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Best Fixes for Under $20

Reply-To: <LFinch@ibew100.org>
From: "LFinch" <LFinch@ibew100.org>
To: "deTomaso Forum (E-mail)" <detomaso@realbig.com>
Date: Tue, 17 Jun 2003 10:52:43 -0700
Subject: [DeTomaso] Best fix for under 20 bucks!

All,

In no particular order, but all less than $20:

- Add an emergency front hood release cable.
- Make sure your engine oil dipstick is the correct length (early cars showed full but were low a quart).
- Add zerk grease fittings to your ball joints.
- Replace stock ceramic/aluminum-strip fuses with GBC glass fuses and clean all fuse holders.
- Make sure throttle linkage has two return springs.
- Make sure water temp sender is moved from surge tank to engine block.
- Change ZF gear oil.
- Change brake fluid.
- Change clutch fluid.
- Make sure distributor gear shear pin is upgraded to stock pin with a second smaller pin inside for added strength.
- Drill drain holes in rust prone areas.
- Remove stock spring spacers if they are still there after thirty years.
- Make sure cooling system has all air bubbles removed.
- Re-route overflow tank vent hose to exit behind rear wheel.
- Add two heater hose shut-off valves to assist the A/C in actually cooling the cabin.
- Buy a fire extinguisher.

And… and… and… and… :-))

Teach Peace -
Larry

Air Conditioning & Heating

Rotary Compressor Upgrade

Sanden Rotary Compressor

From: SOBill@aol.com
Date: Tue, 13 May 2003 19:57:36 EDT
Subject: Re: [DeTomaso] Sanden A/Cs
To: detomaso@realbig.com

From the Pantera Database:

Sanden SD-508 R-12 Rotary AC Compressor is sold by Pantera East, also sold is a machined aluminum adapter bracket to replace a York.
Sanden 5 and 7 piston rotary compressor product feature and performance information

These compressors are found on most Japanese import cars and trucks.

SO Bill Taylor

From: NSakulen@aol.com
Date: Tue, 13 May 2003 22:15:30 EDT
Subject: Re: [DeTomaso] a/c
To: RKMosier@aol.com, detomaso@realbig.com


The bracket is from Pantera Performance Center in Colorado. The Compressor is a Sanden 508 type. I got one recommended by an A/C shop I deal with. It's made by ZEXEL in Japan P/N 500630-7830. Distributed by International Components Engineering, I.C.E. P/N 2521152. The alternator mounts to the right of the compressor and drives off the inside groove on the compressor. I have some pictures. I don't have a web site, but I can send them if you email me.

Nick

Sankyo Rotary Compressor

Message: 9
From: JDeRyke@aol.com
Date: Wed, 17 Mar 2004 12:30:26 EST
Subject: Re: [DeTomaso] AC. Compressor
To: poemer@efortress.com, detomaso@realbig.com

<< What brands of rotary compressor are used on the Pantera? Model no.? >>

Many owners use Sankyo DS-25 compressors from (at least) early '80s Japanese cars & light trucks - Toyota, Mazda etc. Sankyo also makes a bracket to fit into the stock York bracket, making mounting simple. Stock Pantera hoses bolt right onto the Sankyo, the electric clutch wire plugs into the Pantera wiring harness and the stock drive belt fits; this is as close to a drop-in adaption as I've ever done. Good luck.
- J DeRyke

Idler Bearing

SKF 63003-2RS1

Condenser Upgrade

Toyota Condensor

<< So, who has done what or bought what from whom?? I'm thinking in terms of a parallel flow aluminum condenser and new, flat motor fan(s). >>

As mentioned, I use an aluminum Toyota mini-pickup condenser (from the mid-'80s) in our '70 L that is identical in dimensions to the stock unit except for being about 1/3 the thickness- $50 at a wrecking yard.
It fit into the stock shroud & hose hookups are identical flair fittings. Mounting consisted of drilling 2 holes in the condenser's steel channel frame to take stock mount screws. If you choose to move it to the front sometime later and discard the rear mount & troublesome fan, the thinner condenser positions much simpler than the too-thick stock unit.

Also as mentioned by various owners, the rear mount A/C system only works well up to about 100 mph, and for most guys, the tub must be in place for it to work very well at that speed. Faster than that, the air passing over the car loops well behind the bumper and the A/C is therefore trying to suck air in from a partial vacuum. Blown hoses often result. This may also be true for Mangustas but thats only a guess (I blew an A/C hose on only one 'Goose at about 100 mph some years ago; very small statistical sample). Good luck- J Deryke

Parallel Flow Condenser – Larry Finch
In my research, I have learned that the newer design serpentine and parallel flow condensers are more efficient than our stock tube and fin design, and thus a smaller and thinner, newer unit can do just as good a job as our OEM unit.? Not sure if Jack's Toyota unit fits the newer description, but if it does then it may be better, or at least as good as, despite being thinner. Our stock unit is about 10 3/4x16 1/2 x2, but I haven't found any newer units that small.

I'm looking at a generic 12x20x3/4" parallel flow unit as my potential replacement.? Vintage Air has a unit with condenser, shroud and Spal fan (12x20x4) for $199. I've done some cardboard mock-ups, and the 12x20 can easily be made to fit, even with the tub in place. Just not sure until talking with them Tuesday if it is parallel flow design, but it appears to be.

That 12x20 gives about 35% more surface area and the parallel flow units are said to be 30% more efficient for equal sized tube and fin units? Thus that size should easily be at least 50% more efficient than the stock unit.
Larry

Exact Fit Parallel Flow Condensor Upgrade – A Hudson
Source:
http://pantera.infopop.cc/eve/forums/a/tpc/f/7890077274/m/7640064115?r=3530091125#3530091125
The contact info for the condenser that FIT EXACTLY in the original location (can't check out the coolness at the moment - not with the car) is Al Sanchez with CCS, 925 Peregrine Place, Anaheim CA 92806. PH: 714-991-0636.

Ask for Al. My dual parallel brand new condenser was about $260, packed very well, and fit great.

Arizona Mobil Air Condensor – Chris Difani
bout 10 days or so ago, there was a thread talking about condenser replacement. One of the messages referred to Arizona Mobile Air  (www.ackits.com) and their various parallel flow replacement condensers.

I'm getting close to the point of reassembling my AC system, so this caught my interest. I looked at my system, and determined that since the original condenser had been open to the air, and seemed to have a dark coating of some kind on the internal surfaces of the tubes, that I would need to clean my condenser before using it. And even then I'd have a 34 year old condenser that was "kinda" clean... at best.
So I contacted the guys at Arizona and discussed my needs with them. They suggested a 12" by 23" aluminum parallel flow unit. This cost me $81.27, plus $8.90 for shipping.

My only worry was the fittings. Just how was I going to connect my 1980's vintage AN stainless hoses to the new #6 and #8 "O ring" connections. But I was told that there wouldn't be any problem.... just go see my local hose supplier when I had the condenser in hand.

I received my condenser a day early, and was very impressed by it's appearance. Among other things, this condenser is 2 pounds lighter than my original unit. I took the new condenser to my hose shop, and for the grand total of $1.27, I had the two adapters that made my old hoses fit my new condenser.

That was amazing.... absolutely amazing.

Now the next issue was mounting. Shoe horning that 12" by 23" condenser into a space that originally held a 10.5" by 17" condenser. At first blush things didn't look good. But after a bit, the problems shrunk... First of all that 12" by 23" are the absolute "outside" dimensions. These units aren't really that big. Second of all, since the new condenser is under an inch thick, I was able to "tilt" it within the existing shroud which also helped with the shoe horn process. I finally removed some of the excess metal on the condenser's outer edges, but the end result is a good fit within the original condenser/fan shroud (I also had to "tweak" the shroud a bit too, but not too badly-- only used a small hammer... ).

One thought that a person needs to keep in mind on a system like this, one that's been open, is the cost of cleaning. I was quoted a cost of $150 to clean and test my condenser (which is the one major component that's recommended to be cleaned. The receiver dryer is replaced, and the expansion valve is also replaced, while the evaporator is usually okay). The shop was a good one, and I called around for some other quotes, all of which were "close". The shop also made the point to me that even after cleaning, and testing, I would still have an "old design" condenser. They recommended that I replace it.

And that's my story... not too exciting, but I bet that around August or so, I'm going to be a very happy Pantera driver..... Also, just to be kinda PC, I have no (yadda yadda yadda) interests with Arizona Mobile Air, they're simply good people to do biz with.

Part #: 12-0439C       FSHE PF Condenser (12 X 23) at  $81.27

Chris

**Heater**

**Heater tube connections**


How you connect the heater tubes depends on how they are connected up front inside the car. You want the one going to the block to connect to the heater core tube that doesn't have the heater valve. The heater valve connects to the water pump.

By hooking the core up this way the water pump pressure will assist in keeping the heater valve closed. If you reverse the connections the water pump will force the valve open. I corrected this on my car not too long ago and it made a world of difference. Before the only way to keep the heater shut off was to use the external shut off valves.

Tomas
Body

3rd Brake Light

In a message dated 2/1/06 22:34:47, mikebecker@cox.net writes:

<< I found a cheap and easy solution to adding a 3rd brake light to the Pantera. It provides perhaps just a little bit of extra insurance, at least in my mind. Check this out...
http://www.sandiegopanteras.com/Gall2006/g06brake3.htm

Larry Finch’s 3rd Brake Light
http://rides.webshots.com/album/63818063hslSzh

Car Covers

From: JDeRyke@aol.com
Date: Sun, 28 Dec 2003 15:16:24 EST
Subject: Re: [DeTomaso] Car covers on E-Bay
To: Tipo874@aol.com, detomaso@realbig.com

In a message dated 12/28/03 08:33:02 AM, Tipo874@aol.com writes:

<< I believe it's now official. There are more car covers for Panteras on E-bay than Panteras in the entire world...why not pick up two or three, just to be on the safe side. >>

I've had excellent fit & service from Pontiac Fiero car covers. The two cars are amazingly similar in silhouette (I owned both makes of cars for some years and they are within an inch in all dimensions, with the Fiero being larger!) and even Kragens has covers for Fieros. Just a suggestion, in case you get outbid- J DeRyke

Yeah I'm ANAL! Use the California Duster B4 you cover it. For indoor use, I have a Dustop cover from California Covers (I actually searched the net and bought from Big Sky Car Covers in Montana...custom fit for the Pantera for around $120)

Chassis Reinforcement

Leading roof pillar to quarter panel

You will receive many opinions on this subject and here is mine.

The cracks you have experienced are for the reasons you have stated. They come from the inability of the work hardened lead to flex. There is no need to reinforce the corner sections as many would have you do. The remedy is to completely remove all the lead and use a top quality body filler applied to clean steel roughened with a 60 grit grinding disc for a good tooth for the filler. The long strand filler you mention is a good choice. Apply the filler and shape to a satisfactory contour, prime and paint. You shouldn't have problems with future cracking.

Fred T.

rgranchelli at esedona.net wrote:
> My Pantera has the signature crack at the junction of the roof pillar post to quarter panel joint. Only the left side is affected so far.
> I started getting the lead out and don't want to put lead back in. I have leaded before and I don't like it and there must be a modern day solution.
>
> Can anyone say how they have filled this area and had success without re-cracking.
>
> Lead has little mechanical strength, virtually no elasticity and is extremely soft.
>
> Has anyone used long strand glass like the 3m stuff which is stronger and resistant to cracking? How about metal to metal. I don't think its tensile strength is as strong as long strand.
>
> Appreciate anyones comments on this!
>
> TNX & Rgds,
>
> RG
>
> AZ

Crack-Prone Area Reinforcement

Date: Sun, 24 Jul 2005 21:41:35 EDT
From: JDeRyke@aol.com
Subject: Re: [DeTomaso] Chassis reinforcement
To: phavlik@awink.com, detomaso@realbig.com

<< First, I would like to know if someone has photos and/or advice they could send me of where and how the body can be reinforced to prevent cracking. I will be installing a chassis-stiffening kit, but I would still like to have the added assurance of some reinforcement in key places for the day I acquire that dream motor... >>

Guys building a full-bore road racer strip the body, remove the body-lead below the tail-lights & around the windshield posts, and the factory bondo in the fwd edge of the rear clip, and seam-weld every panel and crossmember where it was originally spot-welded. This is all EXCEPT the rear crossmember under the engine which should be made removable, for oil pan removal without pulling the block. Unfortunately, the engine & transaxle must be removed to do this, unless you are patient & don't mind getting incredibly dirty & tired sawing the crossmember out with the oil pan just above it. But if you pull the powertrain, then you can pull the gas tank and attend to any rust damage to the weldments behind it. The e-brake bracket should also be cut free of the subframe and an angle-iron piece added to the stock bracket so that too can be unbolted for oil pan removal. While you're at this, remove the windshield & attend to any rust pits in the lower channel, from water that ran down under the gasket & sat there rusting. The lower edges of the windshield posts often crack from the stresses of big sticky tires and stone-stock engines, so sheet-metal doublers might profitably be added there and wherever panels overlap such as below the tail lights. Good luck- J DeRyke

<< I have to say he grabbed these areas and there was a tremendous amount of flex that extended all the way up the rear quarters! >>

Couldn't hurt- anything that stiffens up the whole structure does good things for your paint and handling. Just below both tail lights is an area that often cracks paint from flexing. The seam is leaded, but the lead also cracks; many simply continuous-weld the seam rather than rely on the factory spot welds & cosmetic lead. There are other areas of similar concern such as the lower windshield post-to-front-fends: at those points, small hand-sized doublers should be welded in. Good luck- J DeRyke

Chassis Stengthening & Stiffening systems
[DeTomaso] Primer and Picklex 20
Another thought as long as you are taking it to bare metal. With your strong engine, now would be a good
time to do some chassis strengthening. For example you could weld the seams at the 4 corners (they are
just spot welded) and add doublers. Same for the area just above the little window next to the black gills
(this is where a lot of people find paint cracks.) Add doublers to the tops and bottoms of both A pillars.
Weld the seam that's in the engine compartment going up from the front of the inner fenders. On the
outside of the body shell, weld the lower seam that runs the length of the car at the bottom of the doors,
including the rear fender. (Dennis Q does this just because it make the paint job look better not having the
seam cavity to paint.) Also the short seams on the cowl next to the black inlet grills. ? Jeff

[DeTomaso] Chassis Strengthening

John, your question should really go to Bobby or Don Byars re when to install their stiffening kit. And
since you're already stripping the car for paint, consider seam-welding the car in the weak areas: The
front windshield posts need a doubler welded on top of the fender & around the posts to reinforce them.
The rear body behind the fuel filler (both sides) has a spot-welded seam-overlap that should be
continuous- welded over the spot-welds. Below both tail lights is another overlapped spot-welded seam
that should be continuous-welded seam. And all the lower frame cross-members are spot-welded to the
longerons. Many spot-welds will likely be popped loose.

All these areas of the body will be covered in body-lead from the factory, or bondo if they've been locally
repaired. Reportedly, the continuous welding of the formerly-spot-welded areas alone stiffens up the
body/chassis enough so paint cracking is greatly minimized even with big wide tires and "vigorous"
driving; with the stiffening kit added on top of this, your Pantera should be set for life! The Byars can also
arrange to have your car straightened if you'd like.

Those giant frame-machines are awesome to watch in operation, with two craftsmen- one operating the
hydraulics & the other easing the metal with a rosebud torch- while the metal creaks, groans & moves
back in place! Done inexpertly, its quite possible to rip a car or big truck completely apart on one of these
monsters. Prior to the Pantera, I bought a Porsche 914 that had hit a bridge abutment at 60 mph with the
rt front corner (driver heart attack). Unbelievably, 2 hrs of expert pulling restored the chassis to factory
specs. Good luck- J DeRyke

Seam welding and windshield fillers

Strip the whole car. Welding 'chicken-foot' doublers around the lower ends of the windshield posts will
force the removal of the windshield, and while it's out, clean out the gasket groove just in front of the
dash. Any rust holes or deep pits should be welded or brazed up, so the dash will need to come out. I've
seen a few cars where the upper windshield posts were also cracked or badly rusted, forcing at least
partial removal of the headliner. So I'd strip the interior. In back, the leading edge of the inner rear fenders
continue clear up into the water-drain groove and are suspiciously close to the point where major paint
 cracking often occurs in unbraced cars. If I was seam-welding a Pantera, I would completely seam- or
drive-weld this inner fender panel (both sides) clear down to the lower subframe extensions, as well as
completely around the 'horse-shoe' panel that mounts the upper rear a-arms, and across the bottom of
the subframe below the halfshaft holes. IMHO, it would take a true pro-welder to effectively do this with
the engine and gas tank in the car. In our car, I also found numerous popped or never-completed spot welds holding the rear cross member below the engine. This made cutting it out easier (for a removable cross member), but probably contributed to a loose rear suspension when stock. This is really a massive job but the reward when properly completed will be a Pantera that feels as stiff as a pro-built race car and will likely never need a heavy chassis stiffening system, only a good upper bay-brace. Good luck- J DeRyke

**Chassis Braces**
Johnny Woods’ front camber bar made of Kevlar with Titanium ends.
http://pantera.infopop.cc/eve/forums?a=tpc&s=8170058552&f=1510042044&m=7360028874&r=5550038874#5550038874

**Seam Welding per Dennis Quella**
According to Dennis Quella, you may want to add gussets/doublers across the seams at the outside bottoms of the taillights, bottoms of the A pillars and the seams that attach the roof to the rear quarter panels. He also suggests welding the seams that run on the lower part of the fenders and quarter panels, including the line that runs up to the taillight.

Jeff
6559

**Decklid Hood Pins**
I found an excellent way to stiffen the rear of the car. Install short hood pins above the tail lamp holes. The pins should protrude through the first layer of the decklid. Under the deck...the inner structure is an X shape. Placing the pins at the two ends of the X at the tail lamps forces the decklid to become a stressed member. My cars decklid would gouge the rearmost corners of the qtr panels. After the pin install, I can through it in the turns and it does not chip the corners. This is very effective and costs little. I have a few pics of the install if anybody requests. Bill

**Chassis Rust-Proofing**
How I treated my inner chassis frame rails, suspension mount points (horse shoe area), and body seams in the front of each rear quarter (behind the gas tank) and against the B-pillar (back of door jamb):
http://pantera.infopop.cc/eve/forums/a/tpc/f/6450045562/m/215107066?r=606101266#606101266

**De-Rusting**

**POR-15**
Oxi-solve to remove rust, then coat with POR-15
http://www.por15.com/

**Rust Bullet**
http://www.rustbullet.com/
**Door Handles**

**Plastic Bezels**

From: MikeLDrew@aol.com  
Date: Fri, 30 Jan 2004 13:32:29 EST  
Subject: Re: [DeTomaso] Plastc bezels around door handles  
To: JJD1010@aol.com, DeTomaso@realbig.com

<< Hey Mike, if you would, please, try to find the name of the black plastic treatment. >>

>>>It's aptly named: BLACK AGAIN, made by Rhino Industries in Tampa, FL.

Doing a Google Search on Rhino Industries Tampa revealed the Tampa Business Partnership website, with the following contact info:

- Company: Rhino Industries Inc
- President: Mr. Manuel Busciglio
- Business Type: Polishes Sant Good
- Address: 14512 N Nebraska Ave  
  Tampa, FL  33613-1429
- County: Hillsborough County
- Phone: 813-977-7776
- Employees: 3
- In Business Since: 1988

Anyway, this stuff works great. The package reads: Cleans, renews, protects all color exterior trim. Rubber, vinyl, plastic, black metal, flat paint.

It is a rich 3-in-1 polymer formula that cleans, renews and protects all color exterior trim. Removes oxidation and unsightly wax residue. Protects against sun. 1 part BLACK AGAIN does the work of 5-8 parts liquid protectant.

Tomorrow I may dig through my parts stash, find an old door handle and treat half of it to show a before-and-after, and then post a photo. Stay tuned....

Mike
Door Locks – Power Door locks for a 72 Pre L
F. & D. Terry gt5s at bcpl.net
Sun Apr 16 07:52:52 EDT 2006

The late model Panteras were equipped with power door locks but they were actuated with the door key, not a remote controller. The identical actuator assemblies are available from J,C, Whitney as remote control units. They will require that a small sheet metal mounting bracket be pop riveted to the door frame along with the necessary wiring.

Door Seal Rubber
Source: http://pantera.infopop.cc/eve/forums/a/tpc/f/3550045562/m/8550013115?r=7410084415#7410084415
International Auto Parts who deal in Fiat parts. They contacted me with a match. Part number is 82729 and sells for $3.55 per foot. This should fit the Pantera also. I had a spare for the Pantera from one of the vendors and it fit the Mangusta fine.

Deck-lid Struts

Napa
I used the ones for a Dodge Omni... Napa part # BK(Belkamp) 819-5207. They work great, these were suggested on the forum some time ago.

fresnofinches at aol.com
Thu Feb 16 00:31:56 EST 2006
Just thought I would pass on some information on replacement deck lid shocks. Found the part number on the P.I. bulletin board, installed them tonight and the function is fine. Holds up my no-wing lid just fine, closes easily, doesn't seem to be too firm.

Probably not strong enough for a winged lid. No information on strength (pounds) of force.

NAPA part # BK 819-5207  Compressed length of 10.34", extended length of 16.77".

Note the NAPA catalog image shows this to have different fittings at each end, but this is incorrect. Both ends have the correct flat plate with a hole needed for our application. Total cost for two - $40.36

Autozone
Source: http://pantera.infopop.cc/eve/forums/a/tpc/f/6450045562/m/9190020805/r/2850090805#2850090805
Autozone #95004

Pantera Deck Lid Lift Cylinders New
SACHS North America
SG314005
These shocks will hold with or without a wing. I took 4 pairs for some of the guys to Vegas this year and use them myself. And I was just corrected, they are $20.90 each.

Coz
**Exhaust Hangers**

Message: 53  
From: SOBill@aol.com  
Date: Sat, 9 Aug 2003 00:45:29 EDT  
Subject: Re: [DeTomaso] Exhaust Hangers  
To: spwjr@earthlink.net  
CC: detomaso@realbig.com

Try these:

www.international-auto.com muffler hangers International Auto Parts  
Alfa-FIAT $3.95 each. PN# 64150  800-726-0555  65 to 74 GTs/GTVs

Magnaflow makes muffler and tailpipe hangers and weld on-brackets  CA 800-990-0905  
http://www.centerlinealfa.com/  Centerline Products (303) 447-0239 Rubber Exhaust Hanger All 4  
Cylinders Except Alfetta* P/N EH510 $3.95  
SoBill Taylor

**Gas Tank**

**Fuel Float – Replacement**

From: JDeRyke@aol.com  
Date: Tue, 9 Mar 2004 17:56:52 EST  
Subject: Re: [DeTomaso] Re: gas tank - how big?  
To: detomaso@realbig.com  
CC: RedVobra@aol.com

If your tank has a sunken float, be aware that a float from an early '70s Alfa is an identical replacement and snaps in place without tools. To replace or inspect the float, first pull the left rear quarter window, by carefully prying between the body & window frame. The frame is only held by gasket friction and maybe old paint, and will slip right out. Then remove the fuel tank cover and the sender is right there, held by a few small screws. Keep track of what wires go where, then the sender & float can be pulled out thru the quarter window opening without damage. Good luck- J DeRyke

**Insulation & Sound Proofing**

**Dynamat & Brown Bead**

From: davidabell@att.net  
To: <msm@portata.com>  
Cc: "Mark McWhinney" <msm@portata.com>, <DeTomaso@realbig.com>  
Subject: Re: [DeTomaso] Dynamat Xtreme source  
Date: Wed, 07 Apr 2004 20:15:23 +0000

You might want to try a product called Brown Bread which is sold by B-Quiet (www.b-quiet.com). It's about 1/2 the price of Dynamat Extreme and looks and works the same as best I can tell. The only difference I can see is that the Brown Bread foil covering doesn't have any fancy writing on it and the paper backing covering the adhesive tends to peel off a little too easily.

B-Quiet even claims that Brown Bread is better than Dynamat but that may just be marketing hype. At any rate, you won't be able to tell the difference after the B-B is installed except that you'll have some bucks left over to use on something else.
Other Sound Proofing Materials

http://www.coolcarceramic.com/index.htm  Heat and sound barrier
http://www.cascadeaudio.com/prod/vb2ho.html  For doors
http://www.cascadeaudio.com/products.html  This is a good site for info
http://b-quiet.com/index.html  This one too
http://www.coolandquiet.com/

The best sound proofing and heat shielding material is called Lizard Skin. It is a spray on material that many of the restorers spray on the roofs, insides of doors and floors. They can be looked up on the web and I think Eastwood might carry it. It is expensive but I have been told by many well worth it.

It you want to just lay material in then I used a material sold by Mustangs Plus in Stockton, Ca. It is foil based and cuts and bends real easy for about $40 per roll

Bob Benson

More Insulation and Sound Proofing Options

http://pantera.infopop.cc/eve/forums/a/tpc/f/6450045562/m/1940075054?r=1200046054#1200046054
- http://www.lizardskin.com/
- http://www.dynamat.com/

Lights

Headlights – Sylvania Silverstar Part No.
From:  "Mike Dailey" <mikehdailey@hotmail.com>
To:  JAYTCREC@aol.com
Cc:  detomaso@realbig.com
Subject: Re: [DeTomaso] Sylvania Silverstar Halogen Lights
Date:  Wed, 09 Jul 2003 07:14:58 -0400

For the Pantera the part number is H6024ST.

Mike

From:  "Mike Dailey" <mikehdailey@hotmail.com>
To:  detomaso@realbig.com
Date:  Tue, 08 Jul 2003 22:02:56 -0400
Subject: [DeTomaso] Sylvania Silverstar Halogen Lights

Last year I changed out my ultra super expensive Halogen S.E.V. Marchal E2 Amplilux headlights with Sylvania Halogen XtraVision lights to find out recently that Sylvania has a new halogen light called the Silverstar. The Silverstar has an extreme white light comparable to the HID lights and provides the best
down road halogen lighting available. Anyone tried them? Of course if you mess with your Pantera lights make sure you have the headlight relay upgrade installed.

Mike

PS The funny thing is that I seldom if ever drive my car at night!

**Headlights – CIBIE**

[www.talbotco.com/e-code_lamps.htm](http://www.talbotco.com/e-code_lamps.htm) Cibie AI082440 7“ “E-code” Halogen Low/High Beam Cibie H4 ~ $57 each excellent round replacement lights

[www.lighting.mbz.org](http://www.lighting.mbz.org) Daniel Stern Lighting has a Cibie headlight kit that fits Panteras using 130 w bulbs w/ relays and includes a ‘city’ light


> 1. I'd like to improve the brightness of my headlamps, suggestions on brands or types? ( still have stock buckets)
> 
> >>>When I bought my 427 Cobra replica, it was equipped with Cibie Z-beam headlights, and I was just astonished at how excellent they were. Despite the fact my Pantera was equipped with Carello halogen lights, I ran right out and bought Cibies for my Pantera and GT350.

They have a rather unique light pattern, which delivers a very crisp ‘line’ at the top rather than just diffusing away like regular lights. (Almost like modern HID lamps).

I got them from Talbot International: [http://www.cibieusa.com/cibie_main_frameset.htm](http://www.cibieusa.com/cibie_main_frameset.htm)

You want the top light listed on this page.

**7-HCR 7” “E-code” Halogen Low / High Beam Cibie H4 $49.00 ea.**

Recognize that these lamps draw considerably more power than the standard sealed beams, and with the stock wiring scheme, ALL lamp voltage passes directly through the cheesy Lucas switch. Running big lights like this will toast the switch internally. Maybe not tomorrow or the next day, but certainly. So you need to rewire the headlamp circuit to incorporate relays; a how-to article with wiring diagram can be found on [www.panteraplace.com](http://www.panteraplace.com), or you can buy a plug-and-play kit from Rick Moseley.

