

## **Pantera International:**

I wrote to you last spring about not getting any heat out of my '70 Pantera's heater. The consensus at that time was that the early heaters just weren't very good.

This fall I had a chance to look into the problem. I found that the throw of the cable was only sufficient to open the valve one-third of its possible travel. I disconnected the cable, opened the valve all the way, and tested it. The car warmed up fast and got so hot I could have cooked my Thanksgiving turkey in the passenger seat. So there is nothing basically wrong with the heating system. I fixed the problem by making a small plate that I bolted on to the water valve arm so that the cable could be attached 5/8" closer to the pivot of the valve arm. Now I have the full throw of the water valve available with the lever on the dash and the heater works beautifully.

I have also heard rumors that some suppliers (not any of our Pantera sources, however,) are offering a kit to add ABS to brake systems. Does anyone know who offers them and how well they work?

A. Foster Cooper  
Albuquerque, NM

## **Window Monitor's Response:**

It seems that you have come up with a fix that Pantera owner's have needed for almost twenty years! I plan to make the change on my '72.

The J.C. Whitney catalog shows an aftermarket A.B.S. system. I haven't heard anyone who has tried it, however.

## **Editor's Note:**

Foster has written up his "fix" as a Technical Information Article which can be found in the insert in this issue.

## **Pantera International:**

I am experiencing a clutch problem on

my 1982 Pantera. I removed the clutch assembly out of the car and brought the clutch to a shop in Paramount, California. It was a MacLeod clutch assembly with only 5,000 kilometers on it and was purchased there. The problem is that I couldn't get enough travel to disengage the clutch without grinding in reverse and first, or downshift from third to second gear. After talking to one of the mechanics, he suggested taking the clutch assembly to the MacLeod manufacturer and have it checked out. Yes, there was something definitely wrong with it. The three bolts on the pressure plate cover were loose and out of adjustment. Therefore, MacLeod adjusted and retorqued the pressure plate. The clutch assembly is ready to reinstall back onto the car.

After installing the clutch assembly, the problem still exists from downshifting third to second gear only when engine gets hot (two hours of driving). Grinding noise is heard again, but at least I could get reverse. The shop mechanic suggested I buy and install a bigger bore clutch master cylinder, which will provide a longer throw and eliminate the downshift grinding.

It is my opinion that this shouldn't be necessary if the clutch assembly ports are correct and the adjustments are correct. This is why I need help from Pantera International to solve this clutch problem. The problem only occurred after changing the clutch assembly.

I need help on (1) rebuilding the master cylinder and is the bigger master cylinder required as suggested by the mechanic; (2) overhaul kit part number required to rebuild the slave cylinder; and (3) adjustment procedures.

Also, the clutch disc is made out of fiberglass material; when it gets hot, it will expand. Is the asbestos type disc better?

Also, I would like to purchase Pantera Technical Information Articles. Are these the same as Technical Service Bulletins or Pantera Reference Index?

E.H. Leong  
British Columbia, Canada

## **Window Monitor's Response:**

The clutch disc and pressure plate assemblies used in the Pantera are modified Ford parts. The pressure plate assembly has been modified by grinding off the three bob weights to give extra clearance for the special cast bell housing which adapts the Ford Cleveland engine to the German ZF transaxle assembly. If your MacLeod pressure plate is the diaphragm type, it does not have the bob weight, so bell housing clearance is not a problem.

In addition, the Ford clutch disc has been modified by De Tomaso for use in the Pantera. This is important because not all clutch discs made for Ford Cleveland engines have been properly modified to De Tomaso specs. The two faces of the lining material have been unriveted from the steel backing. The original steel backing used on Fords have a spring-like feature that is known as marcel. Basically, the segments of the steel backing are slightly twisted like a fan blade and then riveted in this slightly twisted manner to give a little cushion to the clutch disc which gives a smoother engagement with less chance of chatter. However, DeTomaso chose to remove the marcel (or slight twist) and flatten the steel backing and then rivet the lining to the steel backing. Any clutch assembly that still uses a marcel will need more throw—that is the reason a bigger bore master cylinder is needed. The MacLeod clutch assembly when used with the stock master cylinder probably needs just a bit more movement than the stock master cylinder can provide.

The clutch master cylinder can be rebuilt using '76 Fiat X19 parts # Beck Arnley 071-5771. The clutch slave cylinder can be rebuilt using '62 Chevrolet half-ton pickup truck part # Wagner WCKFF33163. There should be 1/4 inch to 7/16 inch clutch pedal free-play measured at the pedal or .102 to .106 inch clearance on the withdrawal lever stop bolt. The procedure is shown in TSB 10 Article 88, still available from P.I. as part of all TSBS 1 through 118.

Asbestos has been used because it is cheap

and it works. It's hard to tell whether it will remain better than some of the newer and more expensive materials being developed. Your particular problems seem to be traceable to a partial swap to non DeTomaso parts—which can be solved with a complete changeover to assure compatibility.

## **Editor's Note:**

The Technical Information Articles are the inserts in the P.I. NEWS issues. The Technical Service Bulletins are the bulletins issued by Ford in the 1970s which we have reprinted and bound in one volume. The Index is a 34-page cross-reference that Pantera International has compiled which cross-references: (1) the technical articles in the P.I. NEWS, (2) the Technical Information Articles (inserts) in the NEWS, and (3) the Ford Technical Service Bulletins.

## **Pantera International:**

Since joining P.I. in January of this year, I'm glad to say I have purchased the car that I have longed to own, a Pantera! In May of this year, I bought a 1972 Pantera from a long-time friend and P.I. member, Eric Peterson. The car had just over 36,000 miles on it and it was in good shape. The engine compartment needs some cosmetic work and there is some body work to do but all in all, it's in good working order and what a blast to drive.

The over-riding question everyone has when they see it is "What is it?" It is well worth the \$23,500 I paid for it. Thanks for all the good information that comes my way. I look forward to each issue.

Fred Stoye  
Lathrup Village, MI

## **Pantera International:**

I have just moved back to Sweden. The container freight of my Pantera went just fine and two days ago I picked up my car in the