

IMPERIAL EXCHANGES frame-body for unit construction with 1967 model change. Wheelbase and overall length have been reduced. Width is narrower, but the car is taller. The 440-cu. in., 350-bhp engine only is available with this line.

1967 AT CHRYSLER CORPORATION

New Bodies for the Largest and Smallest

GOING TO EXTREMES this year, Chrysler Corp. concentrates its body-building energies on the largest and the smallest of its cars. The remainder of the lines in both car-producing divisions are simply restyled enough to provide model year identification. Underneath these modest skin grafting operations, however, a substantial bit of engine modification has occurred and interiors have been subjected to the safety engineer's scrutiny.

Imperial, with a fifth model added to the previous 4-car line, has been more closely integrated into the Chrysler image with the replacement of its exclusive frame and body construction of recent years by its own fully unitized version of Chrysler's C body-shell. In appearance, of course, it is

considerably removed from the sisters under the skin. There can be no confusion, in fact, with any other automobile, so distinctive is its styling.

This is not quite so true at the other end of the price scale, where the clean and uncomplicated Dart and Valiant bodies will appear. These, along with the remainder of the various corporate car lines, will arrive at dealerships within the month, although styling photos have yet to be released. Chrysler's two compact lines present an almost conservative appearance in contrast to past models, even though modestly curved side glass is used. Engineering details for what is claimed to be a new body bear a remarkable resemblance to those of the preceding body, except for a wider front tread.

The power story primarily revolves

around two engines: The 318-cu. in. V-8, which has received a substantial redesign in the upper end, and the 440-cu. in. engine introduced last year, which has redesigned intake systems along with a high-performance mutation called "440 Magnum." However, serious combustion chamber reworking is apparent in the Slant Six engines, primarily in an effort to reduce hydrocarbon emission levels. And, finally, the 361-cu. in. V-8 is discontinued, its duties shouldered now by the 318 or a 2-barrel 383.

Though it uses the same block as before, Chrysler's 318-cu. in. engine is so extensively redesigned as to constitute a new engine. This engine, which sired the lightweight 273-cu. in. V-8 a few seasons ago, picks up the head, chamber and valve layout that

A STYLING feature of the 1967 Imperial is a grille which appears almost solid. This Crown coupe can be fitted with a traveling office option. The car, with others from the corporation, has been given the safety equipment add-on treatment.



had been developed for that smaller V-8. Moreover, a foundry change to casting with furan cores (a method of hotbox sand coring that permits thinner wall construction) results in reduced weight by some 60 lb. The new stripped weight of the 318 design is 455 lb. less than 10 lb. heavier than the 273. Both engines have switched to cast nodular iron crankshafts from previously used drop-forged steel units.

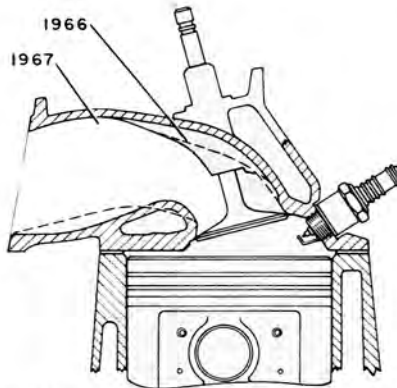
Bore and stroke continue at 3.91 by 3.31, respectively, but cylinder heads differ a great deal from the previous engine. Valves are now carried in-line for more wedge shaped combustion chambers, replacing the modified poly-

spheric chambers of previous 318s, and hydraulic lifters now quiet valve train clatter. Valves are the same as those on the 273, with 1.78-in. intakes and 1.5-in. exhausts, but a slightly longer camshaft (244 vs. 240°) with greater overlap (22 vs. 16°) is used. Porting is cleaned up a great deal, requiring a new bi-level intake manifold and new exhaust manifold. Stamped steel rocker arms are shaft mounted, an arrangement Chrysler finds to be both adequate and economical to produce. With a slight raise in compression (9.2:1) and a 2-barrel Stromberg carburetor, power rating continues at 230 bhp at 4400 rpm, with 340 lb.-ft.