**Headlights – HID Conversion**

Date: Wed, 19 Jan 2005 22:48:14 EST
From: Fresnofinches@aol.com
Subject: [DeTomaso] Headlights
To: detomaso@realbig.com

Mark and all,

H4 and 9003 interchange. A quick search of eBay will also find true HID conversion kits for the H4/9003 bulb. Most are only single filament, unlike the dual H4/9003. There ARE two high/low conversion systems, though. One has adapted two bulbs to a single socket and uses a HID low beam bulb with a second halogen bulb for high beam. Another uses one HID bulb, but has an electromagnetic movement mechanism that changes the bulb location fore and aft, supposedly changing beam width through changing the focal length off the reflector.

As others have pointed out - be careful of increasing wattage on any system that is showing issues.
To add to Marks question has any one tried the "Projector sealed beam type" replacement lens? I saw them advertised during a search for something else. http://www.matrixracing.com/B14366Details.htm
They looked kinda cool.

Paul

Replacement Bulbs
Brake/Tail lamp: Sylvania # 7528 (21 watt and 5 watt)
Turn Indicator lamp: Sylvania #7506 (21 watt)

Replacement Bulbs – LED
I've tried several variations of LED replacements for 1157 and 1156 incandescent bulbs. The first set I purchased off the shelf at AutoZone for ~ $7 each. They provided what I and other impartial observers viewed as clearly a higher intensity light. The downside was that the LED bulbs were mounted in a central cluster in the bulb housing and focused the light pretty much in a single direction. As Ron mentioned, these LED bulbs didn't really use the broad shape of the reflector. Still, I continued to use the LED bulbs vs the old incandescent bulbs because they were brighter and more importantly the LEDs also produce almost zero heat and current draw – good for 30 year old electrical systems.

But after a little internet searching, I was able to locate some alternative LED bulbs. The latest set have 18 LED pointing out and six more aimed in the opposite direction (24 LEDs total per bulb) with the rear LED light passing through the clear plastic housing and on to the reflector. These LEDs are even brighter and also do a much better job of spreading light across the surface of the reflector. I've also replaced the side marker lights with high intensity LED bulbs with very good results. I'm planning to replace the instrument light bulbs with LEDs also but haven't quite gotten around to that yet.

There are a couple of glitches involved in using LED bulbs exclusively, however. First, the LED bulbs use so little current (almost zero) that the stock turn signal relay may not function. If this happens, you'll need to replace the original flasher relay with an electronic version. Second, my Pantera (and everyone else's too I suspect) has an odd grounding circuit between the turn signal bulbs. If I replace all four 1157 bulbs (the front and rear dual filament bulbs) with 1157 equivalent LEDs, the LED bulbs on all four corners flash in unison when the turn signal lever is activated. So at the moment, I'm only running LED bulbs in the rear and the original incandescent bulbs in the front.

I've been meaning to pose the turn signal flashing issue to one of the electon gurus on the list who can tell me how to get around it, but until now had neglected to. So SOBill, any insite here?

If you're planning to swap to LEDs, be sure that you buy LED bulbs that are the same color as the lense that the light must pass through. Any other color (including white) will result in the lense blocking a significant amount of the LED light generated. Red LEDs go with red lenses and amber LEDs go with amber lenses. Also, be aware that the LED bulbs are much more expensive than traditional incandescent bulbs. Personally I was motivated to reduce the current and heat load on my electrical system without
loosing any night time visiblity, so the expense was worth it to me. And after all we're all mostly driving around $35k cars, so 60 bucks for light bulbs is a small piece in the overall scheme of things - especially if I can reduce the wear and tear on my electrical system.

If you're interested, the LED parts list is below. I purchased the LED bulbs online from www.superbrightleds.com, though there are other LED vendors out there as well.

Front
2 each of 1157-A24-12V-WV (24 LED amber, wide angle, bayonette mount)

Rear Turn, Brake, Tail
2 each of 1157-R24-12V-WV (24 LED red, wide angle, bayonette mount)
2 each of 1156-R24-WV (24 LED red, wide angle, bayonette mount)

Side Marker Lights
WLED-A6 (6 LED amber, wedge base)
WLED-R6 (6 LED red, wedge base)

Electronic Flasher
CF13 GL-02

Dave Bell

Headlight Gear Replacement
Date: Fri, 18 Feb 2005 03:25:13 EST
From: JDeRyke@aol.com
Subject: Re: [DeTomaso] Headlight motor gear
To: mgreen15@adelphia.net, detomaso@realbig.com

In a message dated 2/17/05 08:22:41 PM, mgreen15@adelphia.net writes:

<< I've heard about replacing the headlight bucket mechanism plastic gear with a brass one. I took a look at the setup today and aren't sure how to get to it. Any help? >>

Shoulda been at the Nor-Cal Superbowl party; I did one & supervised a second one during the game...

Remove the upper rad shroud, and if you have a stock, upright radiator, you'll have to lean it forward enough to get the top bolt (of 3) that holds the motor, gearbox and mount plate in. Then unplug both microswitches (on the plate), and pull the left front wheel & splash shield so you can get at the two motor power wires. While all the mount bolts are accessed from above, the assembly comes out the bottom. Once all the bolts are out, drop the assembly and with your fingers, pull the headlight bucket up & block it with something that won't mark paint. This rotates the sector gear and allows the hand-operated knob to clear. It does not need to be removed & will come out with the assembly. Once the bad gear and hard-as-a-rock grease is dug out & replaced, return the assembly from the bottom. Add the 3 bolts loosely, then the rear hard-to-reach bolt should be tightened a little more. Pull up firmly on the assembly while tightening the other two bolts; they are in slotted holes for this purpose. This meshes the erection gears so you don't get the dreaded "jiggling headlights" later. As with the door gears, once you've seen it done, its fairly easy. Good luck- J Deryke

Plastic Lens Restoration

*Eastwood Plastic Headlight Restoration Kit:*
Meguires Mirror Glaze  
Date: Tue, 17 May 2005 06:23:10 -0700  
From: "Ted Bristol" <tedbr@starstream.net>  
Subject: [DeTomaso] Tail Light lens Cleaner  
To: <detomaso@realbig.com>  

I use Meguiar's Mirror Glaze # 17 (Clear Plastic Cleaner) and # 10 (Clear Plastic Polish) easy to use and looks great. Its can be bought at Napa Auto Parts stores.

Ted #6422

Zaino and Rolite Polish  
Date: Tue, 17 May 2005 07:59:03 -0400  
From: "Jim Hendrickson" <chendric@bellsouth.net>  
Subject: RE: [DeTomaso] Tail Light lens Cleaner  
To: "Jim Cozzolino" <cozland@cox.net>, <detomaso@realbig.com>  

Zaino has a plastic polish: http://www.zainostore.com/Merchant2/merchant.mvc  
You could also use Rolite: http://www.topoftheline.com/rolapsupfinp.html  
I have used Ford Clearcoat polish to take out small scratches in the plastic headlights and tail lights on my Escort. I would think any polish with a very fine abrasive would work as long as the solvent does not cloud or soften the plastic.

3M Foam Pad & Polish  
Date: Tue, 17 May 2005 07:29:20 -0400  
From: "F. & D. Terry" <gt5s@bcpl.net>  
Subject: Re: [DeTomaso] Tail Light lens Cleaner  
To: Jim Cozzolino <cozland@cox.net>  
Cc: detomaso@realbig.com  

You can restore your plastic lenses to a mirror like shine by using a 3M black waffle pad and 3M foam pad polish. The foam pads are about 6" in diameter and should be available from a well supplied auto parts store. They have a 1/4" shaft for easy mounting.

Fred T.

Armor-Dillo Brite Light  
http://armor-dillo.com/products_britelite.htm  
$39.90 per kit.

Third Brake Light  
All,  

Looks like Webshots has changed the address of my photo album on the LED third brake light I added to 2511. Go to this link to see what was involved…  
http://cards.webshots.com/invite/pickup/106394442UcWR/album/63818063hsISzh
It’s a stock GM unit found on the roof of Astro and Safari minivans, Blazers and others. About $50 at the wrecking yards, $120 or so new. We put one on Curt Hall's car at a tech session this year. He found it online at a yard in the mid-west for $25, s/h included. Very easy if running with stock engine compartment wiring, bit more work to conceal like I did on mine. But, a very simple project.
Larry

Paint

Body Filler
Bob Smith Coachworks, one of the top Ferrari resto shops in the world - he won both the Pebble Beach and Quail Lodge shows in 2005 - uses MarineTex bondo. And he says all the other high end shops do the same. Sticks better, non-porous, flexible, light, and easier to work with.

Paint Stripper
Date: Tue, 14 Sep 2004 14:20:51 EDT
From: JDeRyke@aol.com
Subject: Re: [DeTomaso] Paint stripping
To: PRimov@charter.net, msm@portata.com, detomaso@realbig.com

In a message dated 9/13/04 10:51:01 PM, PRimov@charter.net writes:
<< Use "Aircraft Paint Stripper". ..... Lastly do a small area at a time. >>

Amen! This stuff is nasty on hands but works wonderfully well. In addition, its known for creeping around corners like doors & hood/decklids, and getting under the area where the skin is clamped to the frame. Unless you very thoroughly neutralize the stripper, weeks later after you've repainted & rubbed it out, the stripper comes creeping back out.... This was told to me by a pro bodyman, so when I stripped our car to bare metal, I put aircraft stripper only to within 1/4" of all panel edges & finished up the edges with a sander.
BTW, the stuff will also soften Bondo, and if its thin enough, will remove it just like heavy paint. But for the backside of a decklid, I'd just roughen it and paint over it due to the creeping-problem with strippers. Good luck- J DeRyke

Yellow
Richard Barkely used pure PPG #666 Yellow mixing base and PPG base/clear system. This will allow future repairs without color mixing.

PPG (Ditzler) DBC#666 Light Chrome Yellow toning base (i.e. NOT a mixed color, should be easy to match)

Yellow Paint
mikeldrew at aol.com mikeldrew at aol.com
Mon Aug 28 05:26:16 EDT 2006

You wrote:
Speaking of yellow P-cars, my car (1984 GT5) was originally yellow metallic, but was painted red by the original Saudi owner before it even had 8000 km on the odo.

Has anyone seen a factory yellow metallic Pantera and would like to comment on the looks?
Anyone have a paint code for this, or some cross reference?

We have two very nice yellow P-II:s in Sweden, but they are not metallic. Personally I think I'd prefer a non metallic paint, due to the ease of fixing minor scratches, but it would also be nice to have a slightly unique but still stock paint.

>>>Are you sure that yours was a metallic yellow?
In 1995 my car was painted an 'official' De Tomaso color, made by the German paint firm Spies-Hecker, called "1986 De Tomaso yellow". It's a non-metallic color, basicaly similar to the 1972-74 yellow.

Mike

1971 yellow paint code

>>>1971 yellow is different from '72 and later. It's brighter, I think. No PPG codes are available. Here's what you have to choose from:

Acme: 3-91033
Ditzler: 81945
Du Pont: 38807L
Martin-Senour: 99-21485
Rinshed Mason: PT004
Rogers: 8-91033
Sherwin-Williams: J5-4678

All this information comes from the first few pages of both the De Tomaso factory parts book for the US market (highly recommended) and the orange-covered Ford parts book (an almost complete waste of paper IMHO).

The factory parts book has a GT5-S on the cover. It's a very worthwhile addition to your library.

Cheers!
Mike

Paint Numbers for 1972 Yellow

Date: Tue, 11 Jan 2005 02:49:31 EST
From: JDeRyke@aol.com
Subject: Re: [DeTomaso] paint color/lower front valance
To: panjendonk@hotmail.com, detomaso@realbig.com

First, DeTomaso/Ghia painted the whole body shell, so to determine the original color, look under the dash, up at the cowl. Under the floor mats also usually shows OEM paint. Repainters don't get to those areas unless the car was chemically dipped/striped. The actual paint number used was on a simple decal up on the radiator frame (or on the headlight bar) and usually lasted about 1 yr. I've seen exactly two original stickers that survived and they had both been clear-coated.

The paint numbers used by DeTomaso for yellow ('giallo' in Italian) in 1972 are listed in the orange Master Parts Catalogue as Ditzler #82110, duPont #38807, and Italver # 2409082. Bear in mind these paint numbers are 32 yrs old and the mfgrs may have changed to a different sequence. Year 1971 paint numbers and 1973 paint numbers may also be different for the same color.

Good luck- J
Deryke
Wheels
Color of Campy Wheels Ford TSBs, bulletin 11, article No. 92: Color: Argent Silver Ditzler Part No.: DX 8555

Rocker Panel Repair
http://pantera.infopop.cc/eve/forums/a/tpc/f/6450045562/m/1820057615

Windows

Windshields

Wilkinson
Panteras by Wilkinson carries no-kidding factory glass (made in Germany by Sicursiv), while Pantera East imports nominally identical glass made by the Finnish subsidiary of Sircusiv, which costs a fair bit less.

Rear Quarter Windows - Tinted Plexiglass
From: JDeRyke@aol.com
Date: Wed, 14 Apr 2004 14:50:14 EDT
Subject: Re: [DeTomaso] argh! window tinting side rear windows?!?!?
To: RedVobra@aol.com, detomaso@realbig.com

In a message dated 4/14/04 10:53:36 AM, RedVobra@aol.com writes:
snip......
<< The rear side windows freaked them out the most as it's incredibly tough to reach. I understand that those windows pop out, and would guess that would be the preferred method of tinting. Anyone else have experience with getting their Pantera windows tinted? >>

A number of Pantera owners simply remove and leave the rear side windows out, as they perform no useful function & are heavy, besides making it difficult to clean the big rear window. If you're handy, once the glass is out, you cut a piece of 3/16 or 1/4" Plexiglas more-or-less the shape of the glass, lay it on top of the glass and put both in Mom's oven at 150 degrees F for about 20 minutes. If you set the glass on a chunk of 2x4 wood, you can sorts level it. After the Plexiglas has sagged to duplicate the glass, remove both & let both cool to room temp without disturbing them. Then trace around the glass & cut the plexi to exact size. Plexiglas is easily dyed with 'Rit' dye from any Wal-Mart dissolved in hot water. FYI, I shaded my plexi front side windows exactly this way, for about $2 in total cost including the plexi from TAP Plastics. Optometrists shade plastic eyeglasses this way as well. Good luck- J DeRyke

Windshield
Date: Tue, 14 Sep 2004 08:42:54 -0400
From: Dick Koch <arkoch@earthlink.net>
Subject: [DeTomaso] front windshield rubber
To: detomaso@realbig.com, dyogi@hawaii.rr.com

Dennis, if you are going to reuse the same windshield, I would suggest doing a search on the forum archives by typing in "cracked windshield". You will see about 5 posts from March of this year that refer to what can happen when trying to take out the windshield, and how to do it with minimum risk to the windshield.

Windshield Silicone Sealer
Dick Koch – Atlanta
<< One small problem with using silicone to repair leaks around the window trim is as it seals it form a mild acid that can affect the integrity of the paint and make the area more prone to rust damage. >>

Quite true; chemically, there are two types of silicones. Type 1 exudes acetic anhydride during cure, which in the presence of moisture forms acetic acid (smells like vinegar). Type 2 exudes acetaldehyde during cure, which combines with nothing. Windshield silicone is (or should be) type 2 and your nose will verify it. Thanks for the reminder, Paul- J Deryke.

Window Motor Conversion – Aerostar
See: http://www.panteraplace.com/page164.htm

Message: 1
Date: Sat, 11 Dec 2004 06:49:12 -0600
From: "John Taphorn" <jtaphorn@kingwoodcable.com>
Subject: Re: [DeTomaso] Window Motor Conversion
To: "Rick" <rwgushue@gte.net>, "Pantera List" <detomaso@realbig.com>

Rick

I recently completed the conversion. You must use the 4 bolt. I would call salvage yards and ask for 90-91 Aerostars. It was either a '92 or '93 which I checked that had the 3 bolt on one side and the 4 bolt on the other. I assumed that was a transition year. The 4 bolt are out there, it takes a bit of work though.

Date: Sat, 11 Dec 2004 10:27:15 -0500
From: "www.PanteraPlace.com" <Panteraplace@hotmail.com>
Subject: RE: [DeTomaso] Window Motor Conversion
To: "Rick" <rwgushue@gte.net>, "Pantera List" <detomaso@realbig.com>

My local NAPA had rebuilt 4 mount units when I did my mod in November 2003. They will also order stuff for me before I pay for it.

Date: Tue, 15 Feb 2005 15:55:27 -0600
From: "B. Seib" <oldwheel@mts.net>
Subject: FW: [DeTomaso] Correction - Aerostar Window Conversion
To: "DetomasoList" <detomaso@realbig.com>, <matt.bradley@comcast.net>

I just checked and I got both my motors out of 1990 model Aerostars NOT 1989s. Memory isn't getting any better. Sorry for the bad information. Maybe 1989 is not the good ones.
Barry

Window Motor Conversion – Taurus
Aerostar window motor conversion issues?
SOBill at aol.com
Thu Feb 2 19:28:56 EST 2006
Mike,

I could not find the 4 hole motors.

I had the guy that supplies AutoZone, Kragens, et al search through all the boxes in his warehouse in New Jersey. He was extremely helpful, but he couldn't find a single four hole motor.

I used 3 hole Taurus motors.

Because of the Taurus gearbox/motor mounting vis a vis the Pantera lift mechanism, Taurus driver side window motors (Ford PN E6DF-14A365-AB) labeled "LF" are used on the Pantera passenger side. I used a 1990 Taurus motor ~$15.

Taurus passenger side window motors (Ford PN E6DF-14A366-AB) labeled "RF" are used on the Pantera driver side I used a 1990 Taurus motor ~$15

You can buy new or rebuilt Taurus motors on line. If you go to a salvage yard, take a hammer and a chisel (or a battery powered grinder) because the Taurus motors are mounted with rivets.

The Taurus motors run the window 2x as fast (2 seconds up or down) on 1/2 current (4 vice 8 amps).

All you need is a hacksaw, a grinder, a drill, and some beer.

SO
Bill Taylor

---

**Window Cat-Whisker Replacement**

Espen Graffer espeng at chello.no
Wed Nov 9 15:31:46 EST 2005

Ciao!
I'm happy to announce that I've thrown my catwhiskers in the bin. Finally I found what I think is the perfect modern replacement for the original outer window scraper/weatherstrip (catwhisker).

It's made by Stanpro and the partnumber is 75001180 (MR172X).
<<< I'm busted; yes, the correct p/n should be 75001181. Also, one picture is of the right door...>>>

[http://www.stanpro.com/SPweatherstrip.html](http://www.stanpro.com/SPweatherstrip.html)

These pictures show front left door of my Deauville, before and after. The interference fit between window and lip is approx. 1 mm.

[http://home.chello.no/~espeng/P1010021a.JPG](http://home.chello.no/~espeng/P1010021a.JPG)
[http://home.chello.no/~espeng/P1010014a.JPG](http://home.chello.no/~espeng/P1010014a.JPG)

I believe the Pantera uses the same catwhisker, also fastened with tiny screws. My Pantera was modified when I bought it, but I have not been able to find which weatherstrip is used. The lip is a bit softer and longer than this one (but fits well too).

espen in norway
Electrical

Ground

NAPA Ground Strap
Napa has a nice braided ground strap for about $12. Item#: PHI9150
http://www.napaonline.com/MasterPages/NOLMaster.aspx?PageId=470&LineCode=PHI&PartNumber=9150&Description=Battery+Cable+Grounding+Strap

Fusebox Conversion to Blade Fuses
http://pantera.infopop.cc/eve/forums/a/tpc/f/7890077274/m/2210003415/r/#
By Dennis Yogi (4NFORD)
I had a spare fuse box lying around and decided to try to convert it to modern bladed fuses. I purchased some heavy 8 gauge inline fuse holders and hacked off the bottom ends. I soldered on solid core wires in place of the strand wire, slipped them through the rivet connectors on the fuse holder and soldered them on the bottom. I finished off by filling the top with epoxy to hold the fuse holders in place. Works great! Sorry I forgot to take pictures of the in-between steps when I made this.

Turn Signal Flasher Module
Flasher-Stat replacement available at most auto stores Tridon-Stant part number EP35.

Engine

Alternator

Motorcraft
From: JDeRyke@aol.com
Date: Tue, 10 Feb 2004 20:54:17 EST
Subject: Re: [DeTomaso] alternator
To: RKMosier@aol.com, detomaso@realbig.com

In a message dated 2/10/04 03:16:07 PM, RKMosier@aol.com writes:
<< Could someone please tell me the specs and part number for the original alternator for my 72 pre L?
>>

It is a plain-vanilla Ford Motorcraft alternator for a '72 Ford. You may find a 47-amp, a 63-amp or 75 or100-amp 'Police Specials'- they all use the same cases and are visually identical. To find a high output unit, I had to take a couple of junkyard refugees to an auto-electric shop and let then spin them up on their tester to see which was which. IMHO, the 47- & 63-amp are too low output to support headlights, AC, a stereo, two radiator fans and a CB, at low rpm in traffic.

Horror story- one club member (with a stock alt & low battery too), had his electronic ignition stop making sparks due to excessive low voltage. This happened, as Murphy says it will, in downtown San Francisco during evening rush hour, as we were passing through on a club run. 6 lanes of bumper-to-bumper as far as the eye could see.... three of us in different lanes slowly maneuvered thru the mess and swapped jumper cables from window to window until someone got close enough to hand them to the poor guy. We couldn't get to the edge of the freeway to pull over and wait, so we all kept going slow until he got someone to jump him, and caught up. A high-output alternator costs some horsepower but is a
worthwhile investment for city-dwellers! Check the archives on high output or "one-wire" (3-wire) replacement alts. There’s a ton of posts.
Cheers- J Deryke

**Pivot Mount for Alternator**

http://pantera.infopop.cc/eve/forums/a/tpc/f/6450045562/m/7440045864?r=3830065864#3830065864

On my car I upgraded from the original 1G alternator (60 amp) to a 3GIF (intermediate frame) which has 100 amps output. The Ford Motorcraft Part Number for the correct fit (180 pivot mount) is GL-494-RM. To make the wiring easier, P A Performance make a wire adaptor kit which retains the original functionality of the "gen" light. Like you, I also upgraded to an electronic ignition so the extra output was much needed to support the power requirements of the electronics.

**100 Amp Units**

http://pantera.infopop.cc/eve/forums/a/tpc/f/7890077274/m/4350023805

**Break-in**

http://www.compcams.com/information/whatsnew/NewsDetails.asp?ListHistoryID=1821071676

**Belts**

**Alternator/Water Pump**

NAPA belt #7405 fits the alternator/water pump

**A/C**

NAPA belt #9355 fits the AC

**Camshaft**

**Cam Specs – Stock**

From: Donnylee63@aol.com
Date: Thu, 28 Aug 2003 12:24:38 EDT
Subject: Re: [DeTomaso] Stock cam specs
To: jomontero@kern.org, detomaso@realbig.com

1972 referred to as the "CJ Engine" Cam ID D2ZZ-6250-B

Intake opens degrees 14 btcd, 76 abc, 26 ATC 25 ABC

Exhaust degrees 78 bbc, 32atc, 24bbc, 28btc

270 dur intake 290 dur exhaust lobe .278 intake .283 Exhaust .481 lift intake .490 lift exhaust 46 degrees overlap.

**Performance Cam Specs – Crane**

From: "John Taphorn" <jtaphorn@kingwoodcable.com>
To: "Joel Montero" <jomontero@kern.org>, <detomaso@realbig.com>
Subject: Re: [DeTomaso] Cam selection help
Joel

I'd recommend a split pattern cam for your Cleveland. The stock head's poorer exhaust breathing capability generally gets prescribed a longer duration and higher lift relative to the intake side to compensate. The poorer breathing is caused by the sharp downward turn the exhaust gasses must make when exiting the head into the headers and the smaller valve size relative to the intake.

I would lean toward the Crane CRN-524421 226I/230E 110LSA lift .528I/.536E

You will see plenty of thought on this one!

JT

Performance Cam Specs – Comp Cams

From: "Joel Montero" <jomontero@kern.org>  
To: <detomaso@realbig.com>  
Sent: Thursday, September 18, 2003 7:54 PM  
Subject: [DeTomaso] Cam selection help

I received the following recommendation for a new cam for my street/driver from Comp Cams. I indicated I was only attempting to do a mild upgrade from the stock cam in my 351C with 4V closed chamber heads.

The specs for the cam are as follows:

Magnum hydraulic flat tappet cam p/n 270H

RPM operating range 1800 to 5800  
Duration intake=270 exhaust=270  
(@.050 intake=224 exhaust=224)  
Lift (with 1.73 rocker) intake=519 exhaust=519  
Lobe separation 110

valve timing intake open 29 close 61  
exhaust open 69 close 21

Understanding that cam selection is a somewhat subjective thing, I have two questions.

Does this cam seem to make sense for a performance street car where drivability and reliability is important?

From whom can I get a reasonable analysis of this cam combination for a Pantera? Who is the authority? God knows, just about everybody knows more than me!

Slightly frustrated,
Joel Montero  
Deputy Executive Officer, FCMAT  
422 Petaluma Blvd. North, Ste. C  
Petaluma, CA  94952  
Ph. 707-775-2850  
Fax 707-775-2854  
jomontero@kern.org
Hot Engine Specs
From: BOSS32V@aol.com [mailto:BOSS32V@aol.com]
Sent: Tuesday, August 19, 2003 2:58 AM
To: Rodericks, Garth
Subject: Re: 351C Engine Specs

ENGINE SPECIFICATIONS:

351C, 10.5:1 compression TRW pistons; Ford Motorsport aluminum C302 high port heads (non-ported
1989 version, 63cc chambers, I think)

Custom Grind Reed Cam, serial #J0380 Grind: T272-274UL-10A3 Phone: 404-451-5086
Running Duration: IN 272 EX 274
Duration (@0.050): IN 272 EX 274
Lobe Lift: IN .327 EX .330
Hot Valve Setting: IN .020 EX .022
Seat Pressure: 130-150 LBS.
Open Pressure: 330-350 LBS.
Lobe Centers: 110 degrees
Overlap: 53 degrees

Carburetor: Holly 780 vacuum secondary built by The Carburetor Shop to match the above engine
combination

PARTS FOR SALE:
1972 351C 4-bolt main block with one cracked cylinder wall (cleaned, sonic checked and ready to be re-
sleeved)
Block was Sonic checked by TechKraft machine shop at a cost of $250
Eight Stock Rods
Timing Cover
BOSS 351 Balancer ($250 value)
NASCAR style racing pulley’s with billet aluminum adapter for BOSS 351 balancer (value $300-400)

Selling all parts as a package deal for $400

John Vogler
408-773-0287

Performance Cam Specs – Comp Cams 290, 280 & 270
From: JAYTCREC@aol.com
Date: Sat, 20 Sep 2003 23:49:20 EDT
Subject: Re: [DeTomaso] Cam selection help
To: jomontero@kern.org
CC: detomaso@realbig.com

I've had the 290 (or 292??) comp cam and it was a bit more than just mild. I now have the 280 and it is
very nice. 9.5 compression ratio, Edelbrock performer, worked 780 Holley w/vacuum secondaries,
Duraspark dist with MSD 6al. Obviously, I believe the 270 would be very mild.

Performance Cam Specs – Ford Part No.
From: Donnylee63@aol.com
Date: Mon, 22 Sep 2003 11:28:05 EDT
Subject: Re: [DeTomaso] Engine ID
To: jomontero@kern.org, detomaso@realbig.com

270/290 481-Intake 490 Exhaust 46 degrees Overlap 4-degrees retarded ground in. Ford Part D2ZZ-6250-B.

If you still have stock Flat tops your engine was rated at 9.0:1 with a 73.9 to 76.9 head chamber. Closed Chambers are 64.6 to 67.6 CC. Expect to see 1.5:1 compression increase, for about 10.5:1......Not pump gas friendly. However if you use a more aggressive Cam you can bleed off some cylinder pressure and it will help. But may be a little touchy with pump fuel and will need very careful tuning.

