

BRAKES

Date: Mon, 16 Mar 1998 18:47:44 -0800
From: Phil Swanson <phil#chtree.com>
Subject: GMC: Brake Job

Hello,

I am in the process of replacing the front wheel bearings in my 1973 Canyon Lands and while I am at it, I thought I'd replace the brake linings, turn the rotors, etc. Does anyone know if the Performance Friction Carbon Metallic Pads are available for the motor homes? It's always been a good high performance pad on other applications. I'm not at all worried about increase rotor wear, a small price to pay for super stopping power.

Also, I was wondering which ball joint is the loaded joint, i.e. upper or lower? I think I'll change these out and rebuild the final drive axle assemblies while I am in there. I had one heck of a time braking the 1 1/2 inch front axle nuts loose. It took a 3/4 " drive socket and breaker bar with a five foot cheater bar and even then it didn't want to come loose. I figure with all this effort, I might as well do the works while I'm in there. The coach has just 79K miles on it but like many others gh\has been sitting extensively. Thanks for any information you could provide. Hopefully someone will talk to brakes and front suspension at Vegas also.

Phil Swanson

Date: Mon, 16 Mar 1998 20:44:23 -0811
From: Scott Woodworth <myvair#lemoorenet.com>
Subject: Re: GMC: Brake Job

Phil,

The lower ball joints carry the load. I don't see any reason why Performance Friction Carbon Metallic Pads would cause accelerated brake rotor wear. Part number 2154 is specified for the GMC. A set will cost you \$43.56. Why don't you visit their most excellent website and check it out for yourself:

<http://www.performancefriction.com/highway/Highway01.htm>

--Scott Woodworth

Date: Tue, 17 Mar 1998 08:24:05 -0500
From: Patrick Flowers <patri63#ibm.net>
Subject: Re: GMC: Brake Job

Phil Swanson wrote:

>

> I am in the process of replacing the front wheel bearings in my 1973 Canyon Lands >and while I am at it, I thought I'd replace the brake linings, turn the rotors,etc.

You might consider changing to the larger calipers (from '79-86 Chevy 3/4 ton truck). They take the #0524 pads from Performance Friction. According to Jim Anstett, there is a small "boss" that must be ground off the caliper, but otherwise it's a direct swap. Ray Curtis at Eaton GMC sells the calipers already modified and the Performance pads. This also requires changing the flexible hoses(not a bad idea anyway - they have been known to collapse internally causing the caliper to drag), also available from Ray.

This was not intended to be a commercial for Eaton GMC, but if you call Ray (800-764-3673), he will send you a reprint of Jim Anstett's GMCMM article about upgrading the brakes and a price list of all the required parts.

Caveat - Any alterations to your brake system using parts not certified as part of the system voids DOT certification. I'm neither encouraging you to make these alterations nor certifying their safety or effectiveness. I'm just letting you know that the information is "out there".

Sorry for the legalese, but it's a strange society we live in these days.

Patrick Flowers

Mailto:patri63#ibm.net

Date: Sat, 21 Mar 1998 15:53:33 -0500
From: Patrick Flowers <patri63#ibm.net>
Subject: Re: GMC: Wheels and Brakes

Phil Swanson wrote:

>

> I want to thank those that responded on the issue of brakes. Allot of good information >there that many of us can use. I got in touch with Ray Curtis of Eaton GMC outside of >Denver and he is going to fix me up with the larger calipers and other parts needed.

Phil, Ray's a great guy to work with if you're keeping the rear drum brakes. I've been following up some information that GMCWS posted to their web site on the rear disk brake conversion. TSM will sell you the parts to convert your rear axles to disks for around \$600 per axle (less if you delete the parking brake). BTW, I've got some of the original 2" wide asbestos (no longer available due to EPA nonsense) brake shoes that I'll probably be selling if you're interested.

At 04:49 PM 3/26/98 -0500, Marcus wrote:

Well I must be crazy, but I have just purchased and registered two Transmodes. They are in Weston Ct and we will be driving them back to Rochester on Sunday.

One has some questionable brakes. When I went to look at them the pedal was very soft and went almost to the floor. I have a spare Master Cylinder, spare front calipers, hoses and some brake line. I also have two spare rear wheel cylinders and shoes. If it is a bad rear cylinder I thought I may just seal the two rear and use the front discs and two center drums for the trip back. Any thoughts on what else it could be and what I should look for?

Any thoughts on what we should do besides change the oil, check the the trans fluid, and top off the coolant. We will bring spare hoses, and belts. One is a 455 the other is a 403 - Are the belts different? I already have spare belts for a 455.

Any suggestions would be appreciated.