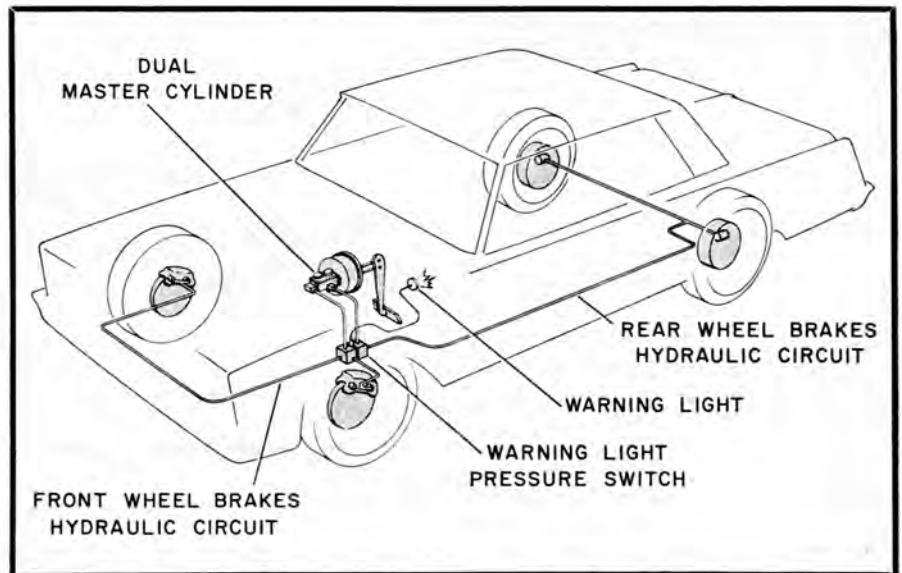
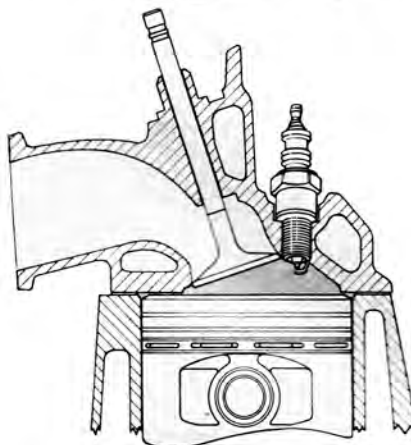
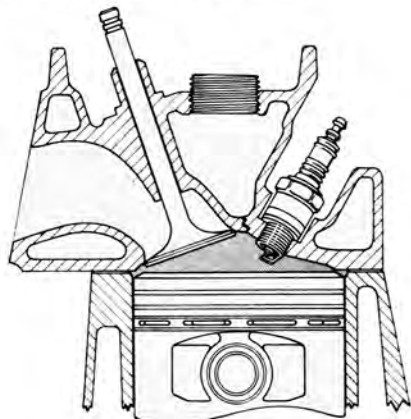
of torque generated at 2400 rpm.

In the large-engine realm, Chrysler engineers have given deep breathing exercises to the 440-cu. in. luxury engine, providing 10% larger port area in the normal version and producing from it the additional, higher performance Magnum 440, referred to by Plymouth as the Super Commando. A new bi-level intake manifold, used on both engines, has port areas increased from 2.3 sq. in. to 3.2 sq. in. This requires reworked cylinder heads to accommodate the larger porting.

Magnum-tizing the 440 consists of replacing the standard camshaft (256-260° durations, 32° overlap) with a

