

CAR LIFE ROAD TEST

IF BIGNESS must always be equated with better, the Comet Cyclone GT ought to be one of the best cars around. It certainly has the bigness of engine in relation to the car's overall size, to make it "better" than most of its roadmates. Unfortunately, or fortunately, depending upon who views it, the Cyclone GT is no better or no worse than the other examples of the current "Supercar" idiom.

The Cyclone GT is a new-for-'66 development of Lincoln-Mercury Division and its basic components are a pushed-up Comet hardtop coupe or convertible and a warmed-up 390-cu. in. Ford/Mercury engine. It follows the pattern of big-engine/little-car established by Pontiac for its '64 Tempest GTO, though the basic idea of stuffing the largest possible engine under the smallest possible hood harks back to the dim beginnings of hot-rodding.

Along with the GTO (389 cu. in.), the group includes the Buick Skylark Gran Sport (401 cu. in.), Chevrolet Chevelle Super Sport (396 cu. in.), Ford Fairlane GT (390), Dodge Coronet (383 and 426), Oldsmobile F-85 442 (400), Plymouth Satellite (383 and 426). Certain others of the larger cars, such as Chevrolet Impala and Ford Galaxie, also fall into this category when they are equipped with High Performance 427-cu. in. engines. Su- ▶

COMET CYCLONE GT

***Supercar Status
For Lincoln's
Little Brother***

SCOTT MALCOLM PHOTOS

CYCLONE GT



percar status (*CL*, May '65) comes with a weight-to-power loading of 12 lb./bhp or less.

Surplus horsepower thus has become a very real marketing entity, just as have automatic transmissions, power windows and electronic headlight dimmers. Every major domestic manufacturer, with the exception of American Motors and Cadillac, is producing its own Supercars to meet the demand. Remember six years back? The automakers couldn't build enough simple, 6-cyl. economy cars. Now the bottom has dropped out of that market and the manufacturers are rushing to fill orders for the overpowered and the overstuffied.

Lincoln-Mercury might have produced its GT a few years earlier, had the division aspired to leadership rather than followership. The Comet has been in its lineup since 1960; the 390-cu. in. V-8 engine has been powering Mercurys and Fords since 1961.

As it should be, after having two years to profit by the other fellows' experience, the L-M product is well dressed for this market place. The Cyclone itself is a slicked-off version of the standard models, thus offering its buyer something a little more exclusive. To further the idea, L-M replaces the normal stamped steel engine compartment hood on the Cyclone GT with one of molded fiberglass which has the added distinction of twin (non-functional) air scoops. White racing/rally stripes just above the rocker panels provide instantaneous recognition.

The GT's mechanical equipment can include either a 4-speed manual transmission or the Sport Shift automatic in place of the standard 3-speed all-synchromesh manual unit. Suspension of the GT definitely is firmer than that of the normal Comets and brake linings are of harsher material, to give the GT better resistance to fade. Obviously, planners have followed all the signposts in composing the Cyclone GT package.

THAT 390 CU. IN. will impart outstanding performance to a Comet is a conclusion readily believable on the basis of simple mathematical progression. After all, the standard Comet engine is an economizing 200-cu. in. Six and the first option is a modest little V-8 of 289 cu. in. and 200 bhp.

A true interpretation of the term performance would encompass all of a vehicle's dynamic activities. Performance evaluation should include fuel consumption, braking, handling, riding quality, top speed, and windshield wiper and heater operation, along with acceleration. Unfortunately, performance, in the context of the youth market, equates as straight-line, dragstrip type of acceleration.

So, Lincoln-Mercury has elected the 390 V-8 to do the job that several hot versions of the 289 couldn't do—that is, make a name for Comet at dragstrip and stoplight. There are two versions of the 390 V-8 in the lineup, a 2-barrel carburetor equipped, 275-bhp unit which may be ordered in any Comet, and the pepped-up 4-barrel 335-bhp engine which is available only in the Cyclone GT. The first version should be a good “torquer” for normal highway driving, the second is aimed directly at the enthusiastic, knowledgeable type of driver.

