

THE FINAL FINEST PHASE

After following a sometimes difficult, but always interesting trail to track down the surviving Phase IVs, *Super Ford* Editor, John Wright brings you the entire story of Ford's ultimate supercar.

Here's hoping we can find a few more superlatives in the wordbag. No praise can be too high when it comes to the Phase IV, the finest Phase in the history of Falcon...

There is no doubt that as far as the roaring GTHOs were concerned, Four would have been a lucky number. The Phase IV would have been far and away the wildest racing sedan Mount Panorama had ever seen. But the number took on an additional significance as the superkiller supercar superscare began to dominate the Australian press and Ford spat the dummy. Simply, four complete Phase IVs were built and then sold out the back door to selected buyers.

On June 20, 1972 Ford had issued a confidential dealer bulletin (Volume 72, Number 15). "Gentlemen," that bulletin began enthusiastically, "The XA Falcon GTHO is now in production."

Almost immediately, enthusiasm collapsed into anti-climax. The Phase IV was abandoned as media hype got the politicians stirred up. The "Bullets on Wheels" approach taken by the tabloid press spelt the end of

the supercar era in Australia, after just five glorious years.

Early in 1986, your scribe was able to recap the significant history of that era with Howard Marsden. Back in 1972, Marsden ran the Ford race team. He was also the man in charge of the Special Vehicles operation, so the Phase IV was his baby. A decade later, Marsden was doing for Nissan something like what he'd done for Ford, but on a smaller scale. He masterminded the Pulsar ET, for example, and ran the race team for a number of years.

It seemed strange to be sitting with this Nissan executive discussing yet again those events of 14 years before. But even stranger was the fact that one of his colleagues, Harvey Grennan, NSW Media relations manager for Nissan Australia was also involved in the supercar fracas.

These two men effectively sat on opposite sides of the fence in 1972. Marsden might well have been the single most disappointed man when the Phase IV was killed. But Grennan, in his capacity as press secretary to the then NSW Minister for Transport, Milton

Morris, wasn't sorry to see such cars disappear into history. "I would still argue," he says, "that the CAMS rules as they existed at the time were inappropriate. They meant that cars that were undriveable in normal hands were on sale to the public."

The way Grennan tells it, it all "came out of Evan Green chasing a story and ringing me." The Sydney *Sun-Herald* had just appointed Evan Green as its motoring writer. Green wanted his first story to be a good one. So he rang his mate, Harvey, who just happened to be press secretary to the NSW Minister for Transport, Milton Morris. Now, part of the job of any ministerial press secretary is to ensure that the minister's views receive prominent airing. The *Sun-Herald's* new motoring man - anxious to get a good story - wanted to know whether the Minister had any comments to make about the Bathurst specials on sale to the general public. Well, the Minister did and the rest is history. Evan Green got his story; Harvey Grennan served his minister. The so-called "Bullets on Wheels" story made the front page.

According to Grennan, however, this didn't automatically mean the demise of the supercar. He believes that Milton Morris would have listened to any case Ford Australia put up, but none was forthcoming. "They didn't try persuasion," he says. Rather, "they got very hot under the collar." A PR executive had rung Grennan with a few strong words to say. And the pin was pulled on the Phase IV program. Grennan's view is that GMH was not so keen on the whole supercar deal as was Ford, but felt it



Minister 'horrified'

By "The Sun-Herald" Motoring Editor,
EVAN GREEN

Australia's three major car-makers are about to produce "super-cars" with top speeds up to 160 miles an hour.

But NSW Transport Minister Milton Morris said yesterday he was appalled at "Bullets on Wheels" being sold to ordinary motorists. The automotive "big three" — General Motors-Holden's, Ford and Chrysler — are building the cars for a head-on confrontation in Australia's most important motor race, the Hardie Ferodo 500, at Bathurst on October 1.

The cars will be available to the general public for use on the open road.

Bitter controversy

The new models, developed from family saloons, are among the fastest and most powerful cars available in the world.

Their introduction is sure to arouse bitter controversy.

The "super cars" are:
A V8 Holden Torana, which will replace the Holden under GM-H's

25 JUN 1972



ture.
Chrysler and Ford — have now abandoned development of high-speed supercars.

SUN-HER

In surprise developments yesterday both Ford and Chrysler announced shock changes in production plans.

Ford said it would not proceed immediately with production of its new high-performance Falcon GTHO, its main contender for the Hardie Ferodo 500 at Bathurst, Australia's premier motor race.

