

'58 THUNDERBIRD ROAD TEST

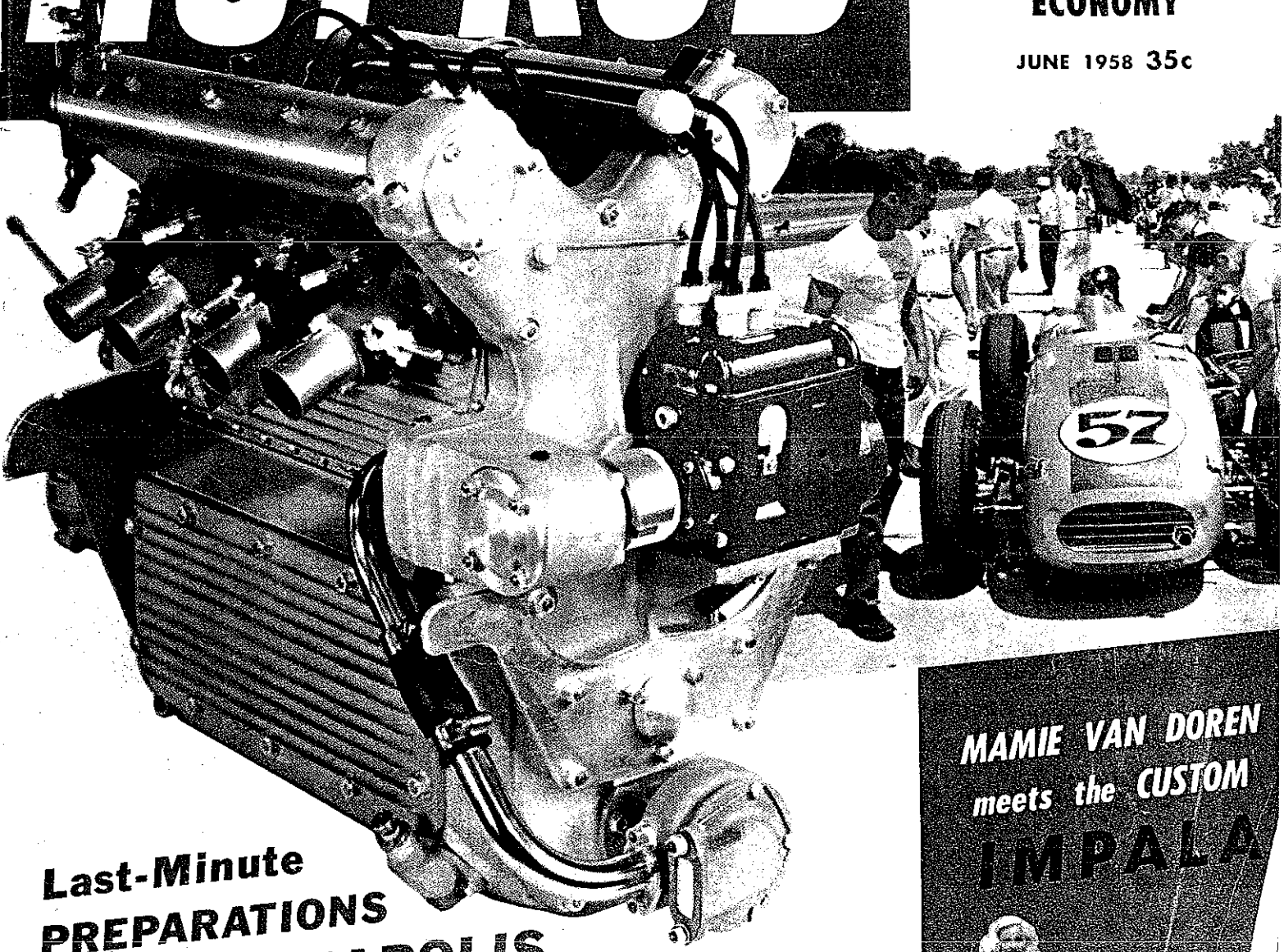
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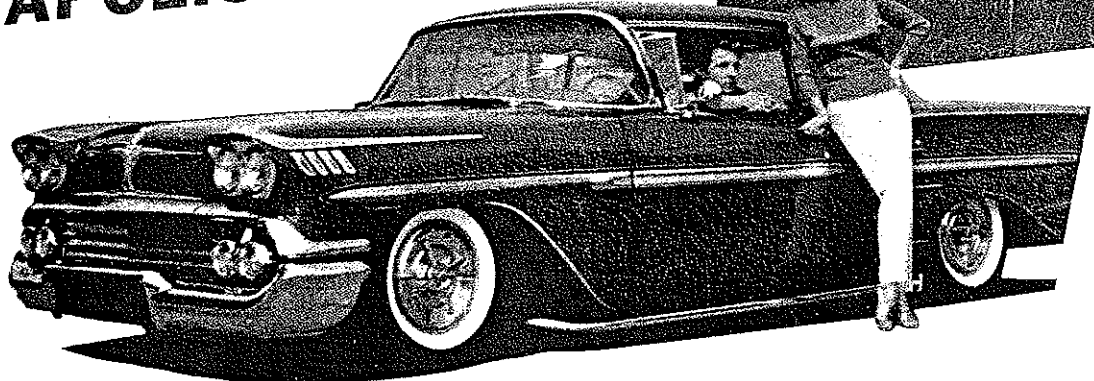
Their effect on
SAFETY, COMFORT
ECONOMY

