

TESTING THE Z-28 CAMARO & SHELBY'S '67 MUSTANGS

SPORTS CAR

UK 3'6
Sweden KR. 3.90 Inkl. oms
GRAPHIC
MARCH 1967 50c

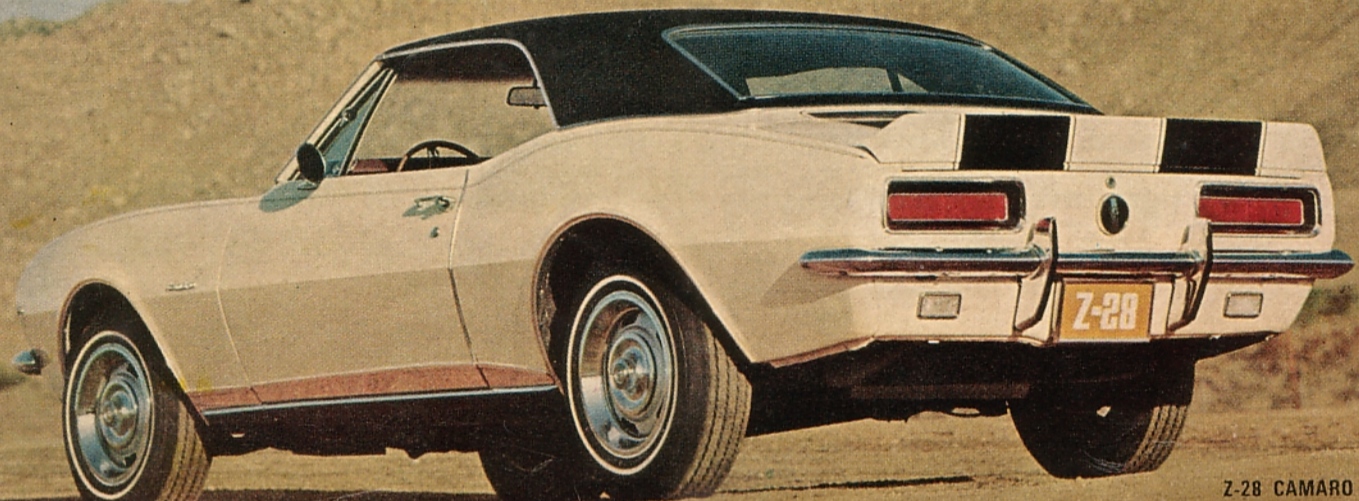


CLINICAL
PSYCHOLOGISTS
EXAMINE
THE RACE
DRIVER



SHELBY GT500 & GT350

EXCLUSIVE: BUILDING THE GURNEY-WESLAKE V-12 WINGS & SPOILERS...ANSWER OR COMPROMISE?