Carburetor

Holley Float Adjustment

Date: Sun, 23 May 2004 22:31:49 -0500
To: detomaso@realbig.com
From: Dave Doddek <pantera@pobox.com>
Subject: Re: [DeTomaso] Holly Float Level Adj

Heres the way I do it,
INSTALL EFI!!!

But seriously,
INSTALL EFI!!!

OK, Really, with the engine running at about 1200 RPM, Raise float level till the boosters start to drip then back it off till they quit. This will set your float level correctly. The idea of float level is that the fuel is just at the verge of flowing out of the booster holes. When you open the throttle, the Accelerator pump gives a quick spurt of fuel till the boosters start to flow. Too low of float level and the delay is longer than the accelerator pump can compensate for which causes an annoying bog. Too high and you run rich all the time.

Dave "I still like EFI" D

From: "Doug Braun" <doug@silicondesigns.com>
To: "Sam & Jayne White" <spwjr@earthlink.net>
Cc: "DeTomaso Forum \(E-mail\)" <detomaso@realbig.com>
Subject: RE: [DeTomaso] Holly Float Level Adj
Date: Mon, 24 May 2004 12:43:46 -0700

If yours is a Holley Street Avenger, it has center-hung type float bowls. On this type of bowl, the sight plug is very near the center of the side of the bowl cavity so minor fore-aft bowl tilt does not affect the fuel level. Even though the carb is tilted, you should still get good results by adjusting the level per Holley's instructions.

Doug Braun
blue 73L #5505

Electric Choke Connection Point

Date: Sun, 5 Sep 2004 01:49:50 EDT
From: SOBill@aol.com
Subject: Re: [DeTomaso] Wiring help
Don't know about the wires you mention, but the electric choke should be connected to the center tap of the alternator stator winding.

This point on the alternator has a Green wire with a Red tracer the other end of which connects to the "S" terminal of the Voltage regulator. This connection is used to provide the proper voltage to the heater and to only provide that voltage when the engine is running.

If the choke has two wires, one of them is for the ground connection of the heater and the other is for the high side of the heater element.

SOBill Taylor

Demon vs. Holley

Message: 6
Date: Sat, 12 Mar 2005 08:12:59 -0800
From: "Ben and Lynn Salerno" <bdsalern@sprynet.com>
Subject: Re: [DeTomaso] Holley VS Garry Grant
To: "Will Demelo" <wdemelo@cogeco.ca>, "Detomaso"<detomaso@realbig.com>

I have used both and while both are great, I feel the BG is much better. It worked out of the box, but required some tuning since every engine is different. I used to get some cold engine hesitation with the Holley that I could never cure along with an occasional backfire. Ignition timing, jetting, accel pump shot, power valve, ect...nothing seemed to be a cure. Switched to BG Mighty Demon annular and the problem went away. Smooth response to full throttle, cold or hot.

Buy it from www.4secondsflat.com and they will tune based on your engine design. They also have some great BG articles.

If your get the BG, I can give you some advice that worked well for me when tuning the BG to a 351C. Enjoy, Ben #1910

Fuel Line Heat Shield


Sorry this is too late, Dave, but, our carbureted Pantera with mechanical fuel pump uses a gas line insulating sleeve off a V-6 Fiero, that fits the 351C perfectly. Have not had vapor lock in this century, but I had the multi-layer aluminized-fabric sleeve and saw no reason not to put it on. It could be trimmed with scissors if req'd. FWIW- J DeRyke

Distributor

MSD Part Nos.

From: SOBill@aol.com
Date: Wed, 6 Aug 2003 18:43:45 EDT
Subject: Re: [DeTomaso] Distributors
To: ronzolarsen@hotmail.com
CC: detomaso@realbig.com

MSD Pro Billet Dist (small cap) = 8577 Tach Adapter = 8920 $24 (spare sensors (84661))
BOX: 6-AL (6420 Limiter) has been Pantera Tested
MSD PN 8350, Ready to Run, does not require an MSD 6 Unit, w/vacuum advance and small distributor cap (Kragen $461.99; Summit $)
MSD PN 8577, Magnetic Pick up, requires MSD 6 Series Unit, no vacuum advance and small distributor cap
MSD PN 8477, Magnetic Pick up, requires MSD 6 Series Unit and has vacuum advance and small distributor cap
MSD PN 8580, Magnetic Pick up, requires MSD 6 Series Unit, no vacuum advance and large distributor cap

SOBill Taylor

I've been running MSD equipment for 6 years with nada problems (except a glitched out amplifier box from welding on the car without disconnecting it). The MSD components are: 8577 small diameter billet distributor (centrifugal advance), AL-6 spark amplifier (with rev limiter), 8920 tach adapter, and a Blaster coil. The only part of the ignition system that is not MSD are the Magnecor spark plug wires.

I carry around a spare magnetic trigger for the distributor but have never had occasion to use it.

Dave Bell

From: "David Bell"
To: "Tony DiGiovanna",
Subject: Re: [DeTomaso] MSD Ignitions
Date: Wed, 20 Aug 2003 20:30:26 -0500

Tony,

I'll submit that a MSD system performs at best only marginally better than a points/coil ignition in perfect condition. 'Perfect condition' though are the key words. How many 30 year old ignition systems are in perfect condition?

What you gain (my opinion) with a complete MSD ignition system (both the distributor and spark amplifier) is:
1) greater voltage to the primary side of the coil so oily or gas soaked (rich) plugs are more likely to fire properly.
2) you do not have to worry about point dwell variations over time.
3) adjustable spark advance curve using bushing and spring sets.
4) a maintenance free (it either works or doesn't work at all but does not tend to deteriorate) and reliable system.
5) a built in rev limiter (assuming you spend the extra $25 for an AL-6) which works to quickly stop the engine from accelerating further but does not abruptly slam everything to a halt (this is a nice feature if you happen to hit the rev limit accelerating out of a turn when you're right at the adhesion limit and really don't want to suddenly unload the outside rear tire),
6) excellent online and phone technical support.

The downside to a MSD ignition system is:
1) probably little/no warning of an impending problem (electronic components may fail suddenly and completely). To be fair, this has not happened to me or anyone else that I know with a MSD system.
2) can't buy replacement parts at any Podunk auto supply so if you do have a problem you could end up SOL on the side of the road (probably a good idea to carry a spare magnetic trigger for the dizzy).
3) need to buy a separate tach adaptor for Panteras (additional ~ $25).
4) a complete system is expensive - figure $500 or so for dizzy, AL-6, and tach adaptor. You could ease into it by getting only the amplifier/tach adaptor if your distributor is still in great shape - but then loose item 2 and probably 3 above.
I've been more than happy with my MSD system for almost 4 years and it has been totally reliable on the road and at the track. I do carry a magnetic trigger in the glove box but haven't needed it. Just don't weld anywhere on the car without completely (I mean COMPLETELY) disconnecting all the amplifier wires. Don't ask me how I know this.

Dave Bell

Reply-To:
From: "H.P. Brelsford"
To: "DeTomaso Mail List"
Subject: RE: [DeTomaso] MSD Ignitions
Date: Wed, 20 Aug 2003 20:37:42 -0500

The best thing you can do to your ignition is to replace your stock distributor.

The advance curves in your distributor were designed for emissions control. Replacing the points with a Petronix conversion does not change the horrible timing that the stock distributor provides.

Replace your stock distributor with a good aftermarket distributor. Use 12-14 degrees INITIAL advance and 34-36 degrees TOTAL advance.

You will be amazed how much better your car drives.

HPB

**Electronic Ignition**

**Ford Duraspark 2**

Duraspark 2 failures seem to be limited to the brainbox ($39) and coil ($26). Those parts cost a lot less than a Unilite module ($98) or a new MSD box ($236), and they're available at any Kragens, Pep Boys or other generic auto parts store in the U.S as well as most wrecking yards.


**Dyno**

**Horsepower on a Dyno**

From: JDeRyke@aol.com
Date: Sat, 14 Jun 2003 00:22:30 EDT
Subject: Re: [DeTomaso] Dyno and performance questions
To: herrkapitan0811@yahoo.com, detomaso@realbig.com

<< my horsepower at the rear wheels was 333 hp. Torque was measured at 383.4 lbs. This was done in 3rd gear, 30 mph to 80 mph for 8 seconds at wide open throttle. >>

Multiply by 1.2, as a rear wheel dynamometer gives roughly 80% of a flywheel dyno. 3rd gear is usually what's used since its closer to 1:1 than the other gears in a ZF. Note that there is NO real correlation between rear wheel power & flywheel power, nor even between different types of rear wheel dynamometers. Practically, your 333 rwhp engine should be able to pull 6500 rpms in 5th, so you should be able to travel 172 mph, more-or-less depending on tire diameter. Try it & see if this is correct. Cheers-J DeRyke
Max,

not sure about the plain English part....but my '72 pre-L was on the dyno last year. The engine was stock except for the Holley 650 carb, Edelbrock performer intake, and Petronix ignition. I had 255 hp in a test just like yours.

so that is some perspective for you.

John

#2647

--- max magnus <herrkapitan0811@yahoo.com> wrote:

> Just had my 72 Pre-L dynoed. Timing and carburetion were adjusted during the tests. In brief, my
> horsepower at the rear wheels was 333 hp. Torque was measured at 383.4 lbs. This was done in 3rd
> gear, 30 mph to 80 mph for 8 seconds at wide open throttle.
>
> The engine does have some modifications.
>
> I seek to learn what these figures translate to in plain English.
>
> What would the estimated horsepower be at the engine? And, what do these figures mean performance wise? Is this considered average, above average?

> Max

Message: 34
From: MikeLDrew@aol.com
Date: Mon, 16 Jun 2003 01:36:26 EDT
Subject: Re: [DeTomaso] Dyno and performance questions
To: herrkapitan0811@yahoo.com, detomaso@realbig.com

<< Just had my 72 Pre-L dynoed. Timing and carburetion were adjusted during the tests. In brief, my
horsepower at the rear wheels was 333 hp. Torque was measured at 383.4 lbs. This was done in 3rd
gear, 30 mph to 80 mph for 8 seconds at wide open throttle.

>>>
WOW! This was from a 351C, I presume?

> The engine does have some modifications.

>>>Gee, no kidding. :) Can you share some details?

I> seek to learn what these figures translate to in plain English.

>>>Okay, here's some: Holy *&$#! :)>

> What would the estimated horsepower be at the engine? And, what do these figures mean performance wise? Is this considered average, above average?
You have over 400 horsepower at the flywheel, which, quite honestly, is quite a bit above average for a 351 Cleveland (not counting super-trick big-inch stroker motors).

By way of reference, the original high-compression motor in the 1971 and early 1972 Panteras was factory-rated at 310 horsepower, and subsequent motors were downgraded to 262 horsepower.

When a bone-stock L-model Pantera runs on a chassis dyno, they normally generate around 230 rear wheel horsepower. Fitted with a hotter cam, Edelbrock intake manifold, Holley carburetor and headers, they usually get in the 260-270 hp range.

So as you can see, you are doing very well indeed with your car! :>)

Mike

---

**Engine Specs**

**Mad Dawg**

Date: Wed, 12 Jan 2005 20:30:13 -0800 (PST)
From: Mad Dog Antenucci <teampantera@yahoo.com>
Subject: [DeTomaso] Re: MD's Engine details
To: GR8KAT <GR8KAT@OCPanteras.com>
Cc: detomaso@realbig.com

Ah sorry guys...I only get the summary digest and also started a new construction project on the 3rd and forgot to follow up on this. Here's the not so new now engineSpecs that Russ Fulps put together last March;

Cleveland 351-C  
Bore: 4.030  Stroke 3.700  = 377ci  
Ross Custom Pistons 11.4:1 Compression  
P&P 302B Alum heads with a Hydraulic  
Comp Cams roller cam Part #32-651-8  Grind FC  
304RF-HR10 (110 lobe/.612 LIFT)  
Comp Roller rockers  
Rosch port matched intake  
830cfm Holly blue printed DP  
180 Headers  
MSD Distributor, Ignition & plugs

5,000 miles and 7 open road races later she is still running great.  
RUSS FULPS is da man...Dan Jones is the teacher! :]

Art Stephens  
Art Stephens artstephens@charter.net  
Thu Aug 11 12:15:52 EDT 2005

> I think Art's motor may be an example of a 4V quench head 377 built by Russ, but not sure.  
> Art, can you share the specs on your motor?  
> Ken,
You are correct, I am using the 4V closed chambered, iron heads on my new 377 stroker built by Russ Fulp. I am running the Comp Cams hydraulic roller cam shaft, part #32-541-8. The grind number is FC 290RF-HR10. This cam is slightly less aggressive than Mad Dawg's. I will print full details once I get this thing on the dyno.

Art

**Fuel Pump**

Joel,
I use a stock fuel pump from NAPA. About $18 plus tax. My 377c stroker, with a 650 Holley, makes 350 HP at the rear wheels. No problems.
Russ J.
#1363 pushbutton

**Flywheel Timing Marks**

Sent: Sunday, April 10, 2005 1:22 PM
Subject: Re: [DeTomaso] Flywheel Timing Mark

How do I mark the flywheel so I can check timing through the inspection hole on the bell housing?

>>> Pull the front engine cover, and rotate the engine with a big wrench on the crankshaft nut until "O" is under the pointer. Then go to the back, use a permanent marker and put a mark in the center of the hole in the bellhousing, and another mark lining up with it onto the flywheel, and mark it "O". Then rotate the engine to 10, 15, 20, 25, 30 degrees etc. and repeat the process.

Piece of cake! :>)
Mike

**Gasket Sets**

**Head Gaskets**

> Today, I received a new gasket set and to my surprise they have altered the head gasket's appearance to black with a blue seal line (like on the Fel-Pro premium intake gaskets) circling the outside edge; yet, inside the bolt hole passages. I assume the design is an improvement (fingers crossed). This is the first change I've seen in this product over the past 20 years!

Is it a coating you can scrape off with your finger nail? FWIW, a proengine builder that I respect, gives away Fel Pro headgaskets. He buysFel Pro gasket sets and uses everything but the headgaskets. He much prefers the Victor Reinz performance head gaskets. I believe they were originally designed for marine applications. For 351C's, the part numberis 3502SG which is Nitroseal material graphite on steel core. They are black coated like you describe. I just sourced some Rover V8 head gasketsthat are similarly coated.

Dan Jones

**Gear Drive**

From: Pantgts@aol.com
Date: Sat, 1 Nov 2003 19:33:59 EST
Subject: Re: [DeTomaso] gear drive
To: Detomaso@realbig.com
Steve,

I run a gear drive from Pete Jackson. They have 2 types noisy and less noisy. I went with the less noisy for obvious reasons. I have got about 10,000 miles on it. I like the noise it makes kinda like a supercharger. I run a 383 stroker with a good amount of hp and it has given me no problems at all. I would assume that the Cloyes would perform as good.

Jeff

Pete Jackson ‘Quite’ Gear Drive

Message: 27
From: MikeLDrew@aol.com
Date: Sat, 1 Nov 2003 23:52:59 EST
Subject: Re: [DeTomaso] gear drive
To: panterasteve@shaw.ca, Detomaso@realbig.com

Steve,

I have a Pete Jackson 'quiet' gear drive in my Pantera.

Most gear drives are fairly noisy; a noisy gear drive in a Pantera would make you want to put a bullet in your brain.

Pete Jackson is the only one (so far as I know) who went out of his way to engineer a 'quiet' gear drive, specifically for Panteras. The bevel on the gears is cut differently which quiets it down.

In a word--I LOVE my gear drive! It gives the Pantera motor an exotic high-pitched noise, sounding very much like a blower belt, but at about 1/4 of the volume. People have ridden with me in the car (yes my car ran at one point) and couldn't hear it, until I pointed it out. They all smiled and said, "Ah, yes, that DOES sound neat!"

From a functional perspective, some would say that the gear drive transmits too much shock to the valve train while others say it allows for more precise cam timing, and the cam will never go out-of-time the way a chain-driven cam will (with wear).

All I can tell you for sure is that it sounds bitchin’. :>)

Mike

Milodon Gear Drive

Message: 1
From: <hoppe1@cox.net>
To: <MikeLDrew@aol.com>, <panterasteve@shaw.ca>, <Detomaso@realbig.com>
Subject: Re: [DeTomaso] gear drive
Date: Sun, 2 Nov 2003 07:35:37 -0700

Steve

I also have a gear drive and like it. Maybe someone can comment on the comparable noise to mine. I have a Milodon made unit. It does not have floating gears. There is a plate added to the engine with a single gear that is fixed to the plate. The gears are set with a specific mesh that provides a quiet but desirable sound.
Head Gaskets
Source: http://pantera.infopop.cc/eve/forums/a/tpc/t/5650045562/m/4000071065/r/9330002065#9330002065
Victor Reinz performance head gaskets. I believe they were originally designed for marine applications. For 351C's, the part number is 3502SG which is Nitroseal material graphite on steel core. No sealer or re-torque required (though re-torquing it can't hurt). Don't confuse the 3502SG with their rebuilder type head gasket (paper mesh on steel core) which is Victor Reinz 3502 without the SG. Victor also has a headgasket for higher cylinder pressures (nitrous or boost), p/n 3446 for 351Cs but I've not used any of those. If you can lay your hands on carbon impression paper. It can be put between the head and block to see if your heads and block are sufficiently flat to ensure a good seal. When using premium multi-layer steel gaskets, a finish of 15 microinches Ra or less is recommended. Victor is a German company, I believe, so you may be able to source those local to you, rather than ordering from the U.S. If not, I can get you a set.

Hoses
Heater Hoses
Message: 17
From: "Mike Dailey" <mikehdailey@hotmail.com>
To: detomaso@realbig.com
Date: Mon, 08 Sep 2003 18:03:27 -0400
Subject: [DeTomaso] heater pipes

Pantera Performance has heater hoses with 90 degree formed ends on them for the cars with the hoses that are down by the front of the engine.

Mike

Radiator Hoses
Maybe; silicone rubber radiator (or heater) hoses are extremely notch-sensitive. Any cut or nick will quickly become a loose piece. Special aircraft-style shielded hose clamps are needed, that have a 'tongue' which runs under the worm-drive slots. These keep the soft silicone from extruding into the tightening slots under tension, then becoming nicked, and fail. And all hard objects even close by the hoses must be either shielded or rerouted so vibration won't cause the parts to touch. Very fussy hoses to use correctly, but if done right, will last for a very long time. I personally use less sensitive but high-quality Gates 'Green-Stripe' non-silicone hoses. I think some vendors supply silicone hoses in the special-order 1-3/8" sizes needed for Panteras. My 2¢- J DeRyke

90 Degree Copper Elbow
Date: Mon, 26 Apr 2004 15:15:12 -0700
From: "Joel Montero" <jomontero@kern.org>
To: <detomaso@realbig.com>
Subject: [DeTomaso] Coolant hose connection

Seems to me this question has come up before, but here goes anyway.
My car has a molded 1 3/4", 90 degree hose that connects the under car coolant tubes to the pressure tank via a metal pipe. I understand that I can replace the molded hose with a cad plated 90 degree bend and two short sections of hose from one of the vendors. Has anyone ever considered using a 1 ½" (measures 1 3/4" o.d.) copper, 90 degree elbow as a lower cost alternative?

Thanks for the advice.
Joel

From: “Jason Eaton” <jason@eatonweb.com>
To: “Joel Montero” <jomontero@kern.org>, <detomaso@realbig.com>
Subject: Re: [DeTomaso] Coolant hose connection
Date: Mon, 26 Apr 2004 16:39:42 -0700

I found that 1 1/4" copper fittings have the correct OD for 1 and 3/8" hoses. It's a little tight but works nicely. I have used some copper fittings in my radiator area. Don't forget to put some sort of ridge in the copper so your hoses don't slip off.

**Mufflers – Exhaust**

**Gutting the stock mufflers**
http://pantera.infopop.cc/eve/forums/a/tpc/f/5650045562/m/4600039074?r=8260039874#8260039874

**Cherry Bomb Mufflers**
Cherry Bomb Extreme model ([http://cherrybomb.com/extreme-mufflers.html](http://cherrybomb.com/extreme-mufflers.html))
Dimensions are 4" high by 9.75" wide by 6" long (body), 12" long including inlet and outlet tubes.
Part #7425 has a 2.5" inlet and dual 2.25 outlets.
Part #7427 has a 3" inlet and dual 2.5" outlets.
They are probably pretty loud but maybe not as loud as some.

**Cherry Bomb Extreme Mufflers – Ansa look**
http://pantera.infopop.cc/eve/forums/a/tpc/f/5650045562/m/4850059725/p/1

**Ansa Muffler Restoration**
http://pantera.infopop.cc/eve/forums/a/tpc/f/5650045562/m/4580086565/r/9240087565#9240087565

**Oil**

**Oil Filter Study**
Engine Oil Filter Overview
[http://minimopar.knizefamily.net/oilfilters.html](http://minimopar.knizefamily.net/oilfilters.html)
Compares some of the most popular/common oil filters for more info about filters...
[http://minimopar.knizefamily.net/oilfilterstudy.html](http://minimopar.knizefamily.net/oilfilterstudy.html)
Oil Filters

Message: 9
From: "Guy Dellavecchia" <guido_detomaso@prodigy.net>
To: <DeTomaso@realbig.com>
Date: Mon, 27 Oct 2003 09:44:01 -0800
Subject: [DeTomaso] Tech Tip + Where can I get?

Tech Tip: I found a very short spin on filter that will fit in place of the PH8A and is even shorter than a PH43. It is the Balwin B132. Might be one to consider if you've got a clearance problem to the Pantera frame rail due to an oil cooler sandwich plate.

Where can I get: An adapter to take the place of the PH8A, with and "in and out" pipe connection only (for a remoter filter), where the installed location of the outlet and inlet isn't a crapshoot. That is, one that attaches with a through bolt, instead of spinning on.

Previously, no one responded on the "Where can I get a round steel boss with a 7/16ths - 14 thread up the middle" question, but I found a stock car products shop in Indiana that made a couple for me for next to nothing. They've got a really interesting line of products too:

www.ubmachine.com

Also, Mike Drew had the answer to the "Where can I get plugs for the air injection holes on my 302 heads?" question. Many thanks.

Guy D.

Alternate Filters

1. Canton (Remote similar to System 1) – flows 4 times what a Fram HP will. Will flow 5gpm....Available from Pegasus or www.racerpartswholesale.com
   Filter Housing CA-25462
   Replacement element CA-26100

2. System 1 – Remote SS filter similar to OBERG but more convenient for quick inspection/clean filter/debris

3. Oberg – SS remote reusable micro filter

4. Fram HP (or Wix) – Spin on

5. UFI – Available from any Ferrari dealer. Should be about $10, maybe more. Built for a high-pressure, high-flow system, plenty of filter surface area inside, very high psi bypass rating, well made, heavy case. Add $1 for magic marker to cross out the word "Ferrari".

Filter w/o Bypass

The usual Ford oil filter has a bypass valve built into the filter which can allow unfiltered oil to bypass the filter. The bypass can also fail, causing a loss of oil pressure. Consider using Purolator oil filter number L30119. It's a full size replacement for the FL-1A Ford/PH8A Fram filter. It has no bypass spring in the middle but it does have the rubber flapper for anti-drainback. The original application is for a 1978 Nissan 510, 2.0L 4 cyl engine (L20B) which had the bypass valve in the engine block. This filter cross-references to a Fram PH2850, a Motorcraft FL-181, and a Wix51452. However, those filters have not been verified and may still have the bypass. It appears after 1978, Nissan went to a half height filter. Purolator part number L22167 fits that application and does not have the bypass spring but does have the rubber flapper for anti-drainback.
NOTE: Purolator part number change:
L30257 replaces L30119

Filters w/o Bypass Valve
Date: Mon, 14 Mar 2005 06:40:13 -0600
From: Dave Williams <ronin@aristotle.net>
Subject: Re: [DeTomaso] Oil Filters
To: DeTomaso@realbig.com

Curt Hall wrote:
> Hi Jack...A week or so ago you talked some about a filter from another car that fit our 351C. (don't
remember which car) You said something> about the filter filtering oil at all times, while our stock filter
has a bypass at higher RPMs?

That's the Purolator L30119. It is full size, has no spring in the middle but it does have the rubber flapper
for anti-drainback. Cross referenced to a Fram PH2850, a Motorcraft FL-181, and a Wix 51452. Those
other ones may have the bypass in them however.

Original application was the 1978 Nissan 510, 2.0L 4 cyl engine (L20B). It looks like after '78 they went to
the half height filter. That is Purolator part number L22167 if you need it. It also has no spring in the
middle but it does have the rubber flapper for anti-drainback.

> This sounds like a plus? Is there a pro or con to this? I know our 351C can use all the oil we can get. At
higher RPMs would this filter restrict enough oil to do harm?

I guess if it was cold outside, and you were running 50-wt oil, and you liked to rev a cold motor, there
might be trouble. With 10w40, -10F weather, and normal driving, my pressure would run around 80 at
first, then drop down to the usual 60. I've been running those Datsun filters for 20 years with no troubles.

They also fit the usual remote oil filter brackets.

Wix Filter w/o Bypass Valve
Date: Mon, 14 Mar 2005 08:08:17 -0600
From: "John Taphorn" <jtaphorn@kingwoodcable.com>
Subject: Re: [DeTomaso] Oil Filters
To: <ronin@aristotle.net>, <DeTomaso@realbig.com>

The Wix filter for the Cleveland w/o the bypass is Part Number: 51647.
I have used this filter for years on my Pantera. I run an Accusump, and they recommend a filter w/o a
bypass because it is possible that dirt in the oil allowed to bypass could compromise the piston seal in the
Accusump. I choose the Wix because of how well it did in the unofficial Mopar comparative analysis that
was on the internet years back and is now at http://minimopar.knizefamily.net/oilfilterstudy.html

The drawback of not having a bypass is that should you go an extended period of time w/o changing
filters and it becomes plugged, your oil pressure is compromised. Back to an earlier thread on
mechanical gauges, such a tool would let you see this condition before it became an issue.

JT

Reusable Oil Filter
Date: Mon, 14 Mar 2005 20:00:22 EST
I found these on display at a Rod and Custom show last month. They are a billet aluminum 3 piece unit. The base remains on the block while the canister is removed and the filter itself can be cleaned and reused. It cleans down to the 10 micron limit of paper filters, but 90% more efficiently (less flow restriction). You have the option of with or without running a bypass valve, the sales rep recommended NO BYPASS is the way to go. They can be seen at: (http://www.tbnlubricants.com/filters.html)

Ron
#2492

Oil Pans

Armando vs. Aviad Pans
Date: Mon, 30 Aug 2004 17:43:42 -0700
From: "Mark McWhinney" <msm@portata.com>
Subject: RE: [DeTomaso] Armando group purchase available now
To: <detomaso@realbig.com>

This is Armando's website:
http://www.geocities.com/MotorCity/Flats/1624/

Notes:
- The pans have a zinc coating.
- The pickup is included in the price.
- The gasket is not included, but takes the standard gasket.
- The pan includes a bung for mounting an oil temp sender

Here are some pictures from Espen's web site:
http://home.chello.no/~espeng/Aro-1.JPG
http://home.chello.no/~espeng/Aro-2.JPG
http://home.chello.no/~espeng/Aro-3.JPG
http://home.chello.no/~espeng/Aro-4.JPG
http://home.chello.no/~espeng/Aro-5.JPG
http://home.chello.no/~espeng/Aro-6.JPG
http://home.chello.no/~espeng/Aro-7.JPG

Armando Oil Pans
AVIAD continues to build quality pans specifically for our cars. The part numbers for the pans are:
155-55365 for Pantera with a 351C
155-55367 for Pantera with a 351W
155-55366 for Mangusta with a 302


Aviad & Armando Oil Pan Capacity
To settle it for all of you that have bought an Armando pan, when AVIAID designed that pan the static oil capacity of the pan was set at 9qt. That fills the pan to the underside of the hard tray that is bolted in on top of the pickup box assembly in the pan. Our instructions for actual capacity determination are to fill an empty pan, installed on the engine in a car sitting on flat ground, with 8qts. of oil. Mark your dipstick. Add one additional quart, and mark the stick again. This is full. The first mark is the low mark. This should be only about 3/8” given the sump area of the pan.