AS A PROPELLER of passenger sedans, the 390 Ford/Mercury engines do a fine, fussless job. They did, and do, a good job as 332- and 352-cu. in. V-8s. Their bigger brothers have had 406 and 427 cu. in., and, in full racing dress, have proved equal to that task, too. However, by strange admixture of mechanical alchemy, the 390/4-barrel has never been much of a top-end performer. It develops plenty of usable torque in the lower reaches and it pumps up more than enough horsepower for its nominal purpose. But, as a performer, it just doesn't deliver.

What is the 390's problem? Engineers point mainly to the cylinder heads as the basic problem. Restrictive valve passages hinder the engine's “breathing” and hydraulic lifters limit attainable rpm. Maximum engine speed seems to be approximately 5000 rpm, even with an “open” exhaust system, because of the pumping up of the hydraulic lifters.



FIBERGLASS HOOD with twin air scoops heralds Cyclone GT arrival on the drag scene. Some judicious drilling would make the scoops functional.

On the other hand, valve size at 2.022 in. intake, 1.551 in. exhaust, would seem adequate, as would the Holley carburetor's four bores of 1.562 in. each. Compression, at 10.5:1, is also up toward the enthusiastic area. Exhaust should be no restriction, as any performance fan can install a set of tubular headers similar to those which equipped the test car. Basic engine specifications of 4.054 in. bore, 3.78 in. stroke, and 390 cu. in. displacement are certainly husky enough for a car of 3580 lb. curb weight.

Ford Motor Co. engineers have warmed up the 390 for use in the Cyclone GT by increasing valve lift to 0.48 from 0.40 in. although the camshafts appear to remain the same—both the normal passenger car version

and the Cyclone GT cams have 270° duration. No other specifications have been changed except horsepower rating; it jumped from 300 at 4600 rpm to 335 at 4800.

It's just possible that Ford/Mercury haven't gone far enough with this 390. Perhaps some of those high-rev, quick-bleed hydraulic lifters (like those used by Pontiac and Chevrolet to get over 6000 rpm from their HP engines) and a hotter camshaft would give it some excitement.

A visit to the local dragstrip for some of that straight-line performance evaluation gave results that were adequate, but not overwhelming. The 390 does a reasonable job, but promises no more. The Comet times are median for the big-engine/small-car group. At



CYCLONE GT

15.2 sec. elapsed time, 90 mph trap speed for the quarter-mile is good without being outstanding.

Shifts of the controllable Sport Shift 3-speed transmission were made both manually and automatically; the quickest times were achieved by letting the transmission select its own shift points. Several types of starts were tried, to overcome the handicap of highway-type tires; the best were those where not too much static pressure was built up in the torque converter before releasing the brakes, thus keeping wheel-spin at a minimum. A dozen runs were made over the Carlsbad Raceway drag-strip and their average was 15.2 sec., 90 mph.

Readers should keep in mind that this was a normally equipped, highway-gear Comet Cyclone GT. As delivered, this particular specimen had a set of curvaceous, fabricated tubing exhaust headers with removable plates at the ends of the 3-in. dump tubes. Cyclone GT specifications reveal no such option, but, because they were

there, CL made runs with blocking plates both on and off. Recorded times reflect the open condition; accelerations over the quarter-mile for the pipes plugged were 0.5-1 sec. slower.

The Comet-sized car lends itself well to dragstrip performance, it being reasonably light in weight and presenting minimal front area. Although a GT-opted Comet gets a bit on the bulky side of the scales, it doesn't come out nearly as porcine as many of its separate-frame competitors.

Unit construction provides structural integrity with lighter weight and benefits from modern torque-box technology, which produces tautness of construction and lowered noise levels. Additional chassis tuning for the '66 version isolated torque boxes to reduce vibration and harshness. Suspension components are heftier, as is steering linkage. Wheelbase and overall length have been increased, 2 in. and 7.7 in., respectively, in the reshaping of the sheet metal. This has added around 100 lb. to the overall mass, but the



MISFIT panels—here the decklid and taillight sections—typify Comet assembly.

shipping (dry) weight of the lightest Comet Six still is under 2800 lb.

Despite the nominally light weight of the car, excess poundage is a problem with the GT version. Adding the first-option 289-cu. in. V-8 increases the weight by 169 lb., while ordering a 390-cu. in. V-8 puts on 433 lb. over the basic Six. The XPL Sport Shift automatic ups the scales by 59 lb. (the 4-speed manual is only 28 lb. over the normal 3-speed) while power steering and power brakes add 38 lb. more.