Z-28 CAMARO

SHELBY MUSTANG GT350 & GT500

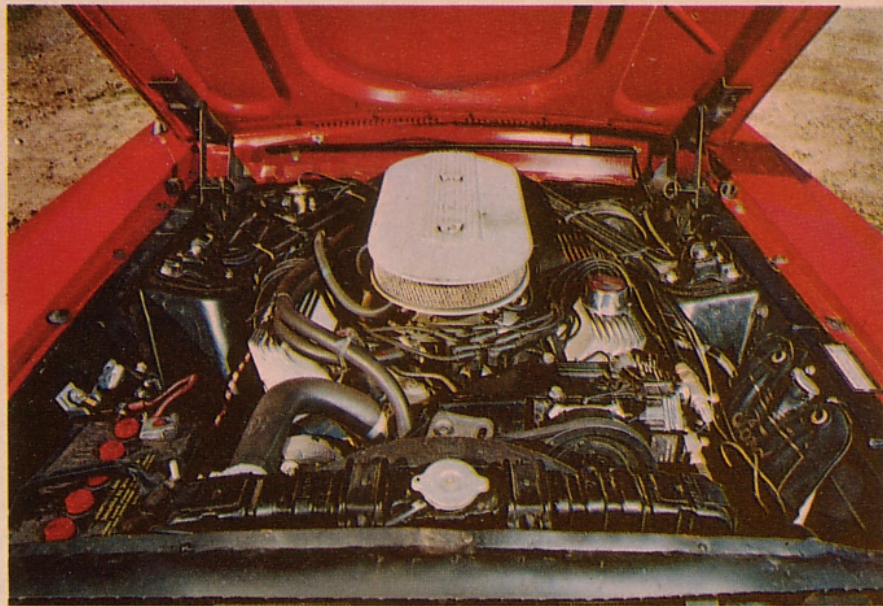
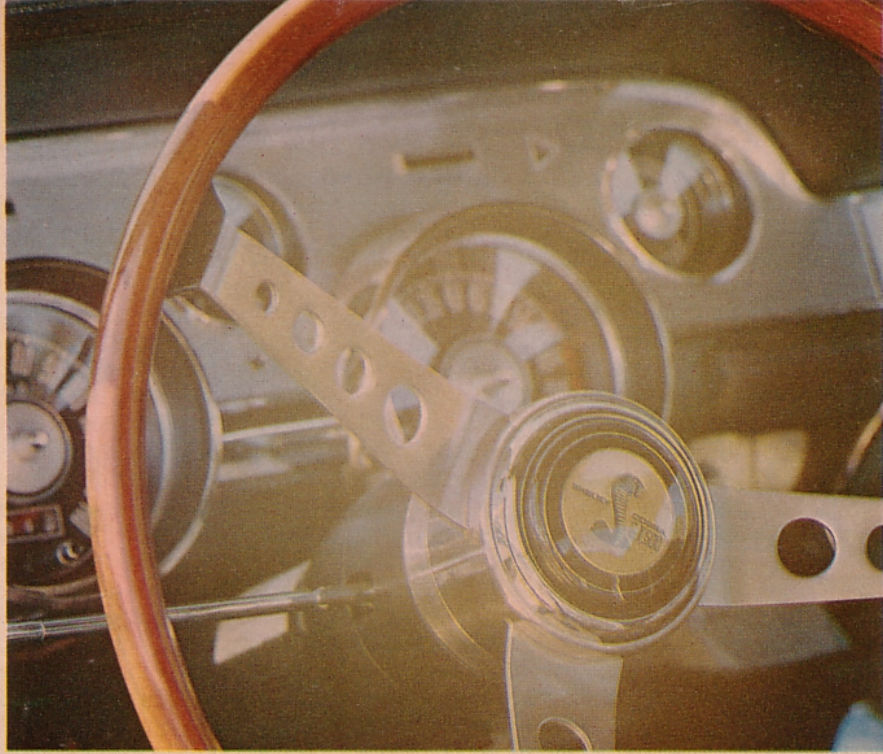
By Jerry Titus

THE PRE-1967 GT350, A SHELBY-AMERICAN REWORKED MUSTANG, WAS A PERFORMING CAR but, in many respects, it was more of a hot rod than a Grand Touring car. With a stripped-out interior, the optional suspension, a rock-crusher limited slip, the mechanical-lifter 289 high-performance V-8, and quick steering, it made a Mexican Road Race Ferrari look like an LTD when compared for noise, comfort, and driving ease. But there were plenty of buyers excited by this kind of "furry-ness," and the prime

requisites of roadability and performance were certainly satisfied, so the cars sold. However, the people within Shelby-American were well aware of the shortcomings and the market limitations that they imposed. The '67 production Ford Mustang is a more sophisticated machine, and the GT350 takes maximum advantage of its attributes to improve not only the ride, comfort, driving ease, and noise level, but the handling as well! It is a substantially better and more practical machine, without sacrifice in the performance area.

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The powerful GT500 (instrumentation and engine compartment shown at right) uses two four-barrel carburetors atop the 428-inch engine. Our test unit was equipped with air conditioning and automatic transmission. The sparkling GT350 shown in photos below makes good use of the wider track for improved ride and superior handling in tighter corners.

Photos: Bob D'Olivo



An added model for '67 is the GT500. It features a 428-inch engine. We frankly laughed out loud some 18 months ago when we heard such a prototype was planned. A huge hunk of cast iron sitting that high and that far forward? Lots of luck! Paying us no mind, they did it anyhow, and wound up with a very practical automobile. Combined with a three-speed automatic, the 427 is far more docile and more quiet than the 289, and outperforms it in every respect except gas mileage. You can feel some of the compensations made for the extra weight of the engine, but the end result is surprisingly good.

