25	Segmento - Piston ring		
26	Pistone - Piston		
27	Dado - Nut		
28	Cilindro - Cylinder		
29	Valvola di fondo - Foot valve		
31	Serie lamelle - Damper washer set		
43	Registro molla - Spring adjuster		
44	Vite con OR - Screw and O-ring		
45	Custodia - Shock body		

The AG STRADA shock absorber achieves the correct balance between comfort and stable road holding. It has ended the problems of «traditional» shock absorbers, which, due to the combination of air and oil as components, generate small bubbles, and produce a foam-like substance provoked by jolting (aeration). Aeration results in a considerable loss of damping features: therefore the need for the AG STRADA.

This shock absorber is constructed from high grade aluminium alloy, and comprises an oil filled dual cylinder chamber and an air compensating chamber.

The construction of the shock absorber allows for the air chamber to absorb the volume of oil displaced by the damper rod when under compression. Having the oil and air separate avoids the problem of aeration thus allowing the damping valve to perform correctly at all times.

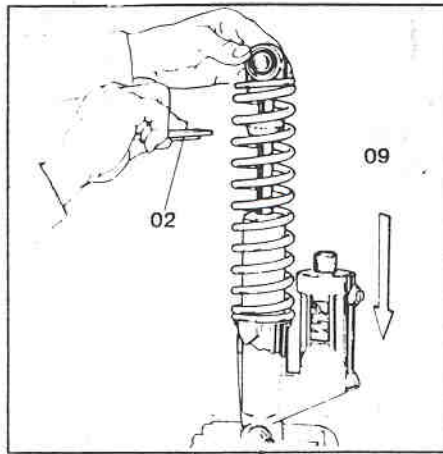


FIG. 1  
Release spring (09) by pressing it down. Take off the spring retainer (02).

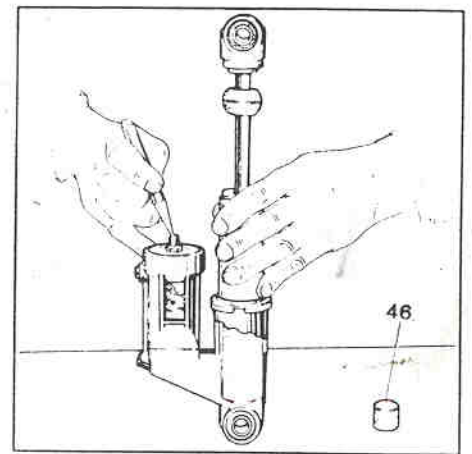


FIG. 2  
Unscrew the valve cap (46). Release the air contained in the rubber bladder by pressing the valve with a point (ref. 3).

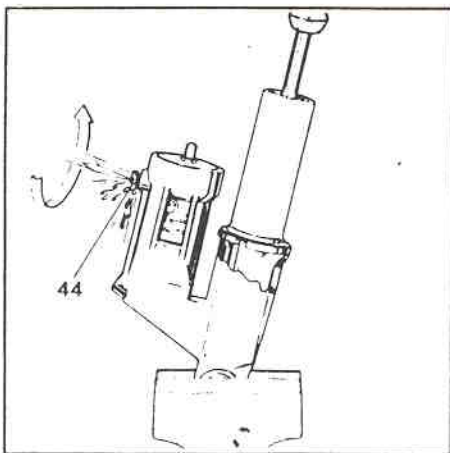


FIG. 3  
During the operation in fig. 2 some oil may leak; this means that the rubber bladder is faulty. Loosen slowly the screw and O-ring (44) until the oil stops leaking under pressure.

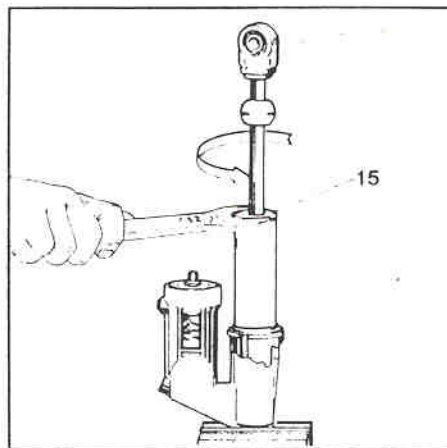


FIG. 4  
For the following operation it is advisable to fix the bottom part of the shock absorber in a vice. Unscrew completely the shock body plug (15) with a 32 mm. hexagon wrench or using the special tool (ref. 17) supplied by the manufacturer. Slide the plug up towards the top of the rod.