JUNE 1958 35c

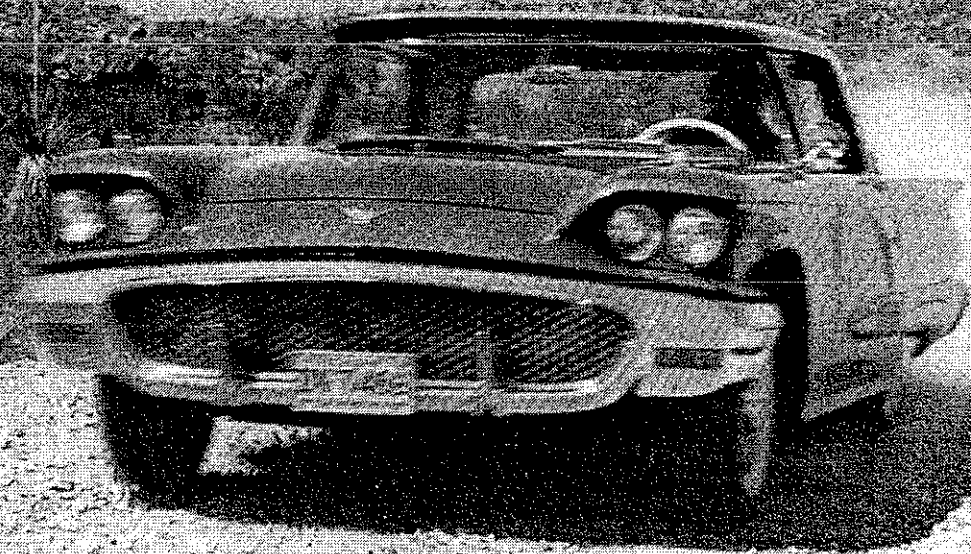


Last-Minute
PREPARATIONS
For INDIANAPOLIS

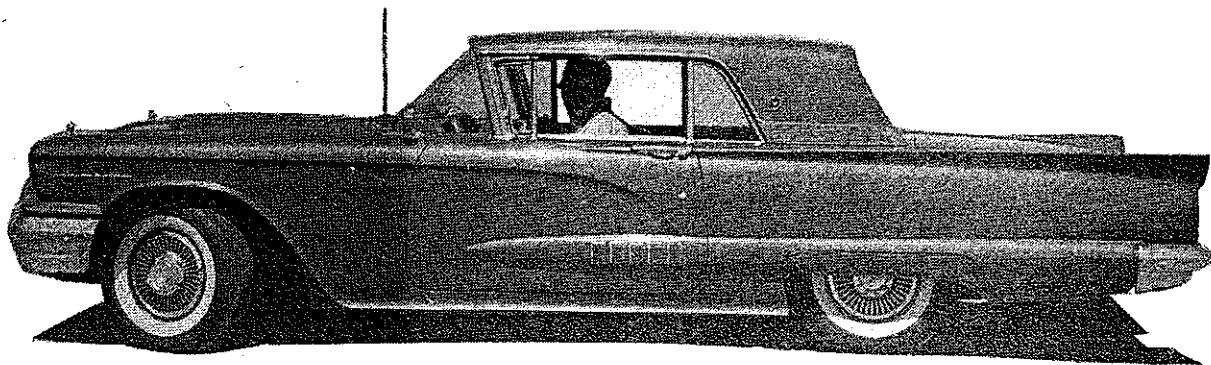
MAMIE VAN DOREN
meets the CUSTOM
IMPALA



'58 THUNDERBIRD



Ford's latest model does not resemble its predecessor in size, payload or price. All three have been greatly increased conceding performance en route.