1966 MERCURY COMET CYCLONE GT HARDTOP



DIMENSIONS

Wheelbase, in.	116
Track, f/r, in.	58.3
Overall length, in.	203
width	73.8
height	54.3
Front seat hip room, in.	2 x 25
shoulder room	58.0
head room	38.1
pedal-seatback, max.	43.5
Rear seat hip room, in.	58.3
shoulder room	56.7
leg room	34.1
head room	36.7
Door opening width, in.	43.3
Floor to ground height, in.	12.5
Ground clearance, in.	6.5

PRICES

List, fob factory	\$2891
Equipped as tested	3391
Options included: Sport Shift automatic trans., clock, power steering, power brakes, am/fm radio, front and rear seat belts.	

CAPACITIES

No. of passengers	5
Luggage space, cu. ft.	17.0
Fuel tank, gal.	20.0
Crankcase, qt.	4.0
Transmission/diff., pt.	13.3/4.5
Coolant radiator, qt.	19.5

CHASSIS/SUSPENSION

Frame type	unit
Front suspension type: Independent by s.i.a., coil springs, telescopic shock absorbers, link-type stabilizer.	
ride rate at wheel, lb./in.	119
anti-roll bar dia., in.	0.85
Rear suspension type: Hotchkiss drive with longitudinal semi-elliptic leaf springs; telescopic shock absorbers.	
ride rate at wheel, lb./in.	146
Steering system: Recirculating ball and nut with power-assisted parallel-linkage, ball-joint steering knuckles.	
gear ratio	16.0
overall ratio	21.6
turns, lock to lock	3.5
turning circle, ft. curb-to-curb	41.5
Curb weight, lb.	3580
Test weight	3920
Weight distribution, % f/r	56.4/43.6

BRAKES

Type: Single-line hydraulic with dual servo shoes in cast-iron drums.	
Front drum, dia. x width, in.	10 x 2.5
Rear drum, dia. x width	10 x 2.0
total swept area, sq. in.	282.6
Power assist.	integral, vacuum
line psi @ 100 lb. pedal	760

WHEELS/TIRES

Wheel size	14 x 5.5
optional size available	none
bolt no./circle dia., in.	5/4.5
Tire make, brand: Goodyear Power Cushion	
size	7.75-14
recommended inflation, psi	28
capacity rating, total lb.	n.a.

ENGINE

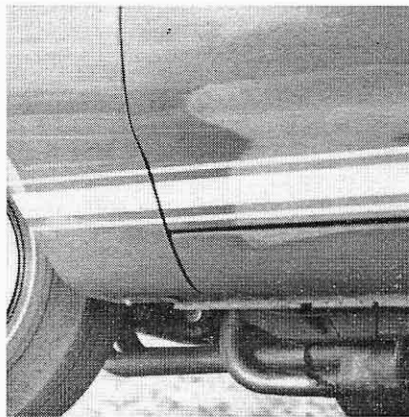
Type, no. cyl.	V-8, ohv
Bore x stroke, in.	4.054 x 3.78
Displacement, cu. in.	390
Compression ratio	10.5
Rated bhp @ rpm	335 @ 4800
equivalent mph	114
Rated torque @ rpm	427 @ 3200
equivalent mph	76
Carburetion	Holley, 1 x 4
barrel dia., in./sec.	1.562/1.562
Valve operation: Hydraulic lifters, pushrods and rocker arms.	
valve dia., int./exh.	2.03/1.56
lift, int./exh.	0.4809
timing, deg.	18-72 68-22
duration, int./exh.	270
opening overlap	40
Exhaust system: Headers with dual reverse-flow mufflers.	
pipe dia., exh./tail	2.00/2.00
Lubrication pump type	rotor
normal press. @ rpm	50 @ 2000
Electrical supply	alternator
ampere rating	38
Battery, plates/amp. rating	66/70

