



RING SIGHTS PO Box 2108, Salisbury, SP2 2BX, UK

RING SIGHT WC-30 FOR THE MK19 AGL

Up to now the MK19 has used sights with no elevation reticle (except for expensive complicated ones). This meant that the gunner had to apply elevation to the elevation screw. Changing from one target to another was necessarily slow.

Ring Sight WC-30 was designed specially to provide an elevation reticle from a boresight cross to 20000 metres range. The range is marked every 100 metres with the even hundreds numbered. The range marks allow for the drift of the grenade which increases with range. Either side of the dots, which are the range marks, are lines; these help in finding the dots but also provide a framework for "burst on target" (see below).

The gunner chooses the range and lays that point on the target. He observes the strike on the reticle and puts that point on the target (burst on target). This corrects for errors in elevation and line including target movement.

To switch to another target he repeats the process so there is no delay in engaging a series of targets which may be at very different ranges.

The gunner does not have to put his eye up to the sight but can hold his head well back (say 400 mm but he can suit his convenience). This means that the angle the sight subtends is reduced, it blocks out less of the target scene and his awareness of targets is improved. The hood at the rear of the sight is designed so that the optical errors caused by the eye being off line are minimised. Once the range is chosen the gun is elevated to bring that range mark onto the target; the gunner maintains his position unchanged.

It is worth considering the whole detachment. There will usually be a commander who selects targets and orders fire. The gunner aims and fires. If the commander has a laser rangefinder he can be measuring the range to the next target and will pass this to the gunner as part of the fire orders. The range also helps the gunner to identify the target to be engaged.

The sight is boresighted in production to its gun interface (so sights are interchangeable from gun to gun without adjustment). On a gun this can be checked using a suitable boresight and/or a distant object. The line through the boresight cross should be parallel to the barrel axis.

The optical system is solid glass so cannot leak or mist up. The front and back surfaces are flat and easily cleaned; they play no part in focussing the reticle image so can be chipped or partially covered in mud but aiming can still be done. A protective plate is provided at the front since, in certain applications (e.g. the SAS) the sight may be fitted to the gun on a vehicle which follows one without mudguards and stones get thrown up. There are no moving parts in the sight to cause trouble.

In twilight and at night the optional red dot pack can be put on the righthand side in front of the light wedge. This lights the reticle by means of an array of battery powered red LEDs. The brightness is set by the gunner to suit the conditions. If Night Vision Goggles are available, the gunner can aim as for day looking through the sight (the sight aperture is larger than that of NVG). Probably only one set of NVG will be available so the gunner may be on its own: the range display in the laser rangefinder being used should be focussed at infinity so no adjustment of the NVG focus will be required.