F-85 and SUPER 88

A hotter one and a smaller one spark the line of 22 models offered by Oldsmobile

by Chuck Nerpel, Technical Editor

F-85 . . . THE NEW, SMALLER OLDSMOBILE, is a scaled-down version of the regular line of Dynamic 88's, Super 88's and 98's. Combining six-passenger comfort with lower cost, high performance, and economy of operation, the car is offered as a four-door sedan or a station wagon. The F-85 maintains Olds' high quality and advanced design.

An aluminum V-8 engine is a major contributor to the F-85's high power-to-weight ratio. Developed by General Motors Research, Oldsmobile's version of this aluminum, water-cooled, 215-cubic-inch powerplant uses regular fuel. It has an 8.75:1 compression ratio and 155 hp in a package weighing slightly over 350 pounds. Other weight-saving components are the scaled-down Hydra-Matic transmission with its aluminum case. The result is a roomy, lively, economical automobile some 1500 pounds lighter than the bigger Olds.

Equipped with the new Accel-A-Rotor optional Hydra-Matic three-speed transmission but no other power accessories, MOTOR LIFE's test car was a joy to drive. Overall lightness, especially on the front end, is immediately noticeable from the first easy turn of the wheel, and the first jab on the brake pedal . . . no boggy steering, little front-end dip and a good, smooth ride.

Mechanical steering (without power assist) is light, but should have faster ratio than the six turns lock-to-lock it now requires. This would improve an already highly maneuverable car. High-speed cornering is flat, even on cambered roads where cutting curves drops the inner wheels into the rough. At straightaway cruising speeds, the car has excellent stability. The F-85 has an ample wheelbase of 112 inches, plus "twin triangle" straight and angled links connecting rear axle and differential to the body structure. The heavy linkage helps absorb axle and body twist and can be appreciated under severe braking and rapid acceleration, especially with the 210 foot-pounds of torque the V-8 engine produces at 3200 rpm. Standard ratio for Hydra-Matic transmissions is 3.23:1, but the Accel-A-Rotor first gear torque multiplier transmits additional engine power to the driving wheels for rapid standing-start getaways.

Gas mileage is surprisingly good with the Hydra-Matic, even in city driving where the temptation to show off acceleration is irresistible. We logged a consistent 17.8 mpg under these conditions, jumping to better than 21 mpg at steady highway speeds of 65 mph, and averaging 19.3 on freeways.

SUPER 88 . . . ONE OF THE FIRST high-performance, V-8-powered automobiles, is again in that category with a major styling change, increased passenger comfort, and a smooth, quiet ride – combined with excellent handling characteristics. Power options for the 394-cubic-inch V-8 include a choice of three-speed manual or Hydra-Matic transmissions.

MOTOR LIFE's test car, a two-door Holiday coupe, was equipped with the 325-hp Skyrocket engine. An improved induction system, redesigned camshaft, 10:1 compression ratio, and a four-barrel carburetor, provide 435 foot-pounds of torque at 2800 rpm. Other options include power brakes, power steering, and a new Hydra-Matic transmission that has been slimmed down and lightened 70 pounds over previous models. An additional torque multiplier known as Accel-A-Rotor, incorporated in the first gear, gives higher low-speed gearing for rapid off-the-line acceleration, without the need for a fuel-consuming rear axle ratio. In fact, the automatic transmission axle ratio is 2.87:1 as compared with the manual transmission ratio of 3.42:1 for the same engine package. The Super 88 fairly leaps from zero to 30 mph in just over three seconds, yet delivers a surprising 14 mpg in city driving, and 16.5 mpg on short highway trips that combine peak freeway traffic and open-road 65-mph cruising speeds.

The big Oldsmobiles are still designed around a separate body and frame, but much of the total weight has been reduced by shortening total length 5.6 inches and width 3.8 inches over previous models. Interior dimensions, however, have not suffered, and in some body styles passenger leg- and headroom is greater. Luggage space has been considerably increased by the use of a vertically mounted fuel tank that makes the trunk floor much lower. A very wide frame of deep box section practically surrounds the body perimeter, providing more leg- and headroom. The seats and floor boards are between the frame rails.

Flat cornering and outstanding handling characteristics can be credited to the ⅞-inch diameter front stabilizer bar and the control arm design for rear axle suspension. This is a four-link system with a pair of angled upper links connecting the rear axle housing to the frame. Another pair of parallel links similarly connects the axle to the frame. Coil springs directly on the axle housing take no torque or braking twist loads.

