'85' & '95' V8 MODEL DESIGNATION:—These designations not carried in Shop Notes. Refer to '90' data for '85' and '100' data for '95'.

MERCURY NOTE:—All V8 '100' HP. Engine data below applies to Mercury (& Ford V8 with '100' engine).

ENGINE HOOD & GRILLE

1938 (ALL), 1939 (STD. MODELS)

HOOD, SIDE PANEL & GRILLE REMOVAL:—Turn radiator ornament counter-clockwise to free latch, lift hood up at forward end.

Side Panels:—To remove, take out three screws along top edge as follows: (1) extreme front corner at top of grille emblem, (2) at radiator shell, (3) extreme rear corner at cowl. Remove two thumbnuts on lower edge (inside), lift panel out.

Front Grille:—Made up of right and left sections but can be removed as an assembly. To remove, take out four bolts on fender edge on each side, one bolt on each side at splash shield edge on bottom,

1939 MODELS

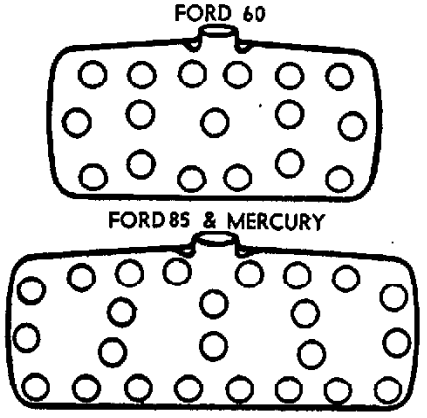
HOOD (DELUXE FORD & MERCURY):—To raise hood, release latch by pulling up on latch handle on front of hood at upper edge of grille, raise hood slightly, press down on safety latch handle (to right of latch handle under hood). Separate side panels not used.

1940 MODELS

GRILLE REMOVAL (FORD DELUXE):—Made up of right and left sections but can be removed as an assembly. To remove, raise hood, take out one screw at top of grille at each side, light baffle-to-fender brace bolt at top, 6 grille-to-side louvre bolts (accessible between core and grille), 1 grille-to-side louvre bolt at each side at bottom (accessible by reaching under grille). Pull assembly out at top, lift off.

CYLINDER HEAD

CYLINDER HEAD INSTALLATION: Use a Torque Indicating Wrench to tighten cylinder head stud nuts, tighten in sequence from the center of the head outwards. Precedure for tightening Cast Iron and Aluminum Heads is as follows:



Cast Iron Heads—With engine cold, tighten all nuts evenly to correct tension. Then run engine until it is thoroughly warmed up and recheck all nuts (additional tightening may be necessary for correct tension).

Aluminum Heads—With the engine cold, tighten all nuts to correct tension. Run engine until thoroughly warm, allow engine to cool off, and then recheck all nuts. Do not tighten aluminum heads when warm.

Tightening Torque—See Tightening (Torque Wrench) Specifications below.

1937-44 "V8" MODELS

REWORKING OF CYLINDER HEADS: Manufacturer recommends that all cylinder heads prior to 1945 (as listed below) be reworked for improved cooling. **These heads must also be reworked for increased valve clearance when used with Replacement (Std. 1945) Cylinder Blocks.**

NOTE—See "Exchange Engine" (below) for identification and other data on 1945 Cylinder Heads.

1937-44 Cylinder Heads

Part No.	Used On
77-6050-A (2 used) ①	85 HP. (1937)
78-6050-B (2 used) ①	85 HP. (1937-38)
81A-6049-A & 6050-A ②	85, 90, 95, 100 HP. (1938-44)
81A-6049-B & 6050-B ②	85, 90, 95, 100 HP. (1938-44)
81T-6049-A & 6050-A ②	85, 90, 95, 100 HP. (1938-44)
99T-6049 & 6050 ②	95, 100 HP. (1939-44)
29T-6049 & 6050 ②	95, 100 HP. (1939-44)

①—21 Stud type. ②—24 Stud type.

NOTE—1945 type heads, 41T-6050 & 59A-6050, do not require this reworking.

Reworking of Cylinder Head for Improved Cooling: The water hole at center of top edge of the head between #4 & #5 valves should be increased to ¾" (from 7/16") and hole at center of head between #2 and #3 cylinder bores should be increased to $\frac{5}{8}$" (from 7/16"). CAUTION—New design head gaskets must be used with these reworked heads.
See Cylinder Head Gasket data (following).

Reworking of Cylinder Head for Valve Clearance: Use special Fixture, No. 6050-B-1, and Cutter, No. 6050-B-2, to enlarge combustion chamber as follows: Place cylinder head on dowels on one side of the fixture (with fixture clamped in vise) and secure head with bolt through fixture. Insert cutter through guide hole in fixture and cut away head material at edge of combustion chamber to the full depth of the chamber. Rework head at each valve in this manner (fixture has two holes so that one intake and one exhaust valve can be re-worked at each set-up of the fixture).

CAUTION—New design head gaskets must be used with these reworked heads.
See Cylinder Head Gasket data (following).