

CHAPTER III

FIGHTING COMPARTMENT

The turret is multi-sided and consists of a number of heat-treated steel plates welded to form an inner shell, to which is attached, by special screws, the armour plating.

The bulge at the rear contains the wireless receiving and transmitting set.

Suspended from the turret by six tubular supports is the turntable on which is carried the commander's, loader's, and gunner's seats.

Fixed to the turntable in a central position is the rotating portion of the base junction coupling the turret section of the power traverse and electrical systems to the hull.

The whole turret assembly is carried on a caged ball race and rotated by hydraulic traversing gear or manually, by gear engagement to a fixed rack ring.

Section of Turret Ring

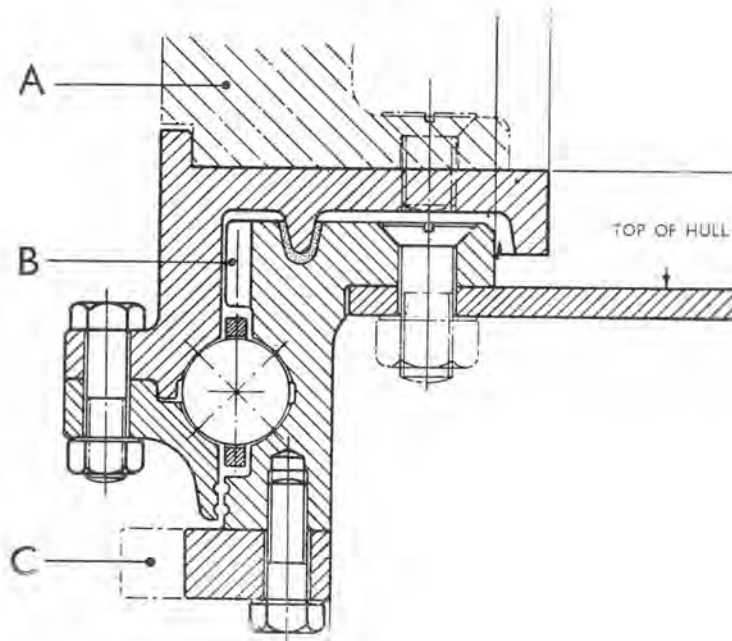
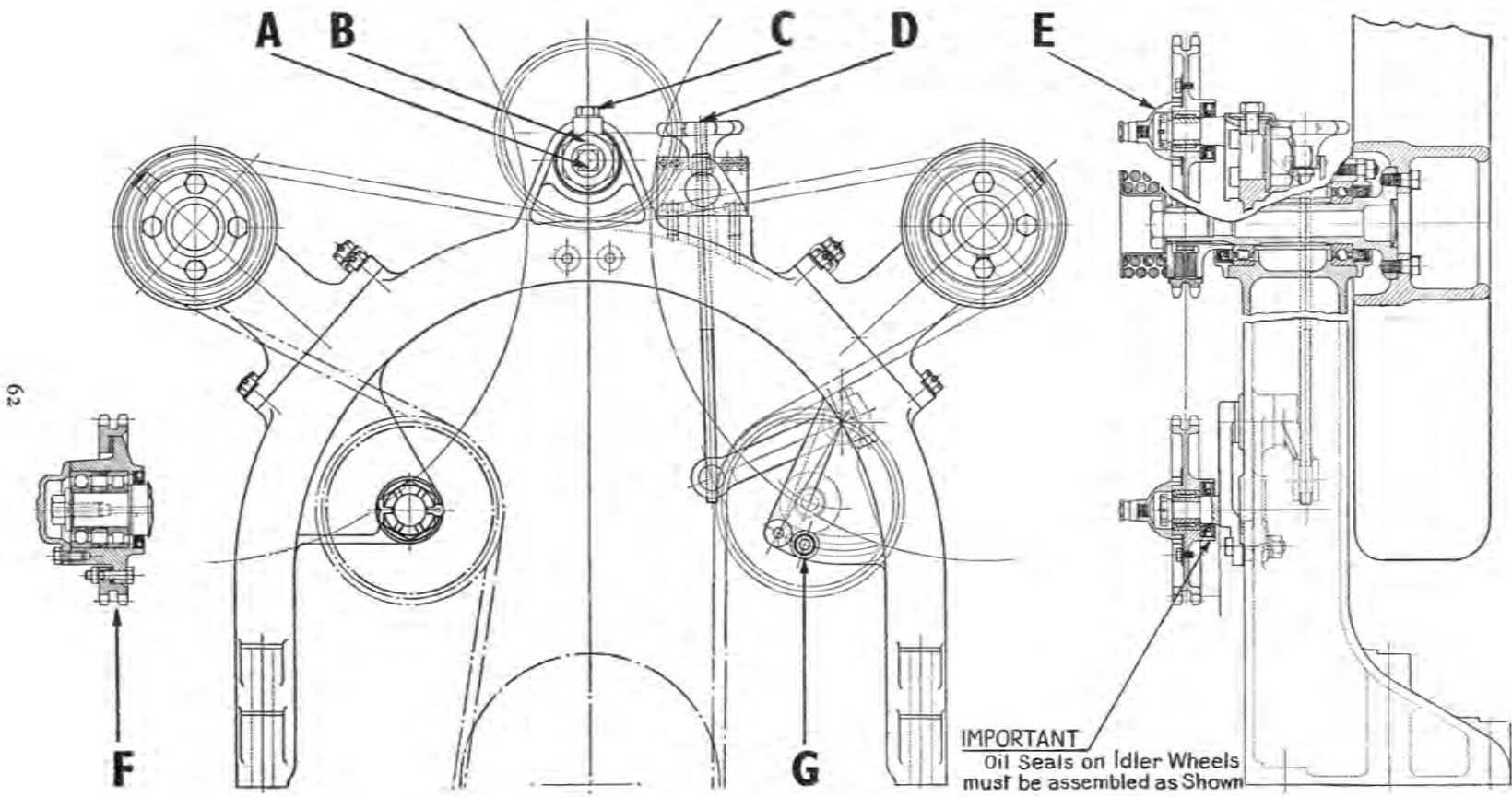