Start the engine, letting oil circulate and fill the engine, filter and any cooler or lines that may be part of the system. Shut the engine off, and add back to the top mark. This will be system capacity.

Depending on engine and operating conditions the ideal level can vary. Ideal oil level is a point between fluctuating oil pressure and excess carry over of oil out of the engine venting system. If the engine tends to trap oil up in the engine, it will like an extra 1/2 quart. If the engine returns oil well, it might like 1/2 quart low. Experience will tell.

John Schwarz  
AVIAID Oil Systems  
10041 Canoga Avenue  
Chatsworth CA 91311-3004  
00 1 818 998 8991 phone  
00 1 818 998 8993 fax  
aviaid at aol.com email  
aviaid.com web

**Pan Price Comparison**

Date: Mon, 30 Aug 2004 11:10:15 -0700  
From: "Mark McWhinney" <msm@portata.com>  
Subject: [DeTomaso] Armando group purchase available now  
To: "panteras" <detomaso@realbig.com>

The Armando pans are $389. If we buy five or more now, they will give us the same deal as last time -- $330 plus shipping (about $30).

The Aviaid pan is $575 from PI and from PPC (Stock).

I am going to get the Armando pan. Is anyone else interested? We just need four more for the discount. If I do not hear from enough people, I will just buy it at the full price tomorrow.

**Oil Pump Gasket**

Date: Wed, 18 Aug 2004 00:09:54 -0700  
From: Rick <rwgushue@gte.net>  
Subject: [DeTomaso] Oil Pump Gasket  
To: Pantera List <detomaso@realbig.com>

Thanks to all long ago concerning the oil pump questions I had asked. The gasket part is Fel-Pro part # 70273 and fits 351C/400M 1970-87 and also states future part # 14-4010. Cost was about buck and a half.
Rick 1582

**Pistons**

From: detomaso-admin@realbig.com  
On Behalf Of Dave Doddek  
Sent: Sunday, December 07, 2003 8:54 PM  
To: detomaso@realbig.com
Re: [DeTomaso] Noise at 2500 in first, 3000 in second

Got forged pistons??? Some times they will do that. I had TRWs that did.

Dave "Use Weisco now and they are quiet" D

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**Radiator**

**Radiator Drain Petcock**

http://www1.mscdirect.com/CGI/N2LMSI?PMTYPE=3&PMPART=DC606-4

**Fan Control Switch - Fluidyne Radiator**

I put my Fluidyne radiator in this weekend. Was not too hard a job. The correct part number for the fan control switch is actually Carquest TS 258. The one everyone was using TS 165 is not the correct thread. The correct thread is m22x1.5. As I remember, the TS258 closes at 192 and opens at 182.

A few pics:
http://www.geocities.com/francdj/gts/RadParts.jpg
http://www.geocities.com/francdj/gts/RadNuts.jpg
http://www.geocities.com/francdj/gts/RadIn3.jpg

Don Franck

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**Upright Fluidyne with Flex-a-Lite Pusher Fans**

Date: Mon, 16 May 2005 14:28:42 -0400
From: Sean Korb <spkorb@gmail.com>
Subject: Re: [DeTomaso] Laydown vs. Upright Radiators
To: detomaso@realbig.com

On 5/16/05, Garth Rodericks <garth_rodericks@yahoo.com> wrote:
> Well, it looks like it's time for a new radiator. What is the general concensus regarding lay-down versus upright radiators? Aluminum vs. brass? And, sucker fans vs. pusher fans? It's been suggested to me to merely lay down a stock/brass radiator and add sucker fans.
> 
> So, what do you have, who did you order it from, how complete was the setup (or how many trips to the local autozone did it take to make it all fit and work), and what kind of cost is involved?

I went for cheap and easy, and it works too :) Aluminum radiator, stock position, aftermarket pusher fans. I think I'm down about $700 total.

http://www.spkorb.org/panrad.html

The setup draws a good bit of current, so an alternator upgrade might be called for. Using a relay is mandatory. When I get the urge, I'll wire the manual fan switch (Pushbutton car "feature") to turn off one of the fans. I don't often need that much cooling.

I doubt that you will find much consensus regarding radiator position/type/fan/etc, but all the solutions that I've seen documented seem to work well for hot days in traffic, cruising and the occasional track event. If you plan to go over 140mph, I would defer to the racing crowd.

[ the pusher fans are Flex-a-Lite FLX-240 laid in front ]

sean 8-)

---
Fan Relays
Does anyone know if there is a cross reference for the two fan relays that are located in the front trunk area. I know the vendors probably carry them, but I would like to try and replace them this weekend if possible.

>>>They are standard FIAMM relays used on virtually every Italian car of the period. They probably won't be available from your local parts store, but if there is someplace nearby that routinely services Alfas, Fiats etc. they would probably carry them.
Mike

A few weeks ago I posted an inquiry looking for fan relay replacements. On the advise of the relay guru, Rick Moseley, I bought Hella 40 amp "ice cube" relays. Bought them from http://www.spal-usa.com/html/dampframe.htm. They are 5 lug, but can be hooked up mimic the stock 3 lug relays by connecting power to lugs 30 and 85, thermo switch connects to lug 86 and the fan lead connects to lug 87. Lug 87a is not used.

Spark Plug Gap – MSD Ignition
Date: Sat, 9 Apr 2005 13:10:26 -0700
From: "Ben and Lynn" <bdsalern@sprynet.com>
Subject: Re: [DeTomaso] MSD Plug Gap
To: "John Hansen" <pantera@bresnan.net>, <detomaso@realbig.com>

FYI, I set my plugs at .045 with multispark (135MJ) ignitions. Found This the best all round. Tried up to .055 and found no improvement. If running lean the wider gap would be useful, but with the richer mixture I run .045 seems fine.
Ben #1910

Starter

Starter Part Nos

From: "B. Salerno" <bdsalern@sprynet.com>
To: <MikeLDrew@aol.com>, <RedVobra@aol.com>, <detomaso@realbig.com>
Subject: Re: [DeTomaso] replacing positive battery cable
Date: Sun, 22 Feb 2004 08:00:45 -0800

I actually was able to reduce cable size after modernizing with a 2-1881-FD-1 PMGR starter ($102 at http://4alterstartcom.verizonsupersite.com/highperformance/) and two HE 12" PM fans. The starter cranks my high compression Cleveland even when hot like it was a much smaller engine and with much less current.

Enjoy. Ben

Installation Pics:
http://home.sprynet.com/~bdsalern/solenoid.jpg
http://home.sprynet.com/~bdsalern/starter2.jpg
High-Torque Starter

I purchased a high torque starter from a company called DB Electrical Rebuilders. It turned out to be a brand new Bosch mini sized, gear reduction high torque starter. Fit and runs perfectly. The price was great, $74.99 and $12 shipping to Hawaii. It got here via USPS priority mail in 3 days. They supply a wiring kit and diagram to swap over.

Aloha from Hawaii,
Dennis

Starter Solenoid

Longacre Solenoid
I just bought a new remote solenoid Longacre Racing Products Part number LON4590 $24.95. It is custom made for Longacre and has a metal outside case and is heavier than the stock units. Using it to replace my original one on my 1972 Yellow Pantera S/N 4011. I had bought an ACCEL one 15 years ago but haven't gotten around to put it on the car. This one is better so I will put it on this year. Regards to all Pat Orlando.

Longacre Solenoid Wiring Instructions
I noticed that the Longacre solenoid is a 3 terminal unit while the OEM solenoid is a 4 terminal unit.

The Longacre 3 terminal unit can be used on a Pantera.

If you have an ignition which does not need a ballast resistor you only need 3 wires: Battery Cable In (one big terminal); Solenoid Activate wire from the Start position of the Ignition Switch (the small terminal); Cable To Starter Motor (the other big terminal).

If you have an ignition which needs to bypass the ballast resistance when starting the engine, the OEM 4 wires are connected as follows: Battery Cable In (one big terminal); Solenoid Activate wire from the Start position of the Ignition Switch (the small terminal); Cable To Starter Motor (the other big terminal); OEM Ballast Bypass Wire (cut off the OEM small terminal lug, crimp on a big terminal lug and connect the wire to the same big terminal as the Cable To Starter Motor). These connections will bypass the ballast resistance when cranking the engine, the same as the 4 terminal OEM solenoid.

Bill Taylor

Bill,
Connecting the ballast bypass to the same terminal as the starter means that there will be a constant voltage being fed to the starter whenever the ignition switch is on. It will be less than 12 volts due to having been through the resister first. Maybe a diode installed to allow current to flow only one way?

Forest

Forest,
OOPS! You are so right. Thanks for catching that.

The Longacre starter 3 terminal solenoid should only be used on cars which do not need a ballast resistance bypass when starting the engine.

Sorry about that. Brain in neutral problem.

SO
Bill Taylor
**Stroker Motors**

**John Taphorn’s 408 Stroker**

Date: Tue, 28 Sep 2004 08:31:59 -0500  
From: "John Taphorn" <jtaphorn@kingwoodcable.com>  
Subject: Re: [DeTomaso] trim and engine questions  
To: "Justin Greisberg" <justinpantera@hotmail.com>,  
<detomaso@realbig.com>

I have a 408 stroker and I am very pleased. However, I do not know that it has more power than a 377. Running the DYNO software on the two alternatives seems to produce similar results. It may be due to the poorer rod ratio you get as you go to a longer stroker.

There has been a lot of discussion on the list that points out it is meaningless to compare the output of engines run on different dynos. That said, my stroker engine averaged 423 lb/torque and 418 HP between 4600 - 5800 RPM. Peak torque was 457 @ 4400. (This dyno was not calibrated to gather readings below 4400. Torque may have been higher at a lower RPM) Peak measured horsepower occurred at 6100 and was 444. Unfortunately, valve float due to the wrong spring combo began at 6200. HP was still building at 6100RPM. I have proper springs in place now; but, the dyno pointed out the need. The engine shop extrapolated 500 HP with proper springs, and while I would love to believe that, I have no way to tell at this point. I'll have to see on a chassis dyno.

My engine runs a carburetor with 9.75 compression and cam specs of 232I/238E - lift .555I/.528E 106LC. Runs on pump gas and has heavy lope.

One caveat with the 408. Be certain to spring for the forged crank. However, this makes the cost of the 408 more than the 377. If the output results are similar, the 377 may be the better value. Of course, these two displacements are not your only options and others on the list have built motors in between. Hopefully they will comment.

JT

**Ed Comber’s 390 Stroker**

Date: Wed, 29 Sep 2004 15:13:46 -0400  
From: "Edward Comber" <eds73l@hotmail.com>  
Subject: RE: [DeTomaso] engine questions  
To: justinpantera@hotmail.com, detomaso@realbig.com

The stroker that I have runs strong with lots of bottom tork. It is about 390 C.I. and has the hydraulic roller rocker set up. About .600 lift on the cam with quench heads. The cam specs call for a 6500 max with a float at 6800. It seems to spool up on the rpms as fast as the stocker if not better. When you hit about 3000 rpm it realy comes to life. It does have a different feel when you step on it but it is a lot stronger than the old set up that was about 425 hp. I also have the aussie Funnelweb intake with a holley 750 dominator. It does pull hard. I can give you any info, or email me direct for any questions you might have.

Ed

**Dan Jones’ 351C Build**

Date: Thu, 30 Sep 2004 16:51:57 -0500  
From: "Jones, Daniel C" <daniel.c.jones2@boeing.com>  
Subject: RE: [DeTomaso] engine questions  
To: <detomaso@realbig.com>
> Power band best between 2500-6500 -- with that goal in mind, is a stroker the right thing to do? I think a stroker loses the ability to rev high and quickly? <

Why do you think that?

> The typical Cleveland build up - with stock displacement, 4V heads, roller cam and roller rockers seems to yield 400-425 horsepower on the enginedynos (I've seen several magazine build-ups).

Don't rely on magazine build-ups. They are chocked full of misinformation and poor choices. For real world numbers, a guy I know pulled right at 500 HP on the dyno with nothing more than simple closed chamber 4V 351C with Holley Strip Dominator intake, Ultradynes solid flat tappet cam of 0.6" lift, roller rockers, windage tray, and headers. That is with no headwork other than a multi-angle valve job.

> A well done Windsor with modern heads can get higher, with a better low RPM response.

So why is it half the Ford entrants in the EMC are building Cleveland, despite the rules bias (Cleveland aren't allowed aftermarket blocks but Windsors and SBC's are and there's no contingency money for Cleveland heads, intakes, or blocks)?

> By the same token, a Cleveland with modern heads will outperform a Windsor.

Precisely why last year's winner in the EMC (Jon Kaase) chose a Cleveland for this year's entry.

> It's just harder to find modern Cleveland heads.

First off, you don't really need aluminum heads on a Cleveland as the factory heads flow nearly 300 CFM with nothing more than a valve job. Port sizes on the large side but a stroker crank takes care of that nicely. If you want aluminum heads for the Cleveland there are several choices including Blue Thunder, Brodix, AFD, CHI, and Ford Motorsport.

> In the end, the Cleveland will outperform the Windsor, but only after quite a bit more $$.

A friend has a drag race Mustang with Twisted Wedge heads. Out-of-the-box on a flow bench they weren't even close to my C302B's or A3's (and were down 50 CFM to a set of iron 4V's). These are real numbers on a flowbench I trust, not magazine numbers. After nearly $3K in porting and parts, the heads flow almost as well as my C302B's and A3's.

> That's with a 3.75" stroke. Some have gone to the 3.85" stroke, but I think 377" is plenty.

There's plenty of room in the 9.2" deck Cleveland block for a 3.85" stroke. A 4" is not really a problem either. Stroker math is straight-forward:

\[
piston\ pin\ height = deck\ height - (rod\ length + crank\ stroke/2)
\]

When I was mulling this all over, I calculated a few numbers. Note this assumes zero deck on a block that hasn't been milled. You'll have to adjust for whatever your block measures out at. Rearranging the equation:

\[
deck\ height - (rod\ length + stroke/2) = pin\ height
\]

9.206 - (5.778 + 3.50/2) = 1.678 \( r/s = 1.651 \) stock 351C
9.206 - (6.000 + 3.50/2) = 1.456 \( r/s = 1.714 \)
9.206 - (6.125 + 3.50/2) = 1.331 \( r/s = 1.750 \)
9.206 - (6.200 + 3.50/2) = 1.256 \( r/s = 1.771 \) what many circle track racers run with Aussie 2V heads
9.206 - (6.250 + 3.50/2) = 1.206 \( r/s = 1.786 \)
9.206 - (6.000 + 3.70/2) = 1.356 \( r/s = 1.622 \) popular 351C stroker specs, uses offset ground 351C crank
9.206 - (6.125 + 3.70/2) = 1.231 \( r/s = 1.655 \)
9.206 - (6.200 + 3.70/2) = 1.156  r/s = 1.676
9.206 - (6.125 + 3.75/2) = 1.206  r/s = 1.633  forged crank, popular high rpm drag race combo with 4V heads
9.206 - (6.200 + 3.75/2) = 1.131  r/s = 1.653  pushing the pin height limits for a street motor
9.206 - (5.950 + 3.85/2) = 1.331  r/s = 1.545  Scat steel crank, 2.75" Cleveland mains and Windsor rod journals.
9.206 - (6.000 + 3.90/2) = 1.256  r/s = 1.538
9.206 - (6.000 + 4.00/2) = 1.206  r/s = 1.500  400 nodular iron crank (or aftermarket)

The popular budget choices for a Cleveland are:

1. 377 (3.7" stroke, 0.030" over): 3.7" offset ground Cleveland crank with 6" rod (Olds or 2.1" journal Chevy), custom pistons. Offset grind 351C crank to SBC journal, widen crankjournal or narrow rods (easiest), 6" rods, custom pistons. Assuming your crank grinder works reasonably, the least expensive. If not, the 3.75,3.85", or 4" stroke SCAT or Eagle cranks may be as cheap. Room to go to longer rods (6.125" or 6.2"), if desired. Conservative compression height and rodratio with room for a standard ring pack. Done right, pretty bullet-proof. The Pantera Performance Center in Colorado stocks pistons for this combo.

2. 393 (3.85" stroke, 0.030" over): 3.85" Scat or Eagle crank with 5.95" Windsor rods or 6" Chevy rods, custom pistons. Chinese import cast steel/iron cranks with 6" rods and custom pistons. Also, 5140 forged steel and 4340 forged steel cranks are available. Like a 377 but with more cubes. This is what I picked for my aluminum Fontana block (3.85" SCAT 4340 forged crank). With the 4.1" bore of my block I'll be at 407 cubic inches.

3. 408: (4.00" stroke, 0.030" over): 4.00" Ford, SCAT, or Eagle cranks, 6" rods, custom piston, 1.2" compression height. Most cubes while keeping a decent pin height. Most power for a given RPM (best torque) but higher piston speed. Any longer stroke and you risk running into the block notches with the top ring. As a means of comparison, the popular 331 and 347 cube stroker kits for the 5.0L have shorter pin heights.

Longevity is dictated by the power the engine makes, the strength of the components, piston speed (a function of RPM and stroke), rod to stroke ratio (side wall loading) and ring pack (narrow ring packs don't seal as well, tend to rock at TDC). The 377 is best for high RPM in that it has the lowest piston speed (stress on the crank), the 408 the worst but it's all relative. Keep the 408C below say 6500 RPM and it should live. Premium Components will make any of them live.

The usual Chinese made SCAT or Eagle rods will probably suffice but for a few more dollars you can get the much nicer 6" Oliver Superlight I-beams. Callies has a great deal on these. I got my set for $620 IIRC. If you're in the market for a 4340 forged steel 3.85" stroker crank, SCAT is finally delivering again. They've been on back order for 9 months or so.

> So, in sum, what is the ideal Cleveland build-up for aggressive street use??

When last I heard, Mad Dog's 377C is putting down 470 RWHP on 91 octane in a street-driven Pantera. He's running C302B heads, a Comp hydraulic roller cam (245 deg @ 0.050", 110 LSA, 0.600"+ lift), 830 CFM tunerHolley, 180 degree headers, etc.

> For personal reasons, I want to stick to a Cleveland block.

It's always good to sonic test the block. For a big HP effort, do a ½ fill of hardblock. See: http://www.bacomatic.org/~dw/alex379/alex379a.htm

Dan Jones
**Thermostat**
PN for a 195 degree Cleveland specific thermostat is a Ford / Motocraft RT-139. Is is specified for a 70-73 351C,351CJ, & Boss 351.

OEM 351C thermostat: RT-310 Ford P/N: D7PZ-8575-A 180 deg

Source for Robert Shaw 351C correct thermostats – 180 and 192 deg ~$12
Robert Shaw 351C Thermostat # 333

**Temp Sender**
From: SOBill@aol.com
Date: Sun, 30 Nov 2003 19:42:58 EST
Subject: Re: [DeTomaso] water temperature sending unit
To: rcioppa@satx.rr.com
CC: detomaso@realbig.com

Auto Zone after market temp sender #TS 58 is reported to make the 260 deg gauge read spot on

SOBill Taylor

Temp Sender 2
From: JDeRyke@aol.com
Date: Mon, 1 Dec 2003 02:34:40 EST
Subject: Re: [DeTomaso] water temperature sending unit
To: rcioppa@satx.rr.com, detomaso@realbig.com

In a message dated 11/30/03 4:08:34 PM, rcioppa@satx.rr.com writes:

<< anybody know if there is a OEM or cross reference replacement for the water temperature sending unit on a 1972 Pantera? >>

The water temp sending unit for any Pantera is any stock Mustang/Fairlane etc Ford running a 351C. It is for sale from Kragens as a "TS-58" sender for less than $10. This is the stock unit your car came with. It was inaccurate as new, and likely the replacement will be as well. Check the archives for discussions on this. Cheers-J Deryke

----- Original Message ----- 
From: <JDeRyke at aol.com>
To: <Tborcich at msn.com>; <detomaso at realbig.com>
Sent: Thursday, August 10, 2006 11:46 PM
Subject: Re: [DeTomaso] Temp Guage dead

<< Is there anything specific to the Pantera electrical other than making sure the wire to the sending unit is hooked up. I not good with electrical and figure someone may have a few good guesses on where to start. I have run the engine a few times since just to see if it was a poor connection and there is no movement in the gauge. >>

Most likely, its a dead sender, but they're cheap to replace befitting the fact that they don't work very well or very long. From Carquest, the p/n is TS-58 and from Krages the current p/n is TS-25621/Niehoff, at about $7.50. Do not let them give you other parts since there is a similar-looking idiot-light sender that won't work at all with a gauge but is listed as an interchange at some stores. The cheapskates no longer include two 10-32 nuts & a lock-washer with senders (saving 3¢ or so), so transfer the ones from the old sender. Be sure to run two nuts on with the washer in between, then add the wire connector between the
nuts & tighten the nuts against each other. Simply using one nut to hold the wire against the bakelite insulator on the sender will strain the shaft connecting to the innards, and it may go dead, or leak water after a while.

Also note the sender should be in the block below the thermostat, NOT in the expansion tank. Ford put it there as a lo-cost fix to lower the scary temps the gauge showed, but in thousands of other Ford cars with 351-Cs, it was in the block. The block has a pipe plug which can be used to plug the un-needed hole in the tank when you move the sender. The sender wire is long enough to reach either position. Excessive use of Teflon pipe tape sometimes electrically isolates a brand new sender so it doesn't work, or works intermittently.

Also, about 6-8" away from the sender under some electrical tape, is a "calibrating" resistor which may have come loose. It should be a 10 ohm 1/2 watt unit for most cars. Ford used two different value resistors, and some cars read most accurately with no resistor at all. Good luck- J Deryke

**Valves**

**One-Piece Valves**


DeRyke (who runs MIlodon Megaflow one-piece valves, also sold by Speed-Pro as 'powerflow' valves with reduced-diameter stems in the port area.)

**Water Pump**

**Water Pumps**

**Weiand Water Pump Mod – add bypass circuit**

http://pantera.infopop.cc/eve/forums/a/tpc/f/5650045562/m/6880012344?r=6880012344#6880012344

**Interior**

**A/C Dash Vents**

Were originally used in 1969 and 1970 thunderbirds.

**Courtesy Light – Interior Light**

**Alternate Lens**

2002 Cougar trunk/cargo light. The lens needs some cutting with a Dremel to make it fit. Then bend out the tabs to hold the lens/bezel on. $12.00 from Ford (Part # YS2Z-13A756-AA)

http://pantera.infopop.cc/eve/forums/a/tpc/f/6450045562/m/5370068254/p/1

new link:

http://pantera.infopop.cc/eve/forums/a/tpc/f/7890077274/m/5370068254?r=6130039254#6130039254
\textbf{Dash Cover}

Custom Fit Pantera Dash Mat
Jim & Emilia jes@riverdeltawireless.com
\url{http://realbig.com/pipermail/detomaso/2007-June/085885.html}

When we were at the Reno/Tahoe Rally, I asked PCNC president Gary Kono where he got his dash mat, that was embroidered with "Pantera" on it. He said he got it from Kragen Auto Supply a number of years ago, and wasn't sure they still had it. BTW; it was a special order item, not "off the shelf".

While running errands a couple of weeks ago, we saw a Kragen's and said what the heck, lets give it a try. Low and behold, the counter person said "sure we can get one made, do you really have a Pantera?"! I ordered one for our 1974 "flat dash" (no pods) and added the optional embroidering. I just picked it up today, and it fit perfectly, including the 3 holes for the round defroster vents! Total cost was $46.99 plus tax. After looking at the box, I was able to get the manufacturer. Here is the link; \url{http://www.coverkingcarcovers.com/} You can order online and if you put in 1971 it comes up with a different part number than the 1974. I ordered the black poly carpet, because the parts counter guy said it would last longer. Looks like the online price is $36.99, even better!

Happy motoring,
Jim

\textbf{Dash Removal}

Date: Sun, 28 Mar 2004 21:41:08 -0500
From: MikeLDrew@aol.com
To: msm@portata.com, detomaso@realbig.com
Subject: Re: [DeTomaso] Pulling off the dash

In a message dated 3/28/2004 7:40:05 PM Eastern Standard Time, msm@portata.com writes:

> Are there any tricks to pulling off the dash or is it just held in with a few screws? I need to chase some wires up there.

>>>I's held in with a bunch of screws! They are pretty cleverly hidden on your Pre-L dash, too.

There are numerous tabs running right along the base of the windshield; the dash sits on top of those tabs and screws run through the tabs into the underside of the top of the dash.

There are three or four tabs located on either side of the steering column; screws run down into the top of the underside of the dash. I think there is at least one support between the center console and the center of the underside of the dash as well.

I can't remember if it's supported on the passenger side, but it wouldn't surprise me to find additional supports on each end.

The L-model dashboards are held in with far fewer fasteners--they basically have two bolts which go from the ends of the dash, forward into the front door support post.

Mike

Message: 12
From: JDeRyke@aol.com
Date: Mon, 29 Mar 2004 13:43:49 EST
Subject: Re: [DeTomaso] Pulling off the dash  
To: msm@portata.com, detomaso@realbig.com  

I've had my '72 L dash out twice, and its not too difficult. What's tricky is getting it back in place. I did an article in July '99, with photos, in the POCA newsletter. There are 4 screws at the front edge of the dash, and 2 more up under, into brackets welded just below the windshield. You'll have to pull the steering support, the gauge panel for the console and remove the glove box, too. The difficulty starts when you pull the dash away; several little rectangular plastic spacers fall onto the floor. These (of various thicknesses) go between the dash & the welded brackets. From their relative placements on the floor, you'll figure where they ultimately go. Then, the central "seat-belt-warning" light wires are too short to allow the dash to move much. Reach up & disconnect the wires. The same thing happens with the emergency warning flasher switch, and you DON'T want to disconnect this without first making a color-code map, as it has wires of all sizes & colors attached individually. And its been found that the wires in your Pantera may not correspond to any known schematic.... It is possible to rotate the dash and set it on the seatback with the drivers end very close to the switch, thus avoiding flasher disconnect problems. IMHO, the worst problem with an early dash is getting the clip-on illumination bulbs back onto the washer & wiper switches, which must be done with the dash ALMOST in position... hope you have small fingers & lots of patience. Good luck- J DeRyke

Message: 36  
From: "Forest Goodhart" <forestg@worldnet.att.net>  
To: <detomaso@realbig.com>  
Subject: Re: [DeTomaso] Pulling off the dash  
Date: Mon, 29 Mar 2004 18:11:03 -0800

I cut the wires to these two lights and and switches and added plug in connectors and longer wires. Now I can install these lights and switches first then just plug them in after the dash is installed.

Message: 40  
From: "Steve Hawkins" <shawkins6@houston.rr.com>  
To: "Detomaso forum" <detomaso@realbig.com>  
Date: Mon, 29 Mar 2004 21:30:34 -0600  
Subject: [DeTomaso] Dash Removal

It really isn't that difficult. I had my early dash out in about 30 minutes and installed in about 1 1/2 hours. While you have it out check the seam under the windshield where the two sections for the cowl area come together. Mine wasn't sealed at all and allowed water from the cowl area under the windshield wipers to flow thru the seam into the car and onto the floor under the dash.