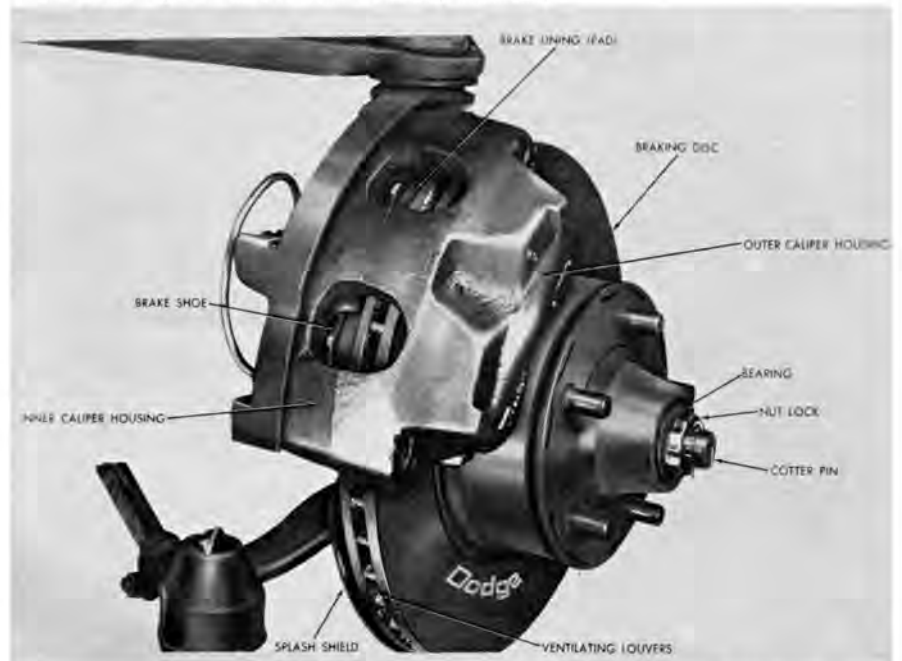


INTAKE port revision aids 440's breathing (top). New wedge head (bottom), replaces polyspheric design (center) on 318 engines.



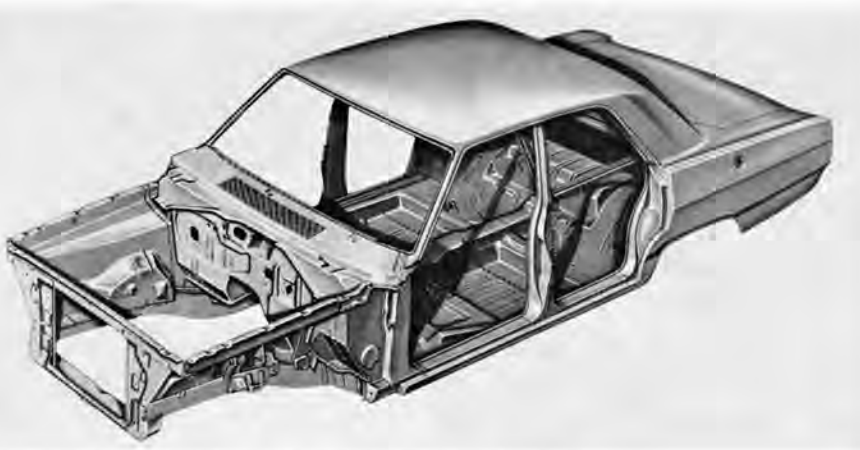
STANDARD ON Imperials is a disc/drum system with separate hydraulic circuits for front and rear. Warning light shows when pressure is low.

BUDD, BENDIX and Kelsey-Hayes supply disc brakes for all Chrysler 1967 car lines. However, some specific models retain drum-only availability.





MOBILE Director option includes swivel chair, table and lamp.



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longer one of 268° intake, 284° exhaust and 46° overlap. Compression remains at 10:1 and intake valves continue at a huge 2.08 in. diameter. Exhausts, however, have been enlarged to 1.74 in. and stiffer valve springs are fitted. Hydraulic lifters still are used and the Magnum, unlike the even higher performing Hemi 426, can be used on cars with air conditioning. The 426, incidentally, is continued unchanged because, according to Chrysler engineers, "We feel it is perfect."

Other notable features on the Magnum are tougher tri-metal connecting rod bearings and a substantial increase in carburetor venturi area. While the standard 440 carries a single 4-barrel Holley with 1.56-in. barrels, the Magnum switches to a Carter AFB with primary and secondary barrels of 1.68 in. There is an exception: In California, where the Cleaner Air Package is required, a Carter AFB with a much reduced 1.44-in. primary diameter is

installed. The Magnum generates an additional 25 rated bhp over the standard 440, listed at 375 bhp at 4600 rpm, with an identical 480 lb.-ft. of torque peaking 400 rpm higher at 3200. Dual low-restriction exhausts from a special manifold, exhibiting good branch separation, complete the Magnum option.

AMONG CHRYSLER's other engines, the workhorse 383-cu. in. takes on a 2-barrel carburetor with smaller venturi area and a camshaft of longer duration, primarily for smog-panicked Californians. For the same market, engineers reshaped the combustion chamber to remove some of the quench area in the 6-cyl. engines to reduce hydrocarbon emissions. Any surface within the chamber is bad for emissions, say the engineers, so it is necessary to eliminate such surfaces as quench areas in order to complete combustion. Other smog-inhibiting measures are the use of hotter, 190° thermostats and the installation of the 225-cu. in. engine's camshaft (8°

longer duration) in the 170, raising the smaller engine's rating to 115 bhp.

