

# SHEET METAL

The sheet metal parts, which include the hood assembly, front and rear fenders, radiator grille lower shell, are entirely changed for 1940. The die cast radiator grille and front fender grilles too are entirely new for 1940. The design of all of these parts have added a very pleasing advanced styling to the front of the cars. Also their design permits easy removal of all the above parts.

Both front fenders of all models have easily removed side filler plates. With filler plates removed, ready access to the sides of the engine for engine valve tap-pet adjustment, for example, is available.

Headlamps are now assembled into the front fenders. The rear bumper stone guard shield is made in two pieces and hinged at the middle to prevent any development of noise should the rear bumper be struck.

The hood, when being lowered, adjusts itself automatically to the proper position by means of an adjustable pilot and hole in the hood latch assembly lower at the extreme front point of the hood assembly.

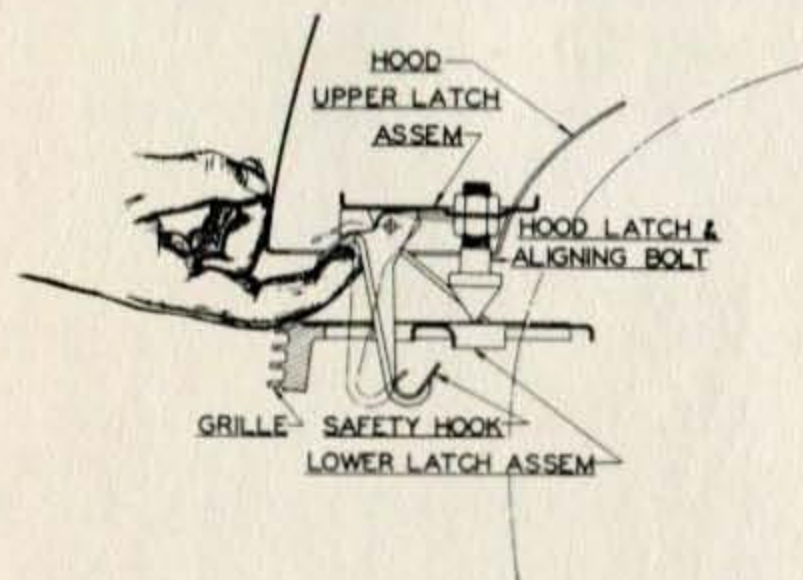


Fig. 266. Method of Raising Hood

The hood when down must be unlatched from inside the body before it can be raised. Once unlatched, it is still necessary to release a safety catch lever located at the extreme front point of the hood. The inside hood control adds considerably to safe driving and protection of engine parts against theft.

The removal and installation procedure of the various sheet metal and die cast grille assemblies follows with diagrams to make easier the following of instructions.

## Remove and Replace Front End Sheet Metal and Radiator Assembly All Models

1. Drain cooling system and disconnect radiator hose.
2. Disconnect wiring harness from junction blocks on filler plates, both sides. Remove harness from clips on radiator top tank and in left hand filler plate.
3. Disconnect hood latch operating cable at front end. Pull cable back through radiator core support.
4. Disconnect radiator tie rod brackets at front end. Remove screws "A," two on each side.
5. Disconnect fender from hood hinge bracket. Remove hex head bolt and washers "B," each side.
6. Remove hex head self tapping screws and washers "C," holding filler plate to chassis frame. One screw each side on Model "G" and two screws each side on Models "F" and "L."
7. Disconnect fender to chassis frame brace "D," both sides.

8. Remove bolts, nuts and washers "E," attaching running boards to fenders. On Model "L" remove cap screws "F" attaching fender to body rocker panel.
9. On Models "G" and "L" remove lowermost fender to body cap screw "G" from under car.
10. Remove front bumper assembly.
11. Remove nut and washers "H," attaching radiator core support assembly to chassis frame bracket at center of front cross member.
12. On Model "L" only, remove snap-in fasteners "J," attaching fabric splash apron to chassis front cross member.
13. Remove cowl kick pads inside of body, both sides.
14. Remove cap screws and washers "K," from inside of body, both sides. Cap screws thread into snap-in grommet nuts in fender.
15. Lift front end assembly until Stud "L" clears chassis frame support bracket, and pull forward to remove from chassis.