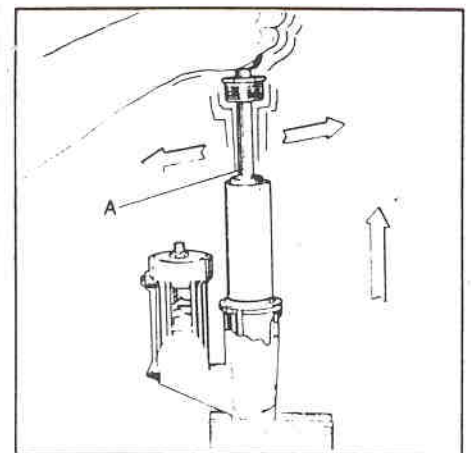


FIG. 5  
Pull out the complete damper rod (A) by moving it backwards and forwards as shown in the figure. If this should prove difficult tap lightly the top part of the shock body with a rubber hammer, then repeat the operation.

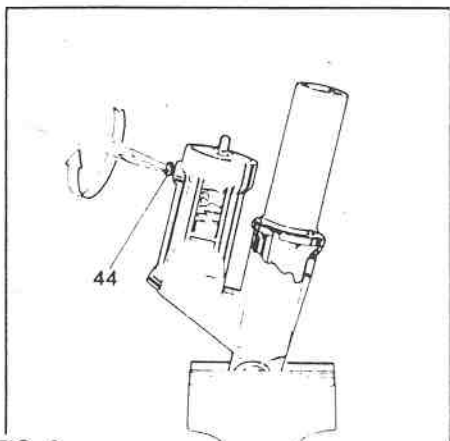


FIG. 6  
Now release with a screwdriver (ref. 5) the screw and O-ring (44) paying careful attention to the O-ring. Empty all the oil contained in the shock body and if necessary, clean it with very clean petroleum or methylated spirit.

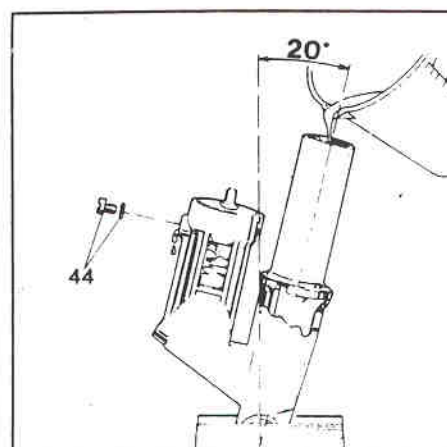
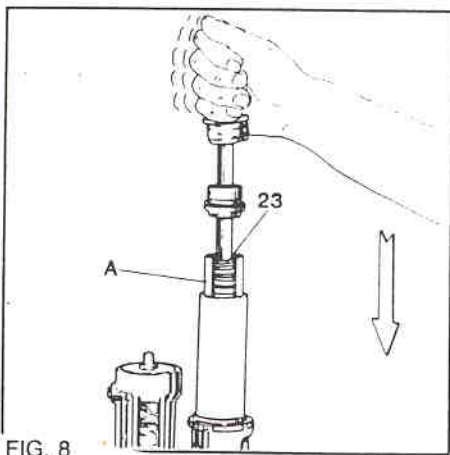
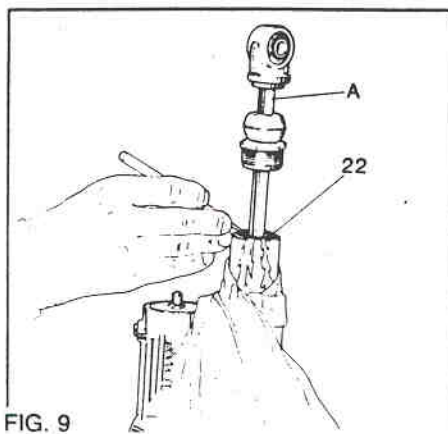


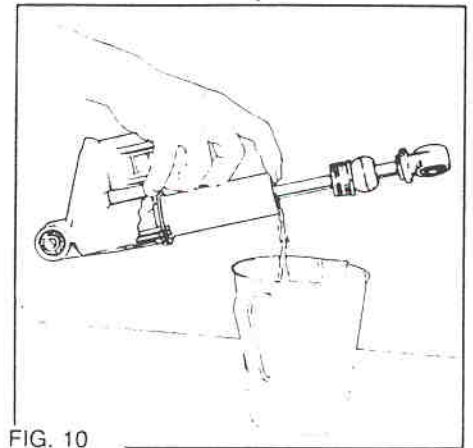
FIG. 7  
In order to change the oil, incline the shock body by approximately 20° degrees. Fill the body with oil until it leaks from the oil level hole. Assemble the O-ring and then tighten the screw (44). Make sure the oil reaches 2 - 2.5 cm. from the top of the body with the shock in a vertical position.



