

Although styling is pretty much unchanged, there are more improvements here than meet the eye

Road Test- 1956 FORD Fairlane

Photos by Joe Farkas

FORD'S production and sales volume has been growing significantly the past few years, so the company elected to stand pretty much pat with a proven winner for 1956—in most respects. While a number of styling changes were made, they aren't the type that are readily noticeable. A new grille was added, the roofline was lowered and exterior trim changed.

In its Fairlane models, however, the company joined the Cubic Inches Club by offering the engine used in 1955 T-Birds and Mercurys. This has been looked on in many quarters as an attempt to recapture the rating of top performer in the low-priced field from Chevrolet. Fords with this 292-cubic-inch engine have already proved successful in several stock car races.

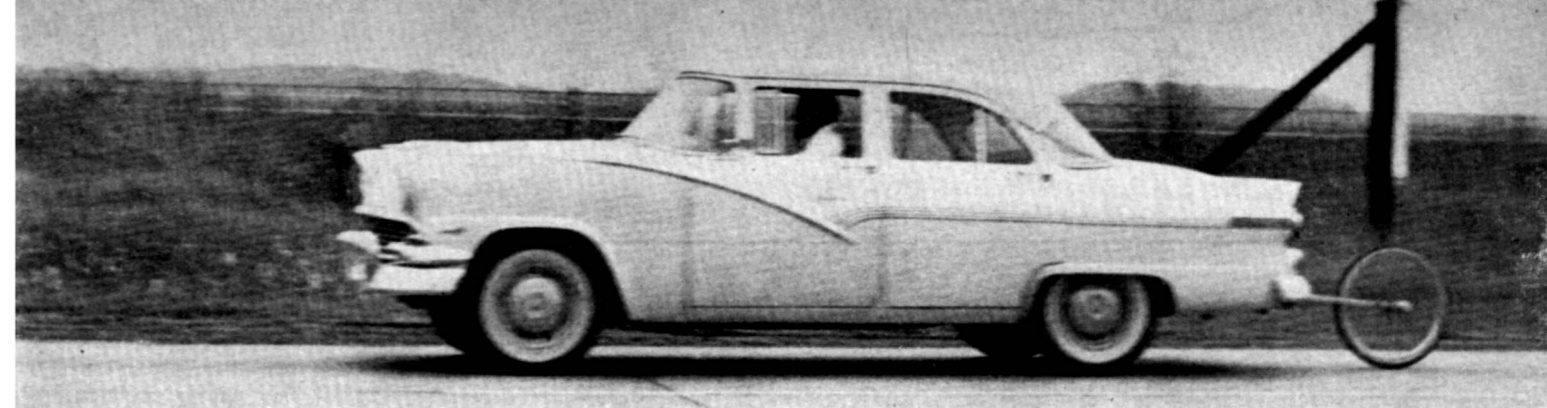
The Fairlane also represents a relatively new philosophy in the auto industry. This line, Ford hopes, will permit the company to lure away some of the buyers who have habitually bought medium-priced cars in the past. Ford claims that it can give a buyer anything he can get in a higher-priced car in a Ford.

That the company has a point is obvious when you look at the situation closely. In a Ford you can get all accessories, from air conditioning to power seats and windows, that are available in any other make. Performance and handling are at least on a par with many of the cars in the price bracket Ford hopes to crack.

Fuel economy checks resulted in 21.4 mpg at 30, 20.2 at 45 and 16.7 at 60 mph. In 150 miles of driving, the tank mileage was 19 mpg.

Since addition of the bigger engine makes the Fairlane by far the most interesting of the new Fords, this was the model picked for *MOTOR LIFE's* road test. The car used had Fordomatic transmission, the 202-hp engine, manual steering and brakes. A four-door sedan was picked because this is still the most popular body style.

ACCELERATION is something Ford has long been noted for and the 1956 Fairlane is certainly the hottest performer the company has ever built. Detroit Editor Ken Fermoye reported in *MOTOR LIFE's* first story on the 1956 Ford (November, 1955) that a pre-production Fairlane tuned by Ford engineers turned 0 to 60 mph in less than 10 seconds, so we knew what the car could do. The test car was purposely picked at random, had been given no special tuning because we wanted to find out what an average Fairlane such as a customer might buy off a showroom floor would do. Average 0 to 60 time was 11.6 seconds. From 0 to 30 averaged 4 seconds flat and 0 to 45 took 7.2 seconds. The 50 to 80 average was 13.8 seconds and the Fairlane turned the standing quarter-mile in 17.5 seconds. (Actual speed at the end of the quarter was just over 75 mph.) This shows that this car is fast even in average condition and the earlier tests demonstrate that it is capable of really startling performance with judicious tuning. The test crew felt that the transmission in the road test car was a bit slow in shifting and minor adjustments here would have improved performance noticeably.