--- Only the name's the same

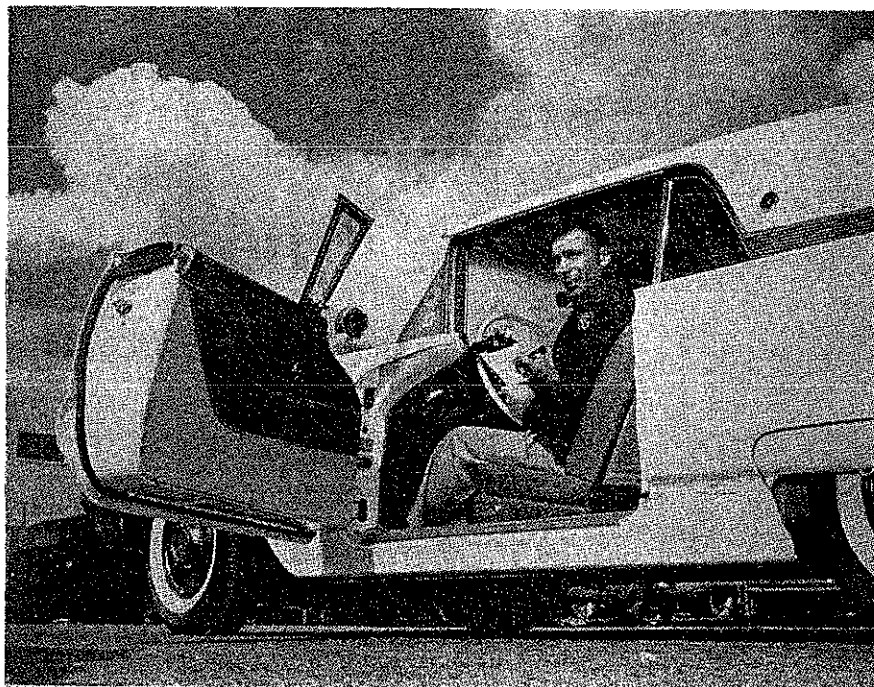
By Bob Russo

Editor's note: Bob Russo, well-known automotive writer, relieves HRM Tech Editor Ray Brock at the wheel of this month's road test. For good reason, too; Ray busily preparing to compete in the annual Mobilgas Economy Run. Here's what Bob has to say about the new Thunderbird.

ABOVE. Height of the '58 Bird is only 52½ inches with design load. Road clearance is slight, won't clear rutted roads.

LEFT. Although weight balance between front and rear wheels is better than most cars, Bird slides easily on gravel roads.

RIGHT. Guest editor Bob Russo notes times after acceleration tests. Despite 300 hp rating, performance is mediocre.



More than anything else, the all-new 1958 Thunderbird is an attention grabber. It took less than fifteen minutes and an equal number of miles at the beginning of our Performance and Evaluation test to determine as much, while the ensuing time and miles spent with this new four-passenger T-Bird served to settle the issue for good. We found in our travels, which included a trip from Los Angeles to historic Tombstone, Arizona, that Ford's answer to a roomier sports-type luxury car has caught the fancy of both sexes, in all age groups, insofar as looks are concerned.

Whether the big change from a two to a four-place model will be successful to Thunderbird sales remains to be seen in the coming months, but early figures released by Ford certainly indicate wide acceptance from the public, even though our extensive research with the car brought a variety of mixed comment and opinion. Currently, orders are being received faster than the cars can be produced and it appears that the four-place models will quickly outsell the 53,000 or so two-place models sold to the public since the Thunderbird introduction in 1955. As a matter of record, the fifty-millionth car produced by the Ford Motor Company in its fifty-five year history, was a green Thunderbird.

