

BRITISH TRANSPORT COMMISSION
BRITISH RAILWAYS - WESTERN REGION

DISTRICT TRAFFIC SUPERINTENDENT'S
OFFICE,
RUNNING & MAINTENANCE SECTION,
BRISTOL.

31st. January, 1962.

MAYBACH ENGINE

REPLACING UNIT INJECTOR AND CHECKING INJECTION TIMING

INJECTION TIMING 8° B.T.D.C.

MD.870. FIRING ORDER 16, 8, 11, 3, 15, 7, 12, 4, 9, 1, 14, 6,

10, 2, 13, 5.

MD.650 & 655 FIRING ORDER 1, 8, 5, 10, 3, 7, 6, 11, 2, 9, 4, 12.

1. Set the governor to the 14° Rack setting and lock.
2. Remove from the injector the annular nut, lock ring and the worm gear.
3. Fit a copper washer to the injector nozzle and then fit injector into the cylinder head.
4. Replace injector clamp, spherical washer and bolt. Tighten bolt.
5. Fit worm gear, the locking ring and annular nut to the injector.
6. With special spanner turn the regulating sleeve until the three marks coincide, at the same time the backlash must be eliminated by holding the gear against the spring tension. Tighten the annular nut by hand.
7. Set the remaining injectors in the same way and then tighten all annular nuts with special box spanner.
8. Release the locking device on the Governor rack, and open and close the fuel rack several times. Then lock rack again at the 14° Mark.
9. Check that the three marks on the regulating sleeve of each injector still coincide.
10. Insert the tappet distance piece into the injector and slide the fuel pump rocker arm over the injector.

NOTE: It may be necessary to push the regulating sleeve plunger down so that the rocker arm will engage.

11. Locate the rocker arm with circlip.
12. Rotate the crankshaft in an anti-clockwise direction looking at the drive end of the engine to eliminate any backlash in the gear train and set No.1 cylinder at 8° B.T.D.C. on the compression stroke.

NOTE: To ensure that piston is on compression stroke check that the rollers of the rockers are resting on the cam base circle.

13. (a) Clamp Dial gauge to the Camshaft housing and using the long scriber, adjust until the point touches the top edge of the injector regulator sleeve cup. Zero Dial Gauge. Screw down the tappet adjusting screw until 4.3MM is registered on the dial gauge.
OR (b) Screw down the tappet adjusting screw to eliminate slack in rocker and then screw down a further $2\frac{7}{8}$ turns.
14. Lock tappet adjusting screw.
15. Repeat the injection timing on the remaining cylinders in the correct firing order sequence.