

# GT40/GT40P Cylinder Head FAQ

Ford's GT40 and GT40P cylinder heads are a popular upgrade for many Foxbody Mustang enthusiasts. They are relatively cheap, easy to find and give your pony a nice added bump in power! Read below to find answers to the most common GT40 and GT40P cylinder head related questions.

## General

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**What is the difference between GT40 and GT40P cylinder heads?**  
**GT40 vs GT40P, which is better?**  
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**GT40/GT40P and other cylinder head flow data**

## GT40P

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## The Great Debate

**The Great Debate: To use GT40/GT40P or not to use...**

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## **How do I identify Ford GT40 and GT40P Cylinder Heads?**

### **Ultimate GT40/GT40P Cylinder Head Identification Chart**

To verify whether you have GT40 or GT40P cylinder heads, examine the side of each cylinder head. GT40 cylinder heads have 3 vertical bars stamped on the side of the head as well as the word "GT". Ford GT40P cylinder heads have 4 vertical bars and some are stamped "GT40P". GT40's originally came equipped on the following V8 engine vehicles:

#### **1) 1993-95 Mustang Cobra**

- Part #F3ZE or #F4ZE

#### **2) 1996-mid 1997 Ford Explorer and Mountaineer SUV**

Part #F1ZE-AA

#### **3) 1993-95 Ford F150 Lightning**

- Part #F3ZE or #F4ZE

#### **4) Ford SVO Catalogue, 1990's**

- M-6049-L30

There is no discernable difference between the GT40 heads from any of the above vehicles. The only variation is that some may have received more milling (Cobra), depending on what Ford vehicle the cylinder head was going to be installed on.

GT40P's come only from mid-1997 and up Explorer/Mountaineer SUV models, with part #F77E-AA.

GT40 Identification: [3 bar side.jpg](#) : '[GT' stamp.jpg](#)

GT40P Identification: [4 bar side.jpg](#) : '[GT40P' stamp.jpg](#)

## Differences between GT40 and GT40P?

There are some differences between the GT40 and GT40P cylinder heads. First off, GT40 heads are equipped with thermactor holes to connect to the EGR/smog equipment. GT40P heads are not. GT40P cylinder heads use an external EGR connective system (I believe in combination with the intake manifold). However, the latter can be drilled and tapped to accommodate the EGR ports, if that is your preference. Secondly, the GT40P has a somewhat revised combustion chamber, and different spark plug placement. Because of this, not all headers clear GT40P heads. Make sure to use a known GT40P-specific header. Regular headers can be used, but then require different spark plug wires to be used, usually ones capped with 90° boots. Furthermore, there is said to be slightly different chamber volumes. GT40 combustion chambers are slightly larger, with volumes ranging from 63-66 cc. The Explorer/Mountaineer heads (GT40P) are somewhat smaller, measured between 58-61cc chamber volume. Thus, GT40P's may give a small bump in compression. Finally, the last difference between the two are valves. Both have 1.84" intake valves, but the GT40 has a 1.54" exhaust valve whilst the GT40P cylinder heads have a slightly smaller one, at 1.46".

## GT40 vs GT40P, which are better?

Really, when you get down to it, neither head is any measurable difference better than the other. The GT40P does have a slight edge over the GT40 cylinder head because of its smaller chamber volume. The smaller combustion chamber can net a bit more compression, but only marginally. [Flow data](#) shows them to flow within a few CFM (cubic feet per minute, more CFM is better) of each other. Conclusion: one is not downright better than the other. If you're stuck deciding between the two, go with whatever is available and at a better price. Horsepower wise, there will not be much difference between the two. One thing you may want to consider, however, is that stock GT40P valvesprings are not capable of handling even a Foxbody stock HO cam (0.444 lift). Thus, their valvesprings will have to be changed. This is balanced by the fact that GT40 heads, for whatever reason, are more valued. GT40P's are generally cheaper.

## How much power will GT40 or GT40P heads produce?

Real world data seems to show that GT40 or GT40P cylinder heads, assuming no other mods on your Foxbody, are good to add anywhere between 20-40 HP (over stock heads). There are a lot of variables that must be addressed to give a better estimate, but a good basic estimate is 20-40 HP at the crank. Generally speaking, GT40 or GT40P heads on a mild 5.0L (basic modifications, i.e exhaust, Cobra intake manifold, cold air intake, good air filter) will give a stout 275-325 HP at the crank (230-280 RWHP). A good place to look at real world data is over at our [Mustang dynobase](#).