DRIVE-TRAIN

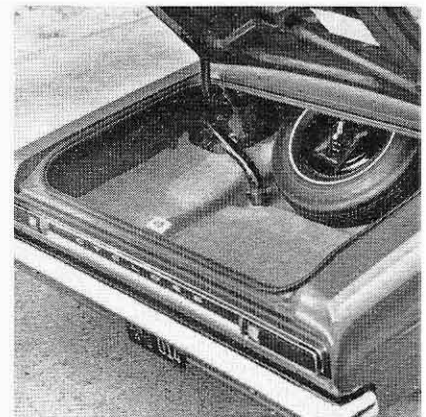
Clutch type	
dia., in.	
Transmission type: Automatic with 3-element torque converter and planetary gearbox.	
Gear ratio 4th () overall	
3rd (1.00)	3.25
2nd (1.46)	4.75
1st (2.46)	7.99
1st x t.c. stall (2.10)	16.8
Shift lever location	console
Differential type: Hypoid, straddle-mounted pinion.	
axle ratio	3.25



INSTRUMENT layout put everything in front of driver, but lacked a tachometer.



HEADERS helped improve performance as much as 1 sec. in quarter-mile time.



FUEL filler extension looks vulnerable inside the Cyclone's huge compartment.

Of course, the Cyclone GT is available only as a convertible or hardtop coupe; both of which are heavier models.

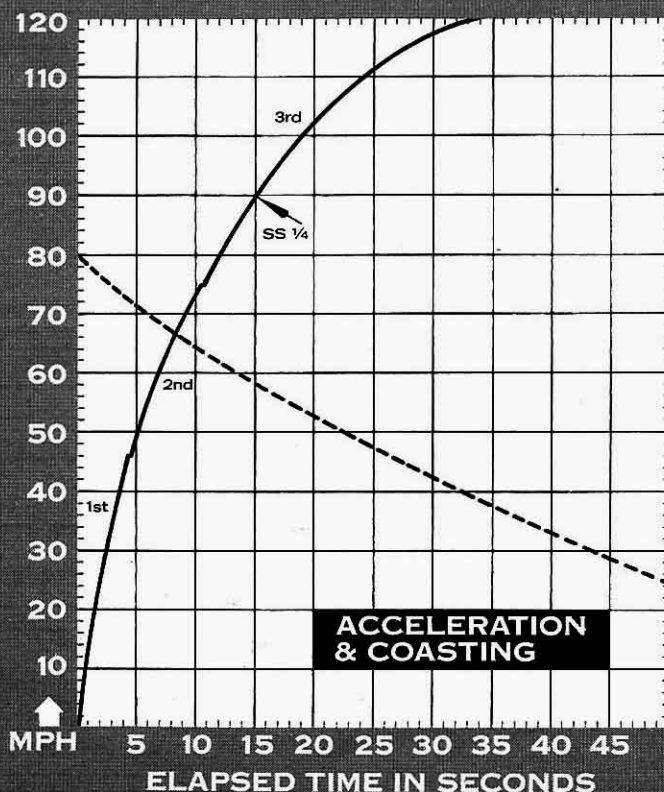
It is easily seen, then, why a basic car which ships at 2800 lb. inflates to 3580 lb. when ready to drive. By the same token, the basic Six's good weight balance of 52.8% front, 47.2% rear, deteriorates to 56.4/43.6 with the Cyclone GT equipment. The shift in balance, and the nearly tripled power, only compound the problem of drive-wheel traction.

As would be indicated by such weight distribution, driving the Cyclone GT generates a definite front-heavy feeling. Directional control didn't seem particularly precise, even with the arrowhead out front, and the CL test car was wont to lurch and ramble at highway imperfections. The power-assisted steering may have contributed to that feeling as it effectively masked any indication or reaction of the road wheels under a bland, constant steering wheel effort. The stan-

dard equipment 7.75-14 Goodyear Power Cushion tires did a good job of putting what traction they could to the road. Only at the dragstrip, where full-throttle starts were permissible, were they inadequate.