Steve Hawkins

Firewall Mods

Low Profile firewall bulkhead  
Low profile firewall/bulkhead for 1973 Pantera L  
JDeRyke at aol.com JDeRyke at aol.com  
Fri Nov 4 14:08:39 EST 2005

IMHO, yes- it works for any seat. If you have long-legged passengers in that seat very often, their comfort level will go up markedly. Surprisingly to many, the bulge for the engine is not the problem with preventing the passenger seat from going all the way back against the rear firewall, its the alternator. The alt can be spaced backward towards the head approximately 1" and be driven by the unused inner sheave on the AC compressor, which eliminates its bulge. The seat then goes all the way back, like the drivers seat. There are at least 2 ways to do this, one of which is addressed in the firewall/bulkhead kits being sold. I changed my firewall bulge some 12 yrs ago
and with the seat back against the firewall, my toes cannot quite reach the front firewall. I'm 6'2". Good luck- J DeRyke

**Flasher for Turn Signal & Tail Lights**
From: forestg@att.net [mailto:forestg@att.net]
Sent: Tuesday, August 22, 2006 03:19 PM
To: dave@damardirect.com
Subject: RE: [DeTomaso] Help, Turn signal/taillights/flasher

Tridon-Stant part number EP35 available at Advance Auto Parts, $9.95

**Guages**

**Remove Glass in Gauge Faces**
From: JDeRyke@aol.com
Date: Mon, 8 Dec 2003 14:59:03 EST
Subject: Re: [DeTomaso] Question #1234513 Taking the glass out of a gauge
To: DJFranck@ShellOPUS.com, detomaso@realbig.com

In a message dated 12/5/03 2:28:01 PM, DJFranck@ShellOPUS.com writes:

<< Can you take the glass out of the gauges? Oil press, water temp >>

You can take the glass out of any stock gauge. Tedious but not complicated- a small straight-slot screwdriver is inserted under the bezel edge (bezel= the metal retainer ring holding the glass to the steel body). Pry up, bending the lip up a little. Continue around the gauge about 75%, and maybe repeating until the lip has raised up enough to slip the bezel, glass and o-ring out. The bend does not need to be completely open, nor at 90 degrees, to allow the glass to slip out. Reassemble the same way, being very gentle both in opening the bezel lip and in closing it. They are normally brass, and cannot be bent more than twice without cracking, so you get ONE shot- Good luck.
- J DeRyke

**Increase Brightness**
Message: 58
From: "Kirk Evans"
To: 
Date: Thu, 7 Aug 2003 00:07:07 -0400
boundary="----=_NextPart_000_0046_01C35C77.D6E5BDB0"
Subject: [DeTomaso] Gauge light fix--two new details

All,

Thanks for the response. I was familiar with all of the suggestions except the small halogen bulbs.(always looking for new ideas) The Spacecity Pantera solution was much easier than the 3 bulb solution I did in the 80's. We sleeved the case with tubes similar to stock and installed O.E. bulb inserts. Worked well but was difficult to fab.
Monday, I tried a number of theories and 2 worked well. The first was after pulling the gauge bezel off, I painted the inside of the reflector white (the flat black ring next to the glass) which reflected the light back to the face far better. Second and simpler, I cut the stock light sleeve in half which set the stock bulb deeper in the gauge. There was adequate clearance from the blue plastic tint shield and this made significant difference in visibility. As I set the 5 watt bulb and pressed it deeper in the socket, you could see the light brightness increase over the stock depth. The sleeve cut solution was the simplest and made the most impact. Not earth shattering, just one more possibility. If someone try's this, please let me know what you think.

Kirk Evans --AmeriSport—

**Space City Panteras Guage Light Update**

From: "David Bell" <davidabell@worldnet.att.net>
To: <mikeldrew@aol.com>; <mj@knology.net>; <detomaso@realbig.com>
Sent: Thursday, April 07, 2005 10:02 PM
Subject: RE: [DeTomaso]"Gauge Lighting"

Well, we have a few pictures of adding instrument lights on the Space City Panteras web page but unfortunately no description of the process. But it's really a pretty painless and should only take a couple of hours max, assuming you've obtained the new bulbs and socket assemblies ahead of time (John Taphorn can provide the source for the light assemblies and bulbs).

> Pull the speedo and tach out of the instrument pod by disconnecting all the wire connections on the back, removing the speedo cable, and thenloosening the knurled nuts on each gauge to release them. With the speedo or tach face down on a table top, carefully pry out the tabs the back side of the gauge bezels (they only have a few bends in them before they break) with a small screw driver and remove the bezel and glass. Remove the small screws on the back of the case that hold the instruments to the housings put them somewhere you can find them because they're pretty small) and then lift each instrument clear of it's case.

> Mark and drill two additional holes in the back of each gauge housing (I'm not sure I remember the bit size but it seems like it was 9/16"). The locations of the new holes need to be slightly above the centerline of the gauge. Test fit the new snap-in light socket and then wire the connectors to the existing instrument light wiring. Soldered and shrink wrapped connections are best. Reassemble the gauges, very carefully bending the bezel tabs back down until the bezel and glass are snug on the instrument cases.

> Replace the speedo and tach in the instrument pod, plug everything back in and turn on the lights. You'll be amazed at how much better your instruments are now lit. You might even have to turn the intensity down with that normally useless little dimmer knob. We've done at least 5 or 6 cars this way so far and no one has been disappointed.

> Check here for some pictures

(http://www.spacecitypanteras.com/Technical/2003_Instrument-Lighting_Tech-Session.htm) that may help, especially with the locations for the new bulbs.

> Dave Bell

**Super Bright LED Gauge Lighting**

[http://home.comcast.net/~MyCars/Pantera/pantera.html](http://home.comcast.net/~MyCars/Pantera/pantera.html)
I just received the LEDs for my gauges. These are bulb replacements that are Plug’n Play. They fit directly into the original bulb sockets and slide into the gauge without any problem. They are a little longer than the bulb, but that didn’t cause any problems (for the Temp gauge anyways).

www.SuperBrightLEDs.com

BA9s-G4 Green LED bulb
BA9s Bayonet base bulb with 4 Super Green 3mm LEDs
12 Volt AC or DC operation
$2.98 each

When I replaced the bulbs in my 1972 Pantera, I used WLED-WHP Pure White High Power $ 4.95 (each) from SuperBright LEDs. They are much better than the stock bulbs, but it still isn’t exactly blinding! Also, you have to be careful how you install them because LEDs are polarized and if they are put in backwards they won’t light.

Replacement Bulbs for Gauges
5W vice 3W Dash Bulbs: Sylvania 2825 (w5w) is the equivalent to XENON-A7742 from Ford

Date: Sun, 12 Sep 2004 21:39:14 EDT
From: JJD1010@aol.com
Subject: [DeTomaso] 5 Watt Peanut Gauge Light
To: detomaso@realbig.com

For the archives:
The BMW 5 Watt Peanut Gauge Light part no. is 07119978373
Jeff
6559

From: SOBill@aol.com
Date: Thu, 25 Mar 2004 01:34:44 EST
Subject: Re: [DeTomaso] Dashboard lights upgrade
To: JJD1010@aol.com
CC: detomaso@realbig.com

Database says:
Dash Lights: Replacement for 2W OEM bulbs 5W ‘OSRAM’ bulb p/n is 2825 W2 1x9,5d (made in Germany) VW, BMW, Porsche

Dash Bulbs: XENON-A7742 or E89Z-13B765-A from Ford

5W vice 3W Dash Bulbs: Sylvania 2825 (w5w) is the equivalent to XENON-A7742 from Ford

I have pictures of modified Tach/Speedo to add two additional bulbs. But I can not trace back to who came up with mod. Help, anyone?

source for PL-02 socket needed to add a second socket&bulb (#1018) to Tach/Speedo
>>http://www.ronfrancis.com/F16.asp

source for #1018 bulb needed to add a second socket (#PL-02)&bulb to Tach/Speedo
SOBill Taylor

Osram Bulbs
<< Does anyone have a list of the light bulb part numbers to get the brighter dash and gauge lights? >>

I (and most of Nor-Cal Panteras) use 'Osram' brand bulbs, 5 watt, available from most discount or foreign auto parts stores. I think they fit BMWs, Porsche & others, but by simply taking a stock 2 watt bulb with you, you'll be able to match it to a 5 watt. Above 5 watts, there are heating problems inside the gauge. The 5 watt is much brighter in the speedo than stock but doesn't help the tach as much, for unexplained reasons. Total cost- less than $2 for 2 bulbs.
Good luck- J DeRyke

Hazard Switch
The one that is in my car came from an early '70s BMW 2002. It was exactly the same as the one it replaced. Vendors (Pantera and BMW) charge $98.

Lower priced alternative:
Item No.: 34358
Price: $71.50

Also, Johnny Woods sells replacement switches for $20, although they don't have the same markings but are mechanically identical. You might be able to swap the guts over and be back in the saddle for only $20 or so.

Headliner

Glue for Headliner
Correct Glue: 3M 08090

Thomas Tornblom Thomas.Tornblom at Hax.SE
Fri May 19 14:19:37 EDT 2006
What is the best spray adhesive to use when installing a new headliner?
3M 08090

Don't even try the 08080, doesn't work even in Sweden, been there, done that, regretting it...
Thomas

Headliner replacement
Ian H ihannington286720mi at comcast.net
Tue Nov 8 17:15:26 EST 2005

Tom,
I think the reason why your headliner fell again is that you used the wrong adhesive. Next time try using 3M Super Trim Adhesive, it should hold a lot better. Mine has been holding for 5 years or so with no problems. I used the repo stock looking headliner material from Pantera East.
Ian
----- Original Message -----
Alright Ladies and Gentlemen (and Mad Dog), A few years ago I replaced my headliner with a “foam backed felt/fabric” specifically made for headliner material and glued it up with 3M 777. The foam backing has started to fail and I'm looking for the next generation material.

I do like the sound deadening and protection that a little foam offers to the paper thin metal making up the ceiling/roof.

Any suggestions?

**3M 08090**

Well, I'm happy to report that heat is apparently an issue in Sweden as well :-} The headliner came back down after a while when I used the 08080.

I did manage to get two cans of 08090, at great expense, and the headliner is now securely fastened.

Cheers,
Thomas

---Original Message

>> From: "will demelo" <wdemelo at cogeco.ca>
>> To: "Detomaso" <detomaso at realbig.com>
>> Subject: Fw: [DeTomaso] Headliners
>> Date: Wed, 15 Jan 2003 05:04:45 -0500
>>
>> What type of glue should be used on the headliner. Does 3M make a specific type I should get? I believe heat tolerance would be an issue and it should be compatible with foam.

>I used the only spray glue I could find, 3m 08080. 3m has another glue, 08090, which is specifically for heavy headliners and has better heat resistance than 08080.

>Heat will likely not be a problem in Sweden though :-{

**Ignition Switch**

In a message dated 6/9/03 20:46:16, kgovett@mail.ev1.net writes:

<< Does the Pantera have an electrical unlock of the switch. The white wire does not have power when the switch is turned. Please help. >>

>>>Help is on the way!

The ignition switch tumbler moves inward about 1/8 of an inch when you slide the key in; this is what allows it to then rotate forward and start the car. It is pressed back out by a spring, which over time can become gunked up and fail to muster the necessary 'oomph' to do the job. So, you pull the key out, the tumbler stays in the "in" position, and the next time you put the key in, it won't go in far enough to let you turn it.

The solution is simple as can be-- unbend a paper clip, then put a very small 90-degree bend at the tip to make a hook. Slide it into the ignition switch, rotate 90 degrees, hook the inside lip of the switch with the hook, and pop it out. Then your key should enter and the switch should function normally.

Lubrication with graphite is recommended. WD-40 is great, but it will attract dust and may further contribute to the problem later on.
Let us know if this works!

New ignition switches cost an absolute fortune--$200-400 depending on where you buy them. So it would pay to remove the entire assembly and take it to a locksmith for servicing if required.

Mike

Larry,
I use Remington Dry Lube for everything like that. Goes in at a very thin consistency and coats everything with Teflon. Such a thin layer as not to allow much build up for gunk to stick to. Actually, maybe spray some Remington cleaner in there first so the dry lube has something to stick to. Anyway, I do know that it works great for locks.

Teach Speed
Mike Wilwerding

[DeTomaso] Ignition switch
JDeRyke@aol.com JDeRyke at aol.com
Tue Jun 10 00:59:02 2003

The early Pantera ignition switch has a steering lock that is a 1/2" long x 1/4" thick steel tab that drops into a slot in the steering shaft to lock it up. If there's any side-thrust on the lock tab, it won't retract. Also, there's a light spring inside the switch that helps move the cylinder & engage the tumblers. This spring is always broken after 32 years. The trick is to turn the key a little then pull out a bit using the key. If done correctly, the switch works perfectly with a broken spring. It cannot be done if you're in a hurry or if spectators are watching. If you get into the switch to replace the broken spring, some grease on the lock-lug helps somewhat.

Good luck- J DeRyke

[DeTomaso] Ignition switch
Will Kooiman wkooiman@earthlink.net
Mon Jun 9 21:10:02 2003

That's kinda funny. It's funny 'cause the same thing happened to me.

It helps a lot to squirt some wd-40 in the key hole. It also helps to wiggle the key as it goes in.

The key cylinder moves inward as you put the key in. Once it's in, you can't turn the key. There's a spring inside that keeps the cylinder from moving in. That's the problem. The spring isn't strong enough. Once the cylinder has moved inward, the only thing you can do is to pull the key out and try again. When I was a first timer, I spent a lot of time putting it in and pulling it back out. It was kinda fun. Now I just do the key wiggle, and it slides right in.

This sounds really dirty.

Replacement Switch
From: "Tomas Gunnarsson" <guson@home.se>
To: <ParaPantera@aol.com>, <detomaso@realbig.com>
Subject: SV: [DeTomaso] U.S. vs. Euro ignition switches
Date: Tue, 18 Nov 2003 23:03:38 +0100

Ron,

If your buddy is in Europe he should look for Ford Taunus ignition switches. I use one from a Taunus ca 1980 in my '71 car. It's not identical to the part I replaced but bolted right in. I just cut off the Taunus switch's connector to the harness.
Tomas

Seats
[DeTomaso] seats
JDeRyke at aol.com JDeRyke at aol.com
Sat Oct 8 14:42:18 EDT 2005

Richard, I advise having the stock seats completely redone. I did this 12 yrs ago and we've never regretted it- 8-hr drives in the seat and no backaches! Head clearance to the roof INCREASED after repadding! Be aware that there are three versions of "stock" Pantera seats: '71-72-1/2 seats are three piece. The headrests remove and the backs unbolt from the bases. These are good seats that simply need re-padding and new coverings (leather if you like). This seat can easily be made to recline manually, by slotting the back tabs & loosening the two allen bolts allows the back to set at a different angle. Judy is 5'4" and I'm 6-2" so we routinely change back angle depending on who's driving- takes less than a minute & can be done while moving (by the passenger to the drivers seatback).

#2 ('73-75) looks similar to #1 but the frame is welded into one piece. These crack their frames and are not adjustable- IMHO not worth fixing.

#3 is in late models- '79-up- they are leather, with thick backs & seats and have reclining hardware. If you are much above 5-10", these seats will probably be uncomfortable & decrease headroom. All the So-Cal Pantera vendors can do this repadding/recovering job. Mine were done by Mike Cook in Norco. I think they all use the same l'il Mexican upholsterer & he's great!

Other options: Recaros (subsidiary of Porsche) have very thick bases & backs and again, if you're a big guy, they will cramp you up. Corvette seats are popular (in leather) as are Fiero sats. Some models of stock Fiero are in leather & have stereo speakers built into the headrests. One hi-buck owner has leather Viper seats in his '74. All these will need adaption to fit the Pantera, which really doesn't have a lot of width for some seats. What you may want to do is go to 'Vegas next Spring and sit in a few different types, before making up your mind. Our car will be there & available.... Or call your favorite vendor & find out what they have in for service that you can sit in.

Good luck- J Deryke

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**Insulation & Sound Proofing**

See "Insulation & Sound Proofing" in the Body section.

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**Radio/Stereo**

**Choices**

From: Larry
To: Ron Newman
Sent: Thursday, March 27, 2003 10:03 PM
Subject: raido (should be "Radio")

Hi Ron (277MPH zooom),

Now I may have sent this to you already …as I do email from home and work and sometimes my brain will stay behind.
Radio – the problem with a CD in a Pantera is that it has to play vertically. Most will not work that way...some that do have problems with skipping as it is not up to adsorb shock when it is on its side. This is what I found

- Kenwood Model 6000 CD player worked OK mounted vertically in a Pantera
- Kenwood kdc6001 works OK mounted vertically in a Pantera
- Flip-Front Kenwood CD/Stereo will work in vertical position ala Pantera
- Kenwood KDC 8017 with MP3 capability fits the Pantera and works great in vertical position
- Kenwood KDC-MP8017 from Crutchfield with MP3; fit with a little coaxing and works great
- Alpine CD/Receiver #CDM-7874, Amplifier DC-DC 2/1 Channel: Boston Acoustics RC520 speakers CD works fine in the vertical position - no skips

http://www.custom-autosound.com/ everything in auto sound

http://www.custom-autosound.com/secretaudio.htm hidden, remote, RF controlled stereo system

Audio Extreme (405) 810-1234 OK  Todd Reid, Pantera owner, has car audio store and sells factory direct Dynamat. I think he is on the forum.

http://www.crutchfield.com has great tech support and service but some times the price is high…I look for there sales. >From what your motor sounds like you may not even hear a radio.

You also asked if I wanted to be around when the plates go on. That’s EZ, let me get a mirror to see if there is any breath. hummmm no reflection either… well yes!!

I did also locate 3 Pantera owners in the Mansfield local. We may end up with a big car show someday. I wanted to ask you what the book is that you got with your car?

Larry

Alpine
Alpine CD/Receiver #CDM-7874, Amplifier DC-DC 2/1 Channel: Boston Acoustics RC520 speakers CD works fine in the vertical position no skips

Seat Belt Upgrades
Generic 3-point for Toyota Landcruiser FJ40: http://coolfj40.stores.yahoo.net/seatbelfj19t.html

Generic 3-point for Jeep: http://coolfj40.stores.yahoo.net/seatbeltsjeep.html

Generic 3-point (same as LC belt above): http://cgi.ebay.com/ebaymotors/SEAT-BELT-detomaso-PANTERA-71-89-88-87-86-85-84-83-82_W0QQitemZ330112893476QQihZ014QQcategoryZ50458QQrdZ1QQcmdZViewItem

Landcruiser FJ60 (82-90) front 3-point shoulder harness: http://coolfj40.stores.yahoo.net/seatbelfjfro.html

Switch Re-Chrome
Date: Tue, 06 Apr 2004 16:43:48 -0400
From: Bruce Nardoci <footsball@worldnet.att.net>
To: Detomaso Listserver <detomaso@realbig.com>
Subject: [DeTomaso] Re: Heater Lever Control Plate

In the past I've sent some of my Pantera switches switches off to:

Back In Time
106 Lincoln St.
Morenci, Mi. 49256
517-458-8178

They did an excellent job in re-chroming my switches, for something like $8 each. Worth a try.

Bruce Nardoci (#5749)

Window Motor Upgrade
Pantera Dave gave me the idea on the forum (pantera@pobox.com).

The modification required removing some metal from the regulator, drilling holes to mount the new motor, and redoing the electrical. The mods to the regulator are simple, I did it with a hacksaw and a grinder. I should have taken some pictures. Seems like the motor was from an 1984-1985, or so. I managed to find new siemens units for $49 each. R & L are different. The gear meshes perfectly with the gear in the regulator.

Window Switches
Michael Shortt in Georgia researched switches to find new ones that weren't so overpriced. Reference and wiring diagram here: http://www.tandemproductions.com/PowerWindowSwitchReplacement.htm

He used Bosch switches, which look identical to the window switches the vendors sell for $69. Autohaus Arizona (www.autohausaz.com)
Part # 0343302003
$19.63 each

Miscellaneous

Cleaning Products

Interior – Vinyl
Aerospace Protectant 303
The product I both use and recommend is called "Aerospace Protectant 303". It was formulated for use on boat interiors like seats and such, with that in mind the UV protection is about as good as I could find. Here is an info link http://www.303products.com/main.php.

On a side note, a friend of mine in the detailing business told my two things, Lexol products are ok, but stay away from armor-all. It appears that, over time, the chemical agents in armor-all actually PROMOTE cracking of vinyl.

Ron
**Vegetable Glycerin**  
Try using "VEGETABLE GLYCERIN". It works great on rubber, like windshield moldings, it might also work on vinyl. It lasts a long time and gives the perfect finish, satin, not too shiny. Drugstore or Internet.  
Dick Ruzzin

**Vinylex by Lexol**  
I checked the S2KI Waxers Forum. 303 and Vinylex seem to be the recommended choices. One source they mentioned for Vinylex and 303 products:  

**Electrical Consumption**

<table>
<thead>
<tr>
<th>Component Description</th>
<th>Current (A)</th>
<th>Source</th>
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<tbody>
<tr>
<td>Left High Beam + High Beam Indicator</td>
<td>4.2A</td>
<td>(Steve Bogart, 1971 Pantera)</td>
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<tr>
<td>Right High Beam</td>
<td>4.4A</td>
<td>(Steve Bogart, 1971 Pantera)</td>
</tr>
<tr>
<td>Left Rear + Right Front Parking + Right License Plate + Instrument Lights</td>
<td>3.4A</td>
<td>(Steve Bogart, 1971 Pantera)</td>
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<tr>
<td>Back-Up Lamps</td>
<td>2.8A</td>
<td>(Steve Bogart, 1971 Pantera)</td>
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<tr>
<td>Right Rear + Left Front Parking + Left License Plate + Parking Light Indicator</td>
<td>1.9A</td>
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<tr>
<td>Left Low beam</td>
<td>3.4A</td>
<td>(Steve Bogart, 1971 Pantera)</td>
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<tr>
<td>Right Low Beam</td>
<td>2.4A</td>
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<tr>
<td>Clock</td>
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<td>(Steve Bogart, 1971 Pantera)</td>
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<td>Horn</td>
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<tr>
<td>A/C Fan Main Power</td>
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<td>Hazard Lights</td>
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<td>Wipers</td>
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<tr>
<td>Door Safety Lights</td>
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<td>Courtesy Light in Cockpit</td>
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<td>Lighter</td>
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<td>Concealment Device</td>
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<td>(Steve Bogart, 1971 Pantera)</td>
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<tr>
<td>Heater Blower Low</td>
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<td>(Steve Bogart, 1971 Pantera)</td>
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<tr>
<td>Heater Blower High</td>
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<td>Manual Radiator Fan Relay</td>
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<td>Parking Brake Warning Light</td>
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<td>Turn Signals</td>
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<tr>
<td>Battery Charging Indicator Lamp</td>
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<tr>
<td>Brake Lights</td>
<td>3.1A</td>
<td>(Steve Bogart, 1971 Pantera)</td>
</tr>
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</table>

**Las Vegas Fun Rally Dates**

From:  
MikeLDrew@aol.com
Date:  
Sun, 1 Aug 2004 16:58:20 EDT
To:  
DeTomaso@realbig.com
Subject:  
[DeTomaso] Las Vegas Dates 2005

Hi guys,
Just thought you might want to know that the dates for the 2005 LV Fun Rally have been set. Kent Snyder has informed us that the dates for next year's fabulous annual get-together will be April 27 thru May 1. You might want to note that in your Calendar so you won't schedule some other happening on the same weekend.

Mike

Open Road Racing Schedule

Big Bend ORR
From: "D. E. Adin, Photographer" <adin@frontier.net>
To: <MikeLDrew@aol.com>
Cc: <DeTomaso@realbig.com>
Subject: Re: [DeTomaso] Las Vegas Dates 2005
Date: Sun, 1 Aug 2004 15:30:09 -0600
Big Bend lists:
The 2005 race dates are April 20-23rd.
Some folks will be out of car, money, vacation or something… Or not.
thanks for the info.

VIN Decoder

Date: Sun, 12 Sep 2004 23:12:03 EDT
From: MikeLDrew@aol.com
Subject: [DeTomaso] Fascinating VIN stuff....
To: DeTomaso@realbig.com

Hi guys,

I have just seen something that I'd never think to see--a Pantera with the VIN stamped improperly, apparently from new at the factory. As we all know, the Pantera VIN consists of 11 characters:

TH: De Tomaso Modena
PN: Pantera (or GT for USA-model GTS)
XX: Two-letter identifier for month and year of production
01234: Five-digit build number sequence, starting with 1000 (or 1001?)

Anyway, while in England I saw a very early RHD Euro pushbutton, whose VIN is very clearly stamped THPNLK1228. It should be THPNLK01228, but the zero is missing! The L and the K are spaced rather widely, filling the area which would ordinarily have LK0.

How about that?

Mike

Suspension

Axle Shafts

http://www.panterasbywilkinson.com/webpages/catalog/extras/ill02_07.html?prod_id=01200b
RH axle shaft stamped D and LH axle shaft stamped S.
FWIW, sinistra (similar to sinister) is the Italian word for left, thus the "S," and destra is the Italian word for right, thus the "D."

The ISO automotive color code uses Red or Red tracer for wiring associated with left lamps and lamp controls and White or White tracer wiring for right lamps and lamp controls.

Ah, political fervor. I guess it would be easier to remember that way.

Source:
The statement is the parts list are: http://realbig.com/pipermail/detomaso/2008-May/096066.html

Rear Axle Shaft RH Stamped "D"
Rear Axle Shaft LH Stamped "L"

I take this to mean the right rear axle shaft, whichever threads it has, is stamped "D" and the left rear axle shaft, whichever threads it has, is stamped "S."

One hopes the manufacturer of the axle shafts has put the correct threads on the shafts.

Interesting that the GT5S has different part numbers for the left and right axle shafts but no identifying marks are listed.

**Ball Joint Dust Boots**


Suitable replacements are made by Energy Suspension. They are sturdier to the originals and have held up well for years on my car. The part numbers for the larger ball joints (upper rear & upper and lower front) are 9-13119. I have found that if I trim ~ 1/8" around the base I get a better fit. For the smaller tie rod boots, use part #9-13101. The 1/8th" trim applies here also.

I recently ordered additional supplies and replaced the dust boots on a current restoration project. I found it easiest to contact Energy Suspension via phone from a number on their website and inquire about the location of local dealers. When I called these dealers to determine inventory, they had inadequate supplies; but, were willing to have them sent to my home from their warehouse saving me considerable hassle. Two come in a package that sells for under $4. Terrific deal!

I'll get on my soap-box for a moment and encourage everyone with torn dust boots to replace them. With the suspension completely apart on my project GT5, I took the time to carefully inspect the lubrication of the tie rods; even those with mildly cracked dust boots. I was taken aback as to how poor the lubrication held up in this environment. The lubrication was dry and gritty. After cleaning thoroughly with brake cleaner, I zerked the ball joints and applied fresh grease. When drilling for the zerk, I found the cavities above the balls to be void of lubrication.

My point it that the ball joints are expensive and the effort to replace the dustboot and zerk the joint for new grease was minimal. I would recommend the exercise to others.

**Ball Joints – zerk fitting**

http://pantera.infopop.cc/eve/forums/a/tpc/f/1510042044/m/6240076554

NAPA part number for a long zerk fitting that fit the recessed ball joint.

NAPA 715-1082
**Bearings – rear axle**

http://pantera.infopop.cc/eve/forums/a/tpc/f/1510042044/m/8620042354

Use an extra wide bearing on the inside. The original inner bearing is 18mm wide, I used a double roller that is 30.2mm wide. This gives it more purchase on the shaft. You will have to get the spacer machined down to make room for it. This will give you an opportunity to clean up the mating surfaces of the spacer. You will find a burr where it has been chattering around next to the worn out bearing. Measure your axles for damage, they often need replacing after bearing failure.

The wider inner bearing is part no 3208B-2RSRTNG
The outer bearing is part no 6308DDU
Johnny

**Brake Booster & Master Cylinder**

**Booster Upgrade**

[DeTomaso] Brake Power Booster
David Bell davidabell at worldnet.att.net
Tue Jan 3 19:25:23 EST 2006

A few details on the Ford booster/mc in case anyone's interested: the master cylinder is from an '86 Mustang SVO, is aluminum (no peeling paint or rust), and has output fittings positioned on the inboard side (towards the center of the car). The mc piston is either 1-1/8" or 1-1/4" diameter - I forget. The booster is from an '88 Lincoln Continental. The two pieces fit together perfectly and the mc-to-booster rod between the two is adjustable. No clearance issues at all. The cost as I remember was about $200 total at O'Reilly's and both were on-the-shelf new stock.