FIGURE 4.

A. Turret. B. Teeth for traverse gear. C. Depression cam ring.

Fans and Drive (Chain)



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FIGURE 26.

To remove a track, slacken off the adjustment fully, select a link preferably near the sprocket, where there is sufficient room, and drive out the end plugs and connecting pins with the drift supplied. Make sure that all traces of the plugs are removed from the locating grooves.

Joining Track Linkage

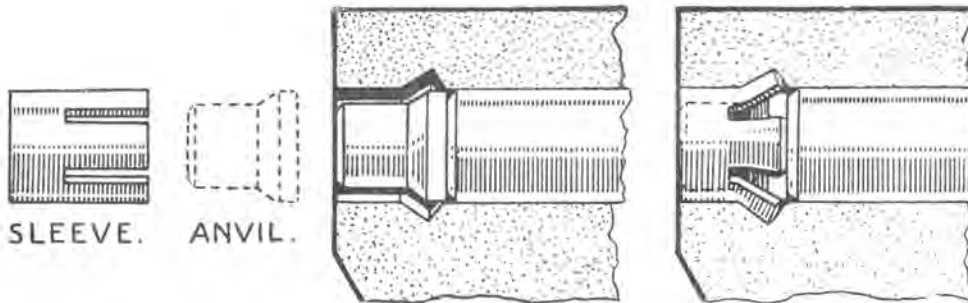


FIGURE 50.

To replace the track bring the two ends together at the rear of the driving sprocket, use the drift to bring holes into alignment, and follow through with the joint pin. A new plug must be fitted at each end of the pin and forced into the grooves.