The new Bird, which cost \$30,000,000 to bring to the

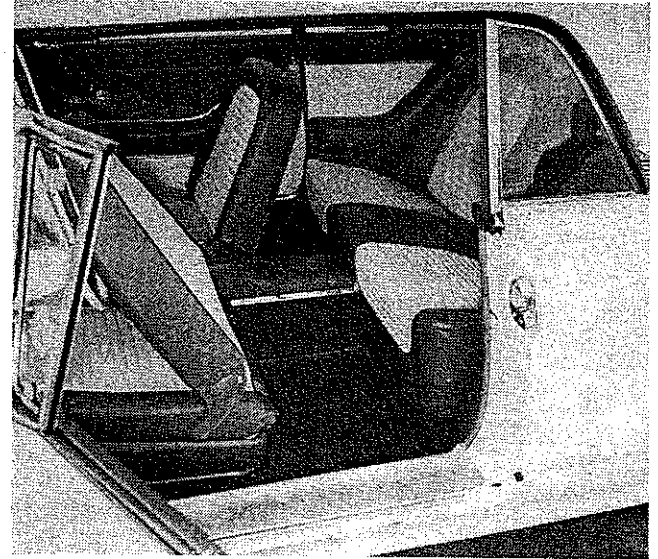
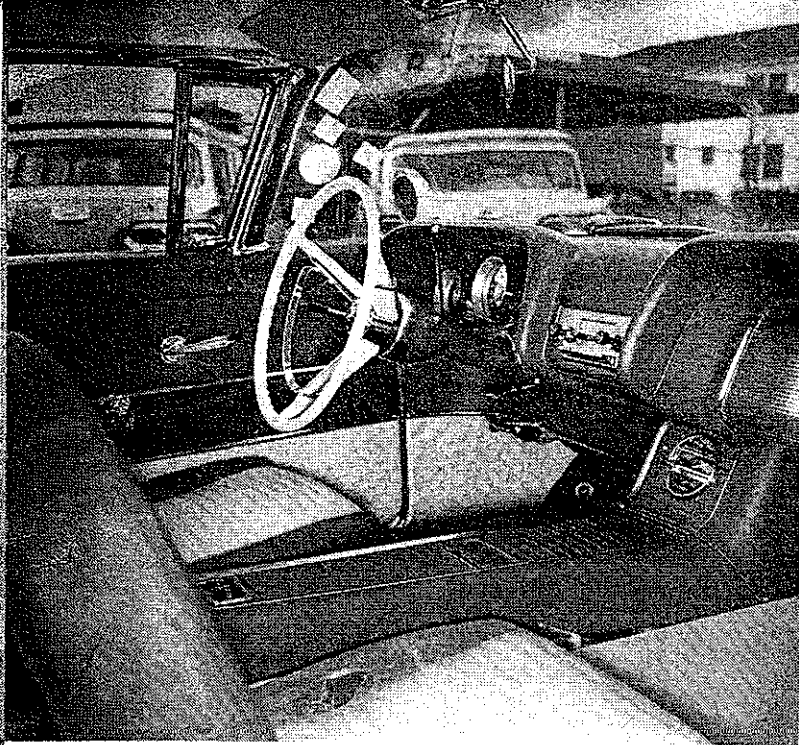
market, is 24 inches longer, 4 inches wider than the former two-place model, and has 1.5 times as much trunk space, all of which should appeal strongly to prospective buyers. Its power has been stepped up from 245 to 300 hp through the new 352-cubic inch Thunderbird V8 engine with precision fuel induction and 10.2 to 1 compression.

The new body is of unitized construction, with front and rear coil springs coupled to angle-poised ball joint front suspension and trailing arm type rear suspension. Wheelbase has been increased from 102 inches to 113 inches, and the overall length has been stretched to 205.4 inches—an increase of 24 inches over last year's model. For the most part, the new T-Bird resembles the Continental in many ways, but still maintains that unmistakable Thunderbird styling which has become so familiar on American highways during the past three years.

ENGINE

Before starting the test, for purposes of recording fuel economy and acceleration performance, we had the speedometer and odometer calibrated by the Automobile Club of Southern California. Next, we checked the car for engine performance on a Clayton chassis dyno and came up with some rather

(Continued on following page)



Interior of the new Bird is both attractive and comfortable. Foam rubber padding gives a "bucket" feel to both front and rear cushions which keep passengers in place on curves. Rear seat entry is actually easier than getting into the front seat since seat backs fold well out of the way. Console portion between seats houses heater controls, power window buttons.

'58 THUNDERBIRDS continued

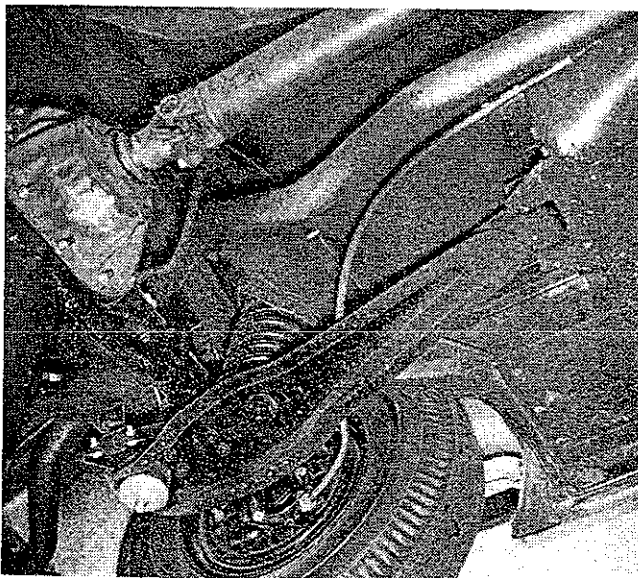
interesting figures. Our test car, when turned over to us, had slightly more than 300 miles on it, so the engine was still fairly tight. Before giving it the dyno treatment, we set the timing to stock specifications, 8° initial advance, and checked the points for proper clearance. We felt that any deviations from stock specs might result in an unfair test since this was to give an indication of the horsepower a typical stock T-Bird could produce.