Top speed of the new Ford Fairlane is one of its outstanding features. True speed on the fastest one-way run was 108.3! Average of several runs in opposite directions was just over 105 mph, which puts this model in the big class.

SAFETY is being given big play by Ford this year. Test car had all standard safety features (impact-absorbing steering wheel, shatter-proof mirror, safety door latches, etc.) plus the optional safety package—seat belts, padded dash and sun visors. Test crew used belts at all times; found they were comfortable, did not restrict movement. In fact, they were real boon during some of maneuvering test called for in that they held driver and passengers in position. Although value of belts in crashes has been emphasized, *MOTOR LIFE* crew felt this side benefit may be just as important. All agreed also that the padded instrument panel enhanced the interior appearance of the car and definitely cut out the possibility of annoying glare. As an experiment, one of the test crew members took his family for a drive in the car, found his 4½-year-old daughter loved the seat belts. He added that it was not only a relief to know she couldn't be hurled out of the seat in a quick stop, but that the belt kept her from climbing all over the car during the drive.



SPEEDOMETER ERROR on the 1956 Ford runs a nearly constant five per cent fast throughout the entire speed range. This is not only less than normal, but is unusual in that the percentage of error was so consistent. Most cars show relatively accurate readings at low speeds, tend to become progressively more optimistic as speed goes up. As the picture shows, however, the Weston electric speedometer registers 95 mph with the standard Ford unit reading 100 mph. At 30 mph, true speed is 29; at 40, 38; at 50, 48.5; at 60, 57; and at 80, 76.



GOOD HANDLING and excellent all-round roadability have been a Ford strong point for years—especially since the now-famed ball joint front end was introduced. The 1956 is no exception. The ease with which it can be whipped around tight turns and excellent acceleration out of corners furnished by the good low-end punch of the 292-cubic-inch Fairlane engine make this car fun to drive. Body roll is present only to a slight degree except during extreme cornering; even then you don't get a feeling of instability. Down-shifting for corners can be accomplished easily with the Fordomatic transmission and this gives a driver an extra margin of control; you can really barrel out of a turn in low range too! Ford traditionally has had a firmer ride than many other American cars and this is still the case. This is one reason why it handles so well. Despite this extra degree of firmness, ride is comfortable enough for all but the most critical drivers. Bad bumps are noticed perhaps more than in cars with softer springing, but under normal conditions ride is good.

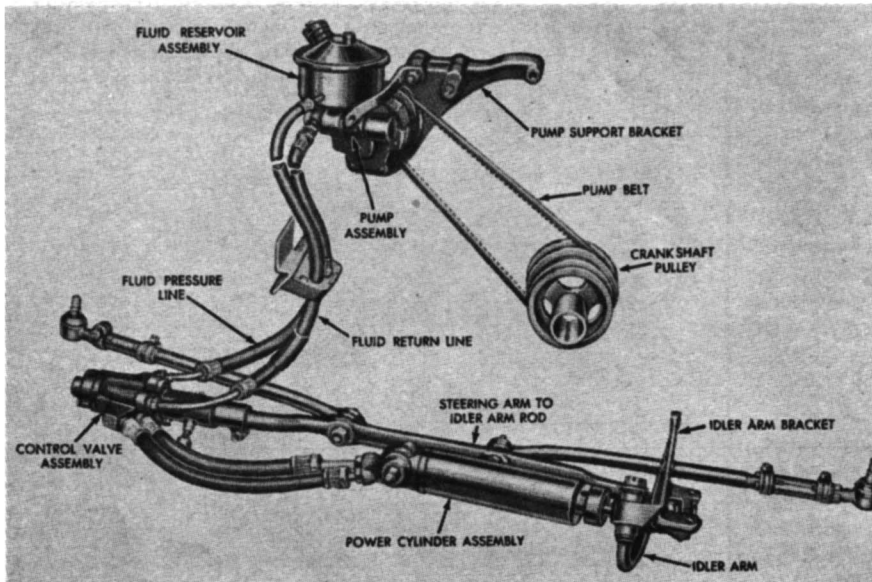


RIDING QUALITIES of Fairlane were given extensive work-out over graveled back roads, blacktop, rough paved stretches and smooth highways. Ride is firmer than most competitive makes—which helps account for excellent handling. However, don't think that comfort has been sacrificed noticeably. You might feel bumps a shade more than in some other makes when those bumps are really severe, but only the most critical will detect much difference between Ford ride and that of other cars under most conditions.