Chrysler said it had abandoned development of a top-secret V8 supercar and announced its withdrawal from "direct participation" in series p

theoretical top speed
excess of 160 mph.

● Australia's most powerful car, the 380 bhp Ford Falcon GTHO Phase Four, which is capable of sustaining a maximum speed of 152 mph — but is expected to go faster on the downhill straight at Bathurst.

The new Falcon is a refinement of the GTHO models that have won the past two Bathurst 500-mile races.

Easier driving

The engine, in fact, may be slightly less powerful, because the compression ratio has been dropped on the 351 (5.7 litre) V8.

This, however, will give the motor a broader power band, and make it easier to drive.

The car will go faster because the XA Falcon body is better streamlined than the previous model.

A wider track and longer wheelbase also give it a natural advantage in roadholding.

Fifteen-inch alloy wheels overcome two major problems with earlier GTHO Falcons. They allow the fitment of wider, low-profile racing tyres and give much improved brake ventilation

necessary to be in there. "I think GMH was fairly grateful to be able to follow Ford in dropping the Bathurst specials."

Interestingly, Ford Australia later claimed that no Phase IVs had ever been produced. A letter was even sent out to dealers stating this as a fact. The bulletin was issued by N.D. Schryver, the then Vehicle Marketing Manager. It was Volume 73, Number 26 and was dated September 3, 1973. According to Schryver, any reference to the O1H 351 4V HO ilo 351 CID 4V was wrong. "There never has been, is not now, and never will be,

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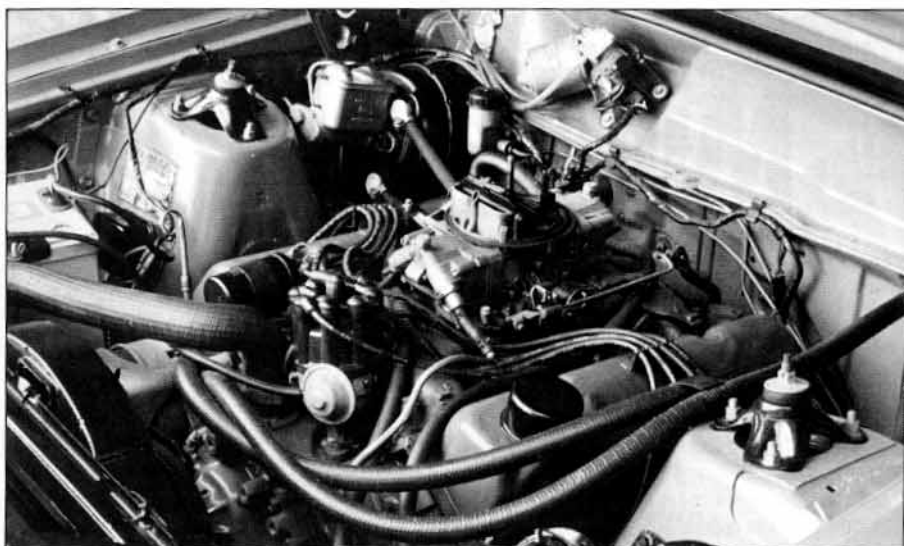
such an option during the life of the XA Falcon model."

Only one of the four Fours was a production model. The other three were handbuilt prototypes destined for the 1972 race at Mount Panorama. One car was for Moffat, one for Gibson and the third was a spare. Of these four, three remain alive and well.

As we have mentioned, only one could be accurately described as a production Phase IV. This was a Calypso Green car with white trim. It was equipped with a range of factory options, including a tinted band laminated windscreen, stereo tape player, air, sliding sunroof and electric windows. It was sold new by Jack Brabham Ford and still lives in Sydney. David Bowden, who owned one of the prototype racers for a number of years, offers the view that it's a real pity that the one and only production Phase IV GTHO was metallic green with white trim and had a factory sunroof and electric windows. He reckons it should have been Red Pepper and minus all the sort of gear that made it seem like any old Fairmont.

As all Ford enthusiasts know, every Ford has a SIDO number. And every Ford dealer has an official code number. Ford Australia's very limited files on the matter reveal that this Calypso Green rocket was SIDO number 648771 and was supplied to dealer number 2113, Jack Brabham Ford Sales Pty. Ltd. The date on the invoice is 17/1/73. And the

"Gentlemen," the bulletin began enthusiastically, "The XA Falcon GTHO is now in production."