Marcus McGee

Date: Thu, 26 Mar 1998 15:20:41 -0811
From: Scott Woodworth <myvair#lemoorenet.com>
Subject: Re: GMC: Re: GMC :Picking up 2 New (to me) Transmodes

Marcus,

Hold on to that spare master cylinder you have if it's GMC original equipment. The GMC master cylinder P/N 18008633 has a greater fluid capacity for the rear brakes than a regular truck unit. It has a displacement stamp above the front port. This two-letter code must match the code on one you pulled off your coach. If you cap off the brake system on the rear set of wheels, you will be upsetting the brake bias towards the rear making them lock up prematurely. I wouldn't do it from a safety standpoint. Fix the brake system properly before driving the coach. Having a 14000-pound vehicle swap ends on you in the event of a panic stop isn't conducive to the safety of other drivers.

Make sure you purge all the old fluid out of the brake hydraulic system. I use Declean which is available for that purpose from the dealer. The type of fluid is very important. An excellent high temp DOT 3 type brake fluid for motorhome use if available from Ford dealers under part number C6AZ-19542-AB.

This information comes from the December 1996 issue of the GMC Motorhome News.

- -Scott Woodworth

Date: Thu, 26 Mar 1998 18:54:44 -0500 (EST)
From: "Thomas G. Warner" <warner#borg.com>
Subject: Re: GMC: Re: GMC :Picking up 2 New (to me) Transmodes

Sounds like air or moisture in the brake system from sitting around. However, I would check the vacuum to the power brake unit first. Also there is a good test procedure on page 5-37 of the maintenance manual to test the power brake unit. If that checks out OK than I would suspect the master cylinder next and than a leaky wheel cylinder. All easy to fix.

For the brakes - take some compression unions with you. You can use these with the tubing to make temporary repairs. When my line rusted through - I could have removed about ten feet of hose in front of the rear wheels and probably been fine. I just felt better replacing everything.
Patrick

Date: Sat, 28 Mar 1998 00:25:28 -0500 (EST)
From: "Thomas G. Warner" <warner#borg.com>
Subject: Re: GMC: Re: GMC :Picking up 2 New (to me) Transmodes

I have to really disagree with you guys in the method to replace a bad piece of brake line. You CANNOT use a simple compression fitting to patch the line. It has to be DOUBLE flare on the brake line. Nothing else is safe to use. The methods that you are describing are dangerous and almost certainly will result in a complete failure of the brakelines. You need a special flaring tool to put the double flare on the line so a compression fitting can be added.

At 10:40 PM 3/27/98 EST, you wrote:

>In a message dated 98-03-27 10:14:54 EST, you write:

>

><<

> Any well stocked hardware or auto supply. I believe the brake line is 1/8in - take a short section with you to be sure. If you use compression fittings, get them good and tight and stand on the brakes hard (with the engine running) a couple times before driving to be sure they'll hold. >>

>

>There are two brake line sizes 3/16 to disc and 1/4 to drums.

>

>Take Care

>Arch

Tom

I agree with you but all I said were the line sizes. When I started rebuilding my new queen, I almost fell over dead when I found not one but two compression fittings across the rear bogie. Not to mention brake line that crumbled when I tried to remove it.

NO you should not use compression fittings. Yes you should have some with you in case you break down and your double flair too is at your local repair shop. Nobody said to cut your line and put one in-----just have some in case you have a problem real close to nowhere. It's a lot better than bring one in with a piece of fuel line and a couple of worm gear clamps like I did once. Not a GMC but a Winne.

You are right-----but what do you do when you cant be right??? Life on the road is not always perfect-----so what is your back up? Sorry to be so harsh but this was about what could you do to limp in if you had to.

Take Care
Arch

Date: Sat, 28 Mar 1998 09:45:26 -0500
From: Patrick Flowers <patri63#ibm.net>
Subject: Re: GMC: Re: GMC :Picking up 2 New (to me) Transmodes

Thomas G. Warner wrote:

>

> I have to really disagree with you guys in the method to replace a bad piece of brake line. You CANNOT use a simple compression fitting to patch the line. It has to be DOUBLE flare on the brake line. Nothing else is safe to use. The methods that you are describing are dangerous and almost certainly will result in a complete failure of the brakelines.

Note - I said TEMPORARY repair. Marcus is just trying to get these girls home.

Patrick

- -

Patrick Flowers
Mailto:patri63#ibm.net

Date: Mon, 06 Apr 1998 16:16:55 -0711
From: Scott Woodworth <myvair#lemoorenet.com>
Subject: Re: GMC: Performance Friction brake pads??