TECHNICAL REPORT on the New Ford

REMEMBER when the 180 horsepower Chrysler was considered to be absolutely fantastic? Now, four years later, at least one series of the Ford has 20 more horses than that under the hood and it's considered just so-so.

All this is not an unmixed blessing either. The Ford for 1956 is no longer a vehicle for do-it-yourself servicing—that is, unless one's backyard garage is equipped with such niceties as a hydraulic arbor press and a binful of special service tools. Where the earlier model Fords were ideal material for the backyard mechanic, the new versions make a Ferrari look simple in comparison. It had to happen. To satisfy the demands of the buying public for more and more power, manufacturers have had to go in for far greater precision in building techniques. Where once palm-push or thumb-press fitting and hammer-installed keys sufficed, selective fits and arbor press installations measured in terms of Plastigage markings are the rule and Ford is no exception. While these things all mean higher performance and longer mechanical life they also mean higher service charges and far less amateur tinkering. Hence, though big car performance is available in the 1956 Ford, it is paid for in big car service if that performance is to be maintained over the normal life expectancy of the car.

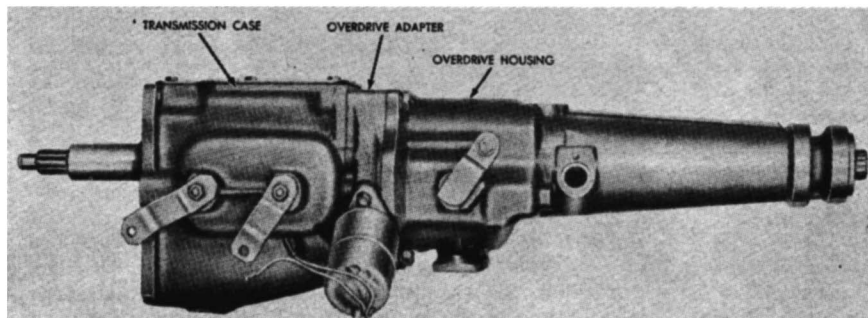
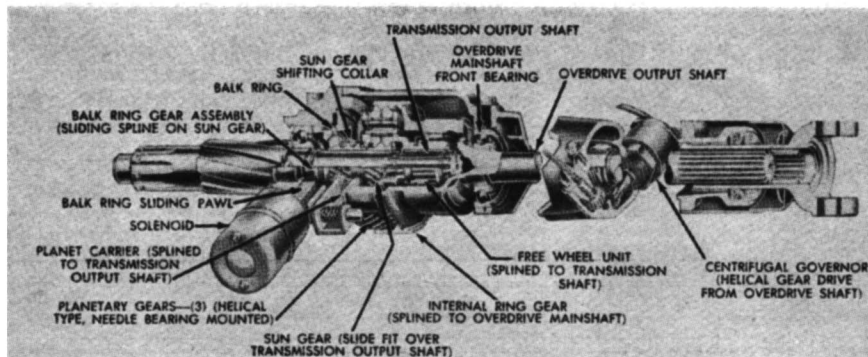


Ford's power steering is actually an accessory item, fitting onto the regular linkage. It is an "assist" type layout rather than a full-time set-up. Required pressure to bring it into operation is approximately 12 pounds applied at the steering wheel.

ENGINES FOR THE FORD

The differences between the 1956 and 1955 Fords are not drastic but they are changes nonetheless. The biggest change is, of course, in the Fairlane series. With the new Mercury easing its way into the "medium" class, the Fairlane is taking over the spot held by the Merc since 1939. When introduced in 1955, the Fairlane was merely an elaborate and super deluxe Ford with a somewhat classier trim job and a power kit. This year it is all of that but with the addition of a larger engine—20 cubic inches and 27 horsepower larger to be exact. This was done through the use of the basic engine from the 1955 Thunderbird and Mercury, basically the same as the smaller engine used in the Mainline and Customline series but with a one-eighth-inch larger bore and a block casting core change to accommodate it.