If you've ever wondered what a brand new Phase IV engine bay looks like, here's one. With air cleaner removed, you can see the sheer size of the Holley 780.



Ford Sales Company
of Australia Limited

Dealer
Confidential
Bulletin

TO ALL FORD DEALERS

Vol 72 No 15
June 20th, 1972.

THE XA FALCON GTHO

Gentlemen,

The XA Falcon GTHO is now in production.

The exterior appearance of the XA GTHO will be similar to the current XA Falcon GT with the exception of unique wheels and tyres.

Basically the XA Falcon GTHO will carry-over most of the mechanical features of the XY Falcon GTHO however there has been some specific revisions designed to increase performance and to make the vehicle more suitable for general driving conditions.

The following is an outline of the main changes incorporated in the XA Falcon GTHO.

1. Engine

- A reworked GT air cleaner to provide peripheral air entry and easier breathing.
- Super duty connecting rod bolts.
- Increased capacity oil pan and improved baffling to reduce surge and oil temperatures.

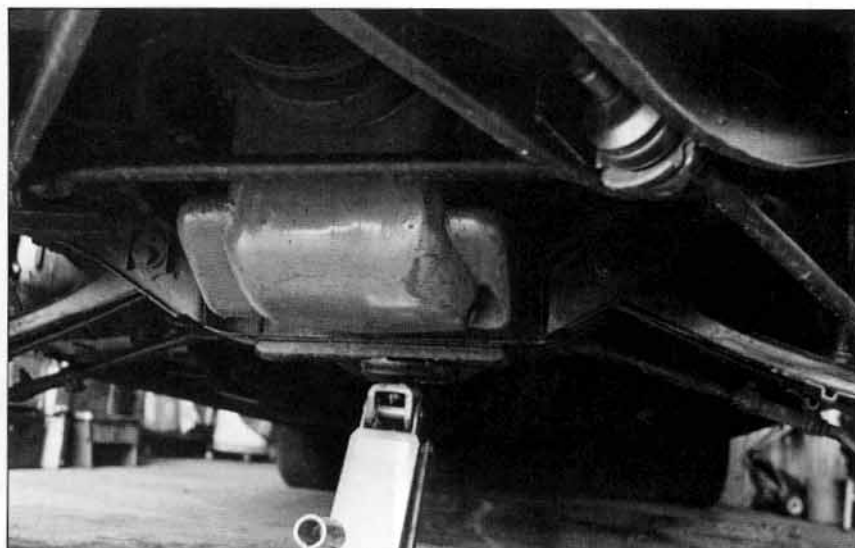
2. Chassis

- New 7" X 15" fully cast alloy "mag" wheels. The open design five spoke wheel allows a large air-flow across the brakes resulting in better heat dissipation and better performance under heavy usage.
- The tyres on the XA GTHO will be the new series ER-60H-15" red wall radial ply tyres with extra low profile for greater traction.
- Inclusion of rear axle radius rod (as on GT).
- Revised suspension setting for improved handling and maximum use of the wider track.

.../2.



John H. holds the rev limiter. Housed in the twin point-dizzy, it may be small but does a good job, cutting in without fail at 6200 rpm.



Original eared sump on John H's immaculate car.

Page 2.

3. Drive Line

- A wide ratio gear box will be standard. The close ratio box will not be used as in the XY GTHO due to extra torque available from the XA GTHO engine. The lower first gear of the XA GTHO will substantially improve general street driving compared to its predecessor.
- The XA GTHO rear axle will have the same 3.0:1 axle ratio as specified for the Falcon GT but will include a 'Detroit-Locker' differential unit as standard equipment.

4. Body

- The 36 gallon tank will be carried over from the XY Falcon GTHO.
- A new cut and sewn boot carpet will cover the large tank.
- An HO decal will be mounted on the sports console.
- The front and rear fender flanges have been modified to accept the wider section tyres.

Apart from the standard interior and exterior dress up and comfort and convenience options, the XA GTHO, as previously, will not be offered with air-conditioning, automatic transmission or power steering. The front and rear deck lid spoilers are to be offered as a dealer fitted accessory and not as a regular product option.

The XA Falcon GTHO option will be priced retail including tax at \$740 over the basic Falcon GT manual price.

D.M. Morgan
Vehicle Marketing Manager.

invoice price to the dealer? A total of \$4220.07!