At 2500 rpm, the 300 hp engine put out 110 horsepower at the rear wheels. At 3000 rpm it registered 130 hp; at 3500 it put out 136; and at its peak—4000 rpm—it put out 144 horsepower. In view of the dyno readings, it is reasonable to assume that some fine tuning—carburetion, timing, and plugs, together with additional engine break-in—would produce a slight but definite increase to the horsepower produced at the rear wheels. An increase from 144 hp to 150 should be average and possibly

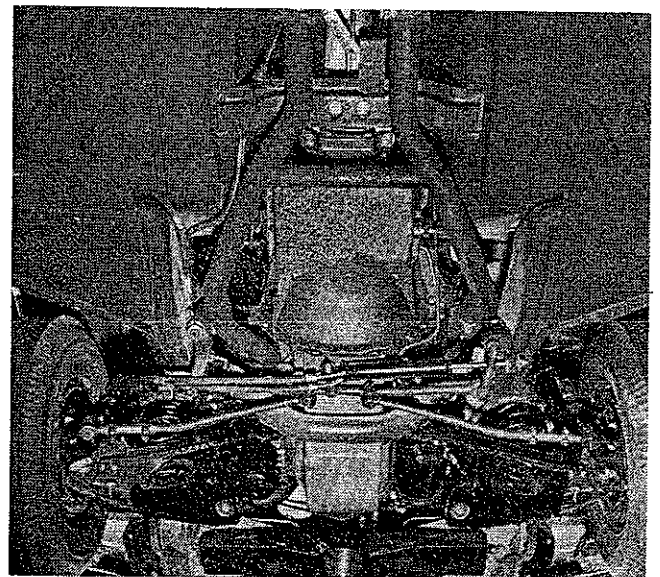
a great deal more with the change of carburetion and ignition.

By way of comparison, last year's T-Bird engine, with its 312 cubic inches, put out 133 horsepower at 4000 rpm on the same chassis dyno. So, with an increase of 40 cubic inches over last year and an increase in advertised horsepower of 55 hp, the new 352 cubic inch T-Bird Special showed an increase of only eleven horsepower. Both the 245 hp rating last year and the 300 hp for '58 are for the convenience of the ad department and can only be duplicated on an engine dynamometer under ideal laboratory conditions. Even under these ideal conditions, there is no rule saying that the quoted figures must be gospel. This also holds true for General Motors, Chrysler and the rest. Production engines do not have to match the horsepower claimed in the ads and few—if any, could.

The T-Bird 300 horsepower engine is identical to those available as optional equipment in Ford Fairlane passenger



Rear suspension is through trailing arms and coil springs. A cross-chassis "track bar" is used to control side movement but short trailing arms seem to "steer" rear wheels on bumps.



Unit construction of the '58 T-Bird eliminates the need for a full length individual frame. Short frame sections are used to support front suspension and engine. Note exhaust equalizer.

cars, with a 4-inch bore and a 3½-inch stroke. The combustion chamber is fully machined and is completely within the head. The engine is well designed and should be very dependable, but tests currently being conducted on an engine dyno (results appearing soon in HRM) indicate that a lot of work is needed to make the 300 hp Ford put out an honest 300 horses.

The engine itself sits well forward in the chassis, leaving considerable room between the rear of the block and the firewall to provide space for an air conditioning unit if one is desired. It is our opinion, however, that placing the engine farther back in the chassis would greatly improve handling and cornering which we shall discuss in detail later.

The powerplant is cooled by a cross-flow radiator, sitting extremely low to permit Thunderbird designers to achieve their long, low hood lines. The radiator top tank is lower than the water passages in the intake manifold so a small two-quart filler tank is located just ahead of the air cleaner to give a high point of fill and eliminate trapping air in the cooling system. Total coolant capacity is 20 quarts.

TRANSMISSION

Four transmissions are available for the 1958 T-Bird, ranging from the conventional three-speed stick shift to overdrive, and from regular Fordomatic to the new Cruise-O-Matic or dual range transmission. The stick shift is available with a 3.70 gear ratio for a healthy low end punch while both automatics come with a 3.10 gear. An optional ratio of 2.91 also is available for the latter.

Our test car was equipped with Cruise-O-Matic which offers

two drive ranges. D1 range allows starting in low gear for a faster take off before automatically shifting into second and then high, while the D2 range allows the car to start only in second gear no matter how hard you tromp the throttle. The latter is for better economy in city driving. The transmission may be downshifted for engine braking by moving the selector to the Low position. At speeds up to 75 mph, the car will smoothly downshift into second gear and at speeds below 20 mph, it will downshift into first gear.