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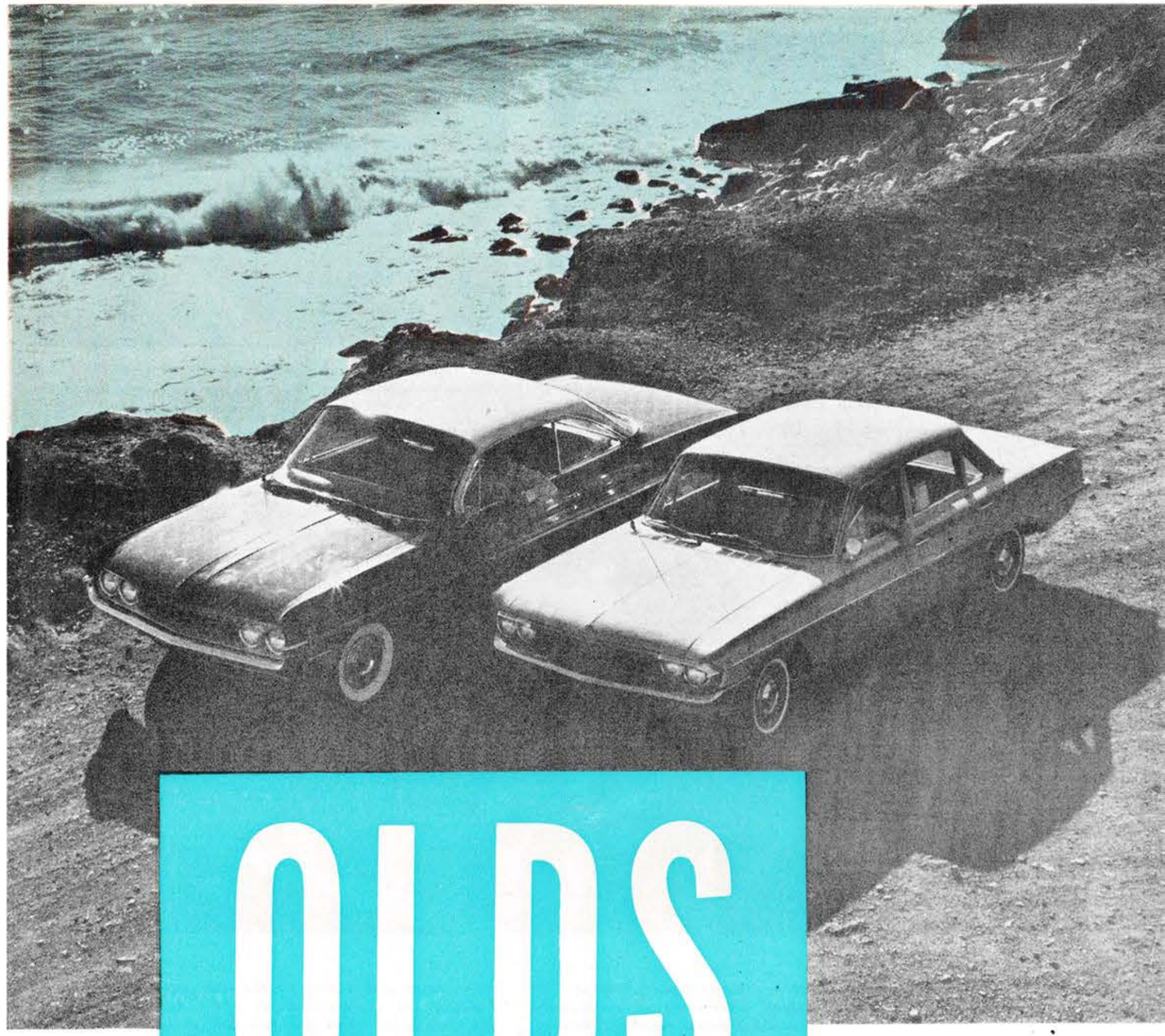
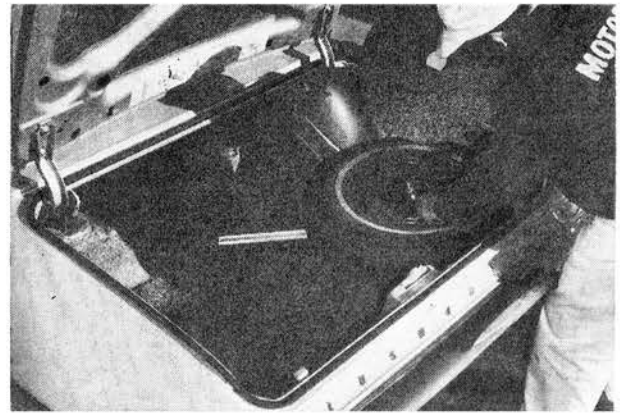