The other three were prototype racecars built at Ford Special Vehicles under the supervision of Howard Marsden himself. Special Vehicles operated out of a garage at Lot 6, Mahoneys Road, Broadmeadows.

CAMS homologation requirements of the time required that a manufacturer produce 200 production versions of the planned race car. Thus 200 sets of special parts were ordered. "They arrived at Broadmeadows," says Marsden, "and we went to work on the race cars. We built three red four-door racecars..."

One of these three went to Max McLeod of McLeod Ford. At that stage John Goss worked for McLeod Ford. It was Goss who finished building the car. Once the edict killing the Phase IV was issued, the men at Lot 6 simply downed tools with only one of the three cars complete.

Howard Marsden says that Ford supplied this machine incredibly cheaply, i.e. for the invoice price of a Phase III with the special Quality Control (QC) motor. The QC motor, incidentally, was the \$250 option on Phase III that was available to buyers who planned to go racing. Those initials, says Marsden, meant that the motor was "virtually hand built. Quite a degree of hand working went into the engine while it was on the production line. It was certainly the world's best value for \$250, but the company got its return. Those QC Phase IIIs did well at Bathurst in 1971, filling, I think, seven of the first 10 places."

The young John Goss - still awaiting his first Bathurst win - had to do considerable work to complete the car and, of course, it never saw action on a circuit. The suspension had not been set up, but the racing engine, 36 gallon tank and roll cage were present and accounted for. One and a

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half decades down the track it is owned by a car dealer in northern New South Wales and has yet to pass the 4000 mile mark.

The third car was wrecked. This was the only one of the four to be used in anger. It was Brambles Red in colour (like the other two prototypes) and was originally sold to the rally driver, Bruce Hodgson. Howard Marsden reckons it was rallied into the ground. Hodgson sold it and the new owner wrote the car off early in his ownership. The collision was not his fault! Hodgson then salvaged the wreck, complete with its highly collectable compliance plates. He plans to get John Wynne to rebuild it. And who is John Wynne? Nobody more than the world's greatest authority on how to put a Phase IV together! He was the workshop manager in Lot 6, back in the heyday of the supercar era. He built those three prototypes.

Elsewhere in this issue of *Super Ford* we look at each of the cars in more detail.

What happened to the unused special parts? Some, such as Detroit Locker diffs found their way into the aftermarket. Others were used in the XA GT Special of 1973. And some components even found their way onto old Phase IIIs. The supercar furore led to a major CAMS rethink on the Bathurst endurance race – the end, in other words, of series production at the mountain. Under the new rules, extensive modifications were

“There never has been, is not now, and never will be, such an option during the life of the XA Falcon model.”



Ford Sales Company
of Australia Limited

Dealer
Confidential
Bulletin

Volume 73, No. 26
September 3, 1973

Gentlemen

Subject : Falcon GT HO


Page 1 of the Taxable Sales section for the Falcon GT Four Door Sedan (Model Code 18238) in the Vehicle Price Lists recently issued makes reference to the Option Code 01H as follows.

| <u>Code</u> | <u>Option</u> |
|-------------|--------------------------|
| 01H | 351 4V HO ilo 351 CID 4V |

This reference is an error. There never has been, is not now, and never will be, such an option during the life of the XA Falcon model.

Dealers are requested to ensure that this item is crossed out on their current price lists, and that their Sales Managers and Salesmen are aware of this situation, in order to avoid any ambiguity or confusion.

Reference to this item will be deleted from all further issues of the Vehicle Price Lists.


N.P. Schryver
Manager
Vehicle Marketing

permitted. Thus it was entirely logical for Ford Australia to stick with the Phase III and that's where the 195 or so sets of specially ordered Globe Bathurst mags went – to owners of Phase IIIs at the bargain basement price of \$200 including tyres!

Naturally, there was some pretty wild speculation about what the Phase IV would have been like. Fortunately, Howard Marsden and various colleagues of the time are well able to distinguish myth from reality.

Of the men more intensively involved in Phase IV, only one still works for the company that created, then killed the all-Oz supercar. He is Ian Stockings and he did most of the engineering work on the Phase II, III and IV GTHOs, having lobbied at Ford in September 1969 after an impressive period of creativity at the Repco Brabham Engine Company. In September 1969, the American, Al Turner was still in command of the race program. (Turner, in case you've forgotten or never knew, was responsible for

the choice of American made racing rubber for the Windsor HOs at Bathurst in 1969: This was the choice that cost Ford the victory it had so coveted and Turner was man enough to admit that the fault was his. But we're getting a bit far ahead of ourselves at this point, since Stockings began his career at Special Vehicles about a month before the Bathurst fiasco).