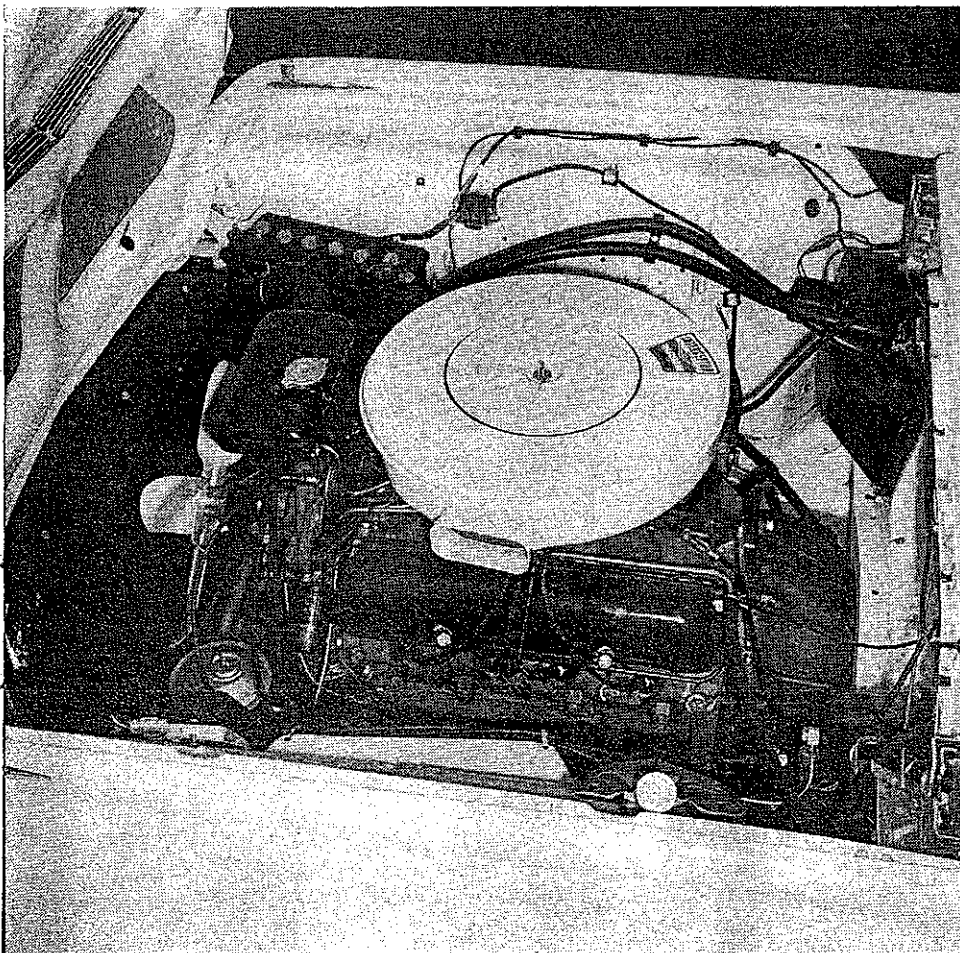
The 3.10 ratio with Cruise-O-Matic is available only on the Thunderbird. Regular Ford passenger cars equipped with the dual range employ a 2.69 gear ratio. The Fordomatic and Cruise-O-Matic are very similar but differ slightly in torque converter stall ratios, 2.1 for the Fordo versus 1.9 for the Cruise-O, and in smoothness of shifting. The Cruise-O-Matic upshifts a bit smoother and downshifts much smoother. Both have ratios of 2.40 in first, 1.47 in second and direct in third.

INTERIOR COMFORT

Stepping into the new Bird for the first time gave us a pleasure that grew more prominent as the miles passed under the wheels. First and foremost, seating arrangement in the semi-bucket seat is naturally comfortable for both the driver and front seat passenger. Separated by the driveline tunnel which is accented with what designers call a "console," containing the radio speaker and heater controls, both seats are individually adjustable to suit the comfort of the driver and passenger. Drivers with the habit of resting the left elbow out the side

(Continued on page 76)

Photos by Bob Russo and Eric Rickman



Ford 300 hp Interceptor V8 engine is the only powerplant available for the T-Bird. It is mounted well forward in the chassis to give a flat firewall and eliminate the bell housing hump in driver's compartment. Note the high-point radiator filling tank.

