

**NEW
from
GM**



A New Olds 88 Series

A BRAND, spanking-new 330-cu. in. V-8 engine for the all-new F-85 is the basis for a lower-priced series which Oldsmobile is adding to its line-up for 1964, the Jetstar 88. In addition, the company has added a "sports car" version of the Jetstar, called Jetstar I, which is in essence a lower priced Starfire.

The cast iron 330, which supersedes the 215-cu. in. aluminum V-8 and its turbocharged offshoot, utilizes a newly developed thinwall casting technique (which Olds calls "hot box coring") in an inverted A block construction. The two cylinder banks and valve lifter bores are tied together by a cast-in horizontal bulkhead for rigidity. The manifold and engine covers are of integrated, one-piece design for quietness and additional rigidity for the cylinder block. Space for the timing gears is cast into the engine block, permitting a flat steel plate to serve as front cover.

Aluminum is used for pistons, rock-



er shaft brackets, starter housing, distributor body, fuel pump and oil filter bases and camshaft gear (which has nylon-covered teeth). Crankshaft and connecting rods are of forged steel and the former is supported by five rigid bulkheads in the engine block. Main and rod bearings are nickel-copper matrix with babbitt coating. The new piston design, with offset pins pressed in the rod, offers various compression ratios by changing the depth of a depression in the top of the piston.

A modified wedge shape is used for the combustion chamber, with widely spaced valves positioned on the bore centerline. The altered valve layout allows, as a subsidiary benefit, shorter exhaust manifolds. Valve guides are cast in, rather than pressed in, and the rocker arm shaft is now solid steel

rather than hollow. Bore and stroke are 3.937 x 3.385 and compression ratio is either 8.75 or 10.25:1.

The lower compression version, using a 2-bbl. carburetor and developing 210 bhp, is available on all F-85s. With the higher compression ratio and a 2-bbl. carburetor, it delivers 225 bhp and is standard on all Jetstar 88 models. A high performance version, developing 260 bhp with 4-bbl. carburetion, the higher compression ratio and dual exhausts, is standard for the Cutlass and optional on all other F-85 and Jetstar 88 models.

Although a manual 3-speed transmission is standard and a 4-speed is optional with this engine, the transmission most likely to be found with it is the new 2-speed automatic with torque converter, incorporating a variable stator vane for "torque amplification." This transmission in slightly altered form is used by Buick and, with fixed vanes, Tempest. The stator angle

changes, by means of an electrical switch connected directly to the throttle linkage, from a normal low position of 32° to a high angle of 54° for extra performance. The switch is triggered when the carburetor is opened more than 45°, providing the power surge without downshifting. The stator angle is also opened to the high position by a second switch, combined within the carburetor dashpot, when the engine idles.

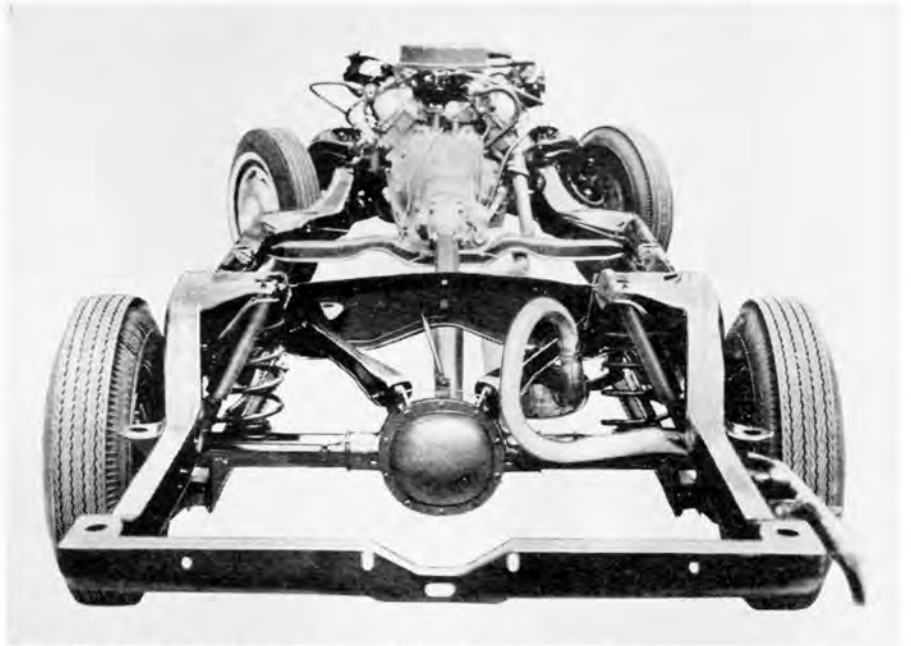
Upshifting is controlled by engine vacuum, which operates an aneroid modulator assembly mounted on the transmission. This in turn operates a hydraulic valve within the transmission for the actual shift. Maximum forced upshifts occur at 4600 rpm on V-8 models, 4400 rpm on V-6s. The aneroid modulator also compensates for vacuum variations at higher altitudes to maintain shifting smoothness. Downshifting can be accomplished by fully opening the throttle at speeds between 11 and 55 mph, which also changes the stator vanes to the high position for even greater acceleration. Gear ratios are 1.76:1 and direct, and the unit, with die-cast aluminum case, weighs 134 lb. in the car.

