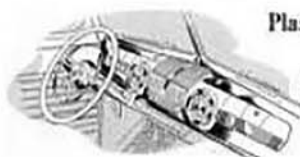


How Defense Needs have been met and Ford Quality improved

As DEFENSE PRODUCTION has gained pace, many people have wondered about its effect on 1942 cars. Would shortages of some materials force substitutes into the motor car? Would buyers get less quality for their money this year? For our part at Ford, we are glad to say that defense requirements have been met in full without a single reduction in the goodness of the car mechanically—and with many real improvements in its beauty, comfort and performance. Some new materials have replaced old ones, generally at greater cost to us. In every case, the new is equal to or better than the old. Here are instances of what we have done . . .



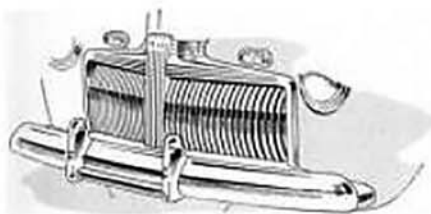
Plastics Replace Metal for Interior Trim

We have been developing plastics for a long time at Ford. The value of this is now apparent. The wider use of plastics this year in instrument panel, radio grille, door handles and other interior trim has released large quantities of zinc formerly used in metal die-castings, as well as nickel and chromium formerly used in plating bright metal parts. The new plastic parts are lighter in weight, fully as serviceable, and very attractive in appearance.



Molybdenum Replaces Nickel

Nickel is important not only in the finish of plated metal but in improving the toughness of steel. In defense production it is used in the manufacture of aviation engine parts and armor plate. Ford valves, transmission gears, shafts, and other parts formerly containing nickel, are now alloyed with molybdenum and chromium. For the purpose, these parts are as good as or better than those replaced.



Steel Stampings for Die-Castings

Exterior parts like radiator grilles, and mechanical parts like generators and starter end plates, are now made from steel stampings instead of die-castings, without affecting their usefulness or appearance. This has freed large amounts of zinc, aluminum and other defense-needed materials.

Some Results in Defense Metals Saved

Based on present conditions, here are some examples of how new materials and methods in the 1942 Ford are helping relieve defense "shortages." Figures show the cut in use this year of the materials named:
Primary (new) Aluminum has been cut out 100% . . . Secondary (re-melted) Aluminum has been cut down 70% . . . Nickel has been cut down by 90.7% . . . Magnesium, cut out almost entirely, is down 98.7% . . . Zinc has been reduced by 37.5% . . . Copper, Tin, Lead, and Tungsten cut down in varying amounts from 5.2% to 81%.



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