The only installation difficulty is that the Lincoln booster bolts on with four studs vs three for a stock Pantera booster. Four new holes will have to be drilled through the pedal box and the old holes filled (I used JB weld then filed it smooth). That part was a little un-nerving, but with a little care and multiple measurements, it worked out fine. I also removed the factory mc hard lines and installed braided stainless lines from the master cylinder to the t-junction front and rear. This setup allows me to fine tune the adjustment rod (which requires pulling the mc away from the booster) without opening and then rebleeding the hydraulic lines.

-Dave Bell
From: "John Taphorn"  
To: "Detomaso forum"  
Date: Wed, 6 Aug 2003 21:47:54 -0500  
Subject: [DeTomaso] Re: [SCPOCA] Master cylinder replacement

David and I used a Stock Ford booster from an 80s Lincoln Continental and a Mustang SVO (87?) Master Cylinder with 1 1/8" bore. David did the conversion after I did and may better recall the parts. It is inexpensive and excellent quality. The SVO Master is all aluminum. The caveat is that the Booster connects with 3 bolts thru the aluminum plate on the footwall verses the standard 4. Thus, you need to redrill for the booster. Otherwise, it is very clean with no adapters that can cause hood clearance issues. The larger 1 1/8th bore makes a firmer / harder pedal. It does make a difference and you may not prefer it. However, you will also be prepared for when you eventually upgrade your calipers.

-JT

----- Original Message -----  
From: Steve Hawkins  
To: Detomaso forum ; SCPOCA@yahoogroups.com  
Sent: Wednesday, August 06, 2003 9:15 PM  
Subject: [SCPOCA] Master cylinder replacement

Which venders make the best drop in master cylinder replacement? Does a larger bore master with stock calipers really make any difference?

-Steve Hawkins

Master Cylinder
Date: Sat, 5 Mar 2005 13:36:13 -0800  
From: "Mark McWhinney" <msm@portata.com>  
Subject: RE: [DeTomaso] Brakes  
To: <ADRMPRINCE@aol.com>, <detomaso@realbig.com>

You can get a new master for $100 and be done with it. The late 60s / early 70s Corvette master has two big bowls and just bolts right on to the stock booster.

SVO Master Cylinder
http://pantera.infopop.cc/eve/forums/a/tpc/f/1510042044/m/4450072864/p/4  
Go into any Pep boys or similar and ask for a master cylinder for a Ford Mustang SVO 4 cylinder yrs 1984-86. They only make them in steel not aluminum like the originals. I had one in my car.

Dual Master Cylinder
#243 comes with the Pantera bolt pattern to mount directly to the stock booster.

Brake Calipers

Speed Bleeders
Speed bleeder screws to fit stock Pantera brakes :P/N#SB8125LL -size= 8.mm x 1.25

L=short LL= med LLL=long

SOBill
**Corvette Calipers**

Message: 15  
From: MikeLDrew@aol.com  
Date: Thu, 4 Mar 2004 13:31:52 EST  
Subject: Re: [DeTomaso] brake upgrade  
To: garth_rodericks@yahoo.com, MikeLDrew@aol.com  
CC: detomaso@realbig.com

In a message dated 3/4/04 09:48:50, garth_rodericks@yahoo.com writes:

<< Are you referring to the Super Stopper System from Hall? Is it composed of Corvette calipers? Rotors? What year vette are they from for front and rear on a Pantera? Any info you can provide would help me as I'm trying to learn more about Pantera brake upgrades for future addition to the Banzai Runner.

>>>They use C-4 calipers and rotors (well, I think the rotors are Corvette-based, but I'm not sure about that.) The rotors are two-piston sliding calipers (both pistons on the same side), in aluminum, made by PBR of Australia. These calipers were standard issue on Corvettes, and later on the Camaro/Firebird, as well as the Mustang Cobra (some years).

They offer the benefit of lighter weight, as well as a profound assortment of off-the-shelf pads. They don't fit absolutely perfectly (that is, a tiny amount of the rotor surface area is left unswept) but overall they seem to be an extremely effective moderate brake upgrade. They are probably suitable for light to moderate track use, again, depending on the pad compound chosen. They have the advantage of being fully engineered for street use, to include a functioning parking brake.

>Also, I'm interested in replacing my stock solid rotors with vented rotors in the not too distant future. Do you know what application/vehicle has vented rotors that are a direct replacement for the Pantera's stock rotors, and can be used with the stock calipers and 15" wheels? >>

>>>Well, Larry Stock has a fairly spendy but extremely nice pair of re-drilled Porsche 911 rotors, which are both vented and cross-drilled. I just installed a pair of these on a Pantera a few weeks ago and I was extremely impressed. They are extremely expensive IMHO at $500 for the pair. I suppose there's a lot of labor involved in adapting them to the Pantera.

I have heard from Michael Frazier that there are some 60's Mustang rotors that are a direct bolt-on--they are vented but not drilled. Those rotors are more like $50-100 each depending on how fancy-schmancy you get....

Mike

SEE CORVETTE ROTORS under BRAKE ROTORS

**Porsche 993 & 996 Calipers**

Message: 36  
From: "Chris Difani"  
To: "Ken Green"  
Subject: Re: [DeTomaso] Brake Upgrade Kit from MOVIT  
Date: Thu, 25 Sep 2003 23:10:33 -0700

Garth and All:

As Ken said, I also like pain. I spent I don't even want to think how many hours getting the caliper mounts "just right" for the Brembo's to the Pantera. I have 13" by 1.25" Coleman vented rotors, Wilwood hats, and the Brembo (ala Porsche) calipers. The calipers were from a Porsche recycler in Sun City, at $125 each,
the hats were $30 each, and the rotors were about $100 each. So I wound up at about $260 per corner. These fit inside my 17" front, and 18" rear Coddington Campy clone wheels, and the fronts, being 17", were a snug fit. I certainly couldn't of gone with a bigger rotor than the 13" Coleman's.

With the larger rotors, and the four piston calipers, I was able to go without a power booster for the brakes, which really cleaned up the front trunk area. But, as Ken says, the hydraulics have to be calculated correctly. Right out to the nearest millimeter in cross section on the pistons. Not a simple task. The master cylinder is a dual system, so I still have the dual circuit system, with a balance bar between the two cylinders.

For a parking brake, I've used a manual caliper from Airheart. Very similar to what the Kart guys use. I also had to fabricate a new mounting system for these e-brake calipers. Since I removed the OEM brake system completely, with the bigger rotors, I couldn't keep the OEM calipers, even if only for the OEM e-brake. But I do use the OEM e-brake cable system. Just a bunch of time with a pad of paper, and a large pile of aluminum blocks, leading to two small aluminum mounting blocks, and a single large pile of aluminum chips.

And that's the story of my adventure in Brembo brakes. I'd probably do it again, if I had the choice, but it wasn't easy. Fun, but not easy. And I also have to give a lot of credit to Ken. He was the one that got me into the project. And I couldn't of found the Brembo calipers without him.

And I still talk to him......

Chris

Chris Difani
'73 L #5829 "LITNNG"
Sacramento, CA
Email: cdifani@pacbell.net

----- Original Message ----- 
From: "Ken Green"
To: ;
Sent: Thursday, September 25, 2003 12:34 PM
Subject: Re: [DeTomaso] Brake Upgrade Kit from MOVIT
>
> Jack, Garth,
>
> I started a brake project, but am temporarily distracted by the need to be gainfully employed. I am specifically adapting Porsche 993 calipers. The front calipers are BIG Bremsko calipers, much like the $7K Bremsko kits come with. I've learned a couple things through trial and ERROR that may help.
>
> First, a lot of the Bremsko calipers look the same, but are made for different rotor diameters. I think the 993s (non-turbo) had 12 inch rotors, but I also think the "BIG RED" Porsche calipers may be made for bigger rotors.
>
> Second, the radial extent of the pads can vary. For example, I bought Wilwood hats and 12.19 rotors. I had (notice past tense) 16 inch front wheels, and it looked like the brakes would fit inside them, but when I looked closer, the rotors were not filling the calipers even when the caliper rested on the hat. So, I bought a pair of Coleman 12 11/16 rotors. These appear to match the calipers nicely, although I will have to shave maybe 1/8 inch or less at the inside leading and trailing ends of the caliper because they were made for 12 inch rotors, not 12 11/16, and the rotors rub in a couple places before they cover the pads. I don't think this will be a problem, but the Bremsko calipers with the 12 11/16 rotors do not fit in 16 inch wheels.
>
> Basically, this is a bit of a puzzle, and it is both fun and educational. These parts have to fit very well
together, and issues definitely come up that were hard to anticipate. My conclusion is that the 993 or 996
calipers should be a great choice for a Pantera, but this is not a weekend project.

Chris Difani has adapted a set of 993 calipers to his car (Chris used the big front calipers on the rear also)
and the pictures he sent me look great. I am using the 993 set, which includes smaller rear calipers,
because the 993 is also a 40/60 weight distribution similar weight car, and I think Porsche probably
picked the right parts. However, using the big calipers on the rear as Chris did, definitely creates a great
look. Chris is also using a dual master cylinder without a vacuum boost, and it will be interesting to hear
how that works in the long run. Others have gone with similar systems and no boost, and been happy, but
I'd think you have to get the right master cylinders to optimize pedal travel versus force, and have
everything else working just right.

> It is clearly easier to go with a Wilwood Superlight system either from a vendor, or by doing it yourself if
you choose, and the reports are that this combination fits inside 15 inch wheels. As far as I know,
everyone who has used the Wilwood components is happy with them, I guess I just like pain.

> Ken

> JDeRyke@aol.com wrote:
> Garth, I checked the website you listed and while I didn't inquire as to a price, the Pantera shown
appeared to have large aftermarket wheels & low-profile tires mounted. So first, look up the price of the
calipers, lines and rotors, then the price of wheels & tires to clear the big brakes. That's why we say that a
'brake upgrade' can run $4000 or more if you're not clear as to what you need. A friend with a GR-5
conversion found his OEM Campy GT5-S 15" wheels & tires wouldn't clear big calipers, nor his brand
new 16" fronts either (the 17" > rears did- small help). Good luck- J DeRyke

Date: Sun, 20 Feb 2005 11:19:25 -0800 (PST)
From: Ken Green <kenn_green@yahoo.com>
Subject: RE: [DeTomaso] Rotors done now Calipers
To: Mark McWhinney <msm@portata.com>, 'Larry'
      <Larry@ohiotimecorp.com>, MikeLDrew@aol.com, Detomaso@realbig.com

The Porsche calipers you probably should consider are 993 and 996 calipers. The 993 are 2 piece and
the 996 are one piece (they call it monoblock) The 993 front are radial mount, both front and rear are
radial mount on the 996. The front (non-turbo) 993 calipers use about a 12.5 dia 1.25 thick rotor, and
require 17 inch wheels. The rear fit a 0.81 thick, maybe 12.25 dia rotor. I'd guess the 996 is a little more
desirable (and more expensive) because they are monoblock, and because both are radial mount, and
thus easier to adapt (the mounts have 2 degrees from freedom for shims.)

The 993 and 996 have about the same weight distribution as a Pantera (40/60) and a a little heavier.
Assuming 1 G braking, and a weight shift to about 60/40, the areas of the fronts versus pistons are about
balanced. They should work great, and if I ever get off my butt and get my car back together I'll find out.

I think, you can use Coleman front rotors with Wilwood hats, and Wilwood rear rotors with the same hats.
I've mocked up the rotors on the hats, and it looks good. One warning, the 1.25 thick Wilwood rotors that
are generally used with Superlites DO NOT have enough radial extent to fill the 993/996 calipers. AND, I
think the brakes off 993 and 996 turbos (BIG REDS?) have greater diameter rotors.

The Wilwood hats that fit a Pantera have a 7.62 by 8 bolt rotor interface, so you can only use a matching
rotor with them. It turned out that Coleman makes a 12 11/16 by 1.25 rotor with this pattern (I think the
matching Wilwood rotors are 12.19 dia). The extra diameter of the Coleman rotor fills the caliper. There
are a lot of independent issues that you will run into trying to piece together a brake system, and they
aren't all obvious until you realize that something does not fit. I think it is all do-able, but you have to like
projects for it to make sense to roll your own.
Ken

**Porsche 928 S-4 Brembo Calipers**
Several years ago, after projecting ahead with some dramatic engine changes, the brake situation became more imperative. Consequently, the entire braking system was removed. New Wilwood curved-vane rotors, 1 ¼" thick and 12 ¾ in diameter, aluminum hats and Brembo four-piston calipers were fitted at each corner. The brembo calipers are the same units that were original equipment on the front of the Porsche 928 S-4. The larger Porsche front calipers were used on all four corners of the Pantera. I fabricated the adapter plates to mount up the calipers to the front and rear. The hats were purchased from Wildwood but modified to Pantera bolt pattern and mounted in the outer face of the spindle flange. The Wilwood rotors bolt directly to those hats and because of the aforementioned mounting system, rotor maintenance and replacement does not require disassembly of the spindle shafts. A NASCAR dual-diaphragm brake booster coupled to a dual-acting master cylinder and an adjustable proportioning valve completed the system. Now we've got serious braking, with deceleration rates of one G or better.

**Volvo S60R Calipers**
http://pantera.infopop.cc/eve/forums/a/tpc/f/9350045562/m/1000095264?r=1030007264#1030007264
Performance brakes with Movit rotors and Brembo calipers from Volvo S60R

**Volvo 240 Calipers**
This may not be a new idea to you folks, but if you like a cheap way to replace you front brake capilers you can use Girling from a Volvo 240-91 /-92 Vented, ABS four piston capilers (same piston size as the stock) Just bolt on with just a new brake line. There are a lot of Volvo racing pads available. Per #1371
http://pantera.infopop.cc/eve/forums/a/tpc/f/1510042044/m/4040076674/r/#

**PST Calipers**
From: PersoCaddy@aol.com
Date: Fri, 19 Mar 2004 14:17:37 EST
To: detomaso@realbig.com
Subject: [DeTomaso] Brake question

Hi Boys and Girls, just got my car craft mag. on page 92 there are Perf Suspension Tech Alu-Max aluminum Caliper Upgrade Kits. These are list $429 are replacement for 70 -90 GM front disc brakes. They are 38 mm two piston calipers includes bigger pads and all hardware, fit 15 inch wheels. Now in the past we have put corvette brakes on our cars. What I am asking is it looks like with just a caliper hanging adapter we could put these on our cars as a cheaper first step to upgrade our brakes while we save up for the full four corner Brembos. Their web site is www.p-s-t.com.
Pat Orlando 1972 Yellow Pantera S/N 4011.

**Stainless Steel Brakes Calipers**
http://www.stainlesssteelbrakes.com/products/classic/

**Brake Shuttle Valve**
Early Volvos (12x, 13x, 14x, 164) with dual circuit brakes had what appears to be an identical valve. (Source: http://realbig.com/pipermail/detomaso/2007-April/083810.html)
**Brake Fluid**

**Brake Fluid**
DOT 5.1 Glycol Boiling Points:  Dry 518 deg F  3% Water 375 deg F  
List recommends Ford Motorcraft Heavy Duty – Severe Service

Date: Thu, 14 Apr 2005 20:49:59 -0500  
From: "B. Seib" <oldwheel@mts.net>  
Subject: RE: [DeTomaso] Brake FLuid

My advice is don't use the silicone fluid. It's not compatible with the rubber in our brake systems.

I am including below an old post from this forum that I thought was the advice I would use when buying my brake fluid:

Date: Mon, 22 Apr 2002 09:52:01 -0700 (PDT)  
From: j g <notstock@yahoo.com>  
Subject: Re: [DeTomaso] Dot 3 Verses Dot 4

The new generation of dot 4 fluids are far superior in moisture absorbton as well as boiling point. In addition some dot 4 fluids do not absrore moistureeven over multiple year of use... Castrol dot 4 and Porsche/mercedes reccomended ATE blue and gold fluids are unbelievable over 536 dry boilingand over 392 wet with less than 1% moisture absorption over a standard government test interval. They are 20 bucks a liter for ATe blue and about14-16 for castrol so too damn rich for my budget and tear down intervals. The over the shelf valvoline synpower (gold can) is twice as good moisture absorption over your normal dot 3 fluids and is intended as a DIRECT replacement upgrade to dot 3 fluids every where even in clutch systems. Valvoline synpower (gold can) has 502 dry 343 wet boiling points.

Standard dot 3 stuff is only 401 degrees dry and 284 degrees wet by specification.

**Brake Kits**

**Movit Brake Upgrade Kit**
http://www.movit.de/rahmen/tomaso.htm  
It looks like a re-branded Brembo brake kit.

**Brake Pads**

**Porterfield Pads**
www.porterfieldbrakes.com  1-949-549-4470  
Porterfield Brake Pads AP63 Front ~ $139 GD535 Rear ~$79  
Types:R4 (race);R4S (street);R4E (enduro)

From:  "Sam & Jayne White" <spwjr@earthlink.net>  
To: Catalyst007@earthlink.net, PersoCaddy@aol.com, detomaso@realbig.com  
Subject: Re: [DeTomaso] Brake Pads, Brake Pads.  
Date:  Tue, 1 Jun 2004 21:56:13 -0400

I ordered a set of these for my car and they work great. When ordering the pads, request that they weld the locking tab on the back of the inboard rear pads; they'll do this at no charge! (not sure why they're missing in the first place)
Brake Rotors

Corvette Rotors
It is a front rotor used on the rear of the Pantera. It requires re-drilling the rotor lug bolt pattern and boring the center to a larger diameter. The machine work cost me $50.00 but the machinist said he could have done additional rotors for about $5.00 each once he had it set up. I only had one as it was an experiment and I wasn't sure it would work. I also had to increase the shim thickness between the caliper and the upright to get it centered. Not a direct bolt in.

Forest

---Original Message---
From: "Forest Goodhart" <forestg@worldnet.att.net>
To: <detomaso@realbig.com>
Subject: Re: [DeTomaso] brake upgrade
Date: Thu, 4 Mar 2004 17:17:10 -0800

Joe Perrucci's 74 came stock with vented rotors. We took them off when he installed his wilwoods. I have a front rotor from an 84 vette redrilled and bored to fit the rear on one side of my car. It is vented but not drilled.

The offset is slightly different and required an additional spacer at the caliper. Cost of rotor was under $50 and machining was about the same; however, machine shop said they could have done a whole set for almost the same price as most of the cost is in the setup.

Mustang Rotors

Front Vented Rotors
They are available at O'Reilly Auto Parts. Part # WAG BD60209 Hub and Rotor $96.99 each with a lifetime warranty.

They fit perfectly with the caliper and bearings; however, the original dust cap was not a perfect fit. I cut the rotor on my neighbors lathe to fit the dust cap. Although, you may find it easier to simply buy the right dust cap while you are there.

This mod is as cheap as they come for quality vented rotors that if you ever warp or gouge are free to replace.

Heck, I even put them on the rear, although that was a bigger exercise.

JT

Mustang Rotor Swap References
Mike Thomas wrote an article doing the rotor swap for POCA (I think) and here's the parts list... he says they fit great? The ones on the Stainless Steel Brakes Corp (SSBC) site that Mike used are slotted and vented... not drilled.

Below is the link:
http://www.ssbrakes.com/products/detail/3914/?make=Ford...ar=(1967%20-%2019967)
http://www.ssbrakes.com

SSBC Rotors: (1) S2300L (Left) and (1) S2300R (Right) $85.00 per rotor
SSBC Dust Caps: (2) to fit the S2300
Bearings: (2) NAPA BR2
(2) NAPA BR6
Seals: (2) NAPA 17387
Grease: for disc brakes (higher temp resistance)
Bearing packing tool
New cotter pins (2)
(Source: http://pantera.infopop.cc/eve/forums/a/tpc/f/1510042044/m/715006294?r=5420090394#5420090394)

ParaPantera Ron installed the Mustang rotors on his Pantera. I'm sure he could tell you what specific problems you might run into, if any (ParaPantera@aol.com).

On 2/19/05 he posted the following to the mail list:
"The swap was straight forward; they even use the same bearings and seals. The only two catches are you have to slightly modify a pair of $10 dust caps from the "Help" rack located in about any auto parts store, and then there is the studs. The shank on the Mustang stud is ever so slightly larger than the Pantera shank, so if you put the Pantera stud in the Mustang hole, it would not "bite" enough to keep from spinning while tightening the lug nuts."

Rotor only: http://members.aol.com/parapantera/newrotor.jpg
Rotor and caliper: http://members.aol.com/parapantera/newrotorcal.jpg

And Mike Frazier posted about the Mustang Rotors to the mail list back in 2004. I'm sure you can find his posts if you search the archives.

And John Taphorn mounted the Mustang rotors to the rear of his GT5. Read about it in this post: http://realbig.com/pipermail/detomaso/2007-July/086818.html

Lastly, someone (I forgot who) posted that Powerslot Cryo Rotors (P/N's 8153 PSL & 8153 PSR) should be a direct front rotor bolt on.

Message: 22
From: "michael frazier" <red3644@hotmail.com>
To: LFinch@ibew100.org, detomaso@realbig.com
Subject: Re: [DeTomaso] Vented rotors with Wilwood calipers - options?
Date: Fri, 13 Jun 2003 17:22:15 -0500

Hi,
I've mentioned this before but nobody seemed interested at the time. 65-69 Mustang rotors AND hubs are a drop in on front. You can separate the rotors if you want, or if you use a later 1 pc. unit, the hub and bearings are fine. The rotor looks like it's made for the rear also with exception of the diameter. I think it's less than 1/4" smaller, but don't recall right now. The center hole indexes just right on the rear axle. There are enough old rotors around for you to check it out for yourself before you buy new discs. I experimented with this a few years ago but already had Wilwood rotors on the car. Hope this helps.
Michael

> -----Original Message-----
> From: JDeRyke@aol.com [mailto:JDeRyke@aol.com]
> Sent: Friday, June 13, 2003 3:30 PM
> To: LFinch@ibew100.org; detomaso@realbig.com
> Subject: Re: [DeTomaso] Vented rotors with Wilwood calipers - options?
> >
> > In a message dated 6/13/03 1:23:03 PM, LFinch@ibew100.org writes:
> I am still running the stock, solid rotors on 2511, with four-piston Wilwood Superlite II calipers. Quella conversion. At the 2003 Vegas track event I experienced caliper fluid boil-out at the end of my longest session. Those solid rotors just hold too much heat. >>

> Stock solid rotors are 0.810 thick. Vented 0.810-thick rotors will run on the street and for light track use at a lower temperature, but heavy track use absolutely requires 1.25" thick rotors for more thermal mass with the vents.

Overused 0.810" vented rotors will warp. Note that Wilwood sells spacer kits for some Dynalite calipers that allows changing to thicker rotors, but not for all. Stock street Pantera vented rotors were only put on ten (10) cars due to DeTomaso supply problems, and the GT/GR-4 cars used 1.25" thick vented rotors with 3-piston Girling calipers, as did the Gr-3s and the later wide-bodied Panteras. Note that 100% of all Corvettes & Z-28s also use 1.25-thick rotors, as well as many light & medium trucks. My Porsche-conversion 0.810" vented rotors haven't warped in 10 yrs, but I don't play track or SS games with the Pantera anymore, either.... I suspect you're going to have to use restraint in your go-fast activities, or sell the calipers & brackets you now have & buy bigger-everything. But at least they'll look good with your present big wheels & tires!  
Good luck- J DeRyke

**Mustang Rotor Swap – Additional Detail from ParaPantera Ron**


I did this swap back in '04 and guided several others through the process. As previously mentioned in a reply, the only difference is you have to switch from metric to inch lug nuts. Try as I might, the studs can not be swapped because the metric shank/shoulder is slightly smaller than the inch ones, hence when you go to tighten the nuts the studs just spin inside the rotor.

Second, you're stuck with one piece rotor choices only. The DOT outlawed two piece factory rotor replacement years ago. Your multi-piece options are limited to Wilwood type hat/rotor types with Pantera Performance aluminum hub carriers which get spendy and are not available in the stock diameter. I highly recommend you use the SSBC brand rotors, I compared them side-by-side with the cheaper made in China units offered from places like Mustang Depot and the SSBC units are a better quality casting by far!  

One last major detail not previously mentioned about the front rotors. When you order, ask for '66 Mustang rotors ONLY. While you will probably get the right rotor when asking for the 65-67 series, there is opportunity for error. In '65, the correct rotor came on the V-8 cars only; the 6 cylinder cars were different and will not fit. In '67, late in the model year production run they switched to the later '68-'69 style spindle which has different bearing spacing and thus they will not fit either, so stay with '66 and your safe.

Bearings and seals: Nothing special here, in fact the ford/aftermarket part numbers are exactly the same as the Pantera's, you probably have some laying around.

As for the rears, if you can find a good set of origional two piece rotors from a classic ford parts vendor, discard the carrier and you have a rotor that fits the rear.

A picture of my install can be seen here
[http://members.aol.com/parapantera/newrotorcal.jpg](http://members.aol.com/parapantera/newrotorcal.jpg)

Hope this helps,
Ron Hyde
Mustang Rotors
From: "michael frazier" <red3644@hotmail.com>
To: detomaso@realbig.com
Subject: Re: [DeTomaso] brake upgrade
Date: Mon, 08 Mar 2004 11:37:35 -0600

Michael Frazier here,

Mustang rotors are a simple swap on the front. 65 thru 69 should be essentially the same. Hubs and rotor hats changed appearance a couple of times but I think dimensions stayed the same as most replacement parts list the same number for those applications. Ford went to a larger inner bearing in 70, which matched the 69 Boss302 rotors. I trial fitted 66 parts for what its worth.

The rotors diameter and offset are perfect for the front. The rotors would be a smaller diameter that the rear Pantera parts, but it's not a lot. 1/8th inch or so if I remember correctly. I think you may have a small amount of brake pad over the swept area. Anyway, it's an option for vented rotors if you want them. Mustang vendors have all sorts of special parts for those applications so you can have slotted or drilled parts also. I'd avoid cross drilled parts though. Hope that helps.

Michael

Mustang Rotor Notes
From: RLG1973DT@cs.com
Date: Sun, 18 Apr 2004 15:52:36 EDT
Subject: Re: [DeTomaso] Brake Rotors........again.
To: ParaPantera@aol.com
CC: detomaso@realbig.com

There are a couple of issues with trying the direct swap. First, the Mustang rotors have 1/2 inch studs whereas your original wheels are built for 12 mm studs. Larger studs will slide through the wheel holes, but the way the nuts seat may not be as good. And you are out of luck if you want to keep your DeTomaso emblem lug nuts.

Second is that the hub of the Mustang rotors may not fit into the center opening of the original Campy wheels. Depending on rotor vendor, the outer bearing hub is slightly larger than the DeTomaso original part. I guess one could have it machined down 0.100" or thereabouts.

I can't confirm whether the bearings are same size as original, and whether the distance between the inner/outer bearings is the same as original.

Only the 1965-67 Mustang rotors are even close. 1968 and up use a thicker rotor.

Ron

From: "Tomas Gunnarsson" <guson@home.se>
To: <RLG1973DT@cs.com>, <ParaPantera@aol.com>
Cc: <detomaso@realbig.com>
Subject: SV: [DeTomaso] Brake Rotors........again.
Date: Mon, 19 Apr 2004 22:29:53 +0200

You'll want to keep the stock studs as they have to fit into the Pantera hubs. This will require 17 mm holes through the rotor as the studs are that much thicker closer to their head. The Campy wheels will fit as they fit onto the Pantera hub, not the rotor. The rotor is installed from the back side of the hub and never contacts the wheel side. I have stock rotors that I can take measurements off if anyone has a Mustang rotor around for comparison.
In a message dated 2/18/05 21:50:45, Pantdino@aol.com writes:

<< Whoa--So the Pantera and early Mustang share the same bolt pattern diameter? Guess I'm the only one on the forum that didn't know that. >>

>>>I think you're right. :>)

The Pantera uses the standard Ford bolt pattern, but it is equipped with metric studs (12mm). If you put Mustang rotors on the car, you should probably knock the studs out of the old rotor and install them on the new one, if possible.