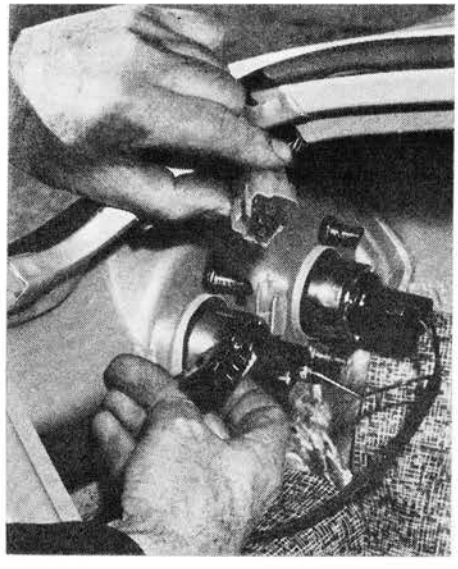
OLDSMOBILE F-85



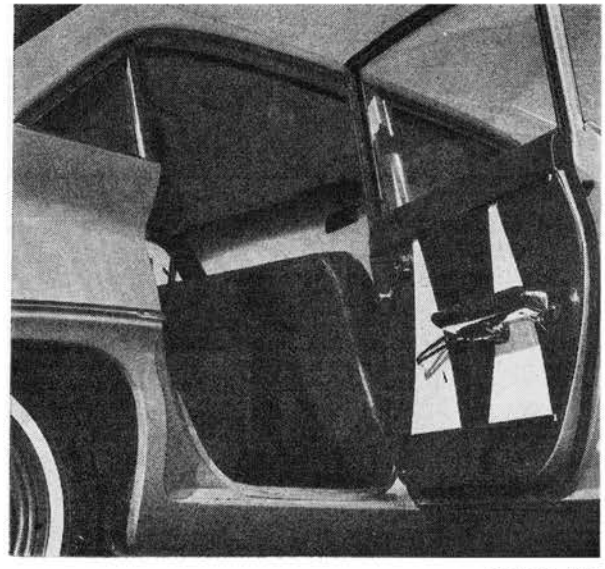
Rear luggage area makes maximum use of available space with smooth finish, level floor, stowage shelf covering spare.

(Below) F-85's effective brake lining area per ton of car is very high. The brakes give a smooth, rapid stop without excessive fading.

Multiple-prong connector plugs, used in F-85 wiring system, protect circuit connections from broken wires, shorts, weather corrosion.



Entry room and seating for the rear passengers is ample, bolstered by a smooth finish which eliminates clothes-snagging edges. Arm rests are deluxe model accessories.

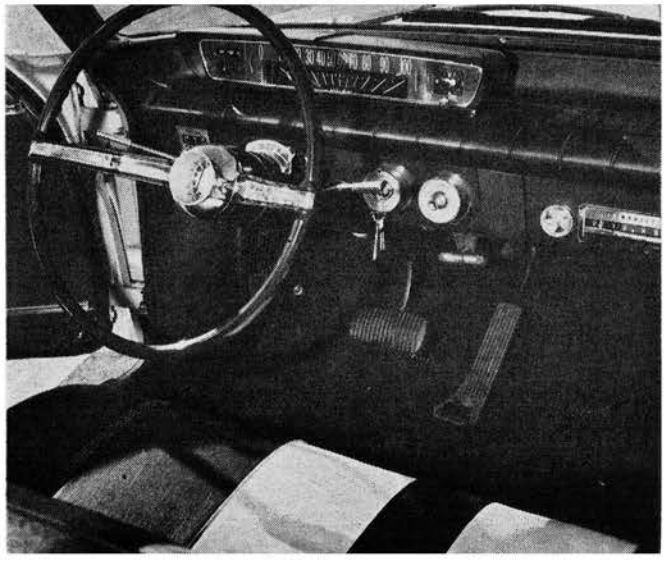


Unit body and lavish use of rubber bushings in suspension and drive-line systems provides quiet ride over rough road surfaces.