Also available for all F-85 models except Cutlass coupes and convertibles is a 225-cu. in. V-6 borrowed from Buick, developing 155 bhp at 4400

rpm. With a 9.0:1 compression ratio and single-barrel carburetor, this engine provides the greatest fuel economy of any in the Olds line. The greater displacement (than last year's 215 cu. in.) is better tailored to the larger F-85 and improved engine mounts effectively reduce vibration tendencies, according to reports of

Olds engineering specialists.

The new F-85, using the new A body with perimeter frame and torque boxes on a 115-in. wheelbase, bears closer styling resemblances to the larger Oldsmobiles than did previous models. It has curved glass side windows and the concave rear window styling of the Starfire on all sedan



PERIMETER frame is underneath, replacing F-85 unitized construction.

DISTINCTIVE REAR styling helps identify Jetstar 88 series, new for 1964.



Olds

models. New front suspension seals permit 30,000-mile lubrication intervals and relubrication without replacement. Steering linkage is lubricated at 6000-mile intervals.

Little is altered mechanically for the larger Oldsmobiles using the 215-in. wheelbase chassis, with the exception of the new Jetstar 88 series (using the 330-cu. in. engine and new automatic transmission). New pivot bushings are used on the upper control arms of the front suspensions and the rear suspension lower control arm is now of single piece construction for better alignment of the differential. Needle bearings and seals in the universal joints are improved for better durability. The brakes have a new lining material and the front drums (9.5-in.) are of heavier construction for better cooling and longer dependability.

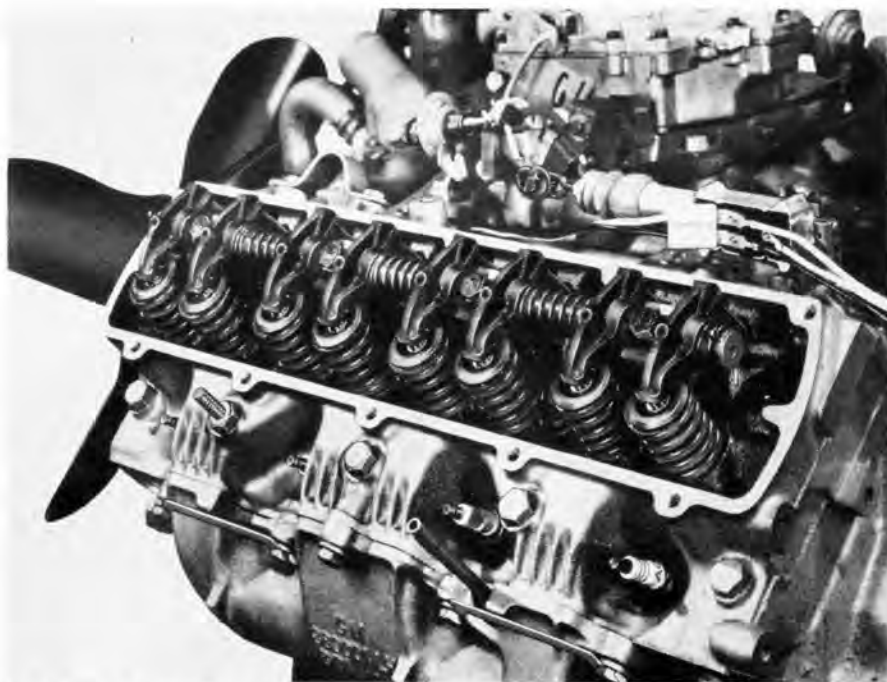
The engine for the larger cars is the 394-cu. in. V-8, which ranges from 280 to 345 bhp, and Hydra-Matic transmissions are continued for this powerplant. The 345-bhp version is limited to the Starfire coupes and convertibles and the new Jetstar I coupe, the lower-priced running mate of the Starfire.

The latter, lacking some of the

weight, bright metal trim and styling details of the Starfire, is identical in all specifications to the more expensive sports-type model. These also will be fitted with the newly developed chambered exhaust systems.

Each series—Jetstar 88 with four models, Dynamic 88 with six, Super 88 with two, and the 98 with six—has

distinctive grilles, rear bumpers, rear quarter panels and taillight assemblies. Styling changes have been evolutionary, with the knife-edge fender tops becoming more emphasized. On the Starfire, among the unusual touches are a massive rocker panel molding and tri-pointed star trim over the driving lamps. ■



VALVE TRAIN, exhaust outlets, transmission control (top) differ on 330.

CUTAWAY reveals operation of new 2-speed automatic with variable torque converter vanes.