The corporation, which has taken a middle course in making disc brakes available for its cars, now offers them in all lines (though not for every model) including the mid-range Coronet/Belvedere cars. Previously, discs had been options for the compacts and technically available (primarily for police service) in the larger cars. Bendix now supplies the units being offered as options for the mid-range cars, differing only dimensionally from the Kelsey-Hayes components used in the compacts. Both brands utilize proportioning valves to limit hydraulic pressure above 350 psi to the rear drums for better balanced action. Budd caliper discs, used on the larger cars, dispense with the proportioning valve by utilizing four larger caliper pistons (2.375 in. each) to better match the action of the rear drums.

Both Budd and K-H units bond their brake lining material to steel-backed pucks, but Bendix specifies integrally molded pucks. All disc brake systems

are power assisted except those for the Dart/Valiant, which may be ordered without power aid. The use of slightly differing units from the three major suppliers is seen as an advantage by Chrysler, both in the more comprehensive comparisons which can be made among them and in the better availability of sufficient quantities from the suppliers.

BRAKE SYSTEMS, of course, have moved one step closer to an industry-wide lock-step as the result of governmental pressure. Chrysler, along with all other domestic producers, now uses a split line hydraulic arrangement that has separate circuits for front and rear brakes. A tandem master cylinder is used to activate each channel from individual reservoirs, and an in-line pressure valve lights an instrument panel bulb when pressure is too low and brake failure is imminent. The arrangement is said to permit unimpaired stopping by one pair of wheels should the opposite brakes fail, but it would seem to have a more significant potential: More precise proportioning of front-to-rear braking requirements should be possible than has been the case with single-line systems.

Other so-called safety features displayed by all Chrysler cars are Saginaw-supplied collapsing steering columns; deep recess steering wheels; larger gear shift knobs; double jointed interior mirror mounts; 4.25-in. outside rearview mirrors with remote control; flat, pull-out type interior door release levers; 4-way signal flashers; more heavily padded instrument panels and visors; multi-speed windshield wipers and washers; back-up lights; non-glare wiper arms and blades; deluxe seat belts (having retractors and cover boots) front and rear and for station wagon third seats; and, on most models, small toggle switches and

thumb wheels to replace push-pull knobs on instrument panels. Optional equipment in this vein are center seat belts front and rear; shoulder belts for outboard front passengers; and front seat headrests.

Imperial, as might be expected, goes farthest among Chrysler's car lines in providing those interior appointments which add to comfort and convenience as well as to safety. From last year's safety show car, 300 X, comes a swing-around front passenger seat as part of a traveling office option which is available in the Crown Coupe. Called the Mobile Director, the car includes a 4-position utility table that folds away for storage and a portable, flexible stem reading lamp to go with it. The seat has a reclining back and adjustable headrest.

In moving to the new body, Imperial wheelbase is reduced 2 in. to 127 and overall length is shaved 3.1 in. to 224.7. The luxury car's width is almost 0.5 in. narrower, but height is increased 1.3 in. Only one power train is offered, the 440-cu. in./350-bhp engine with 3-speed automatic transmission and 2.94:1 rear axle. Suspension is typical Chrysler with front torsion bar and Hotchkiss rear, where leaf springs have been lengthened 2 in. to 62 in. Generous rubber bushings at the rear spring mounting points achieve the sought-after soft and quiet riding quality, but make necessary the use of a lateral track bar for positive axle location. Similar rubber isolation is used at the front, where a separate substructure and crossmember to carry engine and suspension components is bolted to the main body structure.

Front wheel disc brakes with 11.76-in. ventilated rotors are standard equipment for Imperial. These, coupled with 11-in. rear drums of 3-in. width, provide 437 sq. in. of swept lining area to cope with the 5200-lb. cars. Among

Imperial options are a photoelectric headlight control that turns lights on or off according to daylight intensity and includes a switch-off delay of up to 3 min., and a rear seat heater that ducts hot air to defrost rear windows.

