TESTING & STORAGE

6.7 Testing Of Advance Devices

6.7.1 Preparation

The Test Plan will specify the type of advance device fitted, and details the tests required. Advance devices may be tested using either of two special tools:

A) The 'early' advance gauge ('quadrant' type)

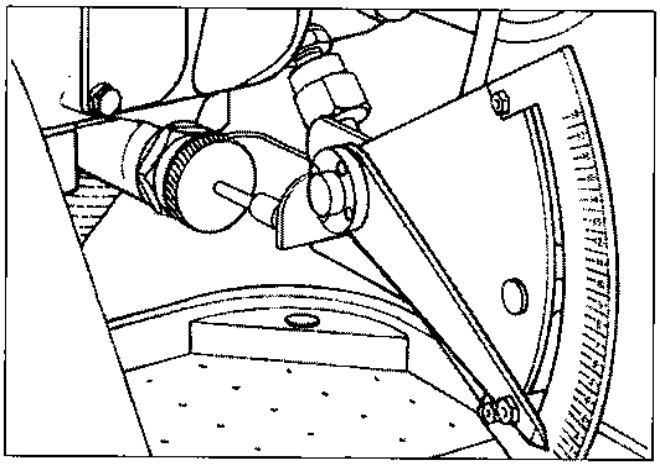
This tool consists of a gauge with a scale covering 0 to 18° and a 'feeler' pin. To fit this tool, proceed as follows:

Remove the small screw from the piston spring cap on the advance device.

Pass the threaded bush of the feeler pin assembly through the hole in the tool bracket.

Insert the end of the plunger into the hole in the spring cap and screw the bush into the spring cap hole. This will clamp the bracket between the spring cap and the shoulder on the threaded bush.

'Zero' the gauge by moving the scale relative to the pointer.

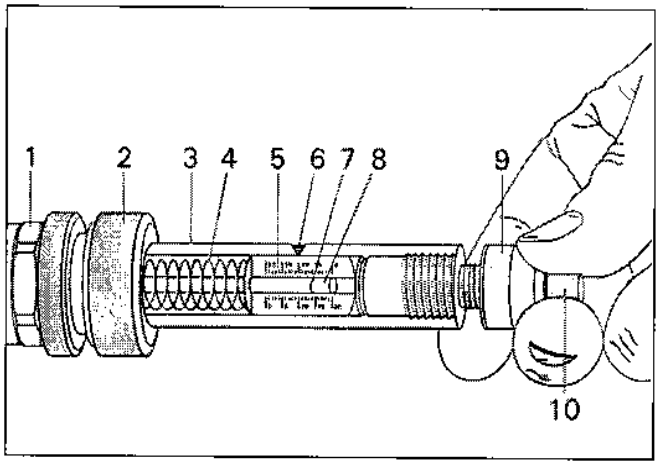


B) The 'Universal' advance gauge ('linear' type)

This gauge is based on a sealed transparent tube (3), within which is carried a scale (5) graduated on one side in degrees, and on the other in millimetres. The tube is clamped to the body of the gauge by a 'tube-locking' nut (2).

The axial position of the scale within the tube is adjusted by rotation of the end plug (9). The scale is prevented from rotating by a small grub-screw (6).

The central pin (8) has a groove (7), against which the scale is aligned. The other end of the pin protrudes from the open end of the gauge and is maintained in contact with the advance piston by a spring (4).



To fit the gauge to the advance device, remove the small plug from the spring cap (1) and fit the gauge body in its place. There is a small plug (10) from which any air may be bled before commencing testing.

With the gauge fitted to the advance device, slacken the knurled tube-locking nut (2) and rotate the tube so that the required scale is uppermost. Lightly tighten the locking nut.

Rotate the end-plug to align the scale zero with the groove in the rod.

Run the pump at low speed and vent any trapped air by slackening the bleed screw.