Doors, windows and luggage compartment are effectively sealed to keep out water, dirt, and finely powdered desert alkali dust.

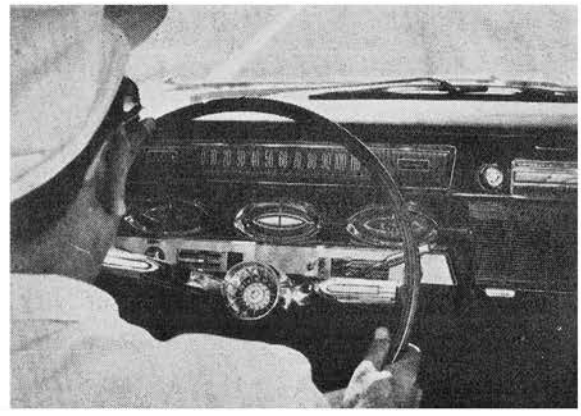
Good weight distribution provided by lightweight aluminum engine, a husky stabilizer bar, and four-link rear suspension system gives F-85 real sports car handling characteristics. Curves like these, with steep camber and loose gravel shoulders are straightened out and leveled by use of coil springs at each wheel.

F-85 speedometer and light indicator instruments, similar to other GM smaller cars, are of clean, uncluttered design; easy to read day or night. Seat adjustment is short for tall drivers.



Dual-purpose air cleaner housing holds foam-type filter, shrouds carburetor completely. Olds engineers believe that clean exterior adjustments and linkage will help keep carburetor well tuned.

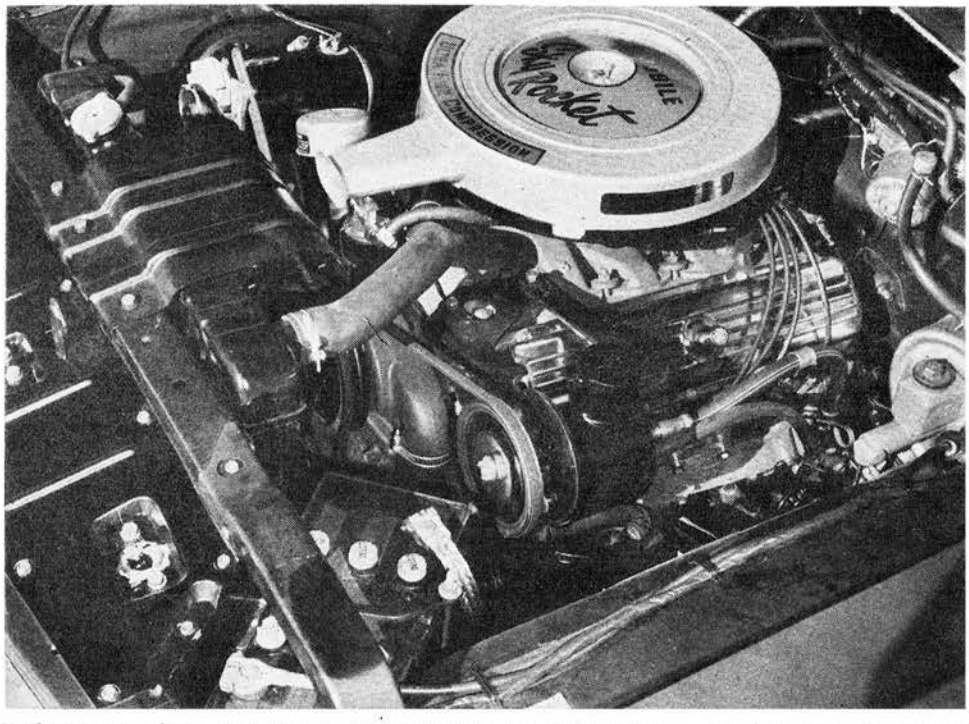
OLDSMOBILE
SUPER 88



Super 88 seating, wheel position, instrument setting, wide windshield give driver a good command of road and car.