## Where to find GT40 or GT40P cylinder heads

The great thing about GT40 and GT40P cylinder heads, despite their old iron design, is that they are pretty easy to find. Foxbody Mustang enthusiasts all over the internet are constantly buying and selling them. A good place to look is in the classified section of a Mustang enthusiast website or forum. Another, perhaps even better, place to look is at your local junkyard. GT40 and GT40P heads were factory pieces, fitted on multiple models of Ford vehicles. These cylinder heads can be picked up dirt cheap at a pull-a-part type yard! Craigslist too is an invaluable tool in your cylinder head search. You'd be surprised how many parts you can find listed in your local/regional Craigslist site.

Iron GT40 cylinder heads seem to be valued moreso than their GT40P counterparts, so expect to pay a little more for GT40's. I see these sell quite frequently between \$250-\$400 on Mustang classified sites (corral.net, allfordmustangs.com etc). GT40P's, on the other hand, can be had for as little as \$200! Even less at pick-a-parts! Junkyards occasionally even have a warranty or guarantee on parts sourced there. I once saw a complete GT40P set going for \$40. car-part.com is a great place to start an online search for parts contained in scrap yards. Just keep in mind the potential added cost of a new spring package to stock GT40P heads. Their factory equipped springs are no good for even a stock Foxbody HO cam.

## What springs to use for GT40P's?

The stock springs that come installed on GT40P heads (remember, GT40P's come from factory Explorers/Mountaineers, they cannot be bought new) are awful. They may not even hold up to a 5.0L V8 Mustang's stock HO cam, rated at 0.444 lift with the stock 1.6 rockers. When installing GT40P's, it's imperative you replace the springs. Of course, what spring package you pick is totally dependent on what cam and rocker combination you will be using. If you're sticking with the stock HO cam, take a look at the Trickflow spring upgrade kit (#TFS-2500100). It can handle up to .520 lift and is a bargain at \$150. The Crane Beehive Spring Kit (#44308-1) is another great option, good to 0.550 lift and reasonably priced at \$162. Both are available from Summit ([summitracing.com](http://summitracing.com)). Alex's Parts ([alexparts.com](http://alexparts.com)) is another great place to look for a drop-in spring package. They offer 3 different GT40/GT40P drop-in spring kits ranging from \$97-\$115, with claims supporting up to 0.600 lift! A bargain indeed!

The above paragraph talks only about spring options for GT40P heads. Regular Ford GT40 iron heads aren't known for having the best valve springs either. They are better than the stock GT40P springs, but if pushing anything more than stock lift (0.444 in), it is best to replace them as well.

Keep in mind though that the cost of a spring package adds onto your overall costs of the heads. i.e: You buy a set of stock GT40P's for \$150, don't forget the added \$150 for springs. Thus your total cost is \$300. Now this is not bad at all, just a reminder of potential hidden costs.

## What headers will fit GT40P heads?

Another slight issue with GT40P heads, in comparison to Foxbody Mustang E7 (Stock) and GT40 heads, is their sparkplug location. Because of their different placement, there can be fit issues with some headers. Here's a quick list of some headers known to fit GT40P heads with no issues at all.

- Ford Racing P shorty headers
- MAC P shorty headers
- MAC longtube headers
- BBK shorty headers
- BBK longtube headers

These are not the only headers that will fit. In fact, almost any header can be made to fit with a little grinding and perhaps special spark plug boots. However, if you're just looking for a direct fit, the above headers are sure to work.

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# The Great Debate

## To use GT40/GT40P heads or not to use...

The answer to this question is entirely dependent on you. Let's do a quick rundown of GT40/GT40P cylinder heads.

### Pros

1. Cheap, easy to find.
2. Factory product = factory fit. No installation issues.
3. Good for a moderate horsepower gain, 20-40 HP.

### Cons

1. Heavy, outdated iron design
2. May need upgraded springs (GT40P's).
3. *Only* good for 20-40 HP.

Back to the great debate. The answer, my friend, is blowin' in the wind, the answer is blowin' in the wind... Just kidding. The answer is actually up to you. What are your goals for your Mustang, how much power are you looking for, how much money do you have to spend? These questions will determine whether or not you should go with GT40 style cylinder heads. There are definitely better cylinder heads out there in the aftermarket world, but again, consider your needs (objectives, budget). Almost any modern design aluminum head these days will blow GT40 and GT40P heads clean out of the water. However, you have to pay to play, and these aluminum heads don't come that cheap. Looking for a mild 300 HP build on a budget? By all means, the GT40's are for you. Craving a little more power? Say 350 HP (or the magical 300 RWHP mark), you'll need a cylinder head that moves a little more air.