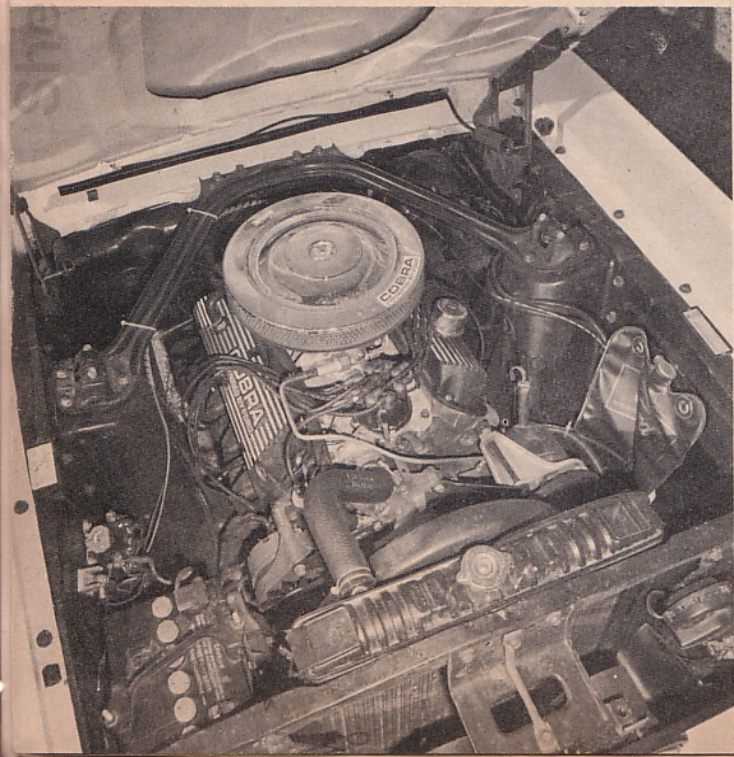
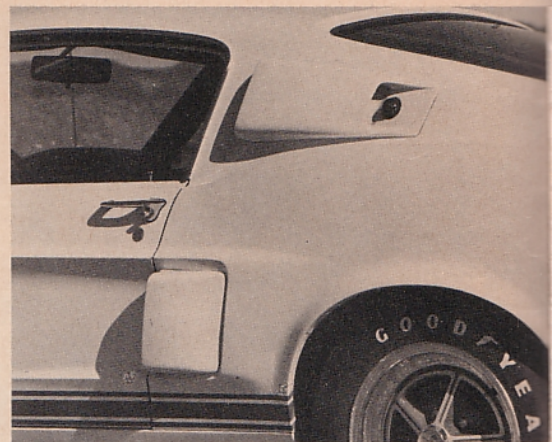
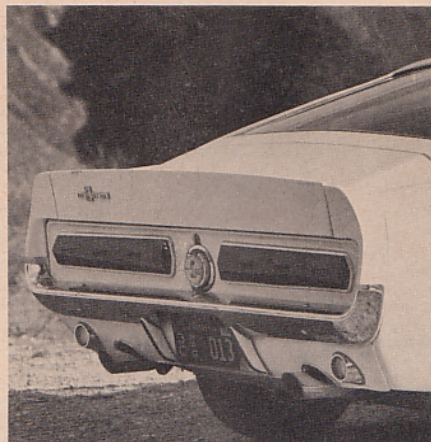
There were three major goals that Shelby's design/engineering team set out to accomplish with the '67 model: improve its quality, make it more distinctive, and *reduce* its cost. The latter requirement certainly isn't compatible with the first two. The goals were achieved only through months of intensive effort and several weeks' delay in getting the production line rolling. The result has been more than worth the effort and the wait, however.