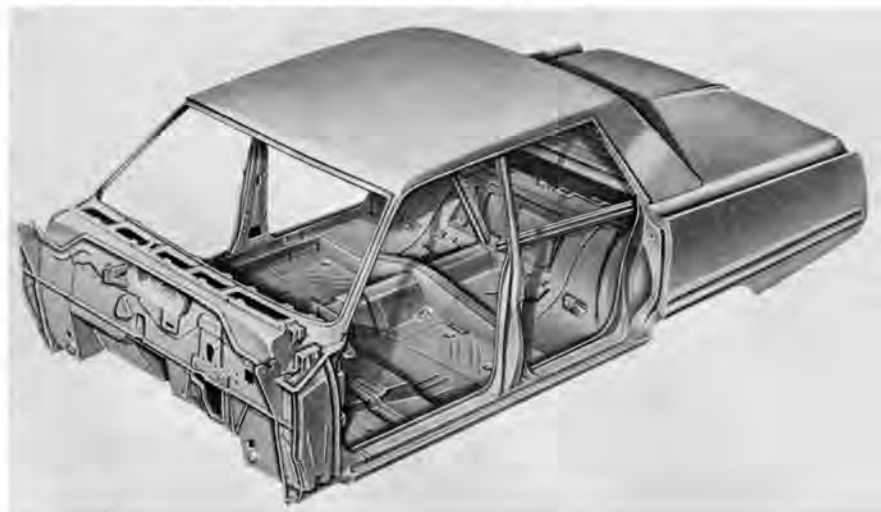
Chrysler cars and large size Dodges and Plymouths, which share the corporation's C-body understructure, all have restyled exterior sheetmetal in what engineers refer to as "reskinning." Among the styling changes is the appearance of a rather distinctive 2-door hardtop roof, a body style which provides a rear package shelf plenum chamber to serve as a flow-through ventilation outlet. The Chrysler line, with an added mid-range series called the Newport Custom, maintains a 124-in. wheelbase though overall length is increased 1.5 in. for hardtops.

The exception to this is the station wagon, where wheelbase has increased an additional inch (over last year) to 122 in. This vehicle, with differing appointments and styling motifs, carries Plymouth and Dodge nameplates in addition to Chrysler. Power assisted front wheel disc brakes are standard on all except Plymouths, in which case they are extra cost options.