Mike

Mustang Rotor Swap

Date: Sat, 19 Feb 2005 01:23:49 EST
From: ParaPantera@aol.com
Subject: Re: [DeTomaso] Replacement brake rotors
To: MikeLDrew@aol.com, Pantdino@aol.com, Fresnofinches@aol.com
Cc: detomaso@realbig.com

The swap was straightforward; they even use the same bearings and seals. The only two catches are you have to slightly modify a pair of $10 dust caps from the "Help" rack located in about any auto parts store, and then there is the studs. The shank on the Mustang stud is ever so slightly larger than the Pantera shank, so if you put the Pantera stud in the Mustang hole, it would not "bite" enough to keep from spinning while tightening the lug nuts. Before I bought the rotors I did purchase a junk 66 Mustang rotor to verify all of the dimensions, bearing spacing, bearing location to rotor center, etc. I even bought a tap and resized one of the Mustang studs to Pantera metric, and they cleaned up just fine! However, people who know rotors and studs very well told me this is a no-no since this can upset the correct radius at the stud base, causing the stud to shear off. I thought it was a better idea to just by inch lug nuts (that fit just fine) than to test the "Lets see if the wheels come off at speed" theory. I have posted two pictures, one with the rotor on only (http://members.aol.com/parapantera/newrotor.jpg), and one after mounting the caliper (http://members.aol.com/parapantera/newrotorcal.jpg).

Ron #2492

SSBC Mustang Rotor Swap for Pantera

http://pantera.infopop.cc/eve/forums/a/tpc/f/1510042044/m/7150006294?r=5420090394#5420090394
Mike Thomas just wrote an article doing the rotor swap for (I believe the most recent) POCA magazine and here's the parts list...he says they fit great? Maybe you used a different part? Sorry the ones on SSBC site that Mike used are slotted and vented...not drilled.
Below is the link:
http://www.ssbbrakes.com/products/detail/3914/?make=Ford...ar=(1967%20-%201967)
http://www.ssbbrakes.com

SSBC Rotors: (1) S2300L (Left) and (1) S2300R (Right) $85.00 per rotor
SSBC Dust Caps: (2) to fit the S2300
Bearings: (2) NAPA BR2
(2) NAPA BR6
Seals: (2) NAPA 17387
Grease: for disc brakes (higher temp resistance)
Bearing packing tool
New cotter pins (2)

If any one wants the entire article I can post it or email it...it's a two page Word document.

**Mustang Rotors on Rear**
I mounted the Mustang rotors to the rear of my GT5.

It has a Sierra brake caliper that I needed to have ~1/8" milled off the ancillary aluminum mounting bracket. The obvious drawback is that the rotor's diameter is about 1/4" to narrow and the back of the bad overhangs that amount. Because the rotor is thicker, I also had to modify the caliper's pad rails to eliminate interference.

The upside is a vented rotor in the rear. I have yet to track test it; yet, more than adequate for the street.

The rotors are $99 and came with a lifetime warranty at O'Reillys. Tough to beat

JT

I believe the rotors are vintage 1968 or so. Actually, Michael Frazier deserves all the credit for figuring this combo out. The Oreilly's part # is WAG BD60209. The receipt dated 2/07/06 shows $96.99/ ea.with lifetime warranty

**Powerslot Rotors**
Power Slot Cryo rotors for a street driven car?
parapantera at aol.com parapantera at aol.com
Wed May 17 15:45:32 EDT 2006

Ken,

There is some Pantera content, P/N's 8153 PSL & 8153 PSR should be a front rotor bolt on.

-----Original Message-----
From: Ken Green <kenn_green at yahoo.com>
To: detomaso at realbig.com <detomaso at realbig.com>
Subject: [DeTomaso] NPC Anyone have experience with Power Slot Cryo rotors for a street driven car?

Any actual experience would be appreciated, they claim these last 3 times longer:
[http://www.powerslot.com/pages/power_slot_cryo.html](http://www.powerslot.com/pages/power_slot_cryo.html)

They are about twice the price of a generic rotor.

Thanks,
Ken
Brake Switch

Brake Light Switch

Message: 31
From: "Steve Hawkins" <shawkins6@houston.rr.com>
To: "Catalyst007" <Catalyst007@earthlink.net>, "Steven Edwards" <gsedwards@cox.net>, "recipients" <detomaso@realbig.com>
Subject: RE: [DeTomaso] Brake light switch
Date: Fri, 19 Sep 2003 19:06:03 -0500

I replaced mine with one from NAPA. It's for a VW, part # SL147. It's a perfect fit and has the right connectors.

Steve Hawkins

-----Original Message-----
From: detomaso-admin@realbig.com [mailto:detomaso-admin@realbig.com] On Behalf Of Catalyst007
Sent: Friday, September 19, 2003 6:48 PM
To: 'Steven Edwards'; 'recipients'
Subject: RE: [DeTomaso] Brake light switch

It is not from a VW.

-----Original Message-----
From: detomaso-admin@realbig.com [mailto:detomaso-admin@realbig.com] On Behalf Of Steven Edwards
Sent: Friday, September 19, 2003 3:17 PM
To: recipients
Subject: [DeTomaso] Brake light switch

I know that this has been done before. I think someone said that the brake light switch that is on the valve under the master cylinder is out of a VW? It is a pressure switch type. I have one coming from PPC, which was to be here today, the UPS man just drove by. I need one for this weekend. Thanks

Message: 2
Date: Sat, 20 Sep 2003 10:23:21 -0400
From: MikeLDrew@aol.com
To: gsedwards@cox.net (Steven Edwards), detomaso@realbig.com (recipients)
Subject: Re: [DeTomaso] Brake light switch

Steve wrote:

> I know that this has been done before. I think someone said that the brake light switch that is on the valve under the master cylinder is out of a VW?

>>> I too remember reading that on this forum, and later repeating it myself. Later we learned that they are similar but NOT the same--the threads are slightly different.

> It is a pressure switch type. I have one coming from PPC, which was to be here today, the UPS man just drove by. I need one for this weekend.

>>> DOH! PPC will sell you the real-deal switch, but what will you do if it's not there by this weekend?
Mike

Date: Sun, 3 Oct 2004 19:34:49 -0400  
From: "Ian H" <ihannington286720mi@comcast.net>  
Subject: Re: [DeTomaso] Pantera Brake Light Switch  
To: <SOBill@aol.com>, <detomaso@realbig.com>

I picked one of those up from NAPA yesterday, it was too small to thread into the stock shuttle valve. It appeared that the stock switch has a 1/4'' pipe thread while part #SL147 has an 1/8'' tube thread. Looks like I'm going to upgrade the master, delete the proportioning and shuttle valve, and replumb the whole thing anyway.

Ian

Date: Mon, 4 Oct 2004 01:09:59 EDT  
From: JDeRyke@aol.com  
Subject: Re: [DeTomaso] Pantera Brake Kight Switch  
To: ihannington286720mi@comcast.net, SOBill@aol.com, detomaso@realbig.com

<< I picked one of those (VW brake switch) up from NAPA yesterday, it was too small to thread into the stock shuttle valve. It appeared that the stock switch has a 1/4'' pipe thread while part #SL147 has an 1/8'' tube thread. >>

Correct; I also found (the hard way) years ago the VW switch was erroneously listed somewhere as fitting the Pantera. Not only is the thread wrong, the connector is round rather than a blade connector so the rest of you- it would be easier to adapt almost any other switch than this one. Cheers- J DeRyke

GM Brake Light Switch

Date: Wed, 29 Sep 2004 23:23:29 EDT  
From: JDeRyke@aol.com  
Subject: Re: [DeTomaso] Brake light switch  
To: ihannington286720mi@comcast.net, detomaso@realbig.com

Bad luck, but I did fail an oil pressure sender in the same way some years ago. A needle-thin stream of oil shot all the way across the engine compartment & hit an inner fender panel; it appeared as if the steel panel was leaking oil! Apparently there's an internal seal that sometimes cracks in these things. FWIW, adapting an '82-up GM style mechanical brake light switch to the Pantera brake pedal is not difficult, saves considerable money and forever fixes this little problem. Good luck- J DeRyke

Brake Shuttle Valve

Date: Sat, 25 Jun 2005 09:48:42 -0400  
From: "Kirk Evans" <kre@adelphia.net>  
Subject: Re: [DeTomaso] Brake Shuttle Valve  
To: <JDeRyke@aol.com>, <detomaso@realbig.com>

Jack,

I just got back from R&R and looked at this thread---always interested in break threads. Worn pads will not effect the shuttles movement but this is not the major issue in my opinion. They jam up because of absolutely no maintenance. Crap and corrosion will cause it to stick during break pad replacement or other caliper work. This shuttle indicator is a very simple part needing little attention ever--but some on occasion and is also a DOT required part for all US cars.
What is the "bolt-thru-the-idiot-light-port during all future brake work there just to forestall further problems" issue? Is this just a stop lock idea for the valve? If the valve is so full of crap it locks up, I'd think it's time for a cleaning rather than a "Band-Aid" temp lock that will allow fluid to escape the same as a cleaning. Sorry I'm anal about breaks—seen to many upgrade attempts that are junk. You can always make the car faster but if it will not stop when you need it to—people can die.

To add—remember the break light stop switch will have to be relocated if you eliminate the shuttle assembly.

The stock proportioning valve is easy to defeat with far less work than adding a T. Again I've seen to many attempts at this fix that are downright dangerous. Remove the valve—pull the end cap—remove the piston—remove the seals turning the valve into a big T —reassemble the unit with the piston and springs—drill a 1/8" through hole where the piston end slips through the casting in the end cap rubber cover groove—drop in a piece of a broken 1/8" bit (we all have) cut to length locking the piston movement—install the cap which also holds the pin—re-install the valve and your good to go. Looks stock and no line mods and/or welding on the valve required. Happy good stopping days are hereagain.

Kirk

Half Shafts

Fiat Replacement Part No.


On page 54 there is a listing of the part number for Fiat Ivecò which I understand is their light truck series.

Tomas

----- Original Message ----- 
From: "Thomas Tornblom" <Thomas.Tornblom at Hax.SE> 
To: <MikeLDrew at aol.com> 
Cc: <detomaso at realbig.com> 
Sent: den 27 december 2006 07:51 
Subject: Re: Fw: [DeTomaso] 1/2 shafts

> MikeLDrew at aol.com skrev:
> > In a message dated 12/26/06 17:06:32, wdemelo at cogeco.ca writes:
> > >
> > > << Are the u-joints only available at the vendors or is there a Napa part#? >>
> > >
> > >>>> The source for Pantera U-joints has long been a mystery. They aren't available at your neighborhood auto parts store, at least not as far as I know.
> > > I have heard unsubstantiated rumors that rather than the mega-buck European units, the Pantera vendors have figured out that Toyota 4x4 U-joints are just ever so slightly too large, so they are having them machined back to the original De Tomaso dimensions, but I have no proof of that whatsoever.
> > >
> > > Unicardan (a GKN company) 18201 is an exact match.
> >>
> >> According to:
> >>
> >> the original application was FIAT something.
Nuts & Washers
http://store.summitracing.com/partdetail.asp?autofilter=1&part=ARP%2D300%2D8333&N=700+0&autovi
ew=sku

Shocks, Camber & Caster
Steve raises a good point regarding engineering. My car has had the original A-Arms remanufactured by Pat Michal to correct the lack of caster. I run just over 4 degrees caster and my car feels as if it has power assisted steering with fabulous road feel.

Further Pat remanufactured the factory Koni Ariston shocks with correct internal valving, these are rebuildable for life, with new and correct spring rates front and rear and they are now ride height adjustable. A knowledgeable Pantera owner (seven Pantheras) drove my car and paid me this compliment. "The best handling Pantera he has ever driven. I loved the clutch" This includes his 1989 GT5S. My steering wheel returns toward center after a turn, I don't have to muscle the wheel back and forth.

So, all you have to do is call Pat Michal, ship your car to Massachusetts and write a pretty fair sized check. I encourage you to do it if you haven't because the other "fixes" out there, just don't get it done. For me, having a "real" GT5S as opposed to a clone was important. I didn't want to be a "wannabe" when it came to the integrity of what the car really was. I've seen this saying, "a Mule in horse harness is still a mule." No matter what you call it.

Shocks
From: MikeLDrew@aol.com
Date: Sun, 22 Feb 2004 03:25:24 EST
Subject: Re: [DeTomaso] shock options?
To: RedVobra@aol.com, detomaso@realbig.com

In a message dated 2/21/04 23:18:51, RedVobra@aol.com writes:

<< I was going to pull the spacers out of the stockers, then I realized that the whole shock should probably be replaced anyhow. What are my shock options? Aftermarket is fine. Looking for the best performance without getting outrageous in price. Adjustability is fine, but not necessary. >>

>>>Don't discount the stock shocks, especially if you have an earlier car.

If they're not leaking, they may well be perfectly good. The early car shocks were apparently identical to Konis internally, and feature damping adjustment, so you can make them stiffer or softer. I know I goofed this up last time, and was corrected, but I've been awake for 30-something hours now so I've forgotten. I "think" the early car shocks were made by Ariston, and the later shocks by Telecar.

Having said that, if you want simple plug-and-play replacements, I think the best bang for the buck is the Carreras that Wilkinson sells. Perfect spring/damping rates (he actually shipped a Pantera to their factory so they could dial in the spring/shock rates), with ride height adjustability only. Cost is about $800 for the set, a bit more now perhaps.

I absolutely love mine....
Mike

Aldan Shocks and Spring Rates
The double-adjustable refers to the ability to adjust how the shock controls both jounce (compression) and rebound (extension). In addition, the Aldan shocks have threaded collars that allow you to adjust for ride height at each corner, which is essential if you are to have an alignment done that includes corner weighting, or your car does not sit exactly level, and you need to compensate (that was my sitch).

When I was trying to figure out what spring rates to have, the most common reply I got for mostly street use was a range from 350 front/550 rear to 450 front/650 rear. I chose the lighter of the range as I wanted a more supple ride. If you are still running stock shocks/springs, you will be amazed at the difference in ride quality. Since the weight distribution of the Pantera is somewhere around 40/60 front/rear, you want the heavier springs in the rear. Aldan is great to work with in that if you order a set, and you don’t like the spring rates you chose, they will exchange them for little to no cost save shipping as long as they are still in near-new condition.

**Spacer Block Removal**

From: "Mark McWhinney" <msm@portata.com> | This is spam | Add to Address Book

To: “Garth Rodericks” <garth_rodericks@yahoo.com>, guido_detomaso@prodigy.net
CC: detomaso@realbig.com
Subject: RE: [DeTomaso] A short Pantera adventure
Date: Tue, 22 Jul 2003 10:42:22 -0700

For Pantera suspension work, the place to go in the Bay Area is Custom Alignment (www.customalignment.com) in Mountain View. They can take out the spacers and adjust the suspension as needed.

**Spindles**

Pantera spindles are threaded 18x 1.5 metric

**Steering Rack**

**Mustang II Steering Rack**

Recent modification was to replace the original rack and pinion with a Mustang II unit. The overall ratio is just slightly lower but requires less turning effort. The new position of the rack and pinion in the chassis virtually eliminates the original bump steering problem. The on-center free play is totally gone, and the rack gives a reassuring sense of control.

**Steering Rack Lube**

replace the oil with the appropriate grease (CRC engine assembly lube, 0-1/2 weight, comes in a black tube, available in tiny tubes at most auto parts stores, and mongo-sized tubes at some of them)
Transaxle

**Clutch – McLeod**

http://pantera.infopop.cc/eve/forums/a/tpc/f/6450045562/m/7960034944?r=6980029944#6980029944

...Here is what You want!! McLoud disk and Plate. The best Single Disk clutch money can buy! And will bolt right up to your existing Flywheel. Be sure you buy the Heavy Duty 'Street' disk (it has the Marcel spring and Damper springs). DO NOT Purchase the Drag Racing or Road Racing disk; which 'Grabs' instantly, and makes smooth engagement impossible. This system is sold by P.I. Motorsports and can be found elsewhere. The counterweights (Pressure goes up with rise in RPM. But NO DISengagement Problems at High RPM. And there are NO interference problems of the weights to the Bellhousing, on My '74L. Smooth silent operation, Stop searching and buy best!! And when You want a 'Oilite' Bronze Pilot Bearing; contact Me...

MARLIN

**Clutch – Centerforce**

I've got one [Fidanza aluminum flywheel] on my car. Drivability is great. I had to replace my clutch at the time and went with the Center Force **DF700000**. It fits the Fidanza flywheel with no mods. It comes with 2 sets of weights for either 28 or 50 ounce balance that are screwed to the flywheel.

11" Centerforce clutch that bolts onto your stock Pantera flywheel (p/n **DF021048-S**). Be sure to insist on the "S" number or you'll get a 10-1/2" clutch that requires a different flywheel (or your stocker must be redrilled). Centerforce is a diaphragm clutch that WILL reduce your pedal effort dramatically, and will hold any horsepower you can cram in there- as long as the job is done right! Remember to replace the throwout bearing and the pilot bushing in the crank end before buttoning up the transaxle. Mac Tilton says that diaphragm clutches require a spherically-crowned throwout bearing while Long style clutches take a flat-face bearing. This is due to the angle the clutch fingers make with the bearing surface. Non-linear pedal engagement results from using the wrong bearing.

(Source: http://pantera.infopop.cc/eve/forums/a/tpc/f/6450045562/m/2120047562?r=4120047562#4120047562)

**Clutch – RAM (Alternative to Centerforce)**

The clutch disc is pretty aggressive and hooks up great.
I bought the assembly from Summit.
Part # Ram-98769
Came with the Pressure Plate, Disc & the spline alignment tool. $326.69.

**Clutch Master Cylinder**

Slave Cylinder: http://www.international-auto.com/index.cfm?fa=p&pid=2618&posid=881520&noapp=1

Clutch Rebuild Kit and New Clutch Master
Art Stephens artstephens at charter.net
Wed Nov 15 14:28:10 EST 2006

Kenny,
You Da Man! You have made my day! I went to the International Auto Parts web site and what do you know, there was our original clutch master! And they even have a kit for it. The clutch master is for a 1975 Alfa Romeo Alfetta GT, the kit is for the same car. I personally don't know for certain that these
parts work but I ordered the kit and will give it a try. I am not ordering the master, but it looks like the right part. The reservoir looks a little different but you could probably use your original to keep that original look. I am sending this to SOB Taylor for potential addition to the interchange list, provided it works for me like it did for you. Kenny, do you by any chance have the part number for the kit?
International lists the kit number as # 1409149. The master I'm looking at is # 7131. By the way, The name on my (original?) master is Benditalia, Tom at International said that is the Italian arm of Bendix. I feel like a friggin detective!

Thank you, thank you, thank you,
Art

----- Original Message -----  
From: Kenny Hall  
To: artstephens at charter.net  
Sent: Wednesday, November 15, 2006 8:32 AM  
Subject: Clutch issue from DeTomaso board

I had mine stainless steel sleeved and I absolutely would do it again! It was the best investment in the car to date (well other than the gear reduction starter). You will have a problem if you try to increase the bore. First your pedal effort will increase (noticeably if you go up much in size) and the bigger issue would be finding a piston that could work. If you already have the long throw slave I think your bigger bore master would be overkill. Just a great functioning stock master with your long throw slave will be great.

This is a link to the online store were I found the right kit.look at your master for numbers.maybe the guy will remember my call:

I used karps to reline the master. They also powder coated it black for right around $100.
http://www.resleeve.com/index.htm

I had it back in about a week. Very nice people to work with. If you send them the kit they will send it back complete and ready to bolt on.

Kenny

Clutch Rebuild Kit and New Clutch Master – Follow-up post by Art Stephens artstephens@charter.net 
I finally got my clutch master back from the shop that installed a 19mm stainless steel sleeve and modified my piston to accept a standard size 3/4 inch cup at the front of the piston. I used the cup from the repair kit for the rear of the piston. This route was not inexpensive. It cost $250 plus the 18 dollars I spent for the kit. He said he didn't make any money on this job and if he did another one, he would charge $400. He did mention a quantity discount. I’ve probably got the most expensive clutch master out there! The guy said he would guarantee it for life. Anyway, I was having such problems with clutch masters, that I don't feel too bad about spending the money as long as it eliminates the problem. Thanks to Dennis Daley's suggestion of using a hole saw to access the clutch linkage from the engine compartment, the worst part of this job has been made simple! Thank you Dennis! I highly recommend this modification. I used a 2.25” hole saw which is big enough to do the job but it looks like a 2.5 inch plug may be easier to locate. The bigger hole would even make it easier to work on and I don't see any downside to boring the hole in the car. If I had to do it over again, I would probably just have the sleeve installed along with the repair kit and skip the piston modification, saving quite a bit of money. The guy charges $150 to sleeve the master. I give the repair kit a thumbs up. It is part number #14091490 that I got from International-auto.com. The kit is for a 1975 Alfa Romeo Alfetta GT clutch master. International also has what appears to be the correct clutch master for our cars, it is part number #7131. The reservoir looks a little different but you could probably use your old one. The shop that did the work is C.H. Topping in Long Beach, California. I was impressed with their work and their knowledge. The shop has been there since 1931 !!! The downside to using this shop was the wait, it took about three weeks. I am currently using an old master that I managed to get working while waiting for the rebuild. I'll
probably just leave the old one in until it fails and then install the new one. Time to move onto the next project.
Art

**Clutch Master Cylinder Rebuild Kit – Napa**

Source: [http://pantera.infopop.cc/eve/forums/a/tpc/f/9550045562/m/6420051775](http://pantera.infopop.cc/eve/forums/a/tpc/f/9550045562/m/6420051775)

You can buy rebuild kits for the master cylinder from NAPA. They sell Beck Arnley parts. You need #0715771 Master Cylinder Repair Kit.

Read the link below. Not fun, but not too difficult.

**Clutch Slave Cylinder**

Date: Sat, 24 Jul 2004 07:49:47 -0400
From: "F. & D. Terry" <gt5s@bcpl.net>
To: Stephen Schmidt <steves@dcsi.net.au>
CC: detomaso@realbig.com
Subject: Re: [DeTomaso] Pantera clutch slave cylinder

The slave cylinder from all '69-'74 Alfa Romeos and the Spider from '69-'94 is a direct replacement with the exception of the push rod. Just reuse the one from your old cylinder. These replacements are available from International Auto Parts at 1-800-726-0555 as part number 1801 at a cost of $47.95. That's cheap enough to carry a spare.

There is no need to switch to a long throw cylinder. I have used the stock cylinder for close to 20 years with no problems and this is after rebuilding it. All that is required is a proper adjustment.

From: SOBill@aol.com
Date: Mon, 9 Aug 2004 11:39:37 EDT
Subject: Re: [DeTomaso] CLUTCH SLAVE QUESTION
To: NBYRNE4@bloomberg.net
CC: detomaso@realbig.com

From a Pantera vendor:
I got mine from: [www.panteraeast.com](http://www.panteraeast.com) Marino Perna at 727 381-1151

Or, [http://www.international-auto.com/catalog/cgi-bin/ia_main.pl](http://www.international-auto.com/catalog/cgi-bin/ia_main.pl)
Clutch slave cylinder International Auto Parts #1801 ~$50 Reuse existing push rod
SOBill Taylor

**Clutch Slave Rebuild Kit**


NAPA - Slave cylinder rebuild Kit (Piston and seals) NAPA Part # 255 Line - "UP" Description - "SC Kit" ~$18 [jtaphorn at kingwoodcable.com](mailto:jtaphorn@kingwoodcable.com) used on Chevy S10

Courtesy of John T. via SOBill.
The bellows is no use but the rest is dead-on, even if it is for a cheby pickup.

**Clutch Slave Snap Rings**

For those of you out there like me who have beat up the snap rings on the slave cylinder I have good news. Today I found that they are readily available at NAPA for $.50 each; NAPA part number SER 1348. Ned "Just another Blue Pantera" number 2981 '72 Pre-L Byrne

**Detailing**

Date: Tue, 15 Jun 2004 09:08:21 -0400
From: Dick Koch <arkoch@earthlink.net>
Reply-To: arkoch@earthlink.net
To: detomaso@realbig.com
Subject: [DeTomaso] ZF Cleaner (The Best)

I third this recommendation. In addition, I use a readily available cleaner before I apply the silver leaf. It is called Eagle One "Etching Mag Cleaner" for rough cast allow wheels, available at most of the auto parts stores. It is as effective as any industrial cleanser. I use the 3M cleaner pads with the cleanser. The combination of a clean surface and the silver leaf provides a fantastic finish for rough alloy castings. An additional benefit is that it is easy to touch it up.

[jimbo@socalpantera.com](mailto:jimbo@socalpantera.com) 06/14/04 10:38PM
The easiest (and cheapest) way to clean up the discolored ZF is get yourself a tube of silver leaf Rub 'n Buff from a neighborhood arts and craft store like Michael's. A 1/2 oz tube ($3.99) will do 2-3 transmissions.

I did my ZF almost two years ago and it still looks great. I'm sure others on this list have tried it and found it to be one of the BEST bargains available for P-car enhancements.

**Fluid Change**

Message: 12
From: Matt Merritt <mmerritt@eventvehicles.com>
To: "detomaso@realbig.com" <detomaso@realbig.com>
Date: Mon, 19 May 2003 13:24:27 -0700
Subject: [DeTomaso] ZF Drain Plug Socket Size

I'm getting ready to change my transaxle fluid myself for the first Time (such a mechanic) and know from Mike Dailey that the side fill needs a 17mm Allen socket. However, I didn't see any info on the socket needed for the drain plug on the bottom of my (dash-2) trans. Can anyone tell me the size/type of that socket? Also, is there general agreement that Mike's suggested Castrol Hypoy C 80-90 wt. is the replacement fluid of choice? Any other handy fluid-changing tips?

Matt Merritt
Grabber Blue #2908

Message: 13
From: David Adin@mercydurango.org
To: mmerritt@eventvehicles.com
Cc: detomaso@realbig.com
Subject: RE: [DeTomaso] ZF Drain Plug Socket Size
Date: Mon, 19 May 2003 14:29:45 -0600

Hi Matt,
17 mm for both. I was unable to find a socket that would fit the fill hole so I did the draw-solution. Short bolt that takes a 17 mm wrench then double nut it. You can stick this in the plug and get it out.

I use Penz but any quality diff stuff should be ok.

Oh, buy some plastic flex tubing that will fit in the filler hole and stick a funnel in the top . . . less mess. have fun. (If you aren't sure your ring gear bolts are safety wired then now is the time to verify this.)

david in Durango

**Pilot Bushing/Bearing**

**Roller Pilot Bearing**

Reply-To: "David Bell" <davidabell@worldnet.att.net>
From: "David Bell" <davidabell@worldnet.att.net>
To: "Charles Engles" <cengles@cox.net>, <detomaso@realbig.com>
Subject: Re: [DeTomaso] ZF throw out bearing
Date: Sun, 4 Jul 2004 16:58:38 -0500

The NAPA part number for a roller pilot bearing is #FC-65662. I know some don't care for the roller bearing style but I had one in for the last 4 years and 10k miles with no issues. Also Dennis Q. recommends roller pilot bearings.

Dave Bell

Date: Mon, 05 Jul 2004 11:33:14 -0400
From: Dick Koch <arkoch@earthlink.net>
Reply-To: arkoch@earthlink.net
To: detomaso@realbig.com
Subject: [DeTomaso] ZF throw out bearing

Dave, I just went through a tranny fix and had to replace the throw out bearing. When I asked Lloyd if I should use the roller throw out bearing, he did not recommend it. Reason, if it locks up for whatever reason, it will mar the end of the ZF drive shaft and it will have to be replaced. According to him, better to spend a few bucks for a new throw out bearing than thousands to replace the ZF drive shaft.