In striving to make the GT look distinctive, redesign of the front and rear ends has been accomplished with the use of fiberglass components. Last year there were some problems with warpage of the fiberglass hoods, and it was expected that this year's model would have to absorb the extra weight of a steel hood in order to be assured of a decent fit. The problems were cured, however, and the '67s sport 'glass hoods with a split scoop in the center. The complete front grille surround-

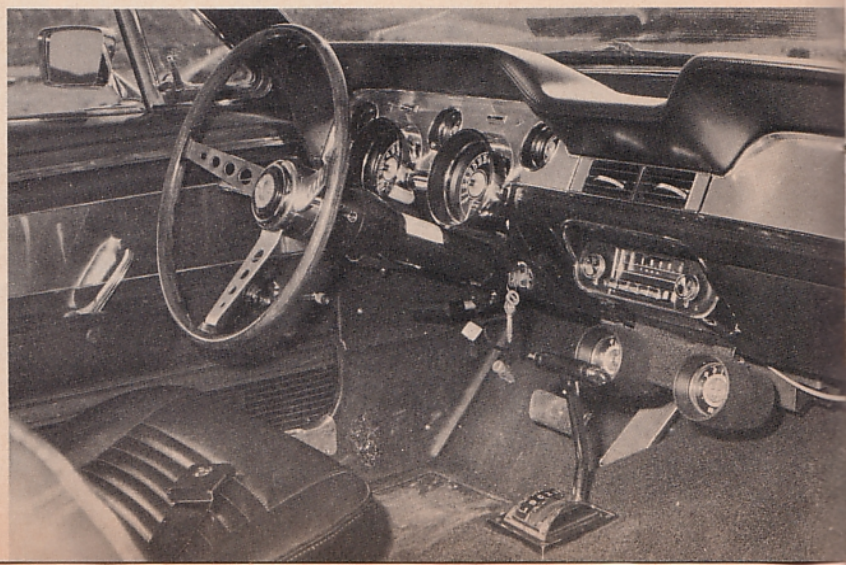
ing is also fiberglass and combines with the extended hood to make a very tasteful and effective change from the standard Mustang grille. The rear deck has a small spoiler lip molded in, and the rear fender caps or extensions (normally die-cast bolt-ons) are also of glass and flare up to match the deck contour, giving the entire rear a 'spoiler' configuration. Wide, special tail lights and a Cobra gas cap complete the distinctive appearance of the rear, but extractor type scoops cover the quarter sections of the roof and a small red 'safety' light is included in the aft opening of each, readily visible from behind and wired to actuate with the brake and turn-indicator lights. Lower in the rear quarter section is a functional air scoop for the rear drum-type brakes. This year you can buy the Shelby products in a wide range of colors and the bold, cop-attracting stripes have been left off. Shelby employees have found their 'ticket ratio' substantially reduced in the unstriped version.

Chassis changes are many. Power steering and power brakes are standard for both GT350 and GT500. The track, as on the production Mustang, is two inches wider. There is still good roll-stiffness, but the ride is quite a bit softer. Brake-pedal pressure is light, as is steering pressure, the latter a result of both the power assist AND a reduction of caster angle. This makes it a little bit too sensitive when you enter a fast corner, but this is a matter of driver adaptation. Also standard in both models is a roll-over bar. Optional — fortunately — is shoulder harness of the reel type,

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To enhance distinctive styling, high beams are moved to the grille center, rear fenders and deck are restyled to include a spoiler, and scoops are installed in quarter-panels for functional ventilation and brake-cooling. The 289 engine, lower left, is noisy, but light and very responsive. GT500 interior is shown below with auto-trans quadrant on the floor. Insert shows reel-type shoulder harness mounted to roll bar.



SHELBY MUSTANG GT 350 & 500

BASE PRICE

\$4195 (GT 350)
\$4395 (GT 500)

ENGINE

Type...V-8, iron, water-cooled
Head.....Cast iron, removable
Valves....Ohv, pushrod/rocker actuated

GT 350

Max bhp.....306 @ 6000 rpm
Max. Torque.....329 lbs. ft. @ 4200 rpm
Bore....4.005 in. (101.73 mm)
Stroke....2.87 in. (72.9 mm)
Displacement.....289 cu. in. 4737 cc

Compression Ratio....10.5 to 1
Induction System...Single Holly 4 bbl.-750 cfm
Exhaust System...Standard, dual
Electrical System.....12 V distributor ignition

GT 500

Max. bhp.....355 @ 5400 rpm
Max. Torque.....420 lbs. ft. @ 3200 rpm
Bore.....4.13 in. (104.9 mm)
Stroke....3.984 in. (91.19 mm)
Displacement.....428 cu. in. 7015 cc

Compression Ratio....10.5 to 1
Induction System...Dual Holly 4 bbl. - 600 cfm
Exhaust System Standard, dual
Electrical System.....12 V distributor ignition

CHASSIS

FrameUnit, welded
Body.....Steel and fiberglass
Front SuspensionUnequal arms, coil springs, adjustable tube shocks, anti-sway bar.

