

**EXTERNAL PLAN VIEW
SHOWING ACCESS DOORS AND PLUGS**

FIG.3.

When changing down, accelerate the engine sufficiently during double declutching to correspond with the speed required for the lower gear.

As the speed of the vehicle is not high and drops rapidly on declutching, the gear change must be made quickly.

Reversing

With the clutch pedal fully depressed and using a steering lever if necessary as a clutch stop, lift the catch release on the forward and reverse lever and pull the lever towards the rear until the catch engages the rear slot in the quadrant. Do not pause.

Proceed as for moving forward; the same range of gears is available.

Steering

The vehicle will follow a straight course on hard level ground only so long as both steering levers are fully forward.

When a turn is required, the steering lever at the side to which the leading end of the vehicle has to turn, must be steadily and firmly pulled backwards, irrespective of whether the vehicle is moving forward or in reverse.

The steering is on the controlled differential principle, in which pulling back the steering lever applies a brake to a rotating brake drum. This brake drum must stop rotating before the steering will be effective. Lax application will only cause unnecessary wear to the brake linings and give an unsatisfactory turn.

The turning circle of the vehicle (fig. 7) varies according to the gear engaged when steering is applied. In top gear the radius of the turning circle is very large, giving a slow turn, but the radius gets progressively smaller in each of the lower gears. In low gear a skid turn is made, i.e. one track is stopped and the vehicle swings round with the centre of this track as the pivot. Therefore, when travelling in a high gear and a sharp turn is necessary, change to a low gear. The most suitable gear to engage for a turn will be found by experience.

2. Observe the line through the episcopes and note in which episcopes the line appears to be the lowest.
3. Rotate the adjusting screw at the front of this episcopes in a clockwise direction until the horizontal line just starts to fall.
4. Adjust the remaining episcopes until the horizontal line appears at the same level in all episcopes.

TRAVERSE INDICATOR - ELECTRIC (fig. 34)

A traverse indicator is provided for the driver to enable him to manoeuvre the vehicle so that the centre line of the vehicle may be brought approximately co-incident with the selected line of fire. This allows the main armament gunner full use of his traverse gear.

The indicator dial has a shaded sector representing the arc of fire of the main armament, and is wired in parallel with the machine gunner's indicator, both indicators being wired in series with the transmitter.

Should either indicator fail the fault will be in that indicator's wiring system. Should both indicators fail, the fault will be either in the current supply or the transmitter circuit.

For further details see under "Traverse indicator, electric" page 98.

Orientation

See page 98.

MAINTENANCE

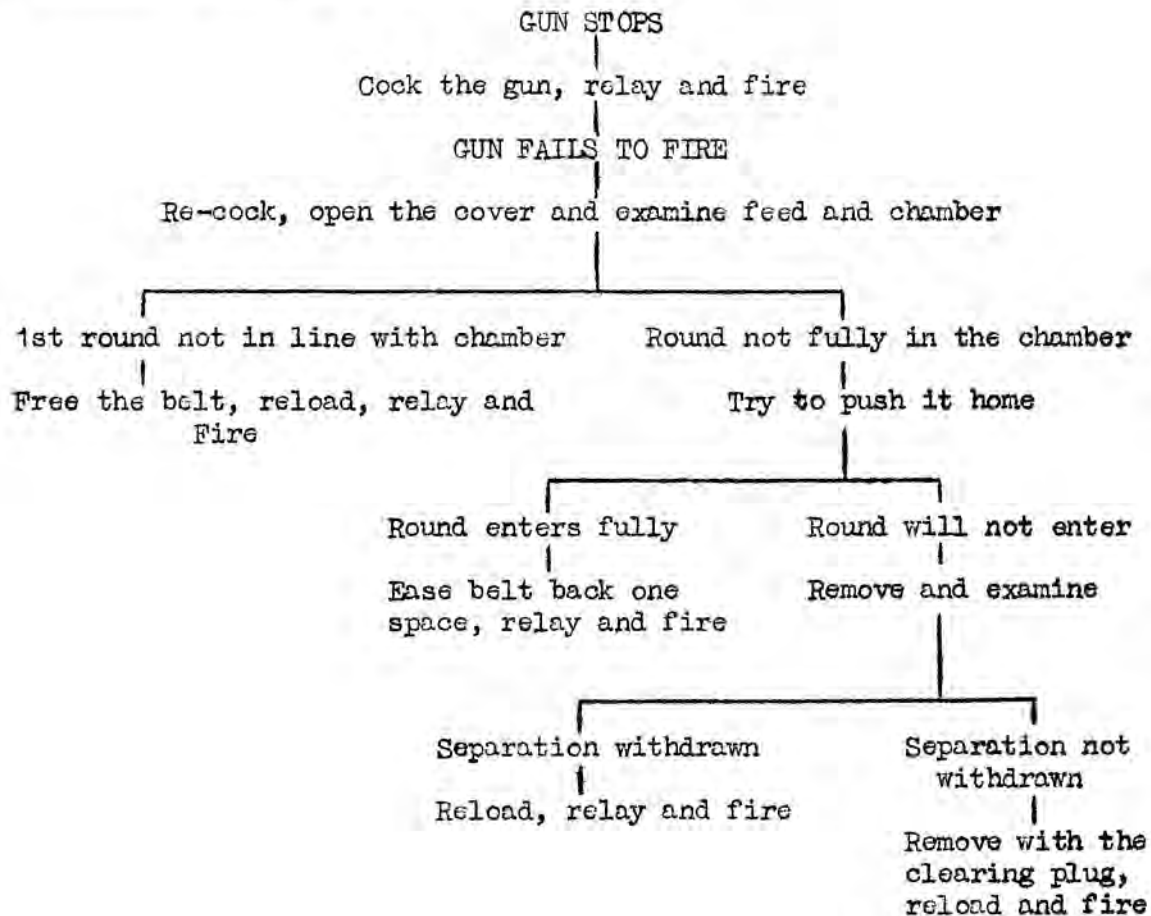
All optical devices should be periodically removed from their housings, and the housings cleaned with a lightly oiled rag.

