

# REAR MONOSHOCK HMG12

CODE: HD013HMG12

INDICATED FOR:  
HARLEY DAVIDSON SOFTAIL '84-'99

**bitubo**<sup>®</sup>  
Race Suspension



QUALITY SYSTEM CERTIFICATED  
UNI EN ISO 9001:2008  
50 100 9149

Updated to: 14.07.2008



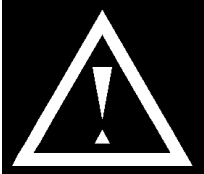
SERIAL N.

(SEE PAGE 1)

TO BE MENTIONED IN CASE OF CLAIM

## FIRST YOUR SAFETY !

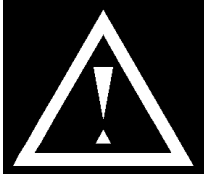
**WARNING !**



The rear shock is an important component of the motorbike and the correct method of assembling it is described in this manual.

**NOTE:** The shock absorber must be installed exclusively in a specialized workshop; in case of doubts regarding the instructions herein, please contact a Bitubo engineer immediately.

**WARNING !**



Bitubo cannot be held responsible for any modifications to the Rear Shock not described in this handbook or not authorised in writing. Moreover Bitubo cannot be held responsible for the incorrect installation of shock absorber.

Read this handbook carefully so that you can get the best performance and efficiency out of the Shock absorber.

**NOTE:** The warranty for the Shock absorber will be invalidated by incorrect installation or modifications carried out without Bitubo's written authorisation.

Bitubo cannot be held responsible for any damages to the product or injuries to people if the instructions of this handbook are not followed to the letter or if the shock absorbers are not fitted in a specialised workshop or by qualified personnel.

**BITUBO RECOMMENDS**



## ASSEMBLY INSTRUCTIONS

1. Place the bike on a proper stand in order to lift the rear wheel. To dismantle the exhaust shock absorber and the original parts, follow the instructions of the Manufacturer of the vehicle (Use/Service Handbook – Service Manual).
2. Insert the **Bitubo** shock absorber the same way the original one had been fitted and then insert the screws into the top and bottom mounts of the shock absorber and screw in the original bolts of the vehicle. Do not tighten the bolts fully at this stage.
3. Rest the bike on the ground, then tighten the bolts to the torque required by the vehicle Manufacturer.
4. To refit the exhaust system and the original components, follow the instructions of the Manufacturer of the vehicle (Use/Service Handbook – Service Manual).

## **ADJUSTMENTS:**

### **SPRING PRELOADING:**

The adjustment of the spring preloading is carried out by rotating the 34mm ring nut; by rotating the ring nut in an anticlockwise direction, the preload increases from zero to 5mm. The standard adjustment is 2mm and it is decided by **Bitubo** technicians for a driver's average weight (70/80 Kg). We recommend you perform the adjustment in half-turn steps.

### **LENGTH ADJUSTMENT:**

ATTENTION: The shock absorber is supplied in the same length as the original; a change in the length changes some cycle figures prescribed by the manufacturer of the vehicle and can cause the vehicle to be unstable, both when running and when parked (on the central stand or on the side stand), compromising the safety.

Carry out this adjustment only when the motorcycle is to be used in circuits closed to traffic.

ATTENTION: Increasing the length of the shock absorber, the height from the ground is reduced.