The effect of this is, of course, much the same as that of the time-honored trick of using the Mercury engine in the Ford—not much more top speed but a comparatively blinding acceleration pattern in terms of standard Ford performance.



Overdrive units for the new Ford are built both by Ford and Borg-Warner. Ratio kick-up given by planetary-type unit is .70 to 1. Transmissions used with the overdrive unit differ from those supplied for conventional drive, having closer ratios.

A dual exhaust system is optional on the smaller series, standard on Fairlanes.

Other than the bore size, the Ford engines are virtually the same throughout the entire line. 90-degree V8 engines with ohv heads and modified quench-type combustion chambers. Compression ratios are 8-to-1 for cars with standard transmission, 8.4-to-1 as a standard item for cars with Fordomatic transmissions and a 9-to-1 head as an option for Fairlanes with Fordomatic. Power ratings of the various options are 173 and 176 at 4400 rpm in the smaller engines and 200, 202 and 208 at 4600 rpm in the Fairlane series. Torque ratings respectively are 260, 264, 285, 289 and 299 lbs./ft. Needless to say, these are all gross ratings with all or almost all power consuming accessories removed.

Internally the engines are virtually alike except for piston diameter. Pistons are aluminum alloy with solid skirts and flat heads. They are cam ground and tin plated after grinding. Clearances are .021 to .026 of an inch at the upper land for the smaller engines and .023 to .028 in the larger engines. All pistons are three ring items with two compression and one oil ring each. Piston pins follow time-honored Ford practice, being full floating but now they are built with a .0001 to .0003 of an inch selective fit, allowing cleaning up of the piston and rod bushings but making it vital to select the right pin in each case. Rod bearings and main bearings are insert type and also of selective fit in all standard sizes and under-sizes, "red" bearings increasing clearance and "blue" bearings decreasing it. These bearings *must* be fitted with Plastigage for a precise installation.

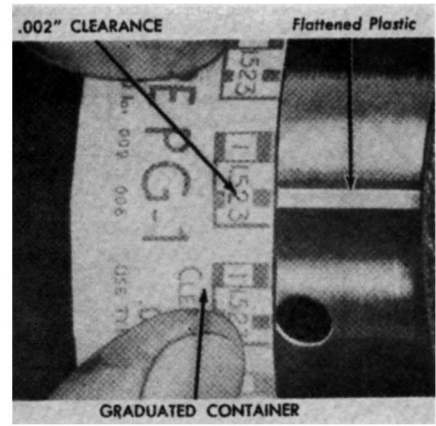
Valves in the new engines are exactly the same for both the large and small series. Intakes are 1.78 inches across the head and exhausts are 1.51 inches in diameter. The intake valves are made of chrome steel and the exhausts of super-hard austenitic steel, a Ford stand-by for several years. These latter items are so hard that they can easily wreck a Carboloy tool during an attempt to modify them on a lathe. Here again, the

stems vary between .3405 and .3415 of an inch and are installed with a selective fit. Cams are made of precision-cast iron and the timing is the same in all engines: Intakes open 12 degrees before top center and close 54 degrees after bottom center; exhausts open 58 degrees before bottom center and close eight degrees after top center. Duration is 246 degrees all the way along. In this Ford differs from some other manufacturers this year in that they still prefer to use a reasonably mild timing with a fair amount of lift and a reasonably fast valve acceleration. At least one manufacturer is using a cam duration of over 270 degrees which would appear hot indeed. However they have reduced valve acceleration and lift to such an extent that the over-all effect is the same. The idea is that lobe and lifter failure will be minimized through such gentle action. The only trouble is that such an overlap and duration could tend to burn valves, an effect not so likely with the more standard Ford timing and lift.

