

for the Fury), height 53.7 inches. While other cars have grown in length between '56 and '57, Plymouth designers have kept their heads and have actually reduced the overall length of the '57's one-tenth of an inch.

The chassis of the '57 Plymouth was thoroughly discussed in the November '56 Hot Rod so we'll just touch upon it here. The frame is of welded double channel box section design with five ladder type crossmembers. Behind the front crossmember, the frame side rails are parallel to each other with a small "kick" in front and a larger "kick" over the rear axle.

Front suspension is, of course, by longitudinal torsion bars and unequal length non-parallel suspension arms. The lower arm is a single stamped "hat section" beam pivotally mounted to the second crossmember at its inboard end. The upper arm retains its characteristic "A" form but is also a steel stamping and is pivotally mounted to brackets secured to the frame. The forward end of the torsion bar is located and secured at the pivot

In the normal sense, spring rate does not apply to the torsion bars which, by virtue of their attaching linkage, become variable rate springs. That is, as the load that twists the bars is increased, the resistance to further twisting is also increased. The bars are made from chromium alloy steel with upset hex ends and are 44.6 inches in overall length. Anti-roll stability is maintained by using bars of different diameters for different models. For example, all six cylinder Plymouths have a bar diameter of one inch and all standard V8's use bars with a diameter of 1.04 inches, which are about 7½ percent stiffer than the one inch bars. The Fury uses bars 1.09 inches in diameter, or over nine percent stiffer than the 1.04 inch diameter bars and 16 percent stiffer than the one inch diameter bars. It should be pointed out that the front end suspension geometry and associated parts are identical for all models, except for torsion bar diameter and shock absorber calibration.

The steering linkage contains the now-familiar symmetrical idler arm (which du-

for the six-leaf springs used in the Fury.

Final drive is transmitted through a single exposed driveshaft to a hypoid gear set in the semi-floating rear axle assembly. Gear ratios for standard V8's are 3.54's with synchromesh gearbox, 3.91's with overdrive, 3.36's with PowerFlite and 3.18's with TorqueFlite. Our test car was non-standard in that 3.54's were fitted with TorqueFlite. Fury ratios go a bit further with 3.18's, 3.36's, 3.54's, 3.73's, 3.91's, 4.1's, 4.3's, 4.56's and 4.89's offered as options. Our Fury was equipped with 3.54's.

Our first test car weighed in at 3820 pounds fully loaded but without driver or passengers. Of this total, an even 2000 or 52¼ percent was on the front wheels with 1820 pounds or 47¾ percent on the rear wheels. The weight distribution corresponded very closely with the Fury, which weighed 3790 pounds or 30 pounds lighter than the standard car.

ROADABILITY

There is no question, at least in my mind, that the weight distribution of the Plymouth has a very great deal to do with the manner in which the car handles. The distribution figures closely approach some theoretical "ideals" of sports cars but set a new standard for full-sized American passenger cars. After thoroughly wringing out the standard Plymouth on all types of roads and under nearly every conceivable condition, I was ready to take on all comers to prove the Plymouth was the most roadable passenger car ever built in this country. It isn't perfect but it is undeniably the best yet. Up to 80 mph, the ride was excellent but above this speed, a slight amount of rolling was experienced on all but the smoothest roads. This, of course, is due to the fact that the car is quite softly sprung with soft shock absorber calibrations. Through the turns, the car felt as though it were as level as the road itself but photographs taken at the time proved otherwise so there is definite chassis roll, although the driver is not particularly aware of it. Directional stability at all speeds is excellent and there is an almost total lack of "wallowing" or "floundering." Recovery from bumps and dips was equally excellent; in fact, it was so good that one wondered if the disturbance was really as bad as it had appeared.

In our high lateral "g" test turn, the car was completely at home. Up to about 70 mph, the tires protested but stayed glued to the pavement. Above 70 mph, the beginnings of a front wheel drift were noticed. At about 74 mph, the front wheel drift was definite and was joined by the rear end. The fastest speed recorded through this turn was 80 mph in a clockwise direction and 78 mph in a counter-clockwise direction. The difference was due to carburetion difficulties and the maximum speed was limited by an auto-

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The Fury from aft at 90 mph. It's surely the best handling production car in America.

axis of the inboard end of the lower control arm. The rear end of the torsion bar is anchored to an adjustable bracket which, in turn, is mounted on the third crossmember. This feature permits an individual manual height adjustment for each torsion bar to allow for load variations, "sagging" of the bars or the whims of the owner. A pair of struts extend forward from near the outboard end of each lower control arm to the front crossmember. The purpose of these struts is to absorb braking torque. Self-contained ball joint units are used at the outboard ends of each control arm and are attached by taper fittings to the integral spindle and support forging. The front shock absorbers are located vertically between a point about midway in the length of the lower arm and a steel "bell" welded to the frame. With the exception of the front and rear torsion bar sockets, all front end connections and joints are insulated with neoprene bushings. It is interesting to note that no front anti-roll stabilizer is used on any Plymouth, although stabilizers did appear on a few prototype chassis.

plicates the motions of the pitman arm) with two equal length tie-rods and a transverse drag link. The standard mechanical steering gear is a worm and three-tooth roller made by Chrysler. Overall ratio is 26.8 to 1 with 4¾ turns of the steering wheel for full lock-to-lock travel. The optional integral Chrysler "coaxial" full time power steering unit, with which both test cars were equipped, has an overall ratio of 19.8 to 1, which is 26 percent "faster" than the mechanical gear and requires one less turn for lock-to-lock travel of the front wheels.

Rear suspension is conventional but with modifications. A pair of fore-and-aft semi-elliptic springs are mounted outboard of the frame with the rear axle housing clamped to the shorter and consequently stiffer forward sections of the springs. This greatly reduces any "wheel hopping" tendencies under hard accelerative loads that characterize an open driveshaft with two or more universal joints. Rear spring rate is 95 pounds per inch for standard Plymouths with a four-leaf spring and 125 pounds per inch or 24 percent stiffer