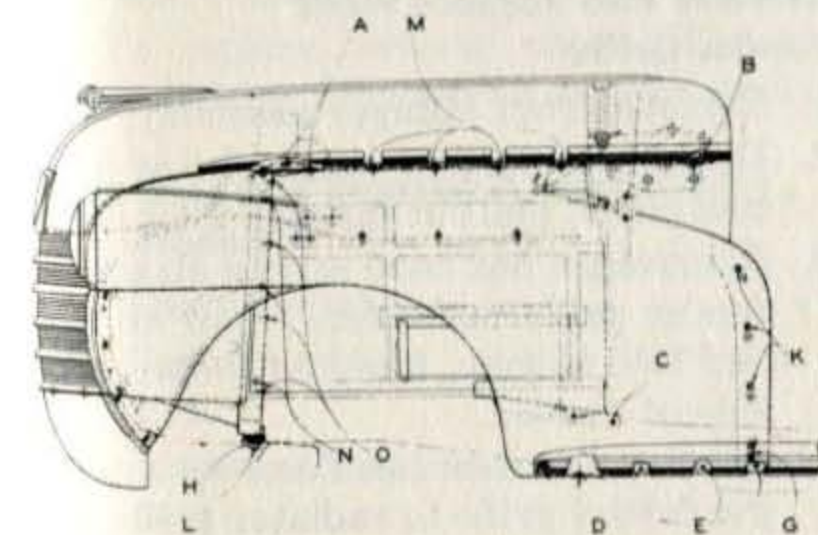


Fig. 267. "F" and "G" Front-End Sheet Metal Layout

To replace, reverse above "removal" instructions. Tighten all bolts securely after aligning sheet metal.

## Remove and Replace Radiator Grille All Models

The combination radiator grille and 5 detachable horizontal grille moldings are the same for all models. However, the 6-cylinder model grilles are painted and the moldings are chrome plated, whereas both are chrome plated on the 8-cylinder models. The individual moldings are serviced separately.

1. Raise hood.
2. Disconnect hood latch operating wire from hood latch lower assembly.
3. Remove eight hex head screws attaching grille to lower shell, reached from top.
4. Remove hex head screws attaching radiator grille to fender grille. Three each side, reached from underside of fender.
5. Remove hex head self tapping screws attaching radiator side baffles to radiator grille. Two each side. Reached from underside of fender.
6. Remove hex head bolts, nuts and washers attaching fender to top of grille. Four each side, reached from top and inside of fender.
7. Remove hex head self tapping screw attaching grille center baffle to radiator lower baffle.
8. Remove grille assembly.

To replace grille assembly, reverse "Removal" instructions. Tighten all bolts securely.

## Remove and Replace Lower Shell All Models

1. Remove eight hex head screws attaching lower shell to radiator grille. Reached from inside radiator grille.
2. Remove hex head screws attaching ends of lower shell to fender grilles.



Two each side, reached from under side of fender.

3. Remove lower shell assembly.

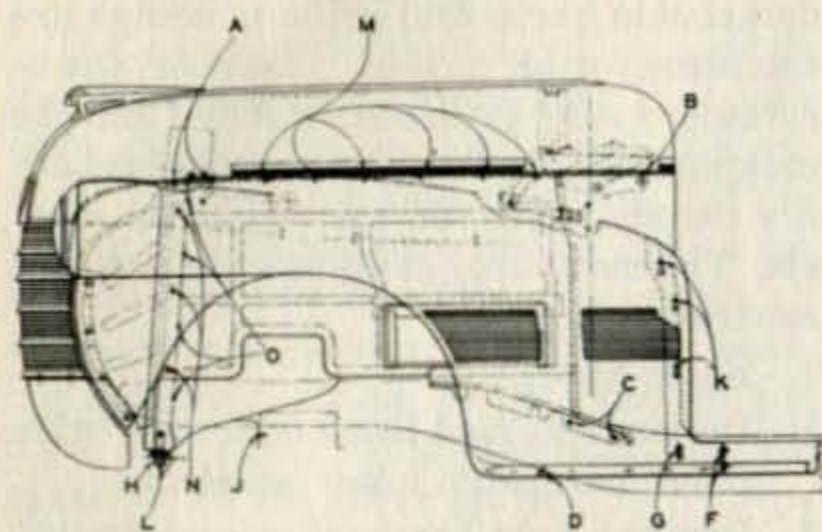


Fig. 268. Front End Sheet Metal Layout—"L"

To replace radiator lower shell assembly, reverse "Removal" instructions. The lower baffle of the radiator baffle assembly clamps between the lower shell assembly and the radiator grille. Tighten all screws securely.