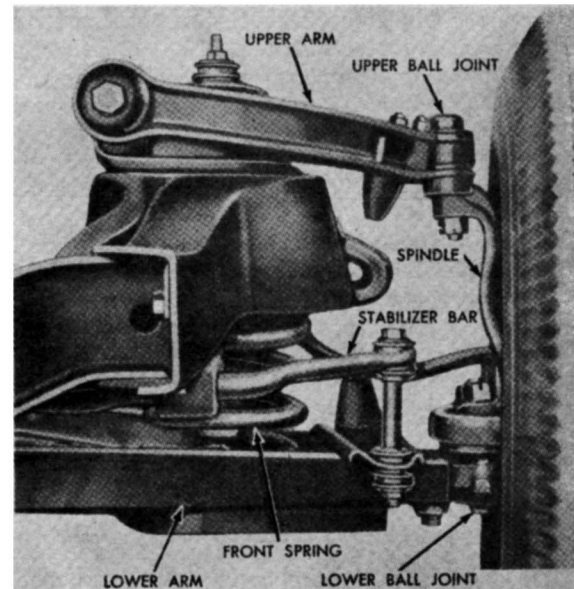
Lubrication of the Ford engine is full pressure throughout and oil filtration is full flow, a necessity in modern engines with their myriads of small oil passages to every moving part. Oil capacity of the crankcase is five quarts and low or mild detergency oil is recommended.

Ford has followed the rest of the industry in the switch to 12-volt electrical equipment, now virtually (and belatedly) standard throughout all American cars. The value of this is obvious: cold weather starting is considerably easier, battery drain caused by the mass of modern accessories is lessened and ignition systems are far more efficient than formerly. It is in the last item that a real effect is found. The earlier six-volt system, unless improved with precision parts and special coils or transformer equipment just couldn't keep up with the power patterns of the new engines. The old igniters could not begin to put out an efficient spark at peak rpm or for that matter even let

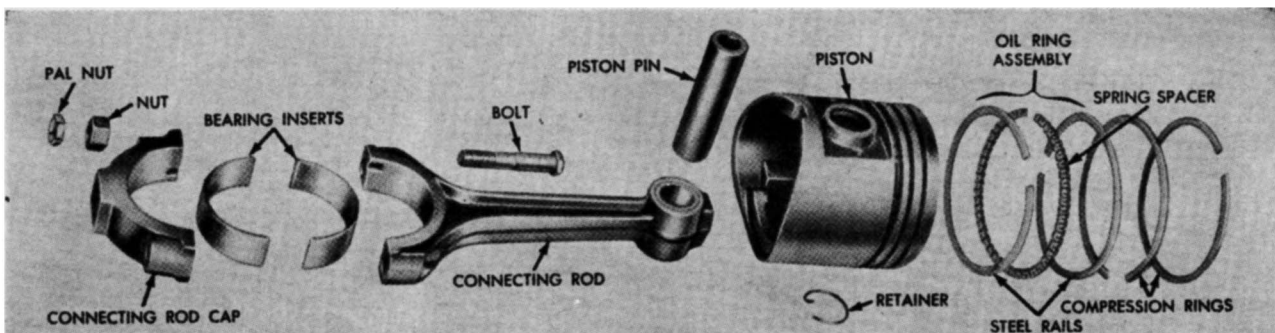
(Continued on page 60)



Most clearances on new Ford engines are measured in terms of Plastigage, therefore very precise. Measurement is made of width of the compressed plastic strip.



Front suspension was first introduced in 1954 models. System incorporates ball-joints at top and bottom, eliminating usual kingpin and giving precise control.



Piston and rod assembly of new Fords follows short-stroke pattern set in 1954. Bearing area is very wide

and the rod is short and thick with tremendous strength. Piston is aluminum with only three rings.

GET INTO ONE OF THESE
GREATER OPPORTUNITY FIELDS

Electricity or Radio- Television

TRAIN IN THE GREAT SHOPS OF
COYNE OLDEST, BEST EQUIPPED
SCHOOL OF ITS KIND IN U. S.

Get practical training in TELEVISION-RADIO-ELECTRONICS-ELECTRICITY—all vital in industry. Prepare for a better job that also offers a real future in the years ahead. Train on real equipment—no advanced education or previous experience needed.

Approved for Veterans—finance plan—enroll now, pay most of tuition later. Part time employment service while training if needed.

FREE BOOK Clip coupon for Big Free Illustrated Book. No obligation. No salesman will call. Act NOW.