Track Adjustment

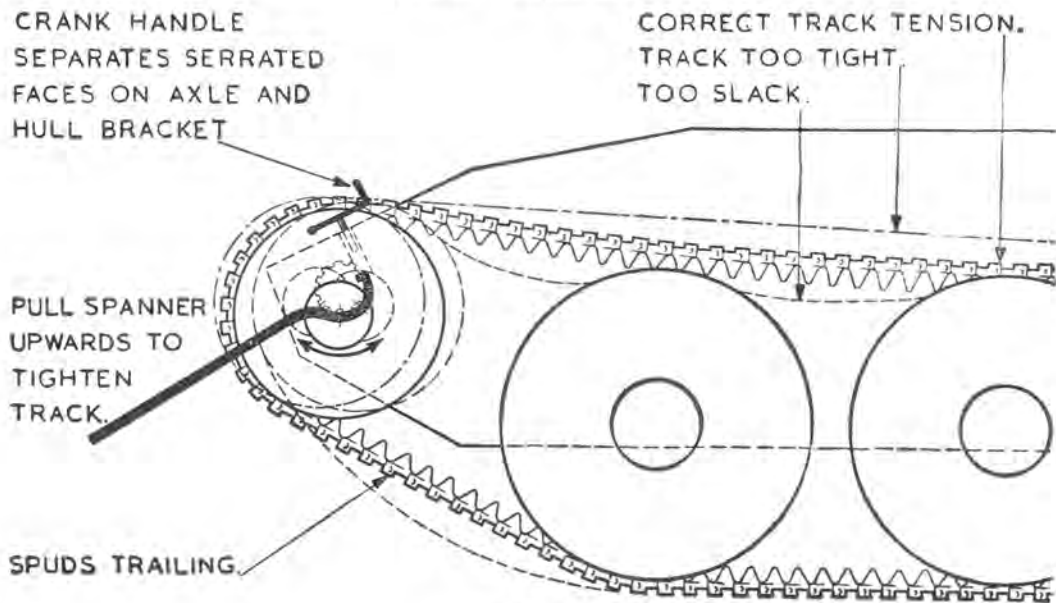


FIGURE 51.

Remove radiator (see page 123).
 Remove distributor cover and tie up with leads in a safe position.
 Remove distributor as instructed. On no account should the engine be turned after the camshaft has been lifted.
 Disconnect oil feed pipe at rear of camshaft.
 Remove twelve nuts securing camshaft housing to cylinders.
 Unscrew ring nut at base of camshaft vertical drive cover.
 Before lifting the housing, the position of the large camshaft gear wheel must be carefully noted.
 A line drawn through the centre of the distributor driving dog should coincide with the centre line of the inclined drive shaft, when that ignition is fully retarded, firing at No. 1 cylinder right bank.
 The complete housing may now be removed.
 In order to facilitate reassembly the bevel gears should be marked before dismantling.
 Remove rocker caps and rockers. The rocker caps are not interchangeable, the caps and camshaft housing being numbered for correct location.
 Unscrew seven dowel pins locating the bearings from the side of the housing.
 Remove cover nut on rear end of housing.
 Remove locking wire and four screws securing cover-plate over rear bearing.
 Tap camshaft and bearings through the housing, towards the distributor end, using a soft drift.
 Reassemble in reverse order. It should be noted that the bearings are of different outside diameters, with the largest at the distributor end. Before the bearings are finally home in the housing check for position, so that the end of each dowel pin will engage with the locating recess in the bearing. Also check the mesh of the bevel gears to bring the markings into alignment. If the large bevel is in the marked position and correctly meshed before the lower end of the vertical drive is engaged with the splined driving shaft, the valve timing must be correct.
 This routine covers both camshafts.

VALVE TIMING

Before attempting any timing operations the preliminary notes to " Ignition Timing " should be carefully read.

The valve settings are as follows :—

Inlet opens	...	10°	after T.D.C. (3 mm. down stroke).
Exhaust closes	...	8°	after T.D.C. (3 mm. down stroke).
Inlet closes	...	45°	after B.D.C. (158 mm. down stroke).
Exhaust opens	...	48°	before B.D.C. (154 mm. down stroke).

Tappet clearance cold should be : Inlet015 in., Exhaust019 in.