NEW CAR EXCLUSIVE

PHASE 4 GTHO

...WORLD'S FASTEST FOUR-DOOR!

THE FALCON GTHO Phase Four is here!

The first batch of 100 HOs came off the Ford Broadmeadows production line in the last week of June — the second 100 follow in last week of July.

On the surface it appears that — apart from its XA Falcon body — the Phase Four is largely unchanged from last year's Phase Three HO.

But under the skin it's a different matter. Very different.

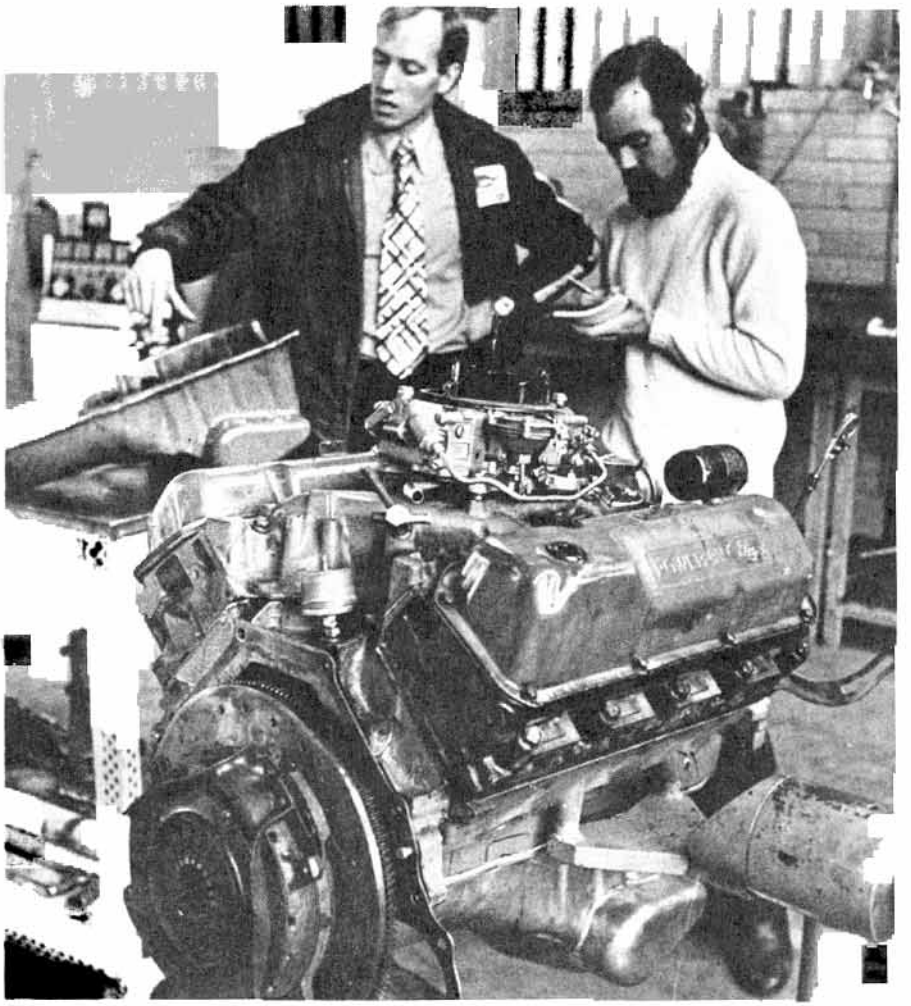
- Bigger 15 x 7-inch mag wheels and suspension changes mean even better handling and ride.
- New brake cooling brings new standards in stopping and safety.
- New cylinder heads bring more power, and more torque spread over a much wider rev range.

Top speed, at the 6200 rpm cutout, works out to 151 mph — with 54, 76 and 111 mph available in the gears.

Our story on the next page, which gives you FULL DETAILS on the incredible Phase Four — without doubt the fastest four-door car in the world's history — is a stunning newsbreak.

Our men Mel Nichols (editor of SPORTS CAR WORLD) and photographer Uwe Kuessner were trusted by Ford to enter the Special Vehicles Development Centre to watch the first two Phase Fours (the race cars for Allan Moffat and Fred Gibson) being built.

They returned with this story . . .



PHASE 4 GTHO

DEVELOPMENT of the Falcon GTHO Phase Four presented Ford with two problems —

It had to be made faster in all areas on the race track — but it also had to be safer and more sophisticated on the road as well.

You can understand why — when you reach the phenomenal performance level of the HO (an effortless 151 mph) it's no longer good enough to produce a one-off "Bathurst special". The political ramifications of selling such a car for a mere $6000 could be crushing enough alone.

But once you look closely at the way this car has been developed from the Phase Three, it would seem that Ford has done a remarkably good — and responsible — job. Every modification has been done balancing road-going safety and reliability against race track desirability.

And the result is a greatly refined motor car, one of world significance.

Let's look at the car in detail, from the ground up —

WHEELS are probably its most important single modification.

They are now fully cast mags, 15 x 7 inches — an inch bigger both in diameter and width than the Phase Three and current Falcon GT wheels.

The wheels are made by Globe Products in South Australia and are patterned on Ferrari Daytona wheels.

Use of 15-inch wheels was absolutely necessary for the Phase Four because a much wider range and much better racing rubber is available in this size. Fourteen-inch wheels were too restricting. Other benefits from the new mags are a vast reduction in unsprung weight, greater strength, and (most important) they cut brakes temperatures by half.

Road HOs get extremely low profile (60 aspect ratio) local radials made specially for the new wheels.