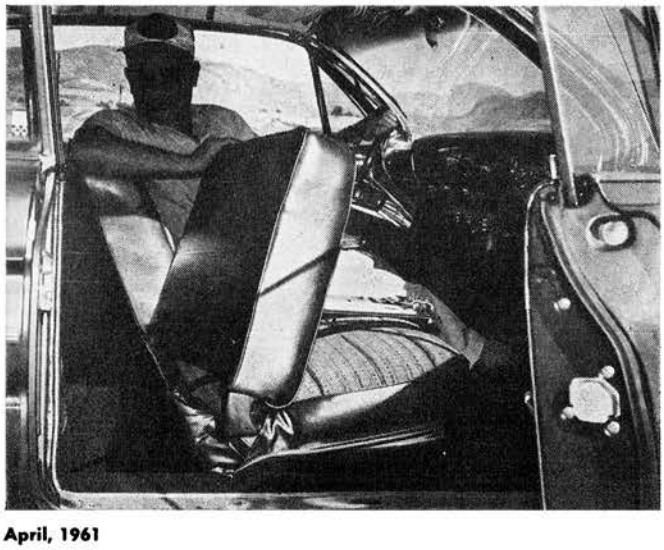
(Below) Improved suspension and quick positive steering, along with very good brakes, combine to provide big-car comfort, small-car agility.

Rubber-bushed fastenings of all moving parts and similar insulation between body and frame help the soft but firm suspension system to eliminate road shock and engine noise. All sealings fit tight, but they don't "bulge at the seams" as in some cars.

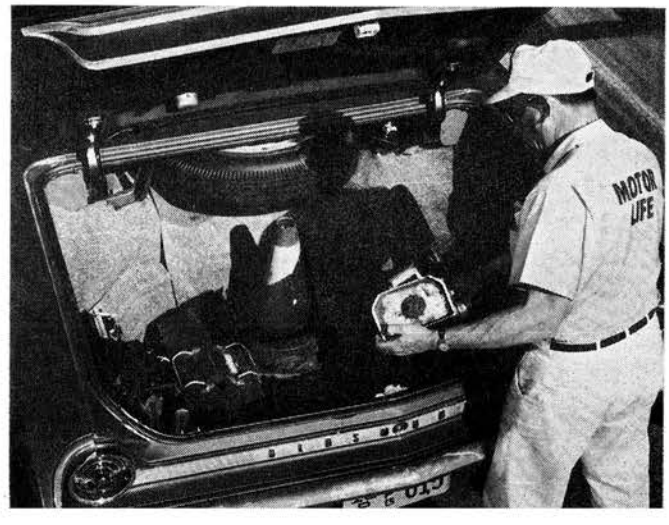


Optional 325-hp engine requires premium gas, has 10:1 compression, four-barrel carb – yet is a smooth, quiet powerplant capable of high performance and reasonable fuel mileage. Car weighs 4280 pounds.

Wide-opening doors and tilting seatbacks ease rear-seat entry and exit. Elimination of dog-leg windshield corner post gets rid of knee-knocking hazard and improves forward driver vision.



Rear trunk depth has been increased by vertical location of gas tank. Flat mounting of spare tire on shelf over rear axle hump makes removal difficult, yet eases stowage of larger suitcases.



CAR FOR CAR, the F-85 compares favorably as a scaled-down version of the big Super 88. Lower in initial cost (but by no means austere in its styling, quality or attention to detail), the F-85 offers V-8 power and automatic gear selection with the same quiet smoothness expected in luxury automobiles.

There is no magic formula which provides stretch-out armchair luxury for six passengers, nor is there a formula for an unlimited number of cubic feet of luggage space in a vehicle with a short wheelbase and practically no overhang. The larger Super 88, with its longer wheelbase and overall length, naturally has more passenger room and trunk space. It also has the horsepower to move it along without effort.