Ralph,

I went to the Performance Friction web page, because I remember helping someone else out with a similar brake question. I looked up their application chart for the GMC motorhome. The P/N I came up with was 2154 for "GMC Front Wheel Drive". That has to be it, because that's the only front wheel drive vehicle that GMC ever made. I saw 0524 a little farther up on the same page:

<http://www.performancefriction.com/Application/app01.htm>

0524 728AD52 Chevrolet, GMC (Vans & Light Trucks), Jeep
2154 7136D215 GMC (Front Wheel Drive)
--Scott Woodworth

Date: Tue, 7 Apr 1998 00:59:42 -0400 (EDT)
From: "Thomas G. Warner" <warner#borg.com>
Subject: Re: GMC: Performance Friction brake pads??

I have started to rebuild my 1976 Palmbeach and am installing a complete new front end, brakes etc. Have purchased Raybestos calipers, CR-80941R (right), and CR-80940-L(left) at \$25.99 each with \$5.00 charge, semi metallic brake pads Raybestos PGD52M at \$33., new brake hoses Wagner F-86578 at \$36.31, proportioning valve GM25515634 from GMC truck dealer for \$76, All are of excellent quality and cross-reference to the original GMC part numbers. The high performance pads will eat your brake rotors up. Pads are much cheaper than rotors. If anyone is interested I have a spread sheet with costs for most of the front suspension, rear brakes etc.

At 02:13 PM 4/6/98 -0400, you wrote:

>According to information from Performance Friction's customer service department, their regular carbon-metallic pad for an Olds Toronado is # 0524 while their "High Performance" pad is # 052Z. My local distributor gave me prices of \$36/set for the regulars pads and \$98/set for the HP ones. They also have another pad, the # 614Z "Police" version which, according to the technical person, is bigger giving greater surface-to-disc contact area. No price on this set yet. The technical person uses the # 052Z on his street cars and says they work very well.

>

>Both the 052Z and #614Z have similar pad compound, just different pad size on the same metal backing plate.

>

>Has anyone had any experience with either "Z" pad? I'm inclined to go with either the 614Z even though they cost more. What's a few \$\$\$\$ when you're coming down a long hill and need to get on the binders in a hurry.

>

>Thanks for the info. I'll keep everyone posted on the results.

>

Date: Mon, 06 Apr 1998 22:15:39 -0711

From: Scott Woodworth <myvair#lemoorenet.com>

Subject: Re: GMC: Performance Friction brake pads??

Thomas G. Warner wrote:

>

> The high performance pads will eat your brake rotors up. Pads are much cheaper than rotors.

Yes, I agree with Thomas with one proviso: Certain high performance pads, like the full metallic variety, will in fact wear your brake rotors faster. The semi metallic pads like Performance Friction carbon metallic are not as aggressive and work nearly as well as full metallic pads. A word of warning for those inclined to try full metallic pads or shoes: They will not work well unless they are hot first. They are not really suited to street driven vehicles.

- -Scott Woodworth

Date: Tue, 07 Apr 1998 02:39:06 -0400

From: "Ralph D. Edelbach" <edelbach#tcnj.edu>
Subject: GMC: More brake stuff.

> According to Mark, in the technical department of Performance Friction, their high performance "Z" pads do not require heat to operate properly and are used by a lot of trucking companies, US post office and police departments.

> I don't have any experience with HP pads "eating up rotors" although Mark did volunteer they would not last quite as long as regular pads. Given the choice between better braking of an 11,000 pound vehicle and pad life, I opt for the quicker stops, all things considered.

I ended up ordering a set of their D 614Z police special pads yesterday. Comparing the different sets available for GMC's and other GM vehicle, it is obvious that the D614 regular pad, same size as D614Z, has quite a bit more surface area than the normal pad plus no rivet holes such as those used on the pads presently in my coach. The pads I have now were put in about 2 years ago by the PO and don't look as if they have had much use at all. I was just about able to get them back over the disk even with the piston pressed all the way back into the bore. Incidentally, the D614Z pads cost \$84.90 for the set, which is about \$50 more than the normal set. I'll keep the list posted on the results but not having driven my GMC for many miles nor ever driven another one, I probably won't be able to give a good comparison. If I put a set of the correct "Z" pads on my 1989 Ford Taurus SHO which I do drive briskly, I'll be better able to comment on any braking differences.

Happy and safe motoring

Date: Mon, 13 Apr 1998 01:01:55 -0400 (EDT)
From: "Thomas G. Warner" <warner#borg.com>
Subject: Re: GMC: Recycleers and Salvage

Mike Medtronics makes the heart grow fonder!

At 06:44 PM 4/12/98 +0000, you wrote:

>Hello

> I have had personal dealings with Arizona RV Salvage about this time last year when I lost a rear wheel, drum, bearings, brake shoes, backing plate, and spindle at 65-70 mph heading north on the 91 about 30 miles south of Hartford, CT.