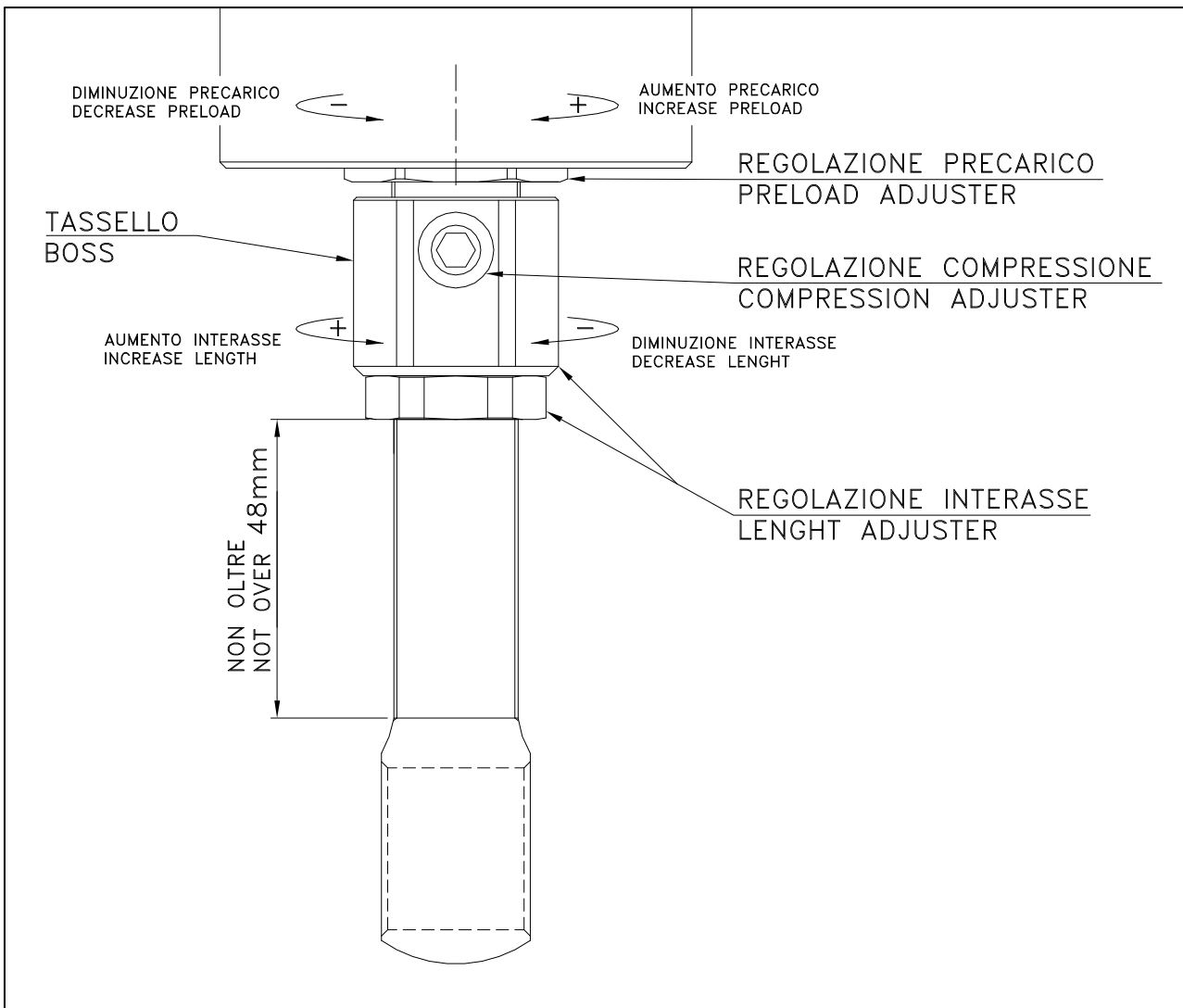
ATTENTION: Do not exceed the indicated measure of visible thread past the locking ring, as shown in the drawing or the seal of the mount can be affected.

The length adjustment is done by loosening the locking nut of the back mount and screwing the boss in or out respectively to decrease or increase it as shown in figure A below. Once the adjustment is finished, remember to tighten the locking nut.

### **COMPRESSION ADJUSTMENT:**

The adjustment of the boss with "COMP" written on it controls hydraulic braking in compression as well as controlling the comfort of the vehicle, that is in the movements of low oscillation speeds of the suspension.

By rotating the adjusting screw towards H (hard) the braking effect increases, by rotating it towards S (soft), the braking effect decreases. The adjustment range is 24 clicks. If the braking effect is increased, the suspension movement is more controlled and more suitable for the use in competitions, vice versa by decreasing the braking effect the comfort of the vehicle is increased. The basic adjustment of the shock absorber is 18 clicks from totally closed.



**Fig. 1 Compression, preload and length adjustment**