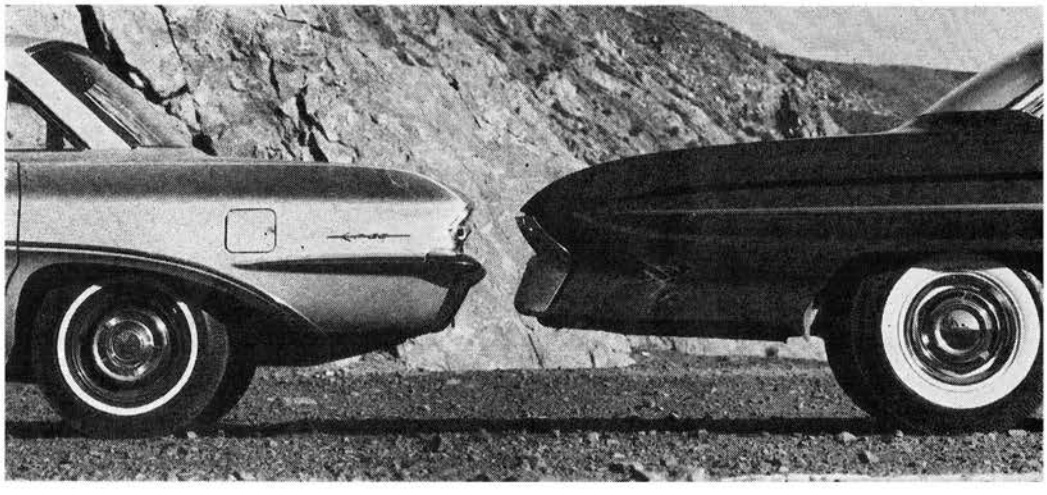
Using lighter, smaller components and an integral body/frame, the F-85 has squeezed the necessary mechanical pieces into its shorter length without squeezing the passenger space. The F-85 is still a six-passenger vehicle. The engineers have naturally cut down on luggage space (compared with the larger cars), but still manage a good, usable 12.1 cubic feet under the rear deck.

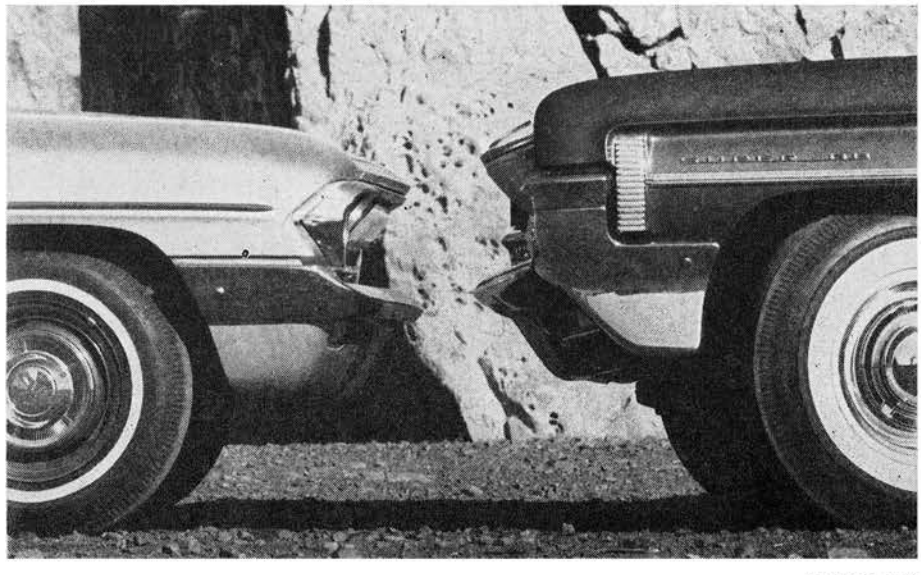
The Super 88 has only a small pounds-per-horsepower advantage over the F-85. This accounts for similar gas mileages. One advantage of the smaller car is in its fuel cost. The F-85 is designed for regular grades, while the Super 88's 10:1 compression ratio demands premium gas. The regular line of Dynamic 88's offers the same 394-cubic-inch engines, de-tuned to 250 hp. This version uses regular fuel, has an 8.75:1 compression ratio and two-throat economy carburetors. While the hot Super 88 engine is available as an extra-cost option in the Dynamic series, the de-tuned engine is currently not available for the Super 88.

There is an interesting comparison here between the two methods of body and frame design. The F-85 employs an integral system, while the Super 88 uses a separate body on a wide-side-rail, heavy-section frame. Both cars use the same suspension principle front and rear, naturally with different rates for their coil springs. The F-85 stabilizer bar is only a few thousandths of an inch smaller than that of the Super 88.

Both test cars were run at the same time over the same terrain, including rough dirt and gravel roads. Both were quiet, free from rattles and squeaks (despite the difference in body/frame applications). Twisting the cars by driving one wheel high on a shoulder did not produce any groans of protest, nor did doors stick when the test cars were parked on an angle.