> Super polite, efficient, able to deal with panic stricken customers, and music to a Scotsmans heart, not inexpensive, but Cheap!! The major turkey in the whole nightmare was... UPS.

> A couple of days and a couple of hundred dollars and I was back home in Nova Scotia. I have learned four things from this event. The folks at Arizona RV are good people, sometimes maintenance can't wait and should be done on route to wherever you're going, a 26 ft. GMC skidding and then crawling through three lanes of traffic isn't a pretty sight, and finally, for those of you who know, Medtronics makes a durable little product.

>

>MikeB.

Date: Tue, 28 Apr 1998 17:33:45 -0500
From: "Russ Bethel" <rbethel#stic.net>
Subject: GMC: Rear disc brakes

I would like to know what vehicle(s) in the salvage yards would work as donors for a set of rear disc brakes for my 1976 Glenbrook. I think that El Dorado rear calipers and backing plates is what I need. I was out to one of the local salvage yards the other day and they seem to have several possible donors. I need to check out my rear brakes and thought I would start gathering up parts to convert to disc on all 6 wheels this winter.

Russ Bethel
San Antonio, Texas

Russ:

I do not think it is that simple. The mounting arrangement is quite different. Try looking at the Western States Web site. There is a company in Colorado that will do the discs and let you get the calipers etc. The disc set up was about \$400 or less with out the calipers.

Marcus

Date: Wed, 29 Apr 1998 13:44:02 -0400
From: "Bartz, Paul" <s9d3452#mail.drms.dla.mil>
Subject: RE: GMC: Rear disc brakes

Russ:

The parts you are looking for, backing plate primarily, comes from the 76-78 Cadillac El Dorado REAR AXLE ONLY. There is some machine work required to enlarge the center opening so that it will fit over the coach axle and butt up to the arm.

Bobby Moore from Louisville KY (502-964-6416) gave a seminar on use of the backing plates at the New Hampshire GMC MI Rally last September. His handout had all the information on what components to obtain and the required machining to have done. Using a rebuilt P-30 chassis master cylinder and 2-1/2" calipers, machining, etc., the system would cost approximately \$2100 to do the four rear wheels.

The El Dorado calipers have a lever arm to connect the emergency brake cable to. Bobby connected and tested his on one axle only and found that it wouldn't hold on a steep incline. An alternative is a hydraulic line lock installed in the brake line, activated electrically by a switch.

Paul Bartz

Date: Tue, 12 May 1998 23:44:33 -0400 (EDT)

From: "Thomas G. Warner" <warner#borg.com>
Subject: Re: GMC: Thanks

Arch the original GMC part # for the brake hose (original equipment) is GM9758214 and that crosses to a Wagner F86578 #36.31, or NAPA 36675. Hope this helps.

At 06:47 PM 5/12/98 EDT, you wrote:

>Hey Folks!

>

>I am in trouble. Today I have been replacing ball joints front shocks and converted over to the larger brake calipers. Yes, Patrick will have all the pics. Here's my problem-----I used a NAPA part # posted here some time ago. I also checked other sources. I can not find front brake hoses that will work. Can I bend the steel line that comes off the banjo fitting???? Never bent that kind of steel line before.

>

>If any body has a good part # for front brake hoses using the 80MM caliper I sure would like to hear it. I am closing in on the mechanical part of this rehab and now I up against the wall. I was planning to roll this weekend-----???

>

>Any help you all could give would sure be very welcome. Thanks in advance.

>Take Care

>Arch

Regarding larger caliper that Arch used:
Arch,

Ray Curtis' price list shows a Part No. SP6514(\$43.71) for the left and SP5766 (\$48.12) for the right, but he doesn't say whose part numbers they are. Give Ray a call. He stocks them and the price is reasonable enough.

If anyone's interested in the brake upgrades that Jim Anstet of Loveland, CO did on his coach, give Ray Curtis a call at 800-764-3673. He'll send you a price list for the parts as well as a copy of JA's article from the Sept. 95 GMCMM.

Patrick

Date: Wed, 27 May 1998 20:53:21
0700

From: Phil Swanson <phil#chtree.com>
Subject: GMC: Bleeding the Front Brakes

Hello GMCers,

I was wondering if you really need to use the special tool from Cinnabar to hold the pin in on the combination valve to bleed the front brakes. Has anyone done this with common hand tools? Also, I was wondering if anyone can clarify what happens electrically when you move the switch

on the dash from Battery Normal to Battery Boost. Is it simply directing the generator output from one battery to another or from one battery to both batteries or ???. The manual I have doesn't give a functional explanation, only to switch it to Boost when your main battery gets low. Any information is appreciated. I had problems trying to figure this out on the wiring schematic as well, although it looks like it does tie into the battery isolator somehow.