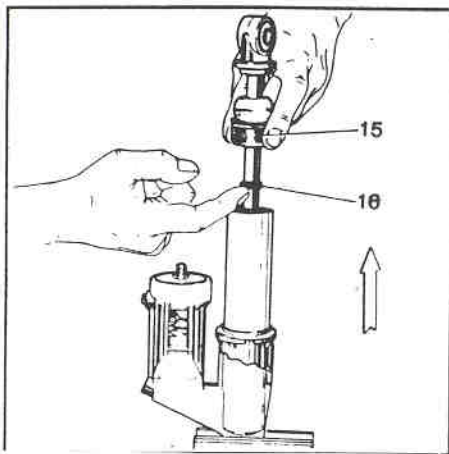
**FIG. 8**  
Assemble the damper rod in the body (we suggest you use for this delicate operation a ring clamp (A) supplied by the manufacturer (ref. 27), push the damper rod into the body until the rebound spring (23) is completely covered with oil. Remove the ring clamp leaving the damper rod in this position.



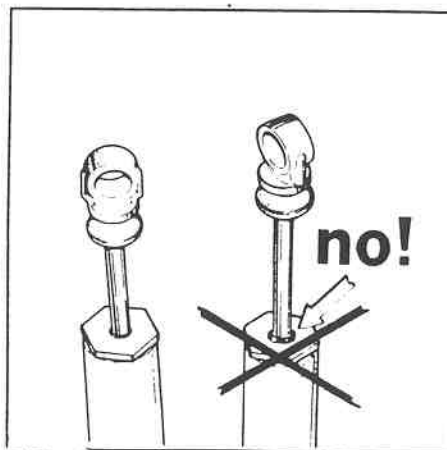
**FIG. 9**  
Keeping the damper rod (A) still, bring the pilot boss up to the inner sleeve (we suggest you wind a cloth around the body to avoid overspill). Assemble the O-ring (22) onto its seat with a point (ref. 3). Make sure, using this point, that the O-ring is seated correctly.



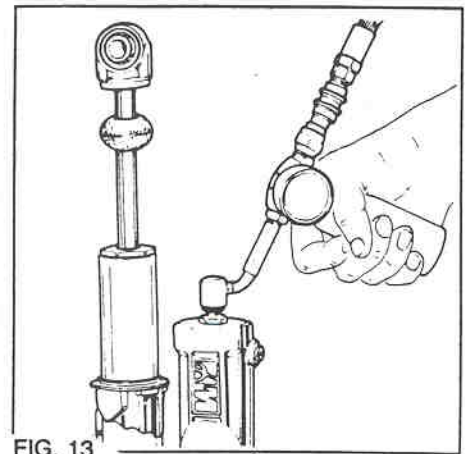
**FIG. 10**  
Hold the pilot boss still with a finger, then empty the excess oil remaining on top. Carefully clean the top of the pilot boss with a cloth.



**FIG. 11**  
If during disassembly the dust seal (16) has been replaced or cleaned it must be reassembled in the correct position. This is a simple operation, just push the above seal on to its seat in the locking plug (15). Tighten firmly the locking plug.



**FIG. 12**  
If the dust seal (16) shows signs of swelling (see crossed figure), repeat the cleaning operation. To check whether the assembly has been done correctly turn the damper rod (holding it by the top) without pushing it, and checking there are no points of friction.

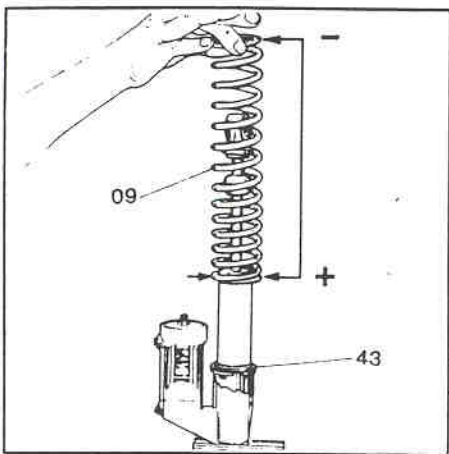


**FIG. 13**  
The reason for pressurizing the bellows is to keep the oil under pressure which will minimize aeration giving more constant damping.

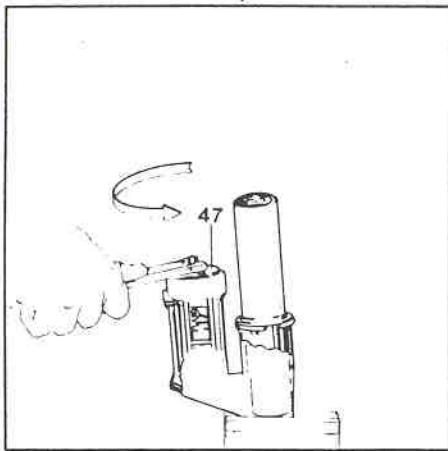
It should be remembered that the bellows contain a very small amount of air and therefore widely fluctuating pressure readings will be obtained if normal tyre pressure gauges are used. The best results are obtained by using an in-line pressure gauge which will exactly register the pressure of the contents in the bladder (ref. 93.58).

