

Chapter 5 GUN SIGHT ALIGNMENT

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Introduction

1.. Detailed information on the gyro sight installation is given in Sect.5, Chap.2, Group 4A. To ensure correct orientation of the sights with the aircraft, the alignment procedure described in this chapter must be carried out.

Equipment required

2. The following equipment will be required for sight alignment:—

- (1) Universal alignment stand or locally manufactured alignment diagram.
- (2) Gun alignment equipment and box (Ref. No. 26FX/95729).
- (3) Spanner, 4 B.A.

Preparation

3. The aircraft is prepared for the alignment procedure, as follows:—

- (1) Set up the alignment stand or diagram, as shown in fig.1.
- (2) Position the aircraft with the centres of the main wheels on a base line which is parallel to the diagram and at a distance of 1000 inches from it. Chock the main wheels.

- (3) Jack the aircraft in accordance with the jacking and trestling instructions (Sect.2, Chap.4).
- (4) Position the aircraft alignment bar in the canopy casing, ensuring that the forward ends are in contact with the windscreen arch.
- (5) Insert a gun aligning instrument into the housing on each side of the alignment bar.

Note...

Gun alignment instruments are to be checked for accuracy before use.

- (6) Adjust the alignment diagram until the sighting discs appear, centrally, one in each alignment instrument. This will ensure that the datum line and centre line of the diagram are coincident with the datum line and centre line of the aircraft.

Alignment of gyro sights

4. Each gyro sight should be aligned as follows:—

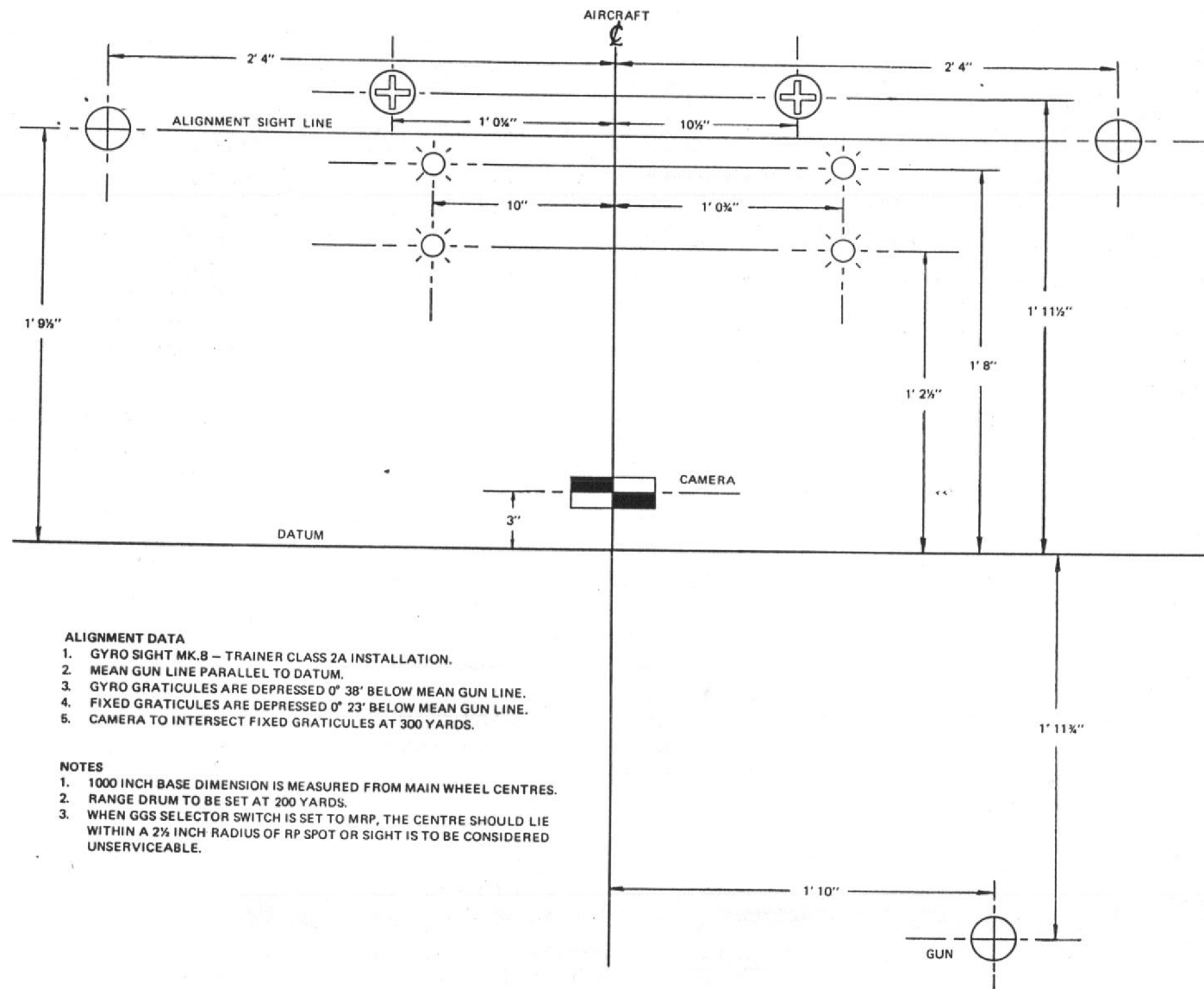
- (1) The gyro sight should first be run for one minute and then the supply voltage to the sight head should be checked for correctness.

Note...

It is important that the gyro should not be run for excessively long periods whilst the aircraft is grounded. Five minutes should be regarded as a reasonable running period.

- (2) Select GYRO and RP and set the range control drum to 200 yards.
- (3) Slacken the sight securing nut sufficiently to allow the sight head to be rotated under slight pressure.
- (4) Adjust the sight, laterally, by rotating the head about its spigot until the gyro image is aligned laterally, with the appropriate sighting disc. Tighten the securing nut and recheck alignment.
- (5) Using a 4 BA spanner, unlock the two lock nuts on the sight screen adjusting screws, and adjust the screen to bring the gyro image, vertically, onto its sighting disc. Tighten the adjusting screw lock nuts and recheck alignment.
- (6) Set the selector to FIXED.
- (7) Bring the fixed cross image onto its sighting disc by turning the two flexible adjusters at the back of the sight body.
- (8) Set the selector to MRP and check in accordance with Note 3 of fig.1.

RESTRICTED



ALIGNMENT DATA

1. GYRO SIGHT MK.8 - TRAINER CLASS 2A INSTALLATION.
2. MEAN GUN LINE PARALLEL TO DATUM.
3. GYRO GRATICULES ARE DEPRESSED 0° 38' BELOW MEAN GUN LINE.
4. FIXED GRATICULES ARE DEPRESSED 0° 23' BELOW MEAN GUN LINE.
5. CAMERA TO INTERSECT FIXED GRATICULES AT 300 YARDS.

NOTES

1. 1000 INCH BASE DIMENSION IS MEASURED FROM MAIN WHEEL CENTRES.
2. RANGE DRUM TO BE SET AT 200 YARDS.
3. WHEN GGS SELECTOR SWITCH IS SET TO MRP, THE CENTRE SHOULD LIE WITHIN A 2 1/2 INCH RADIUS OF RP SPOT OR SIGHT IS TO BE CONSIDERED UNSERVICEABLE.

Fig. 1 Gun sight alignment diagram



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