Rear Suspension.....Live axle, multi-leaf springs, tube shocks
Tire Size & Type.....Goodyear E70-15

WEIGHTS AND MEASURES

Wheelbase108 in.
Front Track58 in.
Rear Track58 in.
Overall Weight51.6 in.
Overall Width70.9 in.
Overall Length51.6 in.
Ground Clearance6.5 in.
Crankcase6 qts.
Cooling System.....20 qts.
Gas Tank.....18 gals.

GT 350

Curb Weight2723 lbs.
Test Weight3048 lbs.

GT 500

Curb Weight3286 lbs.
Test Weight3576 lbs.

CLUTCH

Type.....Single disc, dry
Diameter10.5 in.
ActuationMechanical

TRANSMISSION

Type...Four-speed, full synchro
Ratios: 1st2.32 to 1
2nd1.69 to 1
3rd1.29 to 1
4th1.00 to 1

BRAKES

Disc Diameter front11.3 in.
rear10. in.
Swept Arean.a.

DIFFERENTIAL

GT 350
Ratio.....3.89 to 1
Drive Axles (type)....Enclosed, semi-floating

GT 500
Ratio.....3.25 to 1
Drive Axles (type)....Enclosed, semi-floating

STEERING

Type...Recirculating, ball sector
Turns Lock to Lock.....3.5
Turn Circle.....37 ft.

PERFORMANCE RESULTS

ACCELERATION

GT 350

0-30 2.8 sec. 0-70 9.0 sec.
0-40 4.1 sec. 0-80 11.8 sec.
0-50 5.6 sec. 0-90 15.0 sec.
0-60 7.1 sec. 0-100 19.3 sec.

Standing 1/4 mile.....15.3 sec.

@ 91 mph
Top Speed (avg. two-way run)... 129 mph

GT 500

0-30 2.8 sec. 0-70 8.1 sec.
0-40 4.0 sec. 0-80 11.8 sec.
0-50 4.9 sec. 0-90 15.0 sec.
0-60 6.7 sec. 0-100 16.9 sec.

Standing 1/4 mile.....14.3 sec.

@ 92 mph
Top Speed (av. two-way run)... 132 mph

FUEL CONSUMPTION

GT350

Test13 mpg
Average15 mpg

FUEL CONSUMPTION

GT500

Test9.4 mpg
Average11 mpg

RECOMMENDED SHIFT POINTS

GT 350

Max. 1st55 mph
2nd78 mph
3rd104 mph
RPM Red-line6200 rpm

SPEED RANGES IN GEARS:

1st0 to 55 mph
2nd15 to 78 mph
3rd25 to 104 mph
4th35 to 129 mph

BRAKE TEST

74 Average % G, over 10 stops.
Fade encountered on 8th stop.

REFERENCE FACTORS

GT 350

Bhp. per Cubic Inch.....1.06
Lbs. per bhp.8.8
Piston Speed @ Peak rpm..... 2870 ft./min.
Swept Brake area per lb. ...n.a.

GT 500

Bhp. per Cubic Inch.....0.829
Lbs. per bhp.10.0
Piston Speed @ Peak rpm..... 3586 ft./min.
Swept Brake area per lb. ...n.a.