It's always fun helping each other.

Phil Swanson

Date: Thu, 28 May 1998 13:24:58 -0500

From: "Russ Bethel" <rbethel#stic.net>

Subject: Re: GMC: Bleeding the Front Brakes

Phil,

When I bleed my front brakes I used a syringe that I bought from the auto parts store for bleeding brakes. I filled the syringe with brake fluid, pushed on the plunger until all the air was removed, coupled the syringe to the bleeder fitting on the caliper, opened the bleeder plug and injected the fluid into the brake system. All this was done with the engine off and the cap off the master cylinder. Two things to watch out for, (a) don't push the syringe plunger real fast and hard as it will either come off the bleeder plug or a fountain of brake fluid will come out of the open master cylinder, (b) remove most of the fluid from the master cylinder first so there will be room for the fluid you inject from the syringe. If you have not upset the shuttle on the combination valve before hand it should not need to be messed with. If you do have a brake light on you will need to get the shuttle back in it's normal position. The fellow that does some of the work on my coach (Dale from Casteel, Texas (915)247-3616) says you can bleed the front brakes using the gravity method. Make sure the master cylinder is full and open the bleeder port on each caliper and allow the brake fluid to run out. Be sure to close the bleeder plug before the master cylinder runs out of brake fluid.

The solenoid under the battery isolator, located on the passenger side under the hood, connects the rear battery to the front battery when you push the battery boost switch. I found it to be a real life saver when I lost the alternator belt and was in the middle of no where without a spare belt. I had to push the switch into the boost position and hold it there for a half a minute every few minutes to get enough electricity in the main battery to keep the engine running. I since have a spare belt and alternator.

Hope this answers your questions. A lot of information is passed along on this net and it sure helps me. It would be hard to say how much money I have saved from the information and contacts in these posts on the net.

Regards,

Russ Bethel

rbethel#stic.net

Mark,

I was on the phone yesterday to cinnabar and they were telling me how to tell if my 74 had the brake recall done on it. Anyway...They told me there was a small hubcap on the centershaft (I could be wrong on the term they used) but it sounds like thats what your looking for. Give them a call at 650-948-8664

See Ya,
Rob

Date: Wed, 3 Jun 1998 11:20:46 -0400
From: "Bartz, Paul" <s9d3452@mail.drms.dla.mil>
Subject: GMC: FW: Brake master cylinder?

FYI, here is some info that may be of interest to readers.

> -----Original Message-----

> From: Bartz, Paul

> Sent: Tuesday, June 02, 1998 3:19 PM

> To: 'Ralph D. Edelbach'

> Subject: RE: Brake master cylinder?

>

> Ralph:

>

> Re the master cylinder, Leigh tells me that the P30 type master cylinder (mc) generates over a 1000# more force on the bake pads compared to the original. I've heard pros and cons about that. Leigh also tells me that the mc provides an increased brake fluid reservoir needed particularly if you go to the six-wheel disc brakes.

>

> I don't have my brake parts listing with me so can't comment on the price you quote for the mc. I'll look it up after I get home and get back to you.

>

> I recommend you contact Bobby Moore in Louisville, 502-964-6416 who can help you with the mc bracket situation. He fabricated one for his system as well as the rod (can't think of the proper word for it) that interfaces between the brake booster and the piston on the backside of the mc.

>

> Although I'm familiar with the sensitized brake booster, I'm not knowledgeable about what it takes to accomplish. Bobby, I believe, is. It's done primarily to accommodate handicapped drivers and allows a very light touch to brake. Given the weight of the GMC, it results in decreased pedal effort. Leigh Harrison also sells the sensitized booster.

>

> Glad to be able to share my knowledge of the coach with anyone. Remember, I was in your situation initially too.

> Paul Bartz

> -----Original Message-----

> From: Ralph D. Edelbach [SMTP:edelbach#TCNJ.EDU]

> Sent: Tuesday, June 02, 1998 2:09 PM

> To: s9d3452@mail.drms.dla.mil

> Subject: Brake master cylinder?

>

> Hi Paul:

> Regarding the brake upgrade process - I have a message you sent on Mar 17 listing various parts needed to do the job. I've replaced the driver's side caliper with the 80mm unit and am getting ready to do the other side soon. Haven't been driving it so I'm in no rush. Your info was most helpful!

>

> I'm wondering about the benefits of fitting the larger master cylinder. Chevy wants \$205 for a new unit and the parts houses all want more than that. Is it only because of the increased brake fluid capacity or are there some other advantages. Also, what is involved with fabricating a new mounting bracket for the cylinder? I have not looked at how the MC and booster are set-up so I might understand it better when I get into it.