1958 T-BIRD SPECIFICATIONS

ENGINE

Bore	4.00 in
Stroke	3.50 in
Displacement	352 cu. in.
Compression ratio	10.2 to 1
Horsepower	300 @ 4600 rpm
Torque lbs/ft.	395 @ 2800 rpm

CHASSIS-BODY

Wheelbase	113 in
Tread, front	60 in
Tread, rear	57 in
Length	205.5 in
Width	77 in
Height, loaded	52.5 in
Weight	3870 lbs
Weight, front	2055 lbs
Weight, rear	1835 lbs
Ratio, front/rear	52.6%/47.4%

PERFORMANCE, CHASSIS DYNO

2500 rpm	110 hp
3000 rpm	130 hp
3500 rpm	136 hp
4000 rpm	144 hp

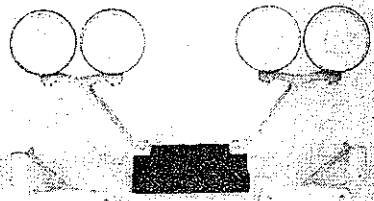
ACCELERATION, SPEED

0-30	3.7 secs
0-40	5.1 secs
0-50	7.6 secs
0-60	10.0 secs
0-80	17.3 secs
60-80	8.1 secs
¼ mile	16.77 secs
¼ mile speed	80.65 mph
Top speed	114 mph

ECONOMY

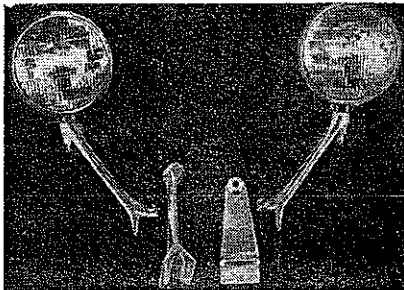
City driving	12.7 mpg
Highway driving	16.5 mpg @ 60 mph
Average for test	14.6 mpg

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53-56	2½"	FORD ½ ton pick-up	\$25.00	\$25.00
42-52	2½"	FORD ½ ton pick-up	\$25.00	\$25.00
*55-57	2½"	CHEV ½ ton pick-up	\$25.00	\$15.00
41-54	2½"	CHEV ½ ton pick-up	\$25.00	\$15.00

*Also fits GMC pick-up. Core charge will be added unless exchange axle is received at same time as order. Core charge will be refunded on receipt of exchange axle, freight prepaid. Send full amount including core charge. Or \$10.00 deposit and we will ship balance C.O.D.

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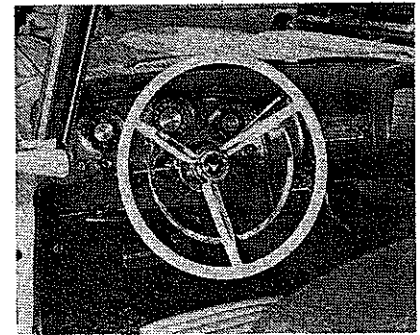
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'58 THUNDERBIRD continued



Instruments are well grouped in front of the driver. Steering wheel has recessed hub for safety. Tachometer is gone for '58, oil and generator use red safety lights.

window while driving will have to take Yogi lessons to perform this feat in the '58 Bird.

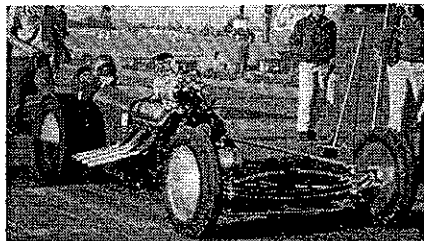
The rear seat, designed to carry two passengers but capable of taking care of three if necessary, is form fitting and equally as comfortable as the front buckets. Wide separation of the front seats permits easy access to the power window controls located on the "console" within reach of all four passengers. Rear seat entry and exit is much easier than in a hard-top coupe due to the widest doors in the industry.

Leg room is plentiful in front and not too bad in back considering the smallness of the interior. Rear seat passengers have a surprising amount of leg room so long as the front seats are not pushed all the way back. A six-footer would not be the most comfortable rear passenger in the world but by the same token, he would not be as cramped for leg room as in the average hardtop coupe. Head room both front and rear is superior to most hardtop coupes.

Vision is good from front to rear but restricted on the sides. The rear portion of the roof, which extends down between the rear and side windows, makes a definite blind spot for a driver pulling out of a parking spot or, more specifically, if he is moving onto a main thoroughfare from a side street. On the brighter side, however, rear vision is better than in most "hard tops" since the window is large enough so not to cut off a portion of the road when viewed through the rear view mirror.