B. W. COOKE, Pres. FOUNDED 1899

COYNE ELECTRICAL SCHOOL

A TECHNICAL TRADE INSTITUTE OPERATED,
NOT FOR PROFIT
500 S. PAULINA, CHICAGO, Dept. 26-57H
ELECTRICITY-TELEVISION-RADIO-REFRIGERATION-ELECTRONICS

B. W. COOKE, Pres.
COYNE School
500 S. Paulina St. Chicago 12, Ill. Dept. 26-57H

Send FREE BOOK and full details on:

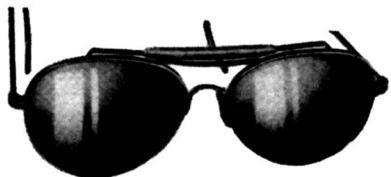
RADIO-TELEVISION ELECTRICITY

NAME

ADDRESS

CITY.....STATE.....

Improve Your
NIGHT DRIVING Vision
INSTANTLY



Now you can IMPROVE your NIGHT vision and ELIMINATE dangerous GLARE at once with this amazing new invention—LITENITE NIGHT DRIVING GLASSES. These remarkable glasses are made of special amber lenses that let through INFRA-RED light. INSTANTLY you see more clearly! Headlamps of oncoming cars look like soft amber lights—yet everything else is in sharp focus. Amazing, unbelievable until you actually put LITENITE on!

Not This—But This



LITENITE are NOT sunglasses but scientifically developed NIGHT LENSES used by airplane pilots to see more clearly through darkness and haze. Wonderful also for WALKING at night, TV and night sports.

Beautifully made with 24-KARAT GOLD-PLATED Aviation frame, comfortable temples, adjustable nose-pads, wide-angle lenses. FREE! Rich-looking Leatherette Carrying Case. TRY AT OUR RISK for full week. MONEY BACK if you don't say night driving is a pleasure! Send check or money order—or order COD plus postage.

REGULAR Style only \$2.98. CLIP-ON Style for use over prescription glasses only \$2.25. State STYLE and whether for MAN or WOMAN.

STUYVESANT TRADING CO., Dept. M
130 W. 42nd St., New York 36, N. Y.

FORD TECHNICAL REPORT

(Continued from page 33)

the engines reach peak; the new ones, though of no better quality, from a precision standpoint, are enabled by the 12-volt operation to provide the necessary spark well up into the 5500 rpm range. Advance curves, too, have come in for some improvement and in this Ford is a leader this year, particularly in the quad-throat carburetor layout. The new Fairlanes and others with the quad option have a double advance diaphragm on the distributor with the secondary diaphragm working off the secondary throats of the carburetor. This gives a controlled ignition curve pattern all through the range to the very top of the peak. More instantaneous response at all throttle openings is the result.

DRIVE TRAIN WITH FOUR BOXES

No less than four different basic conventional transmissions are available in the Ford in 1956. This is brought about through use of a Borg-Warner built transmission to go with the overdrive units on some of the cars in both the small series and the Fairlanes. The transmissions are to intents and purposes interchangeable which should appeal mightily to the enthusiast contingent. In the Mainline and Customline series the transmission ratios are:

	FORD	B-W
1st	2.57 to 1	2.57 to 1
2nd	1.63 to 1	1.55 to 1
3rd	1.00 to 1	1.00 to 1

In the Fairlane series the ratios are:

	FORD	B-W
1st	2.32 to 1	2.37 to 1
2nd	1.48 to 1	1.43 to 1
3rd	1.00 to 1	1.00 to 1

All overdrives are 0.7 to 1 or a 0.3 increase. It is obvious that the B-W transmission used in the Fairlane provides an almost ideal set of ratios for the modification enthusiast, particularly if the overdrive is also used. Ratios in that case will be fairly evenly spaced and even closer than in the Fordomatic which has received more than a few plaudits for its close-ratio layout. Gearing such as this even makes that old favorite, the Lincoln Zephyr box, look a bit crude, a statement which borders on heresy in some circles.

Ford's automatic transmission has been steadily improved over the years until it is now one of the most versatile units on the market. Driven normally, using only the Drive range it feels just about like any automatic; in fact, since under part throttle a start is normally made in second gear (which has a ratio of 1.47 to one) it is even somewhat sluggish. Flooring the throttle kicks it down into Low range and, though somewhat gas consuming, performance goes up quite noticeably. For a really hair raising take-off, though, the Fordomatic can be force-shifted, overruling the normal shift points.