>

> I spoke with Ray Eaton just a few minutes ago and he just uses a rebuilt regular MC but upgrades or "sensitizes" the brake booster. Do you have any info about the sensitizing process?

>

> I appreciate all the information that those who have experience share with us "newbies." Maybe I'll be able to help someone someday. Many thanks....

>

> Ralph Edelbach

Date: Wed, 3 Jun 1998 16:38:23 -0400

From: "Bartz, Paul" <s9d3452@mail.drms.dla.mil>

Subject: RE: GMC: FW: Brake master cylinder?

Ralph:

The P30 chassis master cylinder part number is: GM - 14009146; NAPA - 39-622.

I was quoted \$219 by NAPA.

Paul Bartz

Date: Tue, 2 Jun 1998 23:54:11 -0400 (EDT)

From: "Thomas G. Warner" <warner#borg.com>

Subject: GMC: Brake Powermaster Unit

While at the recent Kingston, Canada Rally of the GMC Heritage Cruisers I saw several coaches with Powermaster brake units installed. The owners of the coaches were high on praise for the units and the tremendous stopping power of the add on. I was told that they can still be bought at NAPA. My GMC Motorhomes International Newsletter parts Interchange Index lists the Power Master Unit as a GMC part # 18018236. It also says they were used on GM cars 1985-1986(see #34, page 4). I do not have this #34 reference. Does anybody know what GM cars used them???

Date: Wed, 3 Jun 1998 20:56:02 EDT
From: CHill113#aol.com
Subject: Re: GMC: Brake Powermaster Unit

Yes, I believe it was the large Buick, Oldsmobile, and possibly Pontiac station wagons, around 1985. I have had the powermaster for a number of years. My first one was from a salvage yard. If you go this route, be sure to replace the accumulator and the pressure switch (use the gray pressure switch). Eventually this unit developed an internal pressure leak and would 'short cycle'. I'm not much at fixing things, so I bought a new unit from GM. You will need to buy an adapter plate to use where it fastens on to the firewall. (Unless someone has devised another way) Marvin Peck, 8019 Colgate, Houston, TX 77061 phone 713-643-4442. designed and sells the adapters. As I recall the cost is not out of line.

Justin

Date: Wed, 3 Jun 1998 21:31:40 -0400
From: "The Hamiltons" <hamilton#king.igs.net>
Subject: GMC: Powermaster Brake Assembly

Tom,

The Powermaster was used on 1986 Lesabre and Electra Estate Wagons and 1985-87 Regals with 3.8 L SFI Turbo. They require a special adapter and some modification to be used on the GMC.

Al Hamilton
Kingston, Ont

Date: Thu, 4 Jun 1998 01:14:03 -0400 (EDT)
From: "Thomas G. Warner" <warner#borg.com>
Subject: Re: GMC: Powermaster Brake Assembly

Pat, the powermaster unit is actually a master cylinder, designed by GMC, with its own 12 volt motor that puts out tremendous pressure to the brakes. Vacuum is no longer needed. Very light pressure on the brake pedal will generate tremendous forces at the wheel cylinder. Supposed to be fantastic braking action for the GMC coach. I want to try one! It is listed in the GMC Motorhomes International newsletter.

Date: Thu, 4 Jun 1998 01:25:03 -0400 (EDT)
From: "Thomas G. Warner" <warner#borg.com>
Subject: GMC: GMC Power master brakes

For anyone that has the GMC Powermaster unit found a webb page with information on

troubleshooting them.

<http://ni.umd.edu/gnttype/www/PwrMstr.html>

Powermaster Diagnostics
Submitted by Ken Mosher

Power Master Brake Diagnosis
Bulletin 87-5-13A.

This bulletin provides brake diagnostic information that will help To correctly diagnose and resolve concerns with the PowerMaster brake system on 1986 Estate Wagons and 1985-1987 Regal Turbo vehicles.

CONDITION:

"Harder Pedal Feel" or "Increased Pedal Travel"

CAUSE:

A. Harder Pedal feel 1. Booster pressure switch leaking fluid externally
2. Accumulator - low gas charge

B. Increased Pedal Travel 1. Likely to be caused by air ingestion into the cast iron combination brake valve, requiring a new brass replacement valve.

NOTE: Replacement of the complete PowerMaster assembly is not required to correct most customer concerns. Part kits are available that will resolve Most concerns with this system and eliminate unnecessary replacement of the complete assembly.