Driving the Cyclone GT with automatic can be as delightful in some ways as it is disappointing in others. Freeway traffic, where close-quarter maneuvering and acceleration to flow-speed from on-ramps are everyday necessities, is just its meat. The surplus

CAR LIFE ROAD TEST



CALCULATED DATA

Lb./bhp (test weight)	11.7
Cu. ft./ton mile	146
Mph/1000 rpm (high gear)	23.7
Engine revs/mile (60 mph)	2530
Piston travel, ft./mile	1590
Car Life wear index	40.3
Frontal area, sq. ft.	22.3
Box volume, cu. ft.	472
SPEEDOMETER ERROR	
30 mph, actual	28.8
40 mph	37.2
50 mph	46.5
60 mph	57.6
70 mph	67.6
80 mph	73.8
90 mph	84.9

MAINTENANCE INTERVALS

Oil change, engine, miles	6000
transmission/differential	as req.
Oil filter change	6000
Air cleaner service, mo.	12
Chassis lubrication	36,000
Wheelbearing re-packing	30,000
Universal joint service	30,000
Coolant change, mo.	24

TUNE-UP DATA

Spark plugs	Autolite BF-42
gap, in.	0.032
Spark setting, deg./idle rpm	10/575
cent. max. advance, deg./rpm	24.5/4000
vac. max. adv., deg./in. Hg.	25/20
Breaker gap, in.	0.014
cam dwell angle	26
arm tension, oz.	17
Tappet clearance, int./exh.	0
Fuel pump pressure, psi	5.0
Radiator cap relief press., psi	12-15

PERFORMANCE

Top speed (5000), mph	120
Shifts (rpm) @ mph	
3rd to 4th ()	
2nd to 3rd (4600)	75
1st to 2nd (4800)	46

ACCELERATION

0-30 mph, sec.	2.3
0-40 mph	3.3
0-50 mph	4.8
0-60 mph	6.6
0-70 mph	9.1
0-80 mph	12.1
0-90 mph	15.2
0-100 mph	18.7
Standing 1/4-mile, sec.	15.2
speed at end, mph	90
Passing, 30-70 mph, sec.	6.8

BRAKING

(Maximum deceleration rate achieved from 80 mph)	
1st stop, ft./sec./sec.	23
fade evident?	yes
2nd stop, ft./sec./sec.	23
fade evident?	yes

FUEL CONSUMPTION

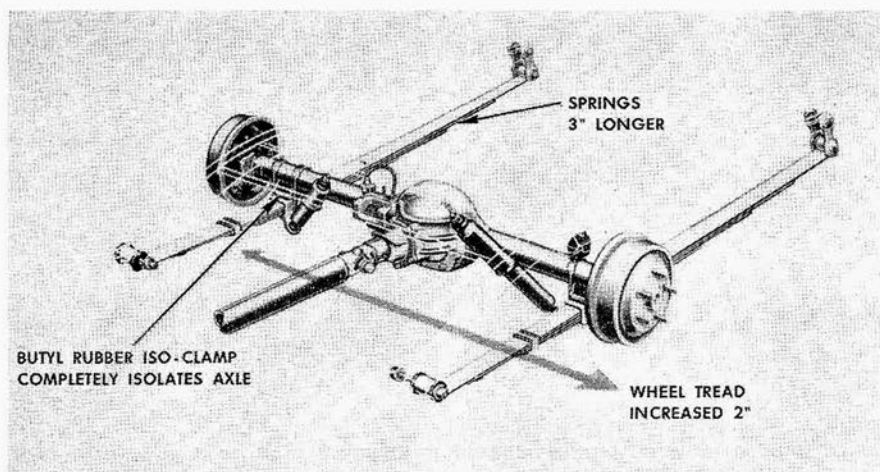
Test conditions, mpg	10.1
Normal cond., mpg	10-13
Cruising range, miles	200-260

GRADABILITY

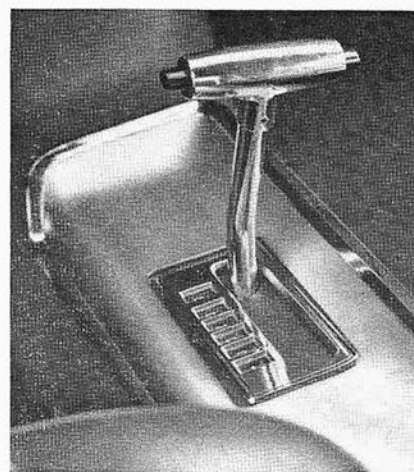
4th, % grade @ mph	
3rd	19 @ 71
2nd	29 @ 58
1st	36 @ 41

DRAG FACTOR

Total drag @ 60 mph, lb.	175
--------------------------	-----



COMET REAR suspension for '66 shows longer springs for softer ride, wider tread for greater stability. Rubber "iso-clamp" is supposed to block drive-line noise.