Glass surfaces must be absolutely clean; they must not be touched directly with the fingers. Any mud or dirt must be washed off with clean water and the surfaces dried with clean cotton rag. On no account should mud or dirt be removed in a dry condition.

To avoid fogging of the instruments due to atmospheric conditions, optical surfaces should be treated with anti-dim compound.

Note:- To position the round so that the extractor will grip it, rest the handle of the Mark 2 clearing plug (or mounting spanner) on the base of the round and force downwards. Ease the working parts forward for the extractor to grip the round. Withdraw the working parts and examine the rounds.

IMMEDIATE ACTION AT A GLANCE



STOPPAGES OF RARE OCCURRENCE

NOTE 1

If feed is correct or chamber clear, examine the firing pin.

NOTE 2

If there is a round or empty case still in the chamber, change extractor and spring, fire working parts forward. Re-cock and examine chamber.

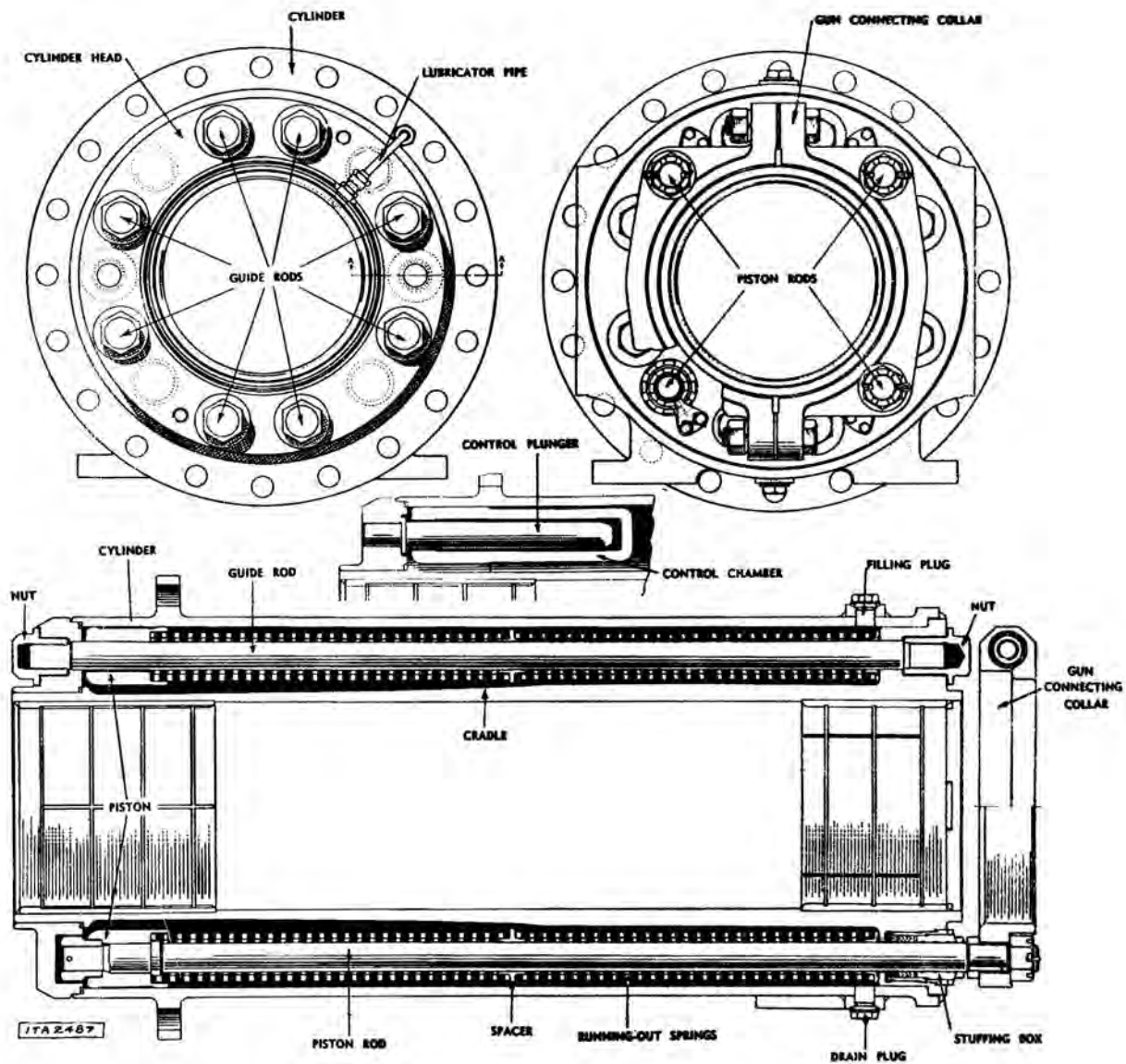


FIG. 51.

RECOIL SYSTEM, CONCENTRIC No. 1, MK. I