CORRECTION:

HARD PEDAL
Diagnostics

Check fluid on booster side after 10 brake applies with ignition off. Check reservoir on the side away from pressure switch

Results

Below min. mark See Step 1

Normal No Action

Warning Light Operation

With normal braking

light doesn't come on No Action

With normal braking

light comes on, goes off Accumulator

With normal braking
light comes on, stays on See booster motor
or Increased Pedal
Travel diagnostic
With rapid brake applies
at one per second
light may come on & go off Normal

Accumulator Operation

Test after 10 brake applies with ignition off to depressurize accumulator:
Then turn ignition on and time from motor start to light off.

Results

0-2 seconds Accumulator diaphragm is leaking internally.
Replace accumulator
3-6 seconds Normal
7 seconds or more See Step 2

Booster Motor Operation

Turn ignition on and make brake applies.

Results

Motor doesn't run,
no power assist,
and warning light is on See Step 3
Motor doesn't shut off See Step 4

Test for Combination Valve air ingestion
Bleed left front caliper only.

Results

Pedal Travel improves
after bleeding left front brake Replace combination valve
with brass valve #25509419
and rebleed total system

To properly evaluate pedal travel, apply brakes with vehicle parked, ignition off, and without power assist (depressurize accumulator with 10 brake applies). Pedal travel should be 2 1/4" max. with normally worn brake linings when checked at 100 # pedal force.

CORRECTIVE ACTION STEPS

Step #1 - Low fluid in booster side (external leak)
A. Inspect the pressure switch and adjacent areas for external leak. This may require wiping those areas dry and observing during and after motor run. The pressure switch is the most likely cause of external leak, but can also dampen other areas such as the cowl or rear booster areas.

B. Depressurize the system with 10 brake applies with ignition off before replacing pressure switch or other leaking part. Recheck fluid level on booster side and add brake fluid to adjust level to within gauge marks in reservoir.

Step #2 - After accumulator Operation Test indicates seven seconds or more of motor operation.

A. Depressure system with 10 brake applies with ignition off. Fluid level must be within gauge marks on the reservoir.

B. Turn ignition on and wait until motor shuts off.

1. If motor doesn't selfcycle in 2 minutes without brake apply, proceed to (C).

2. If motor does selfcycle, an internal booster leak requires replacing the Powermaster assembly.

C. Install J35126 Tool and test to determine if fault is in motor and pump assembly or in the accumulator.

1. Remove pressure switch and install J35216 into switch port.

2. Reinstall pressure switch into J35126 and reconnect electrical connector.

D. Turn ignition on. Wait until motor shuts off. Turn ignition off. Slowly bleed off accumulator pressure with J35126 bleed valve-returning fluid to booster side of reservoir. The gauge pressure will suddenly drop to zero at the accumulator gas pre-charge point.

1. If the drop off occurs below 200 psi, replace accumulator.

2. If drop off occurs above 200 psi, replace the pump and assembly.

E. NOTE: J351226 tool in (2C) is the best method; however, if it is not available, an alternate method will help to determine fault between the pump and motor assembly and the accumulator.

1. Depressurize the system with 10 brake applies with the ignition off. Turn ignition on, and check the time from motor start to motor shut off.

2. If time to motor shut off is more than 15 seconds, replace motor and pump assembly, and then retest accumulator per Accumulator Operation Test. If time is seven seconds or more, also replace the accumulator.

3. If time to motor shut off is less than 15 seconds, replace accumulator, and then retest motor and pump per Accumulator Operation Test. If time is seven seconds or more, also replace motor and pump.

Step #3 - Booster Motor does not run.

Confirm that the 30 Amp fuse is OK or replace. Then conduct electrical circuit checks. Disconnect the pressure switch and motor electrical connector and test to the following:

A. Pressure Switch (Ohmmeter)

1. All switch terminals should have continuity with each other. If not, replace switch.

B. Booster Motor (Ohmmeter)

1. Meter should show resistance between Motor "B" and "D".
2. Meter should show open circuit between Motor "A" and "C".
3. Replace motor and assembly if 1 & 2 are not true.

C. Pressure switch Connector and Harness (Volt/Ohmmeter)

1. With ignition on, switch connector terminal "A" should be continuous with terminal "D".
2. With ignition on, switch connector terminal "B" should be 12 volts to ground. (volt meter).
3. If "A" and "D" are not continuous, but "B" shows 12 volts, release parking brake.
4. Disconnect combination valve electrical connector.

D. Pump Connector and Harness (Volt/Ohmmeter)

1. Connector terminal "A" continuous with chassis.
2. Connector terminal "B" 12 volts to ground with ignition on.
3. Terminal "C" 12 volts to ground. This is the main electrical supply to the motor and is fused. If voltage doesn't appear at this terminal, check fuse.
4. Terminal "D" previously checked in step 3C1.

Step #4 - Motor does not shut off with ignition on A. Check fluid level per Step 2A.

B. Install J35126 tool per Step 2C and test to determine if fault is in motor and pump assembly, pressure switch, or internal booster leakage.