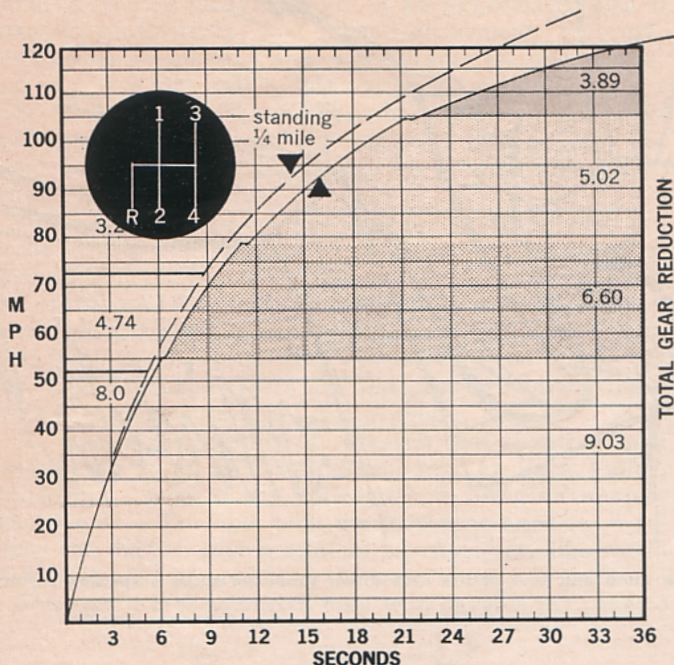
SPEEDOMETER ERROR

GT350

Indicated	30	40	50	60	70	80	90
Actual	30	40	51	61	70	79	88

GT500

Indicated	30	40	50	60	70	80	90
Actual	30	39	49	58	69	80	92



that mounts to the top of the bar. Its angle is wrong for any real crash protection, but a transverse bar at shoulder height (needed for correct mounting) would also bar access to the 'optional-but-you-can't-get-one-without-it' fold-down rear seat. Yet a lot of care has been exercised to make the bar both effective in an inverted emergency and to blend it into the interior as

unobtrusively as possible. Most of the interior is regular-production Mustang. A wood-rimmed steering wheel bears a Cobra insignia, and the right side of the dash has an emblem that designates the model. The large speedo and tach, mounted directly forward of the wheel, are quite legible, but a small, twin nacelle below the dash houses the oil pressure and ammeter

(Continued on page 74)

SHELBY MUSTANGS

Continued from Page 35

gauges. You can't read them without leaning hard to the right in the driver's seat.

The GT500, with its very efficient automatic transmission (at this writing it still hasn't been decided if this model will be offered with manual four-speed or not) doesn't perform much better than the GT350 in a straight line, but it does it with comparative ease and with a great reduction in noise level. Since the basic chassis in both models is a lot quieter, the solid lifters in the 350 are especially noticeable. This is further magnified at cruising speed because of the low (3.89) final drive ratio. The top speed of both models is nearly identical. The 500 got to 132 mph with a slow-reading speedo. Only the last ten mph came hard. The 350 worked fairly hard from the century mark up, but, even with ignition break-up on the top end, it still indicated 129 mph on a slightly fast speedo. With two Holleys, the 325-hp rating of the 500's power plant is probably conservative. There's nothing conservative about the amount of torque it puts out, however. It is a *very* docile engine and a very responsive one. The carburetion works well in both hard corners and hard stops — the severest tests. We didn't have a chance to check the hot-weather starting, but there certainly weren't any problems in a moderate ambient temperature. The 289 is, of course, in a higher state of tune with its hi-riser manifold and hot cam, so it idles rougher and noisier, but is otherwise quite easy to handle.

On the road, the 500 has a heavier 'feel' to it than the 350, but the only major difference is noticed when you come to dips in the road that really work the front springs and shocks. Then it wants to 'porpoise' a bit. The 350 is exceptional in this respect. It really flies over rough, dippy roads at high speed. Its comparatively better balance and an excellent choice of spring and shock rates are readily apparent. In corners, the 500 demands a considerably tighter 'hand on the reins', but it gets around surprisingly well, with less understeer than we expected. The 350 will go through the same corner appreciably faster, and is less demanding from a control standpoint.

The brakes on both models worked exceptionally well, but a softer-than-previous friction material made itself known by slight fade, squeak, and dive after continued hard use. Recovery was rapid and complete, however.

There is only two hundred dollars difference between the 350 and 500, so the major choice seems to be in the type of car you want. The 500 is a bit hotter in performance (with the automatic), considerably quieter, and more comfortable for normal use. It sacrifices overall handling and cornering power, however, and under-10-mpg fuel consumption is noteworthy in this department. Factory installed air-conditioning is also available this year, and would be far more logical with the big engine. The 350, on the other hand, is really a highly roadable GT, and a long way from uncomfortable or unmanageable in traffic. Our congratulations, to the guys who built it, were shrugged off with, "Wait until you see what we have on the market in a couple of years if you think *this* one is more sophisticated!" Meanwhile, the present model will more than do. It only takes a ride around the block to see what we mean.