Dick Koch – Atlanta

**Pilot Bushing - McLeod**

PN 8-1380-2 retails for $39. It's 1.380 OD, and 0.672 ID. I got this off the phone, not their catalog, so I'd double check before ordering. They said that they thought you could buy one for $20 to $30 street price.

**Pilot Bushing – Bronze Oilite from Marlin Jack**

Date: Tue, 6 Jul 2004 08:50:10 -1000 (Hawaiian Standard Time)
From: "Dennis Yogi" <dyogi@hawaii.rr.com>
To: "detomaso@realbig.com" <detomaso@realbig.com>
Subject: [DeTomaso] Throw out

Marlin Jack (pantera1974@verizon.net) is selling them now:

[http://64.70.166.243/ubb/Forum2/HTML/000841.html](http://64.70.166.243/ubb/Forum2/HTML/000841.html)
Kevlar Pilot Bushing


South Bend Clutch (Mail @ Sbendclutch at aol.com) and gave them the dimensions from my new roller pilot bearing and they answered that their model PB 50 HDK ($50) Kevlar bearing is the same size.

Pilot Bushing Removal Techniques

¾” Tap

Message: 33
Date: Fri, 4 Mar 2005 19:24:53 EST
From: SOBill@aol.com
Subject: [DeTomaso] Transmission Pilot Bearing Removal
To: detomaso@realbig.com

FWIW,

I love tools and I know this has been said before, but...  The transmission pilot bearing center hole is 0.679 inch in diameter.  If you thread a 3/4 tap into this hole (keep it square) and keep turning the tap when it bottoms against the crankshaft, the tap will jack that pilot bearing out so slick you will just have to giggle.

I believe I learned this from Jack DeRyke.

SOBill Taylor

Wet Toilet Paper

Date: Sat, 05 Mar 2005 09:01:18 -0500
From: "F. & D. Terry" <gt5s@bcpl.net>
Subject: Re: [DeTomaso] Transmission Pilot Bearing Removal
To: SOBill@aol.com
Cc: detomaso@realbig.com

Bill,

We all have our favorites and I've been waiting for Kirk Evans to give us the description of his inexpensive toilet paper pilot bearing remover. Since a 3/4 tap is expensive relative to a roll of toilet paper and not something all of us have in our tool box, Kirk's remover might be a suitable alternate. It's easy to use, you just force as much water soaked toilet paper into the bearing as possible then insert a clutch pilot tool and whack it with a hammer. The bearing pops out. If you don't have a clutch pilot any close fitting dowel will work. I don't know if it carries a lifetime guarantee.

Fred T.

Kevlar Pilot Bushing

Date: Mon, 12 Jul 2004 10:15:49 -0700 (MST)
Subject: Re: [DeTomaso] ******KEVLAR****** pilot bearing............ the continuingsaga]
From: <rgranchelli@esedona.net>
To: <detomaso@realbig.com>
I spoke with Andy @ South bend Clutch and he has the kevlar bearing for the 351C. Their PN is 50MHDK. The bearing runs dry. The od is slightly larger than stock but compresses and provides a tight shaft dia. I ordered one and will let ya know how it installs. I found a Kevlar bushing at: http://www.southbendclutch.com/kevlarbushing.html

Rgds, RG

**Spicer U-Joints**

http://pantera.infopop.cc/eve/forums/a/tpc/f/1510042044/m/4400074464?r=5950084464#5950084464

Here are some typical numbers for the Spicer part. This is a very common part used in truck drive shafts and tractor PTO drives. They are about $15 each and can be bought at any heavy truck parts place. Perhaps even NAPA.

Spicer 5-160X
Newstar S-2860
Dana 5-160X
Arvin Meritor CP-160X
Rockford K160X
Borg Warner 114-560
Neapco 2-0054
World American 5-160XR
International Harvester 127574R91
Falcon U330
Precision 330
GMB 210-0160

**Spicer info from SoBill’s Database**


Spicer drive shafts use 5 Ton Ford truck universal joints

U-joints to fit Spicer half-shafts (also Ford F500…5 Ton Trucks) Neapco p/ns are 2-0054, 5-160x

Spicer half shafts are 2.25 lbs lighter than stock units ~$525/pair

Spicer u-joints are F-500 Ford truck u-joints; about $22 at Kragens

Spicer U-Joint Repair kits (yoke, bearings, and caps): NAPA #210-0179

Spicer half shaft parts: 3 - 3 - 508 KX Female slip yoke

Spicer half shaft parts: 3 - 82 - 58 X Yoke shaft (Male Splined shaft) This length is not a normally stocked and must be ordered.

Spicer half shaft parts: 3 - 2 -159 Flange yoke (These are the flanges that bolt to the ZF and axles)

Spicer half shaft parts: U-joints: 5 – 160 X (has grease Zerk in center of cross), 5 - 160 1X (grease Zerk in bearing caps)

http://www.spicerdriveshaft.com/cardan/cardan-light.html Spicer u-joint home site
Spicer u-joints are the best. Testing by Warn Industries found that for breaking strength, the closest competitor was 85 percent of the Spicer.

Spicer 1310 #5-153X (~$12.00) Popular, inexpensive, lasting. Grease fitting in body of the cross (lessens its torque capacity) Too loose fit for high speed

Spicer 1310 #5-433-1x (~$25.00) Spicers best joint. Stronger than the 5-153 for high impact loads. Grease fitting in the end of one of the bearing caps

Spicer 1310 #5-625X (~$20) Spicer supplies to OEMs. Non-greaseable, prone to water entry, rusting, and squeaking noises.

Any automotive or truck drive line repair shop or autoparts store should have what you need. Take the drive axle/u-joints with you.

SOBill Taylor sobill at aol.com

**Throw-out Bearing**


I installed a Federal Mogul FEM-1625 when I replaced mine. Apparently there are two different bearings, depending on the transaxle. I can't say if it depends on age or whatever. My car is a 1984 GT5. Summit lists them.


B. Seib skrev:
> You're in luck if you have the carrier that takes this bearing. It is
> 1.6255" inside diameter.
> My car was an April 72 and it came from the factory with a 42mm (1.65") inside diameter bearing and matching carrier. I have not found that release bearing available anywhere.

I know that some cars has a larger carrier, and that some has contemplated turning their carriers down to take a more common bearing.

The 1625 was actually a slightly loose fit on my carrier, and that was probably due to the old bearing rotating on the carrier.

I punched a ring of marks around the carrier and applied some Loc Tite before pressing the bearing on to the carrier.

Is the part number, 1625, perhaps the ID of the bearing, 1.625"?

**Wheels & Tires**

**Backspacing**

**Wheel Offset**

Crazydave posted this a little over a year ago. On a stock fender car, the preferred offsets are: Front, 4.75 for 8 inch rim, 5.25 for 9 inch rim, 4.25 for 7 inch rim. Rear, 5.0 for a 9 inch rim, 6 for a 10 inch rim, 6.5 for an 11 inch rim. This is the distance from the mounting surface of the hub to the rear most lip of the rim, NOT THE TIRE BEAD Subtract .25 if your dimensions are to the tire bead.

Pantera East Campy Clones
Date: Mon, 16 May 2005 12:09:12 EDT
From: Fresnofinches@aol.com
Subject: [DeTomaso] Cobra R wheels (was: I'm going to look/buy a car in Illinois!!!)
To: detomaso@realbig.com

<<<So, how close to the SECRET backspacing of the after market Campys?>>>

WHAT secret?? On the boxes of my Pantera East, version 2 (forged center), Boyd Coddington produced Campy replicas was the following-

- fronts, 16x8 - 5.375 backspace
- rears, 17x11 - 6.5 backspace

Larry - Peace, be careful but DRIVE!!

Bassett 15" Racing Wheels
Date: Mon, 16 May 2005 09:24:38 -0700
From: "Matt Merritt" <mmerritt@EventVehicles.com>
Subject: [DeTomaso] Cobra R wheels (was: I'm going to look/buy a car in Illinois!!!)
To: "Detomaso (E-mail)" <detomaso@realbig.com>

<<<So, how close to the SECRET backspacing of the after market Campys?>>>

I recently bought a set if Bassett 15" racing wheels (and am getting ready to order another). Those specs are:

- Front: 15" x 8" with 5.0 backspace and a 5 on 4 1/2 bolt pattern
- Rear: 15" x 10" with 5.5 backspace and a 5 on 4 1/2 bolt pattern

I got the specs by measuring my original 8" and 10" Campys but Steve at Bassett reassured me when he told me that he'd sold a bunch of wheels to Texas Pantera owners that were all spec'd the same.

Spent $80 each on the fronts and $90 each on the rears including a special-ordered silver color. If only they'd make them in 17" and 18" life would be good...

Matt Merritt
#2171

I've already bought two sets of aftermarket Pantera wheels with offsets that don't remotely fit my car. Not sure how those wheels all got on their owners' Panteras.

The offsets I need are

- 4 1/2 to 5 inches for the 8-inch wide fronts
- 5 to 5 1/2 inches for the 10-inch wide rears

Offsets can be measured by placing something straight across the inside of the wheel (not across the tire) and measuring straight down to the wheel center where it sits against the hub.
Thanks much,
Matt Merritt
#2171

**Bearings – wheel bearing**

**Part Nos.**

Front wheel bearing grease seals: Federal Mogul 472164.
Front wheel bearing seals National/Federal Mogul P/N 472165
Front Wheel Bearing Seal: NAPA PN 17387 (Chicago Rawhide)
Some original front wheel bearings were marked with: NTN 4T LM 11949 &  NTN 4T LM 87048
Front wheel bearings: BCA Federal Mogul A-2 & A-6. Parts marked Timkin 67048 & 11949 with "Bower" on "NSK"  Fit 67-69 Mustang/Cougar hubs
Front wheel bearings: Ask for 67-69 Mustang or Cougar
Front (all Ford) Outer Race B5A-1217A Outer Bearing  B5A-1216A Inner Bearing None Inner Race B5A-1202-A Grease Seal D16Y-1190A
Front (all Timken): Inner #LM67048L/LM67000L, Race #LM67010; Outer #LM11949, Outer Race #LM 11910; Grease Seal National #4720 (0 or 8)4
REAR In/Out: Timken #30308 Seals: Chicago Rawhide In # 24659, Out # 27740 Snap Ring: Truarc #N5000-375 w/.003 preload, Bore Inner 90mm
Front (all Timken): Inner Brg #LM67048, Race #LM67010; Outer Brg# #LM11949, Outer Race #LM 11910; Grease Seal National #4720 (0 or 8)3
Front (all Timken):  Inner Brg #LM67048, Race #LM67010; Outer Brg# #LM11949, Outer Race #LM 11910; Grease Seal National #4720 (0 or 8)3

**Changing Front Wheel Studs**

Date: Sun, 3 Apr 2005 05:55:59 EDT
From: MikeLDrew@aol.com
Subject: Re: [DeTomaso] Front Wheel Stud Changing
To: cozland@cox.net, detomaso@realbig.com

<< I'm curious what steps it takes to change out the front wheel studs.
Thanks. >>

>>>It's easy--I just did it last week in England.

Remove the wheel, remove the bearing dust cover, the cotter pin (if there is one), and then remove the spindle nut and take the hub and rotor off the spindle (don't let the bearings fall into the dirt).

Lay the rotor on its back on a flat surface, preferably a piece of plywood.  Spritz lots of quality penetrant (i.e. "not" WD-40) onto the studs, both front and back, and tap them lightly with a mallet to help the stuff soak down in there.

The ends of the studs have an indentation; use a similarly-shaped punch and a BFH and whack the studs out.

Flip the rotor over, support it on both sides with wooden blocks, insert the new studs and whack them in with a flat-nosed punch and your trusty BFH. You may not be able to get them all the way down—that's okay.
Some people use the wheel to draw the studs through; I prefer to use a big stack of washers. Lay the rotor back onto its back; build a stack of oversized washers over a stud, leaving about 1/2 to 3/4 inch of thread remaining. Then use the lug nut and torque it to pull the stud into its final position.

Then re-mount the hub on the car, torque the spindle nut appropriately, and install the wheel. Torque the lug nuts to the desired spec (I use 75 ft/lbs), and then re-check torque after 50 miles--they will probably be loose again, as the studs 'settle in'.

Mike

**Campy Clones**

Message: 32
From: Fresnofinches@aol.com
Date: Sat, 3 Jan 2004 01:02:14 EST
To: detomaso@realbig.com
Subject: [DeTomaso] Wheel Shopping Questions

All,

For what it is worth, my Pantera East wheels came in the Boyd Coddington boxes, and they were labeled with the following:

SIZE: 16X8   BACKSPACE: 5.375   SIZE: 17X11   BACKSPACE: 6.5

How this would translate to other makes of wheels is not for me to speculate. Do with this info what you will.

Larry

**Original Campy Differences**

Date: Wed, 8 Sep 2004 15:56:31 -0700
From: "pantera007" <pantera007@earthlink.net>
Subject: RE: [DeTomaso] front wheel

There are several variants of the Campy wheels. (maybe 8 in the 7" & 8")

First:
Is yours a single slot? Triple slot?

Next:
Flat pentagon or rounded face? Large center rib, medium center rib (attaches only part way up) or small center rib? (The rib begins at the center hub...)

A while back I updated my documentation on the variations, starting with Mike Drew's great article. Now I can't find my own webpage... As a picture is worth more than a 1,000 words!

Chuck

Message: 46
Date: Thu, 9 Sep 2004 02:11:15 EDT
From: MikeLDrew@aol.com
Subject: Re: [DeTomaso] front wheel
To: close_enough@losalamos.com, detomaso@realbig.com
In having my wheels for my '71 powder coated, a front 7" Campagnolo cracked seemingly beyond repair. Anyone have a reasonably-priced single wheel; I understand that such a wheel will likely need some cleaning before powder coating to match the others. Thanks for any help you can provide.

Be careful--realize that there are six different kinds of Campy wheel produced between 1971 and 1974, not even counting the 10-inch wheels (which themselves came in at least two versions). You probably want the second version (the first was a one-slot design). So when wheels are offered up, make sure you know what you're getting, especially if you're having to buy them and pay shipping.

The wheels are date-coded on the back side, with the year of production (71) surrounded by 12 pie-shaped sections. Raised bumps in a certain number of them indicates the month; five bumps out of the 12 sections would indicate May for example.

I wrote what I thought was the definitive work on the subject back in 1997, then had to revise it in 2000 when I discovered two more variations. I've attached a PDF file of that article and photos (which the forum software should strip for the rest of you).

FWIW 7-inch Campys, for better or for worse, are considered almost worthless by most people and routinely trade hands for $25 or so.

I take it by your e-mail address that you're located in Los Alamos, New Mexico?

Mike

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**Campy Wheel Color**

"Ford TSB, Bulletin #11, Article 92.
Service Paint- Magnesium Wheels
Color: Argent Silver
Ditzler Part No. DX8555"


The absolute, dead-nuts, spectacularly accurate modern color match for original factory Campy wheel paint is: **DBC 3822C**, known as **Bright Silver Poly**

Not only is it the right shade of silver, but it also has the correct metallic content. There were several variations on this color available that were, in fact, the same 'color', but had more or less sparkle added. Apparently it is an OEM GM color.

**Lug Nuts**

12mm, 1.5 pitch. All of the wheels that I have use a 60° conical seat. Most wheels need 1 1/4" length. For some wheels I use 2" length.

You just need standard M12 acorn lug nuts. Generic ones available cheaply at any auto parts store. Having said that, the ones I recently got from Precision ProFormance were really nice--a bit deeper than stock, and also used a smaller bolt head size so you gain more clearance around the wheel lug openings, and the price was very reasonable--highly recommended!

Mike

12mm x 1.5 pitch. Should also verify that the chamfer on the wheels matches the new lug nuts, most commonly 60 degrees. The bolt pattern is 5 on 4.5" pcd (pitch circle diameter)
**Tires**

**Stock Goodyear Arriva Size & Measurements**

The rear tires (H60V-15’s) measured 26 1/2” and the front tires (C60V-15’s) measured 23 1/2”. Then I measured the body from the bottom of the seam below the rocker panel to the ground. The seam located just in front of the rear tire was 8 1/4” off the concrete and the seam just behind the front wheels was 7 1/4” off the concrete.

**Tire Recommendations – Toyo SUV Tires**
MikeLDrew at aol.com MikeLDrew at aol.com
Thu Jan 12 23:00:09 EST 2006

<< The Avid S/Ts were squiggly and required inflation to 45 psi to stiffen the side wall enough for pedestrian driving. *Maybe* as a complete set, they would be more predictable and usable, but I was definitely NOT impressed with them. >>

>>>I also drove a car with those same Yokos on the back and had similar results. What a piece of crap. I would look strongly at the Toyo tire. It is actually designed for the SUV set, meaning vehicles that are substantially heavier than a Pantera, so they probably have some pretty serious sidewall strength. They make an almost-matching V-rated front tire; it would take a sharp eye to tell the difference in the tread pattern. I saw them at the SEMA show last year and came away very impressed.

Mike

**Largest size for stock fenders**
Kirby

> At 17:19 -0700 12/5/03, Doug Braun wrote:

>>Wider tires require better camber control best achieved with longer control arms, close to zero give to the suspension joints and very little frame flex. All three are difficult to retrofit to a Pantera. The Pantera suspension is not really adequate to extract all the grip benefits out of a 285 front/345 rear tire combo. This is why a 245 front/265 rear setup will likely yield the same lateral g-force. The non-flared combo also results in a much narrower car which can theoretically take a better line through a corner (especially tight ones like you would find in an autocross slalom).

>>

>>Doug Braun

>>blue 73L #5505

**Tires for Campy Clones**
Message: 14
Reply-To: <LFinch@ibew100.org>
From: "LFinch" <LFinch@ibew100.org>
To: deTomaso Forum \(E-mail\) <detomaso@realbig.com>
Date: Thu, 24 Jul 2003 13:37:44 -0700
Subject: [DeTomaso] Wilkinson?

Steven,

Ya know, instead of getting nowhere with Wilkinson, you could give Marino a call at Pantera East, order a set of type-two/forged/fully polished Boyd Coddington 16”/17” wheels and never be disappointed. :-) His number is 727-381-1151. Then call Tire Rack to get the 245/45X16" and 335/35X17" Pilot Sports. Have your local high end wheel shop mount, pop in rubber shorty, chrome cover valve stems, balance and be stylin by next weekend.
Or keep waiting for Wilkinson to answer his phone.

Teach Peace -
Larry

Dennis, I agree with you and have told you so before. I run the 235/40x17 (8” irms) front with 285/40x17 rear (9.5” rims) and I feel my car handles well (read easily and balanced) on the street and highway. I got my Campy look rims from Bobby Byars and he picked the offsets. Jay Curreri, happy with my 105,000 plus mile Pantera.

**Pirelli’s for Stock Wheels**
From: "B. Salerno" <bdsalern@sprynet.com>
To: <DeTomaso@realbig.com>
Date: Sun, 7 Mar 2004 06:17:02 -0800
Subject: [DeTomaso] Pirelli tire success

After 2k miles I am ready to recommend the tire combo for those of us with 15x8 and 15x7 wheels. I went with the Pirelli Scorpion Zero (255/60V) in the back and Pirelli P6000 Sport Veloce (205/60V) up front. The Scorpion tires grip hard in turns like a much lower profile tire would. Probably due to the sidewall design built for high center of gravity sport truck. The only regret is not going with a 215 up front. Enjoy. Ben #1910

**15” Pantera tire sizes**
Pirelli already makes a limited-edition 275-55-15 tire in P7 -R configuration, speed rated. Its just not widely distributed. FWIW, this size not only fits nicely on an 8” rim and looks good, it is of a diameter that causes the stock speedo to read correctly.
JDeryke
JDeRyke@aol.com

**Jack’s Tires on Stock Campy’s**
From: JDeRyke@aol.com
Date: Sun, 11 Jul 2004 01:17:38 EDT
Subject: Re: [DeTomaso] Tire size

As a counterpoint to the big-tire people, our street Pantera runs 245-50x15 BFGs on 8” Campys in front, and 275-55x15 Pirelli P-7Rs on 8” Campys in back, both Z-rated. I currently have a 7/8” GTS antisway bar in back, with an 11/16 bar in front (stock is about 3/4”). The car feels balanced, drives & steers well. The measured weight & balance of the car in June 04 (after extensive reshuffling of components) was 43-1/2% frt, 56-1/2% rear, altered from the stock 40/60. It is now at 2800 lbs with 1/2 tank of gas, all road equip but no tub or tools. We no longer compete on tracks with our Pantera so all our miles are on std roads, but some are done at a pretty good pace, and there are high crowns & curves....
FWIW, J DeRyke

**MadDawg’s Tire Size**
Date: Tue, 6 Jul 2004 09:57:40 -0700 (PDT)
From: Mad Dog Antenucci <teampantera@yahoo.com>
To: detomaso@realbig.com
Subject: [DeTomaso] Slacker Road Test - Michelin 285/40/YR/17 & 245/45/16 Tires on the Pantera

Ultimately I went back to the stock Campy wheels in ’96 with BFG R-1
225/60ZR/15 fronts and 265/60/ZR on the rear for open track and open road race (ORR) events and reduced spring pressures. The improvement in handling was immediate and significant.

By 2000 plenty of folks were replacing the original 15" Campy's with the taller 17 or 16/17" aftermarket wheel/tire combinations and I decided like the majority to slap on the big assed 335/35/17" tires KNOWING that they would not handle as well (for me) in competition and good as they looked the understeer problem was once again pronounced. I had mongo competition springs and sway bars and reduced the spring rates and front sway bar to help reduce the understeer. About that time in 2000 I spoke to Chris Darling and a couple other guys who were convinced that my suspicion's were more related to the increased tire track of the wider REAR tires rather then the increased height of the 17" wheels or the spring rates. Chris had gone to 18" aftermarket wheels but had fit 295 wide rubber to the rear end over the wider 335 tires to minimize understeer.

I did the same last month when I went to the Michelin 285/40/YR/17 with a 245 front. The difference in handling was immediate. At the first ORR with the new tires in June the Pantera's handling through all the turns at the La Carrera in Mexico and the Pony Express last week the handling was noticeably improved and just like I noticed in '96 when I went back to Campy wheels and the narrower tires the improvement was significant and immediate.

In summary, if you are in the market for new wheels and tires on a purpose built street Pantera that you might actually run in competition consider a wheel/tire combination that doesn't make your already "under steering" Pantera worse. Having 335 or even wider 345 wide rear rubber looks trick on a vintage Pantera but I can say in my own case the narrower more balanced front and rear rear tires improved handling and the wider tires in rear decreased handling. Again, I don't have a race Pantera and most of the miles I put on it will be on the street like the majority of you.

Modern Tires for 15" Wheels

From: MikeLDrew@aol.com
Date: Thu, 29 Apr 2004 02:55:09 EDT
To: DeTomaso@realbig.com
Subject: [DeTomaso] NEW 15-inch tires for GT5/GT5-S Panteras!!!

Hi guys,

For years now, people have been wringing their hands regarding the demise of available tires for the 15x10 and 15x13 wheels used on the wide-body Panteras.

I just discovered that Michelin has revised its TB line of tires. These are vintage-looking V-rated radials, which were original issue on supercars and racing cars of the day. The new tires continue to use a screwed-up, antiquated nomenclature system, such as 23/61-15. The first number (23) is the tread width in mm. The second number is the tire height in mm. And the third number is the rim diameter—in inches!

The Pantera originally wore Pirellis in 285/40-15 and 345/35-15 (modern nomenclature). There are two new tires that are close in size for the front—23/62-15 (which is 270/45 in modern nomenclature), and 26/61 (295/40). For the rear, they have 29/61-15, which is 335/35.

These tires are marked with DOT stamps so they're road-legal in the USA. Here's a direct link to a UK distributor with a fair bit of information and prices: http://www.longstonetyres.co.uk/michelintb15.php

These tires are now available in the USA from Coker Tire. Here's a direct link to their page:

Go git 'em! :>)

Mike
Tires for Stock Wheels
Date: Fri, 24 Jun 2005 21:45:30 EDT
From: MikeLDrew@aol.com
Subject: Re: [DeTomaso] tires
To: ooiam@juno.com, detomaso@realbig.com

In a message dated 6/22/05 20:56:48, ooiam@juno.com writes:

<< i have the original tires on a 1972 1/2 pantera, need to buy new tires, but am not ready to lay down
3000.00 to upgrade to 17", any idea's for a short term fix? any advise will be greatly appreciated. >>

>>>Are you a street driving kind of guy? Not a Ricky Racer?

If so, then there are plenty of tires available from BFG and others.

If you are running the stock front wheels (7-inch) then you should run a 215/60 or 225/50-15. At the rear,
if you are running 60-series in front, then run a 255/60 rear, or if you have a 50-series front, a 265/50 rear.
(The 60-series tire sizes listed match perfectly with the original Goodyear Arriva tires as fitted to the L-
models).

If you have 8- and 10-inch wheels, then you can run a 245/50-15 front (I think only Dunlop makes a
quality tire in that size) and a 295/50-15 rear (Toyo and Kumho both make speed-rated tires in that size
now).

Check out the Tire Rack ads in the back of major car magazines, or search by size at www.tirerack.com

Mike

Toyo makes an H-rated 295/50-15 and Kumho makes a V-rated tire in that size--and everybody makes V-
rated or better tires in 225/50-15.

Mike

More Tire Sizes – Ride & Handling
From: JAYTCREC@aol.com
Date: Fri, 14 May 2004 13:13:47 EDT
To: detomaso@realbig.com
CC: davidabell@att.net, clewis@dancemusic.net
Subject: [DeTomaso] tires

I am using Bridgestone (RE730 I think) 235/45x17 on front and 285/40x17 rear. Dave Bell is right to
mention the sidewall size. I have no problems with ride harshness or handling with these front or rear
tires. They do give a good rake, though Mike Dailey's 16" fitment gives more.

I did have 245/40x17 previously and they hit the left front fender lip and cracked the paint. Further I did
hit a square edge piece on raised concrete highway once at 80+ mph and it did damage the rim. The tire
held air until I had stopped and turned the steering wheel at low speedII have not had either problem
since going with the 235/45x17 front. Benefits are easy steering and the ride is quite good, remember
there is not much weight up there.I also previously had 315/35x17 rears and found the handling
unresponsive (understeer), required more effort and sluggish. I now like the 285/40x17 on 9.5 inch rear
wheels.
By all means, suit yourself.
Jay Curreri
“V” Rated 15” Tires

Coker Tire does make a V rated tire for the 15” wheels. In fact, I believe that it is the exact tire our
Panteras were equipped with from the Factory, if only on the European version. This tire is the Michelin
XWX. Pantera sizes should be 205/70 or 185/70 x15 and 225/70x15. Price on these now is just under
$500 a tire. (ouch!) Many other Italian exotics used the same tire.
Jay

Website Info

Upload to GeoCities

If you’ve been thinking about doing a website to post some images of your Pantera using a free service
like geocities but have been disappointed with the funky website interface that doesn’t provide the ability
to control the page format, image thumbnails, etc., I think I found the answer. I was playing around with a
geocities website account today and discovered that it is possible to create the website on your local
computer using web publishing tools like Microsoft Front Page or other professional HTML editor like you
would do with a normal website and then use the geocities file manager that comes with the geocities
account to transfer the pages to the geocities site. The file manager can upload five files at a time/per
pass.

I was surprised how easy it was and how well it worked! Of course Geocities accounts are limited in size
and bandwidth usage and are limited to one website address per person for a website that is within the
same Yahoo geocities neighborhood or that has the same theme. I guess you could have a car site
theme URL, a bike theme URL, etc. and be legal. I think they are trying to keep people from setting up a
bunch of accounts and then linking them together to overcome the size restrictions. The page to sign up
for the geocities web site is at http://geocities.yahoo.com/ The terms of service of what can be done with
the websites is at http://docs.yahoo.com/info/terms/geoterms.html

This is a small example of what can be done very easily http://www.geocities.com/panteraplace. Note
the full size image, table to keep all the links lined up and the test thumbnail. Cool deal and pretty
professional and it only took about five minutes!

Have fun!

Mike