SPORT SHIFT T-handle allows driver the 1-2-3 selection of automatic's gears.

CYCLONE GT

of power hustles the GT into any available "hole" and the Cyclone's size makes it easily maneuvered. Less-than-straight roads are less pleasing, and here the overbalance of weight makes for a nervous drive. Overall handling is not, then, a highpoint with the Cyclone GT.

In styling, the car has good proportions, but poor detailing. A novel front-end treatment leaves no doubt that it's a Comet. Headlights and their surrounding panels, however, seem to be the work of a committee which couldn't achieve agreement. Mercifully, the flanks and stern are not belabored

with excess decoration so the overall effect is at least one of cleanliness. The bucket seat interior is contemporary and the ubiquitous console sprouts forth the transmission control lever. Comets, as do others this model year, suffer from gaposis of panels. A walk-around inspection revealed more misalignments than would seem acceptable to a discerning buyer about to sign his name to a \$3400 bill. Neither hood nor decklid looked as if they belonged to that particular car; sculpture lines "broke" where they crossed panel joints.

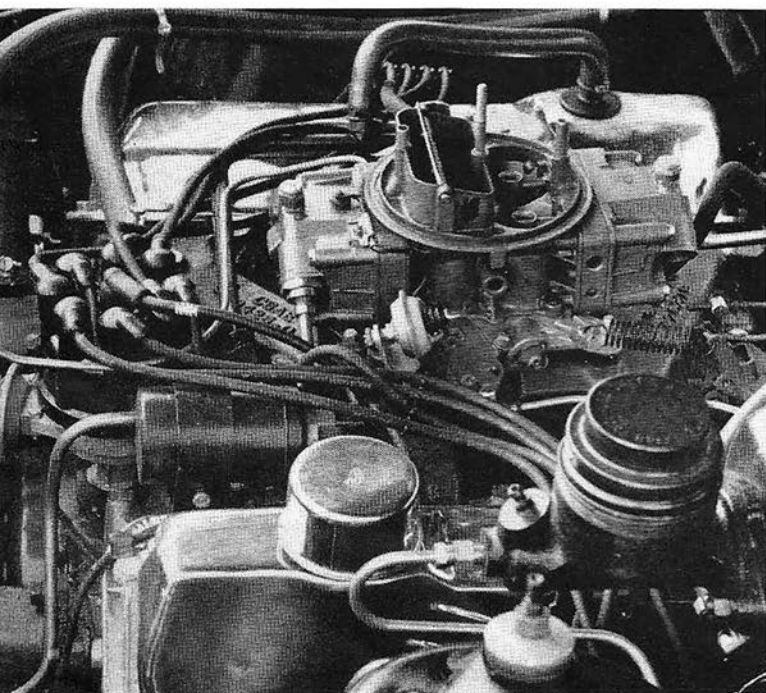
What is there about the Comet Cyclone GT for the enthusiastic driver

to look for? What is there for him to be enthusiastic about?

He might get fired up about the bigness of the engine—if he knows a few ways to extract what potential is there for dragstrip performance. He might be intrigued by the proved durability of Comet cars. Or, he might go for the styling; it doesn't appear to be a carbon copy of another division's car, even though it and the Fairlane GTA share most components.

For the youth market, however, it might behoove Lincoln-Mercury planners to take a longer, harder look at the Cyclone GT and take the step to make it a leader and a standout in the Supercar crowd. What's that? Scrap the 390/4-bore and pop in the Big Daddy of the NASCAR scene—the 427 V-8 with its 7000 rpm potential. Now, that would be a hauler!

HOLLEY 4-BARREL carburetor has 1.562-in. bores, nestles between Cyclone GT's chromium-plated rocker covers and breather cap.



ENGINE SECTION shows wedge-head chambers of big Ford family V-8 design and layout of hydraulic lifter, rocker-shaft valve system.