#### Remove and Replace Front Fender All Models

1. Raise hood.
  2. Remove four hex head bolts, nuts and washers attaching fender to radiator grille. Reached from inside of fender and ahead of radiator core.
  3. Remove six hex head screws and washers attaching fender to fender grille. Two on top and four on sides, reached from under side of fender.
  4. Remove fender to chassis frame brace "D."
- NOTE—Brace not used on cars having running boards.
5. Remove bolts, nuts and washers "E" attaching running board to fender. On Model "L" only, remove two hex head cap screws "F" and washers attaching fender to body rocker panel.
  6. On Models "G" and "L" remove lower-

most body to fender bolt "G" from beneath car.

7. Remove cowl kick pad on inside of body.
8. Remove three hex head bolts "K" and special washers attaching fender to body. Reached from inside of car.
9. Remove hex head screws "M" attaching fender to filler plate. Four on Models "F" and "G," 6 on Model "L."
10. Disconnect head lamp wires from junction block and head lamp ground wire from tie rod bracket.
11. Pull wires back through filler plate and remove loom from clips on radiator side baffle.
12. Remove screws "A," attaching radiator tie rod bracket to fender and radiator core support.
13. Remove hex head bolt and washers "B" attaching fender to hood hinge bracket.
14. Raise fender and remove.

To replace fender assembly, reverse "Removal" instructions. Tighten all bolts and screws securely after aligning with other sheet metal.

#### Remove and Replace Front Fender Grille

1. Remove front bumper assembly.
2. Disconnect parking lamp wire at junction block; pull out through filler plate.
3. Remove six hex head screws attaching fender grille to fender. Four on side and two on top. Reached from under side of fender.
4. Remove five hex head screws attaching fender grille to radiator grille and lower shell. Reached from under side of fender.
5. Remove fender grille.

To replace, reverse above "Removal" instructions. Tighten all screws securely.

#### Remove and Replace Front Fender Filler Plate

1. Raise hood.
2. Disconnect all wires at junction block and remove from filler plate.
3. Remove hex head screws "M," attaching filler plate to fender at top. Four screws on Models "F" and "G." Six screws on Model "L."
4. Remove two screws "A," attaching radiator tie rod bracket to fender and core support.
5. Remove three hex head cap screws "N," attaching filler plate to radiator core support. Reached from underside of fender.
6. Remove hex head self tapping screws "C," attaching filler plate to chassis frame. One screw on Model "G," two screws on Models "F" and "L." Reached from underside of fender.
7. From underside of fender, slide filler plate toward dash until front edge clears core support.
8. Tip top edge of filler plate in toward engine until free from fender flange. Raise filler plate over shock absorber and remove by sliding back and down.

To replace, reverse above "Removal" instructions. Tighten all screws securely.

#### Remove and Replace Radiator Core All Models

1. Drain radiator.
2. Remove wiring harness from clips on core.
3. Disconnect upper and lower radiator hose.
4. Disconnect hood latch operating cable at hood latch. Pull back through core support flange.
5. Remove drain cock on front side of radiator.

6. Remove cap screws "O," attaching core to support. Four each side.
7. Remove core from top. Turn fan as required for clearance.
8. On Model "L" only, it will be necessary to remove screws "A," attaching tie rod bracket to core support, before removing core.

#### HOOD ASSEMBLY

The 1940 hood assembly is made up of the following sub-assemblies:

1. Hood top assembly, comprising right and left halves of the hood, hood top molding, ornament and emblem.
2. Hood hinge assembly.
3. Hood prop assemblies.
4. Hood latch assembly, upper.

The new hood assembly is easily removed or serviced, as shown below. It is self-aligning, simply constructed and, with the new latch arrangement, effectively protects the engine compartment against theft and tampering when the car doors are locked.

To raise the hood it is necessary to release the latch from inside the body. This is accomplished by a "Push-Pull" control knob located to the left of the steering column on the lower flange of the instrument panel. Pulling back on the control knob releases the latch at the front of the hood. When the control is released it automatically returns to original position. When the hood is unlatched it raises approximately 1 1/2" at the front and is held there by the "Safety Hook." This is released by inserting the fingers in the opening between hood and grille at the center and pushing up on the tab on the "Safety Hook." The hood can now be raised. The spring loaded prop assemblies will hold the hood in the raised position. When lowering the hood it is important to bring