To do this, the selector is placed in Low range and the throttle floored. As soon as the engine is felt to peak out, the selector is moved to Drive range and then, almost immediately, back to Low as the shift to second is felt. This holds the transmission in second until the lever is moved up to the Drive range again at which point the transmission automatically moves into high gear. The effect is much like using a conventional shift and is more than a little startling with a definite belt in the region of the hip pockets at each shift.

Downshifts can also be forced to aid in cornering or in going downhill. At any point below 65 mph the selector can be used to shift back to second gear by moving it to the Low range. As speed drops back to 30 mph, a slight nudge at the throttle will drop it back down to first gear with consequent further braking effect. This last, however, should be used sparingly since there is a definite strain on all drive line components including the rear end and Ford throttle movement is not precise enough to gauge the exact amount of engine speed necessary to cushion the shock. Gear ratios in the various ranges are 1-to-1, 1.47-to-1 and 2.49-to-1, all with the added increase provided by the torque converter which provides a maximum ratio of 2.1 to 1 at stall at engine speeds of 1540 to 1740 rpm. This is infinitely variable up to a 1-to-1 ratio although no mechanical lock-up is provided.

The Ford rear axle is, as for the past several years, a Hotchkiss-type semi-floating unit with hypoid gearing in several optional ratios, all interchangeable. With the conventional transmission all series come equipped with 3.78 ratio gears and an option of 3.89 to 1. The overdrive equipped cars are supplied normally with the 3.89 gears and can be equipped on order with the 3.78 gears (which would be a bit high for an unmodified car since the engine could not possibly reach peak rpm in overdrive). The Fordomatic equipped cars come with 3.22 to 1 gears as standard equipment and 3.56 to 1 ratios are available on order. However, all gears are interchangeable and can be switched at will. It is also quite possible and probable that gears from earlier models at least back to 1954 could also be used which gives an even wider selection. This is particularly true in the overdrive equipped cars in which a change to 4.11 gears would be advantageous and bring the overall ratio to 2.87 to 1 instead of the almost-too-high 2.72 to 1 with the normal 3.89 gears or the definitely-too-high overall ratio of 2.64 to 1 using the 3.78 rear end gears.

CHASSIS

As far as the frame itself goes there is no change. The same ladder type frame used since 1954 is again in evidence in 1956 in all series. This is a reasonably

rigid unit with box-section side rails though with only five crossmembers which are widely spaced in the middle of the chassis. Ford's ball joint suspension remains the same and is as good as ever, supplying pin-point control seldom found in standard Detroit machinery.

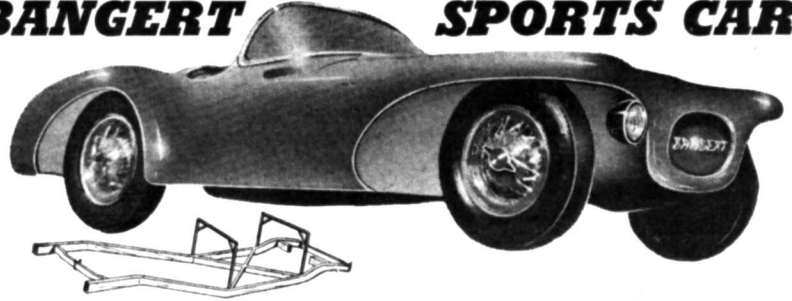
The car is spring with coils at the front and with longitudinal semi elliptical leaf springs at the rear. Spring rate is 360 lbs./inch at the front and 110 lbs./inch on the rear which would appear to be a little on the soft side. However the car is not overly heavy for its size and, though the ride seems soft to the point of mushiness at slow speed, everything stiffens up under stress and the car corners at flat as a badger at any speed above 30 mph. In fact, station wagon springs, stabilizer bar and shock absorbers can be fitted to the passenger cars with the end result of sports car handling albeit at the price of a somewhat stiffer ride.

In the steering department the new Fords are on the slow side with four and three quarters turns from lock to lock, a ratio that applies with both standard and power steering. Power steering on the Ford is of the linkage booster type and can be installed at any time. Pressure on the steering linkage causes a valve to open in the power unit and pressure is applied through an operating cylinder in the direction of turn. The advantage of this type of unit is that there is a certain amount of road-feel left and one is not left with the feeling of turning a wheel on a broken shaft as is the case with some other types. An increase in steering ratio speed can be gained by installing Thunderbird steering arms on the standard models. This gives a ratio of about three and three quarters turns lock to lock, knocking out one full turn of the steering wheel. It is still not really fast and is a bit stiffer but it could be an added safety factor with the amount of power available in the new cars, enabling one to correct faster in case of a spin or skid.