One complaint on our test car can be pin-pointed to improper installation and location of the side view mirror. In our case, it was located too near the curved windshield post and we found that a quick glance for traffic approaching from the left produced an excellent reproduction of the windshield post. A little care taken by the dealer who installs the side view mirror will prevent this, so if you are
(Continued on page 78)

WORLD'S RECORD 157.61 ON GAS



On March 16 the team of Brown, Frank and Harryman, with Mickey Brown at the wheel, shot thru the traps at San Fernando Drags at a speed 10 miles faster than the previous record, to be the first auto engine dragster to crack 150 MPH mark on gas. The chassis was built by its owners Nye Frank and Mickey Brown. The engine, a blown Oldsmobile, was built and tuned by Dick Harryman. This power plant uses the Engle #95 blower special cam to develop an honest 500 HP on pump gas, this power is delivered to the wheels thru the Quincy Automotive super bear clutch.

This record reflects the excellence of the engine components and the mechanical skill of this team. It's an achievement in mechanical engineering, not chemistry, as are fuel records.

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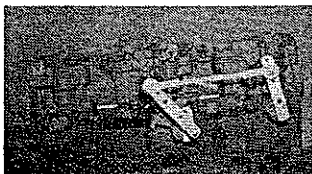
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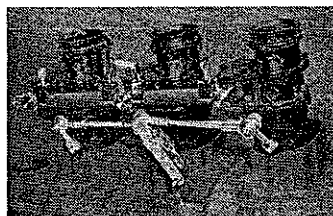


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Specify car when ordering



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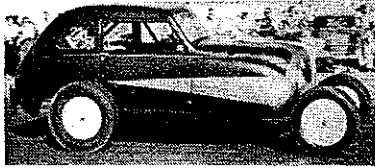
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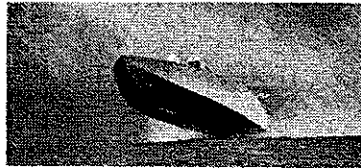
IKE IACONO COUPE. Top Time. 112.48 mph

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Top Time and E.T., Akron, Ohio. . 11.25—132.00 mph

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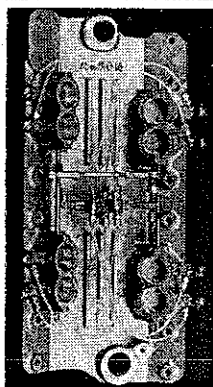
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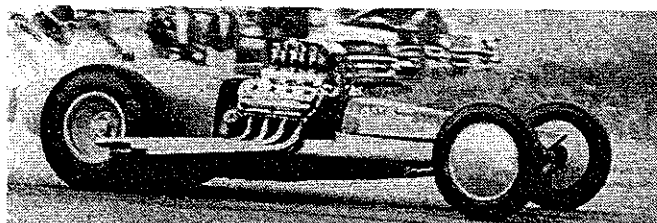
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'58 THUNDERBIRDS continued

about to become a T-Bird owner, make sure you don't run into the same problem.

Conspicuous by its absence this year is the tachometer, normally an accessory on the two-place Thunderbird instrument panel. It has been left out this year, which goes along with the feeling that Ford is not out to produce a sports car but a luxury automobile that captures the admiration of sports-minded buyers. Other instruments, such as the speedometer, clock, fuel and temperature gauges, and the warning lights for oil and battery are easily visible, day or night.

SUSPENSION, HANDLING, RIDE

The new coil spring, trailing arm rear suspension used on the 1958 Thunderbird leaves something to be desired, or so we found on our trip. By way of comparison to the two-place models, the new Bird rides somewhat softer but it cannot hold a candle to its little brother when it comes to cornering and handling.

As mentioned earlier, locating the engine in an extremely forward position has its effect on handling, and this ties in with the soft suspension to give to the car, the entire car, excessive body lean in the turns and causes the rear end to break loose without too much prompting. The '58 T-Bird weighs 3870 pounds, 430 pounds more than the two-passenger models. 52.6% of this weight is on the front wheels (2035 pounds) with the remaining 47.4% at the rear, very close to the 50/50 ideal.

The biggest beef we had to register had to do with stability and handling, not only in the corners but also on straight stretches of road that were inclined to be the slightest bit bumpy. The trailing arms in the rear, with their rubber mounted pivots, allowed a certain amount of rear wheel steer over the bumps, causing the entire car to wallow or "skate" over the road. This was especially prominent at speeds of 60 mph or better, and it did not disappear completely even at moderate speed.

Shock absorbers can take their share of the blame for this also. Those used on the T-Bird offer a soft and comfortable ride but it appears that this comfort has caused the sacrifice of stability and handling qualities. We don't mean to imply that the new Bird is the poorest handling car—far from it, for it has good basic qualities. But still, a lot is left to be desired.

In our book, three steps could be taken to greatly improve handling and stability. One would be to add stronger shocks, cutting down, perhaps, on some of the comfort but compensating for it by adding more stability in rough going. Second would be to increase the "rate" of the rear springs which would cut down body lean but also take away some of the soft "boulevard ride."

The third step would be to use a bigger stabilizer bar in front, replacing the .72