Data Sheet No. 3

Subject: Adjustment of Engine Damper and Snubber Assemblies
Date: May 1955

Having replaced the unit in the frame and bolted up the two main pre-set rubber mountings (A and *B, Figure 2)* refit the tongue *(A, Figure 1)* to the frame clip bracket, locking up the lower retaining bolt B with its nut.

Do **not** tighten the upper bolt at this stage.
Then **loosely** refit the four reinforcement plates on either side of the damper plate D with the two nuts and bolts E, noting that the bevelled edges must be away from the damper plate, as illustrated.
Now insert the friction disc F in position and move the damper plate together with the frame clip bracket forwards until the friction disc is lightly held between the damper plate and the snubber plate G.
Replace the bolt H and the distance piece J and position the damper plate D so that the distance piece is located centrally in the hole in the damper plate.
Note that the holes in the damper plate are elongated to allow for adjustment (see adjustment of engine damper snubbers below). Refit the washer and spring K, cap L, and nut M, tightening the latter until the cap is locked against the distance piece **J.**

Adjustment of Engine Damper Snubbers
It is essential that the damper fittings be correctly adjusted when the unit is refitted to the frame. Furthermore if maximum efficiency is to be maintained, the damper clearances must be checked by means of a feeler gauge, and if necessary adjusted every 1,000 miles.
Two snubbers are situated one on either side of the front frame member *D, Figure 2,* which operate against fibre stops (retained by screws) in the crankcase. The clearance between each of these snubbers and its corresponding stop must be .015 to .020 inches with the engine in the static position.

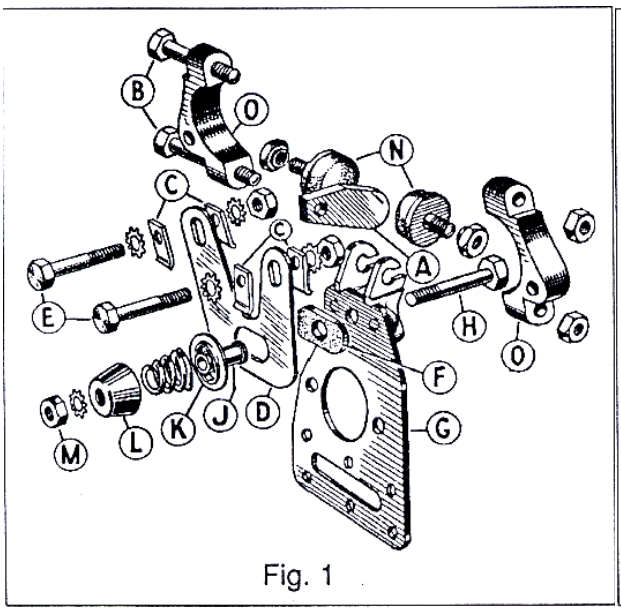

Fig. 1

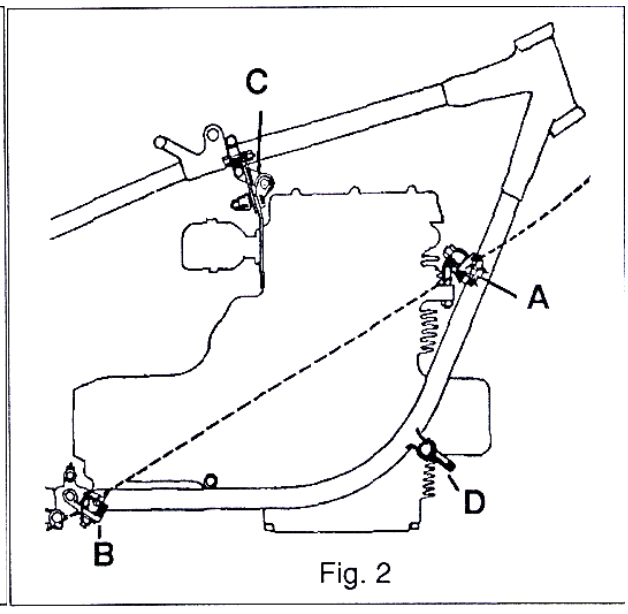

Fig. 2

To adjust

Undo the snubber locknut and rotate the snubber until the correct clearance is obtained, finally retightening the locknut.
The snubber plate G, *Figure 1,* at the top rear of the engine (see also *C, Figure 2)* also carries two horizontally opposed torque reaction snubbers N. The clearances between each of these and the central tongue A must be .015 to .020 Inches with the engine in the static position. Shims may be fitted behind the snubbers to compensate for excessive wear on the rubber faces.
Finally, to ensure that both top and bottom snubbers are synchronized, and that the distance piece through the damper plate D remains in the centre of the elongated slot, the nuts on the bolts E should first be slackened, and the frame clip bracket 0 loosened by undoing the nut of the upper bolt B only. Centralise the clip bracket so that the tongue A is midway between the snubbers N and the limit of movement (.030 to .040 inches) in each direction is simultaneously taken up on both top and bottom snubbers, i.e., when the upper nearside and the lower offside snubbers touch simultaneously and vice versa. This is accomplished by forcibly tilting the engine in each direction and checking the clearances.

IMPORTANT:
Make sure that the tongue A is locked in the frame clip bracket 0 and then that the nut of the upper bolt B clamping the clip bracket to the frame top tube and the two damper plate retaining nuts of the bolts E are absolutely tight.

This *is an extract from* ***The Sunbeam instruction Manual, 500 OHC Twin.***

SERVICE DEPARTMENT
B.S.A. CYCLES LIMITED