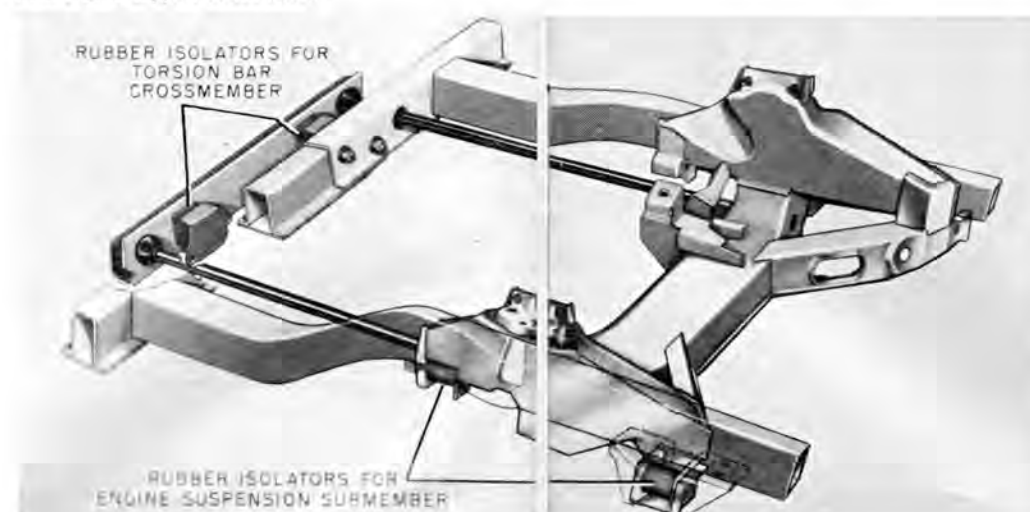
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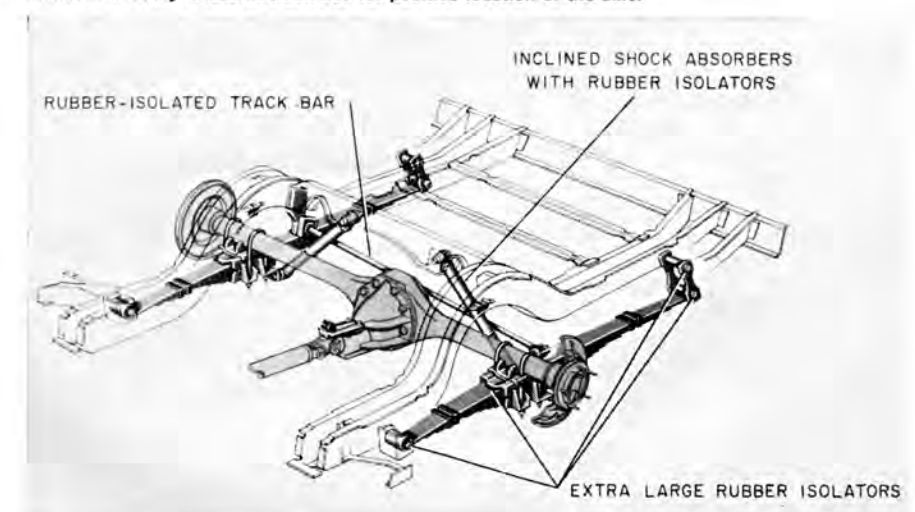
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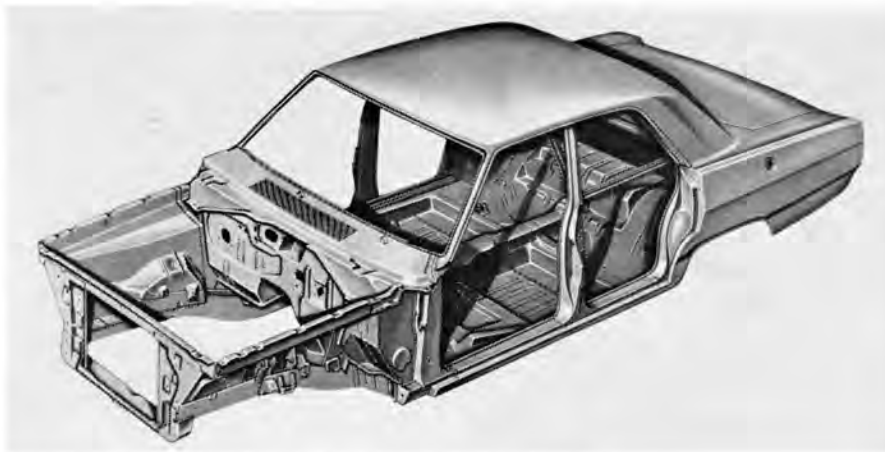


