

## INSTRUCTIONS OF USE FOR PAN CRUISE EVOLUTION

The PAN-CRUISE "EVOLUTION" oleopneumatic shock absorbers (#MA100001) are delivered fully inflated by the factory in Quint (France) and are ready to use without any further adjustment. They have been tuned for an average load and will accommodate from 70 kgs to 150 kgs without need for adjustment.

The factory set-up also aims at maximum comfort.

The P1 pressure (P1 is the main spring pressure supporting the weight of the bike and the load) has been set at 25 bars (365 psi). The air valve is situated at the front of the unit, on the main body of the damper.

The P2 pressure (P2 is the ride height adjuster pressure) has been set at 12 bars (175 psi) giving the bike the same ride height set by the HD factory. The air valve is situated at the rear of the unit, on the eye fixing.

**NOTE :** Adjusting the ride height can only lower the ride height. Do not check or alter the pressures in P1 & P2, when first fitting the PAN-CRUISE "EVOLUTION" on your H.D. SOFTAIL EVO.

### POSITIONS OF THE AIR VALVES:

Valve P1 of front is positioned downward and inward in 45 ° on the bias, face to face.

Valve P2 of back is vertically positioned downward.

### Running in :

Every seals used in the FOURNALES PAN- CRUISE "EVOLUTION" meet stringent aeronautic standards and are designed to resist very high pressures in excess of 200 bars (2.900 psi).

Being very hard wearing, it will take around 1.500/2.500 kms for them to be in properly before giving a more beautiful compliant and comfortable ride.

There is no need to check either P1 or P2, even after 30/40.000 kms.

**IMPORTANT :** Before adjusting either P1 or P2, ensure that your bike is on a flat level and hard surface supported so as to allow the rear wheel to be completely free from the ground. The point of support must not interfere with the free movement and access to both the swing arm and the oleopneumatic suspension units. Best is to use a center stand that lift the bike under the frame loop under the engine.

### The regulations of the pressures allow :

The 4 high pressure aeronautical standards air valves can be inflated as much as needed using a pump or a nitrogen from a bottle. Connection must be done either with a quick fitting or screw on, coupling.

Please note : what ever device (s) you choose to adjust the PAN-CRUISE "EVOLUTION" it must be able to deliver a minimum of 30 bars (450 psi) for normal adjust. Please check before using any device.

### 1/ How to modify the bike ride height, acting solely on P2 pressure (do not touch P1 pressure).

- \* The lower the pressure (minimum 8 bars / 116 psi), the higher the bike.
- \* The higher the pressure (maximum 45 bars / 652 psi), the lower the bike.

Front valve P1	Rear valve P2	below standard height and without rider	below standard height and with a 75 kgs rider
25 bars/365 psi	12 bars/175 psi	0/0 inch	- 21 mm/0,83 inch
25 bars/365 psi	15 bars /220 psi	-3 mm/0,12 inch	- 26 mm/1,03 inch
25 bars/365 psi	20 bars/290 psi -	-19 mm/0,75 inch	- 32 mm/1,30 inch
25 bars/365 psi	25 bars/365 psi -	-27 mm/1,17 inch	- 40 mm/1,58 inch
25 bars/365 psi	30 bars/440 psi -	-40 mm/1,58 inch	- 51 mm/2,00 inch

**IMPORTANT :** Lower the ride height will reduce the rear wheel clearance against the fender/mudguard. The exhaust pipes also get near the ground and can get scraped in bends, road holding is modified and comfort is lessened.

### 2/ How to modify adjustment of the main spring stiffness : by deflating P2, you alter P1 pressure. But this is only justified when riding your bike with special load (either heavy or very light).

- \* The higher P1 pressure, to obtain a hard main spring load is 45 bars (652 Psi) maximum.
- \* The lower P1 pressure, to obtain a soft hard main spring load is 23 bars (333 Psi) minimum.

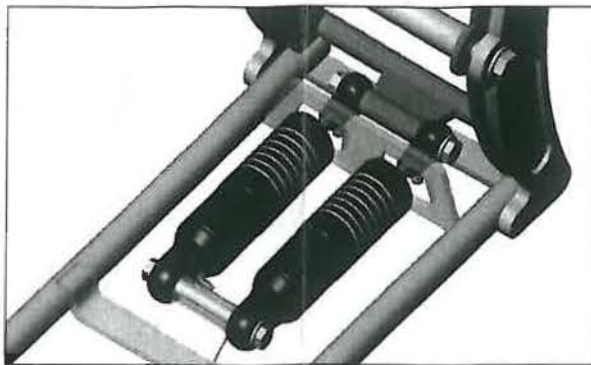
Adjust P1 pressure in each shock absorber after deflating P2.  
ALWAYS REFIT THE SCREW CUP ON EACH AIR VALVE.