Ford's brakes are big for the size of the car—drums are 11 inches in diameter and the shoes are 2¼ inches wide on the front and 1.75 inches on the rear, giving an effective area of 180.16 square inches. Fixed anchor pins are used at the top and all adjustments are made through a worm at the bottom. A vacuum power assist is available as an accessory.

All things considered, Ford has come up with a "big" car for its class. In the Fairlane series they have developed a definite threat, both for the stop-light grand prix and for possible stock car competition. Either way you look at it the Ford is an awful lot of car. In the case of the Fairlane, it could be too much car, at least for Mama or for that matter for Junior to fly around in on a Saturday night. Any car that will move from 0 to 60 in less than 10 seconds is a going machine. ●

BANGERT SPORTS CAR



Special steel 2x3 box tubular frame.....\$195
Fibreglas materials—Complete price list available.
Dealership applications will be accepted on all products.

Fibreglas body designed for simple installation on your chassis or to be used with our frame. Body fits 96-104 inch chassis, and MG or other chassis in the 88-96 inch range. \$495.

BANGERT ENTERPRISES

3516 CAHUENGA BLVD.

HOLLYWOOD 28, CALIF.

MEMBERS RECEIVE:

- Club I.D. Card
- KOA Decal
- Special Discount Catalog — over 100 pages
- KOA Club Newspaper
- Custom and Speed Problems Answered
- Assistance in Forming Local Clubs

DISCOUNTS ON:

- Hollywood Custom Accessories
- Ansen Speed Equipment
- Jackets, T-Shirts
- Lapel Pins, Emblems
- Dash Plaques, Plates
- Trophies
- Custom Rugs and Upholstery
- Leading Monthly Auto Magazines



Barris Sanctioned

Join Today!

KUSTOMS OF AMERICA

NATIONALLY ORGANIZED CUSTOM & SPEED CLUB

Here, in answer to the many demands of custom and speed enthusiasts throughout America, KOA proudly presents a nationally organized association for the unification of these fast-growing mediums with unlimited membership benefits.

No Age Limit
No Car Necessary
Open to Men & Women
Membership Only \$2 a Year

----- KUSTOMS OF AMERICA -----

5880 Hollywood Blvd., Hollywood 28, California, ML-1

I hereby apply for membership in Kustoms of America and enclose \$_____ for _____ years' dues, entitling me to an official membership card, windshield decal, special discount catalog, KOA news subscription and full association privileges.

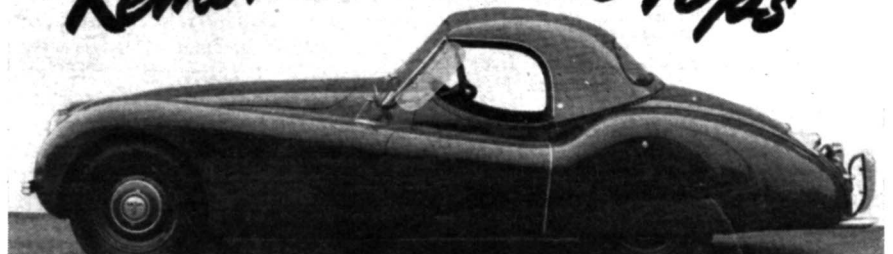
NAME _____ AGE _____

ADDRESS _____

CITY _____ STATE _____

Club Affiliation (if any) _____

Removable Plastic Tops



AUSTIN-HEALEY • CORVETTE • MG • JAGUAR

MG 1956 (A) • PORSCHE

- Adds the Style and Distinction Your Car Deserves
- Light-weight, Easily Installed and Removed
- Large Wrap-Around Rear Windows
- Beautiful Fabric-Lined Interior
- Stainless Gutters, Chrome Hardware
- Highest Quality Custom Workmanship

write for free literature

63 Beacon Place, Pasadena 8, Calif.
SYeamore 5-6200

COUNTRY'S LARGEST MANUFACTURER OF PLASTIC TOPS

PLASTICON