Oldsmobile has done a fine job with their regular line of 1961 models. In addition, the F-85 has been added, not as a small version of anything, but as a scaled-down, high-quality Oldsmobile offered to widen the selection of automobiles available for the customer's choice. •





The rear profile styling similarity of the F-85 and the Super 88 (above) is more evident than the front fender and bumper treatment (right). F-85 has 13-inch wheels and lower height.

SUPER 88

Holiday 6-passenger coupe

F-85

Deluxe 4-door, 6-passenger sedan

OPTIONS ON CAR TESTED: Skyrocket engine, Hydra-Matic, radio, heater, power brakes, power steering

ODOMETER READING AT START OF TEST: 1165 miles

PERFORMANCE

Acceleration (2 aboard)

0-30 mph..... 3.5 secs.
0-45 mph..... 6.4
0-60 mph..... 9.2

Standing start ¼-mile 16.9 secs. and 83 mph

Speeds in gears
1st .....30 mph 2nd .....60 mph

Speedometer Error on Test Car

Car's speedometer reading.....	35	50	55	65	76	87
Weston electric speedometer....	30	45	50	60	70	80

Miles per hour per 1000 rpm in top gear (Tires 8.00 x 14).....22 mph

Stopping Distances — from 30 mph, 38 ft.
from 60 mph, 159 ft.

SPECIFICATIONS FROM MANUFACTURER

Engine
Ohv V-8, cast iron block
Bore: 4.125 ins.
Stroke: 3.688 ins.
Displacement: 394 cu. ins.
Compression ratio: 10:1
Horsepower: 325 @ 4400 rpm
Ignition: 12-volt, battery/coil

Gearbox
Hydra-Matic 3-speed with Accel-A-Rotor

Driveshaft
Open, one-piece shaft with anti-friction roller U-joints

Differential
Hypoid gear, banjo-type solid axle
Standard ratio 3.42:1

Suspension
Front: Independent, with coil springs, ball joints
Rear: Solid axle with 4-link control arms, coil springs

Wheels and Tires
Drop-center welded steel disc wheels; 8.00 x 14 rayon tires

Brakes
Duo-servo, drums cast iron in steel shell
Front and rear: 11-in. diameter drums; 191.7 sq. ins. effective lining area

Body and Frame
Separate body and frame
Wheelbase 123 ins.
Track, front and rear 61 ins.
Overall length 212 ins.
Dry weight 4285 lbs.

OPTIONS ON CAR TESTED: Hydra-Matic, radio, heater

ODOMETER READING AT START OF TEST: 1213 miles

PERFORMANCE

Acceleration (2 aboard)

0-30 mph..... 4.7 secs.
0-45 mph..... 8.6
0-60 mph.....14.4

Standing start ¼-mile 19.4 secs. and 68 mph

Speeds in gears @ 4500 rpm
1st .....29 mph 2nd .....63 mph

Speedometer Error on Test Car

Car's speedometer reading.....	30	45	50	60	70	80
Weston electric speedometer..	30	45	50	60	70	80

Miles per hour per 1000 rpm in top gear (Tires 6.50 x 13).....20 mph

Stopping Distances — from 30 mph, 38 ft.
from 60 mph, 171 ft.

SPECIFICATIONS FROM MANUFACTURER

Engine
Ohv V-8, aluminum block with cast iron sleeves
Bore: 3.5 ins.
Stroke: 2.8 ins.
Displacement: 215.5 cu. ins.
Compression ratio: 8.75:1
Horsepower: 155 @ 4800 rpm
Ignition: 12-volt, battery/coil

Gearbox
Hydra-Matic 3-speed; controlled fluid coupling with Accel-A-Rotor

Driveshaft
Open, 2-piece; constant-velocity joint in center, mounted to frame support

Differential
Salisbury-design ring and pinion; solid axle
Standard ratio 3.23:1

Suspension
Front: Independent with coil springs and ball-joints
Rear: Solid axle with 4-link control arms, coil springs

Wheels and Tires
Drop-center welded steel disc wheels; 6.50 x 13 rayon tires

Brakes
Hydraulic; drum, cast iron in steel shell
Front and rear: 9.5 in. diameter drums; 127 sq. in. effective lining area

Body and Frame
All steel, integral body/frame
Wheelbase 112 ins.
Track, front and rear 56 ins.
Overall length 188.2 ins.
Dry weight 2817 lbs.