## NOTE OF ASSEMBLY

### Remark of the mode of assembly:

On the "Softail" model the oleopneumatic shock absorbers work in extension. They are in permanent stretching under high loads. They self align along the axle binding the front and rear supports. In order to enable their self alignment these ones must be completely free in lateral translation on their front fixing axles. Correctly sized o-rings maintain the shocks absorbers adjusted on their mounting bolts and allow a possibility of self alignment required for their good functioning.





#### **Assembly:**

To execute easily and in complete safety this operation, the motorbike must be propped up in a stable way under its frame so that the back wheel does not press on the ground. The access to shock absorbers must be easy.

- Remove the OEM shocks absorbers.
- Present the Pan cruise Evolution instead by respecting the direction and the position of air valves (drawing above).
- Use the OEM bolts without any washers. That means that is necessary to remove the washer 27x17x1,5 which is on OEM mounting.
- Grease the cylindrical spans of the bolts and screw them until the locking on their shoulders.
- Put o'ring supplied (OR 16x3,6) on both sides of the yokes of front and rear. Without washers.
- Screw bolts until the blocking of their retaining wall. It is possible to put of the brake knockdown net (blue) on the threadings. Then tighten in the couple of tightening manufacturer.
- On the bolts, transversal clearance is for 6mm.

### **CONDITIONS OF GUARANTEES**

FOURNALES shocks absorbers are guaranteed against any defect of material and/or hand of work during a duration of 24 months as from the date of purchase by the first user / buyer for all the products intended for a common said road use. (Excepted point 1, 2 and 3).

1/ Products for use competition, speed and off road are conceived for extreme uses, for that reason only the manufacturing defects of the manufactured parts, are guaranteed over 3 months. We do not guarantee the use which we cannot control. As a consequence the user has to assume his full responsibility for the personal, material risks, and for the third person who would be implied. Seals and sliding tubes are not guaranteed for deterioration and impacts.

2/ Products for 4X4 are subjected to extreme constraints of functioning, we guarantee the manufacturing of our parts manufactured on 12 months. Any outside crash, bad fitting or bad use will cancel any guarantee. Seals and sliding tubes are not guaranteed for deterioration and impacts.

3) The specific industrial products do not contain guarantees.

The guarantee is taken care by **FOURNALES SUSPENSION** via a distributor or a retailer approved only with our agreement, or directly with us for precise cases (consult us) under the condition that the concerned shock absorber is new in the day of the purchase date. The Invoice or any other proofs of purchase is required for any return. A repair service under guarantee (for these 24 months) does not modify and does not extend the period of 24 months for a new product.

Every product new or rebuilt is engraved then registered before delivery to insure the follow-up. However the guarantee will not be applicable on any product taken out of the factory over four years before the request of taking in guarantee.

All the products rebuilt by our services, from ours repair services, are guarantee 12 months (Excepted points 1, 2 and 3).

#### **During the warranty period, FOURNALES SUSPENSION will repair all produced product exclusively on the following conditions:**

- \* The dismantling and the reassembly on the machine are responsible for the customer.
- \* The return to us is in load and under the responsibility of the customer.
- \* Any goods returned carriage forward will systematically be refused.
- \* A product must have returned to us with all the information concerning it.
- \* The parts of wears such as seals, sleeves, washers, slices are guaranteed 6 months for a new product.
- \* For any return the damper / product must be accompanied with the documentary evidence of purchase.
- \* The damper was the object of no dismantling, or modification.
- \* The damper was not used for a use different from the one for which it was studied; the damper is planned for a specific one vehicle, it does not be fitte on other one vehicle.
- \* The product was not used for a custom / race use like competition.
- \* The product, in the opinion of FOURNALES SUSPENSION, was not damaged by an accident, a bad use, a maintenance or a modification not made by the manufacturer.
- \* The change of oil by a not corresponding oil.
- \* For any accepted guarantee, the return will make postage-paid in normal shipping.
- \* It is deeply recommended to use one of the pumps high pressure FOURNALES adapted to the shock absorber to adjust the hardness of the pneumatic spring by modification of the inflation pressure.

For any others questions, consult our sale department by phone, fax or e-mail at [infos@fournales.fr](mailto:infos@fournales.fr). Document of June 19, 2012.