Bellows should be inflated to a pressure of 28 - 42 psi (2 - 3 Kg/cm<sup>2</sup>) and a pressure reading taken.

Recheck the reading and ascertain the amount which was lost when taking the first reading. Inflate the bladder again to a reading which allows for the amount of air which was lost in removing the inflation apparatus. Please note, excessive pressure may damage the bladder and force the damper oil past the seals. Retighten the valve cap (46).



**FIG. 14**  
Assemble spring (09) making sure that the wider part always touches the spring adjuster (43). This is not the case when biconical springs are mounted. With a normal spring, first assemble the spring adjuster (43) and then the spring itself from the wider part.



OVERHAUL AND REPLACEMENT OF THE BLADDER

FIG. 15

Unscrew the cap with valve (47) using a forked spanner (ref. 1).

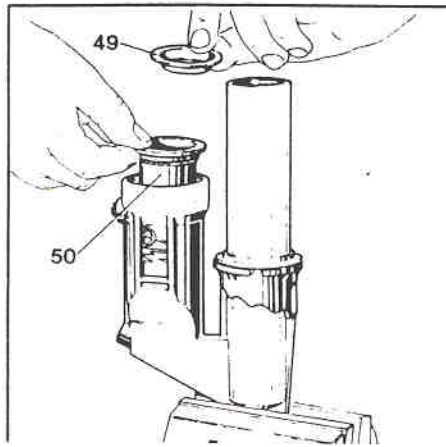
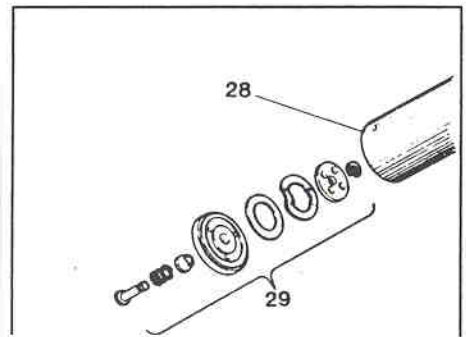


FIG. 16

Take out, by levering up with a point, first the bladder cap (49) and then the bladder (50) itself.

Replace it.

Replacement is the reverse of the dismantling procedure.



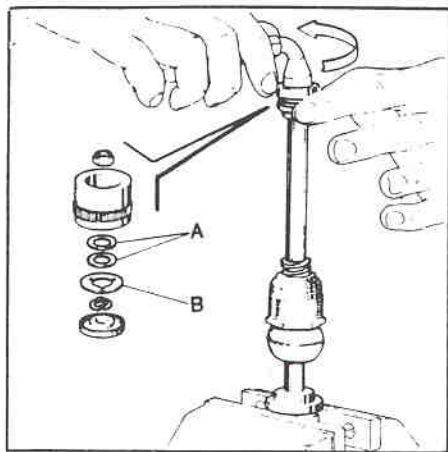
FOOT VALVE UNIT OVERHAUL

FIG. 17

When compressing the shock absorber may be noticed that the resistance is very low or insufficient.

In this case dismantle the parts of the foot valve (29) which is located at the base of the cylinder (28) inside the body. Remove the stop ring, take out the component parts and clean them with very clean petroleum or methylated spirit. Assemble following the order illustrated in the figure. It is advisable also to clean the inner part of the shock body.

When assembling the cylinder, locate the valve at the end where is a small hole.



### SETTING THE SHOCK ABSORBER

FIG. 18

To modify the shock absorber setting it is necessary to work on the washers (A) assembled in the piston. Alter the external diameter of these washers according to the damping required (see table).

To change the washers dismantle the piston in the same order as in the figure.

Having fixed the head of the damper rod in a vice, unscrew the nut with an 11mm. helbowed wrench (Ref.6 - 36), then release all the parts. When reassembling be careful that the «star» washer (B) has the shaving on the opposite side to the other washers.

By modifying the washers in this way it is possible to obtain four different settings:

Damping	External diameter mm.	Nr. washers	Washer thickness mm.
Degree 1	14,6	2	0,2
Degree 2	14,8	2	0,2
Degree 3	15	2	0,2
Degree 4	15,2	2	0,2

CUT, PASTE & SCAN COURTESY OF:

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FROM AN ORIGINAL MARZOCCHI STRADA MANUAL