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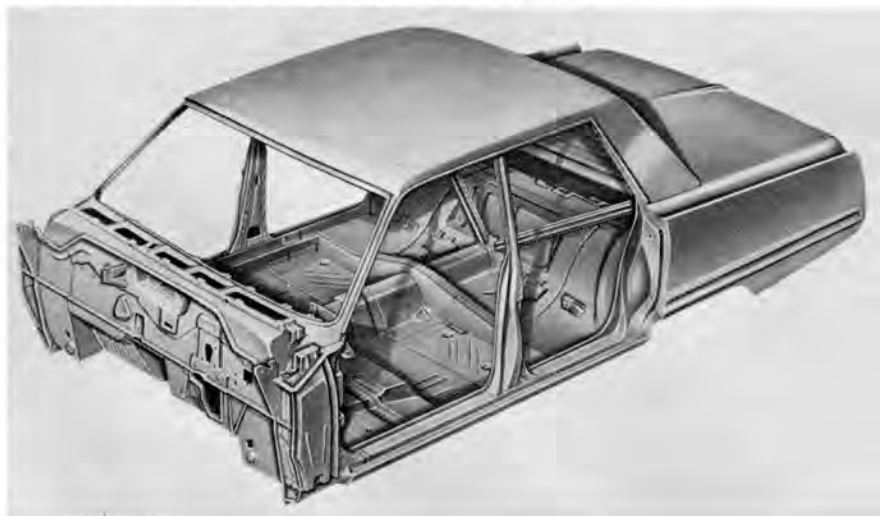
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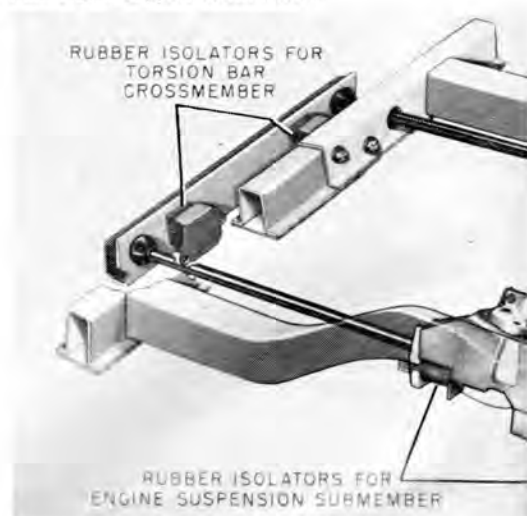
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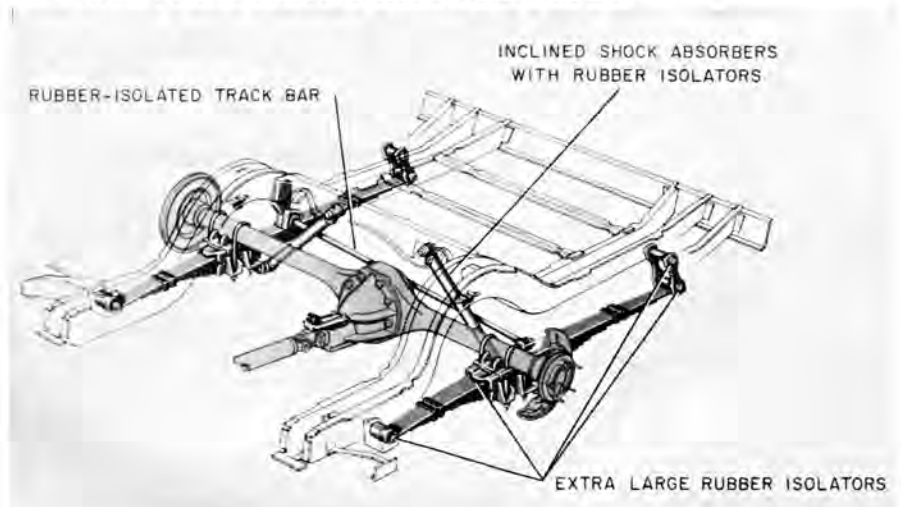
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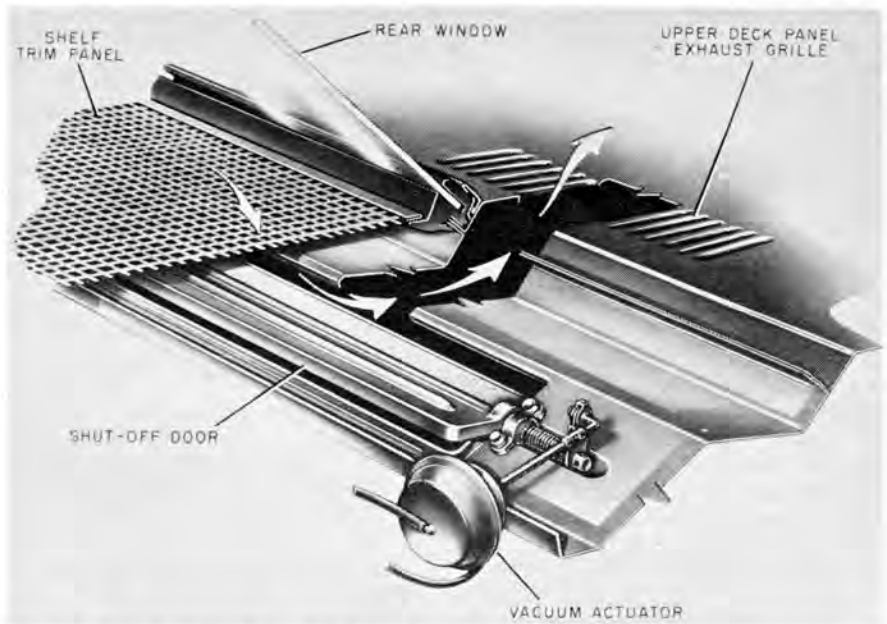
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have the Chrysler wagons, have grown 1 in. in wheelbase length to 122 in. throughout. Overall length, however, has extended half a foot to 219.6. Styling of the big Dodges, as with the entire Chrysler contingent, is sharply creased and angular for 1967. In the Coronet line, Dodge's Supercar is called the R/T and is powered by either the 440 Magnum or the 426 Hemi. The division's unique Charger also offers this power selection along with a "mother-in-law" front seat.