The engine builder for the Phase Falcons (that is, II, III and IV) was Bill Santuccioni, who now runs his own extremely successful race engine-building business in Melbourne. Santuccioni was the first man to begin work at Special Vehicles. "I did the dyno development on the Cleveland 351, standing there by myself at Lot 6 Mahoneys Road," he says.

In 1972, then, Santuccioni was the bloke in charge of developing the Phase IV interpretation of the Cleveland small block. "We built a special assembly line, a *mini* assembly line so that all engines could be



Rod Mann's car, like the other racers, had an illegal aluminium panel built in behind the rear seat.

blueprinted from new. We wanted to achieve a hand-built situation so that the cars could – after sensible running in – be raced without any form of re-machining.” This was the Quality Control treatment that added a mere \$250 to the tag of a Phase III. A decade and a half down the calendar, Bill Santucciono can't remember how many engines got this special treatment. Howard Marsden estimates the total to have been about 20. Don't Ford Australia's records hold the answer, we hear you asking. Not on your nelly!

Great as the Cleveland 351 always was, it sometimes ran into problems under racing conditions. Marsden says the major problem was oil temperature. The sump capacity was marginal at eight pints. Bearing clearances were also a problem because of a nodular iron crankshaft.

“On the QC engines,” he says, “we finished the crankshaft with various grades of emery paper and lubricants to pull out the nodular iron irregularities after machining. It was that sort of process that was important to keeping bearing clearances. In the end, it



Photos show racers being built in Lot 6, Mahoney's Road. Car 3 is now owned by Rod Mann. Car 2 is dead. Car 1 (unnumbered) had the least work done on it and is now owned by John H.

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was a matter of keeping temperature out of the oil so that it was possible for the oil to last 1000 km."

Talk about a well spent \$250, the world's best value, as Marsden describes it! In standard form the number one bearing in the Cleveland tended to go short of oil. But the QC motors features revised oil pump and gallery systems to solve this problem. There were performance gains, too. Cc'ing of the chambers, work on the valve seating and, of course, exhaustive blueprinting combined to make a noticeable difference beneath the right foot.

The Phase IV engines were developed even further. The oil temperature issue was killed off entirely by giving the engine a larger sump (11 pints) and incorporating teardrop shapes on both outer sides. Oil was then concentrated around the pump pickup. Because the front spoiler was gone, there was a continuous flow of air around the sump to aid cooling. There was also a "windage tray" inside. This was a kind of metal baffle that sat close to the crankshaft and minimised oil frothing.

The cylinder heads were to be modified on the production line, with larger valves for superior breathing. The Holley 780 - as used on Phases II and III - was to be retained but manifolding would have been noticeably improved.

Another area for attention was water cooling, with Marsden deciding to fit the larger radiator that was used on all air-conditioned V8 Falcons. (Why, we wonder,

**You probably
want to know
how fast the
Phase IV really
was...**



This picture is worth several thousand words. Phase IV in background is left incomplete as the Lot 6 team turn their attention back to Phase IIIs, following Ford Australia's decision to kill the Phase IV program.

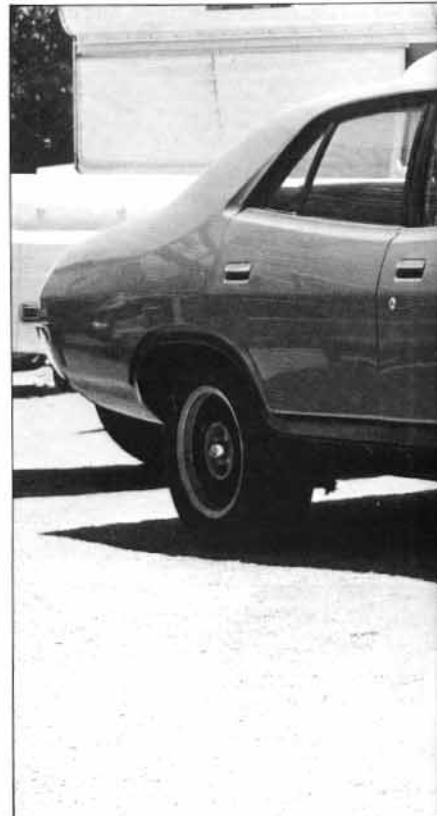
wasn't this item standard on all HO's and even on all GT's, for that matter?) A special fan was designed specifically for Phase IV. It had blades that swung into an almost flat position once the fan was revolving at a certain speed. Not only did this save power, it also reduced the risk of incurring a broken fan belt.