In conjunction with the wider track and better chassis of the XA body this wheel/tyre combination alone makes the car a much better and safer handler than before. Roadholding is considerably improved.

On the track tests the wheels have clipped seconds off lap times of Phase Three HOs shod with them.

BRAKES on the car have not been changed — but the highly efficient cooling action of the Ferrari-style wheels and removal of the front "cowcatcher" spoiler means they operate at greatly reduced temperatures for far greater effectiveness and life.

SUSPENSION development of the Phase Four is intriguing.

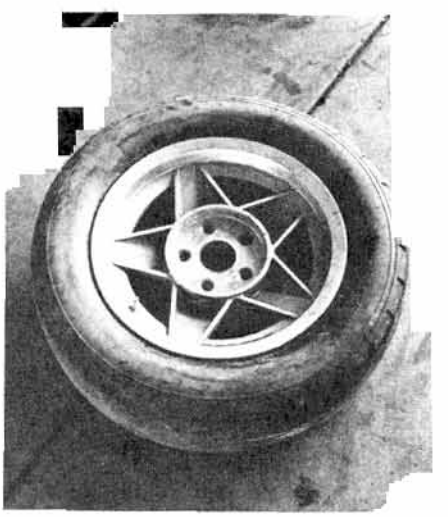
The XA's wider track and the new wheels brought a natural improvement in handling and roadholding, with the side effect of slightly softening the spring rates over the Phase Three for a better ride.

Because a new type of rear spring arrangement provides greater roll stiffness Ford Special Vehicles boss Howard Marsden was able to remove the rear anti-roll bar, thus reducing oversteer.

In tune with this, the front anti-roll bar was softened. Had it been left unchanged, with the rear bar missing the car would have understeered too much.

So the handling should now be far more neutral.

Howard Marsden says benefits of these changes to the driver are much greater sensitivity, safety and the impression that he's going slower



The fabulous new 15 x 7-inch alloy wheels, patterned on Ferrari Daytona mags and made by Globe Products.

though in fact the car is travelling much faster.

THE ENGINE is still the Ford 351 V8, but it has been modified in several ways.

Biggest news is the revision of the cylinder head combustion chambers. The shaping has been changed to give much better breathing, flow and volume around the inlet valves.

This has reduced compression slightly, but made the engine more efficient, torquier and spread the torque over a much wider power band than

Our man Nichols gets the exclusive first story on the GTHO from Ford Special Vehicles boss Howard Marsden.

The first two HOs — the race cars for Moffat and Gibson — being stripped and rebuilt by hand.

before. It comes in strongly *a full 1000 rpm lower* than in the Phase Three which itself was recognised for its far greater flexibility over the Phase Two HO.

The new combustion chamber shape improves fuel consumption slightly, too.

Following detection of cracks, and some breakages, in conrod bolts, these have been improved.

The cam grind remains the same as in the Phase Three mill, but the exhaust headers have been improved and this further adds to the greater spread of the torque.

The carbie is still the Holley 780 cubic feet per minute four-barrel.

A new radiator fan with blades that twist flat once past a certain speed has stopped considerable loss of bhp at high rpm, and a twin point distributor boosts electrical efficiency.

BIG CHANGES have been made to the sump and oil pickup. "Ears" welded onto each side of the sump increase capacity by three pints, concentrating oil around the pump pickup to prevent surge and also to help cooling.

Removal of the front spoiler means more air reaches the sump, plays across these "ears" and keeps the oil's operating temperature down.

Use of the radiator from air-conditioned Falcons improves overall engine cooling.

Ford isn't quoting bhp or torque figures, but we believe the blue-printed race engines will have very close to 400 bhp and around 380 lb/ft of torque. The bhp peak is at 5600 rpm and the torque peak at 3600 rpm.

For road HOs the figure is less — but none will have less than around 310 bhp.

Because of the greater flexibility of the engine, the more slippery XA body and new wheel/tyre combination Ford has been able to drop the close ratio gearbox and run a taller diff ratio.

THE GEARBOX is the standard XA Falcon GT unit. The diff is a positive lock ("Detroit Locker") unit, with the ratio being 3.0 to one instead of last year's 3.25 to one.

Because the new 60 aspect ratio tyres are much lower than the old 70s aspect 14-inchers, the overall height of the new 15-inch wheels/tyres combination is almost identical to last year — in fact, the difference is a mere one revolution per mile.

Team this to the taller diff — which the greater power in the more aerodynamic body is able to pull with ease — and you get 24.4 mph per 1000 rpm, compared with last year's 23 mph/1000.

This makes the Phase Four a neat 10 mph faster than the Phase Three at the same 6200 rpm limit.

It is much faster in all the gears too, running to 54 in first, 76 in second, 111 in third and 151 mph in top.

With the electric rev limiter removed, it is believed the HO will run close to 7000 rpm in top. If so, that converts to exactly 170 mph.

FUEL TANK on the car is once again 36 gallons.

BOTH SPOILERS have been dropped. The front "cowcatcher" was ditched to improve brake and sump cooling, and the rear one was found to be useless.

So the only way you'll pick a Phase Four from a standard Falcon GT is by the mag wheels and the fact that the chrome trim around the wheel arches has been removed.

On the track, the Phase Four should be very much faster in all areas — speed, under brakes and through the bends.

But on the road, the modifications will make it easier to drive, much more flexible, give it better roadholding, ride, braking and primary safety.

Remembering just how good the Phase Three was as a road car, the quality of this new car is difficult to comprehend at a price of around $6000.

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COMPARING THE GEARING

Gear maximums at 6200 rpm

	Phase Three	Phase Four
1st	49 mph	54 mph
2nd	73	76
3rd	104	111
4th	141.5	151