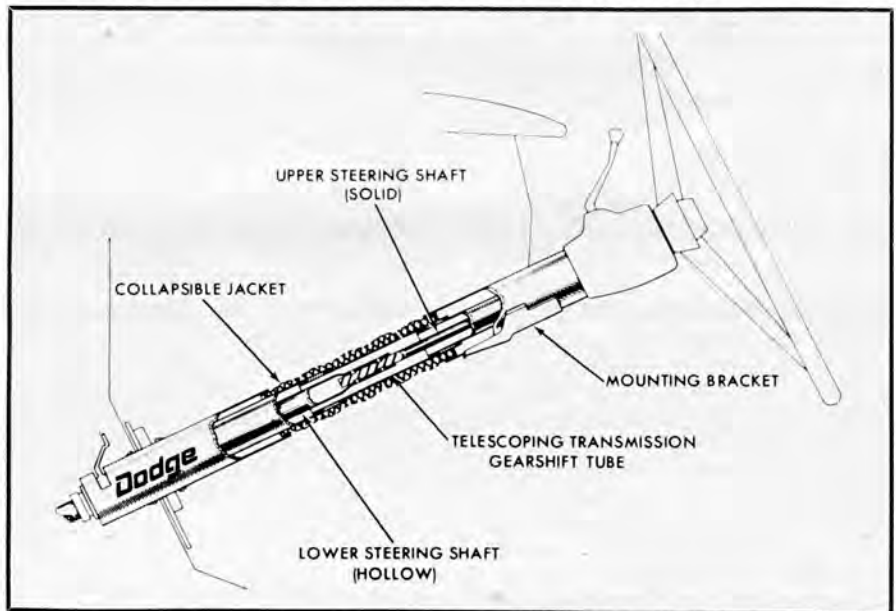
Chrysler offers Wide Oval tires as high performance options for some models. Noticeably broad in beam, these tires provide a substantial increase in footprint on the road. The tires, in addition, inaugurate an improved system of tire sizing. The Dart's D70-14, for instance, tells the buyer it is an 1100-lb. capacity tire (the D—progressive letters mean progressively greater capacity), its height-to-width ratio is 0.70 (previous low profile HP tires commonly have been 0.80), and it fits 14-in. rims.

DART AND VALIANT display no particular change in concept for the new unitized bodyshell, although the altered greenhouse made necessary by the curved side windows permits a decidedly different roofline. Valiant's wheelbase is extended 2 in. to a more competitive 108 in., but Dart's remains at 111 in. In both cases, however, the wheelbase is moved 2 in. forward relative to engine and passenger compartment. This, along with the 2-in. increase in width between front side-rails (which widens front tread to 57.4 in.), is in anticipation of larger engine installations. Chrysler has a rather unique production problem because front sheet metal already is in place when its bodies drop over the engine on the assembly line. Clearance for the 273 V-8 has been at a bare minimum during past model runs and the increased engine compartment room should solve this problem.

Engine availability remains as it has been for the present, despite the sturdier side-rail and sill areas and more copious transmission tunnel in the new bodyshell. However, model availability has been reduced and station wagons no longer offered. Valiant hardtops and convertibles also have been eliminated, but Plymouth isn't abandoning them: Pillarless soft- and hardtops will be additional models for an expanded Barracuda series which, after suffering pre-production delays, is scheduled for November debut. Looking more like a baby Riviera than anything in the Chrysler line, the 'Cuda will be well worth awaiting. ■



CHRYSLER AND the larger Dodge and Plymouth cars feature flow-through ventilation in some models. Control is vacuum actuated; vent is on rear deck.



ENERGY-ABSORBING steering column, from Saginaw for 1967 Chrysler Corp. cars, has crushable transmission selector torque tube and column jacket.

NEW FOR 1967 is this tandem braking master cylinder assembly which provides hydraulic pressure for the two separate—front and rear—brake circuits.