Other mods included stronger (described officially as "super duty") conrod bolts, more efficient headers and a twin point dizzy with 6200 rpm cutout. The air cleaner was reworked to provide what the press release described as "peripheral air entry and easier breathing."

Transmission changes capitalised on the additional power and torque developed by the Cleveland 351 in Phase IV form. The close ratio gearbox - standard on Phase II, optional on Phase III - was dropped. Overall gearing was lengthened with a 3.0 diff instead of the IIIs standard 3.25. We can deduce from these changes that engine performance must have been greatly improved. And the *coup de grace* was the Detroit Locker diff.

Marsden expresses the belief that the Phase IV would have proven itself greatly superior to its predecessor on the racetracks of Australia, with Mount Panorama - obviously, literally - representing its highest achievement. "That vehicle would have gone down in the annals as *the* car. In other words, it would have occupied the place held by the Phase III. It was so much *better* than the Phase III. Chassis wise the XA was much better than the XY. And it had the Detroit Locker diff vastly improved suspension angles both front and rear and those 7x15 Globe Bathurst mags."

Back in 1972, it was rare indeed to see an ex-factory car with alloy wheels - "mags" as



they were universally known. Examples that spring to mind include the old Fiat 125 Special sedan (with its Cromodoras) and um, well, er...

But the Phase IV was to wear very special "Bathurst" alloy wheels, developed by Kevin Drage of Globe. Subsequently, these have become legendary on the aftermarket and are still selling strongly now; it's the classic Aussie mag.

Being an inch larger in diameter than the



It looks like any other Phase III, but this one hides Phase IV running gear.

This is the car now owned by Rod Mann, when David Bowden first owned it. Bowden removed all the stickers, but later put them back for that authentic racecar feel.



old steel wheels, the alloys permitted a switch to 60-series rubber for greatly improved roadholding. But there was another, perhaps equally significant gain; brake temperatures dropped to little more than half of what they had been, thanks to the superior heat-dissipating characteristics of alloy. Thus Ford was able to decide that no modifications would be necessary to the braking system, although rear discs would eventually be incorporated into the design

(but not in time for Bathurst 1972.)

Handling was one area of giant improvement over the Phase III. The wider track could take much of the credit. And, of course, those magic new wheels and tyres played more than a bit role. Bill Santucciono spent a lot of time driving a prototype Four at the You Yangs proving ground. "In terms of handling," he says, "it was really phenomenal. The car was so tight that it was always the tyres that would let go first. There

Once the edict killing the Phase IV was issued, the men at Lot 6 simply downed tools with only one of the three cars complete.

was never any unloading of the outside tyres due to body roll. It was a predictable oversteerer. There was no sudden 'you're about to die' feeling. Even in the wet it was superbly steerable. You could always place it anywhere you liked. The power on tap was always the big shot in the arm because you could use it to steer on the throttle. Even when the Phase IV was losing adhesion, it wouldn't do anything silly."

You probably want to know how fast the IV was. The experts we spoke with all agreed that it would have run the standing quarter in less than 14.5 and there was some suggestion that 14 flat might have been possible. The 3.0 final drive provided 39 kmh per 1000 and a top speed at the 6200 limit of 242. But Howard Marsden reckons the engine was safe up to 7200 and the Bathurst-prepared versions would have been capable of posting 7000 in top for a road speed of - for Godsake - 273 kmh (170 mph).

The factory bulletin announcing the Phase IV describes the appearance as "similar to the current Falcon GT with the exception of unique wheels and tyres." The fourth sub-heading in the bulletin is Body. It follows Engine, Chassis and Driveline. These items are listed:

The 36 gallon tank will be carried over from the XY Falcon GTHO.

A new cut and sewn boot carpet will cover the large tank.

An HO decal will be mounted on the sports console.

The front and rear fender flanges have been modified to accept the wider section tyres.

The bulletin concludes by pointing out that, as with previous HOs, automatic tranny, air and power steering would not be available as options. Front and rear decklid spoilers would only be available as dealer fitted accessories. And the total cost of the GTHO option was a mere \$740 on top of the standard GT's tag. In the history of the motor car, would there ever have been better value? □