C. Monitor booster pressure on J35126 gauge - After 20 seconds with ignition on and without braking.

1. If pressure exceeds 770 psi, replace pressure switch.
2. If pressure does not reach 540-770 psi pump shut-off range, check the front and rear holes in the bottom of the reservoir on boost side only.
 - a. If fluid is flowing into the reservoir through either hole, the booster is leaking internally and the complete powermaster assembly should be replaced.
 - b. If fluid is not flowing into the reservoir through either hole, the pump is unable to provide 540-770 psi and the motor/pump assembly should be replaced.

PARTS:

The following repair kits have been released to assist in servicing the PowerMaster brake units.

18011279 Pump & Motor Assembly Package
18014977 Pressure Switch Assembly Package
18014978 Accumulator Assembly Package
18013293 Reservoir Cover Assembly Package
18011398 Boot Package
18010875 Bracket Package
18011403 Sump Hose Package
25509419 Brass Combination Valve

Pump Pressure Ranges Pump Off 540-770 psi
Pump On 490-530 psi
Light On 355-435 psi

A problem may be encountered in bleeding the PowerMaster if for any reason the pump has not been properly filled with brake fluid. If after any service or new installation the pump does not circulate fluid after the motor has run for 20 secs, it may be necessary to reprime the pump. In order to reprime the system, the following steps should be performed:

1. Turn off ignition
2. Apply the brake pedal with medium pressure 10-15 times with ignition off to discharge pressure from the accumulator.
3. Clean and remove reservoir cover.
4. Disconnect the booster tube and nut assembly from the casting boss at pump outlet. Refer to illustration.
5. Wait for brake fluid to gravity bleed from the disconnected end of the tubing.
6. When brake fluid begins to flow, reconnect the tube and torque to 13 ft lbs.
7. Check the fluid level in the reservoir and add new brake fluid if needed.
Reinstall the reservoir cover.
8. Turn on the ignition. The pump should properly circulate the fluid to the accumulator. The fluid level on the inboard side of the reservoir should diminish if the pump is working properly.
9. Continue with service manual bleed and fill procedure.

See PwrMstr.JPG and diagchart.JPG in the archive /tech directory for a circuit diagram and a diagnostic binary tree diagram .

Ken Mosher
Midlands Chapter GSCA

Submitted by:
Ken Mosher
kenmosher#nfinity.com
HTML by:
Tom Lorek
tlorek#dowagro.com

Date: Thu, 4 Jun 1998 20:07:17 EDT
From: CHill113#aol.com
Subject: Re: GMC: Powermaster Brake Assembly

Patrick

The PowerMaster replaces the master cylinder and the vacuum booster assembly. It is a electrical pump device that produces sufficiently higher brake fluid pressure to give your brakes much more sensitivity approaching the effectiveness of a car's brakes. Assuming of course that the rest of the system is functioning as it should. I've had one for several years now.

Justin

Justin,

The power master system has been adapted to the GMC to try to improve sensitivity of the system and I have heard that it works. I have also seen a meriad of problems and complaints associated with the system. The trouble shooting web site attests to this, but the idea is a good one.

In contrast to this system, there is a process called "sensitizing" the brake booster that is less complicated to install and will produce similar results. A sensitized booster was primarily designed for the handicapped mobility industry to give a sensitive brake pedal for those folks that have trouble press hard on the pedal.

The OEM brake power booster is internally modified to the more sensitive specifications and is reinstalled as an OEM booster would be. I have had reports that the system works fine in our motorhome and drivers report the have confidence in the system and feel safe driving with it, and as far as brakes go is what I'm looking for.

If anyone would like more info on this system, Email or call me toll free at: 1-877-275-4462

Remember, today is "free Friday " for my tech line, it doesn't cost you and it doesn't cost ME, so lets hear from you!

Jim Bounds www.gmccoop.com

Date: Thu, 4 Jun 1998 22:01:56 -0500
From: "Richard Archer" <arch#siu.edu>
Subject: Re: GMC: Powermaster Brake Assembly

Justin

Bob Lamey does the work. 1-909-982-7747. Just talked to him yesterday. \$175 with a one day turnaround. Will not ship new one cant get cores. You must send in yours.

Take Care
arch#siu.edu
DeSoto IL

~~~~~\\_\_\_\_\_/~~~~~

Date: Fri, 5 Jun 1998 11:38:05 -0400  
From: "Bartz, Paul" <s9d3452@mail.drms.dla.mil>  
Subject: RE: GMC: Powermaster Brake Assembly

Leigh Harrison (703-494-9914) also sells sensitized boosters.  
Paul Bartz

Date: Fri, 5 Jun 1998 18:32:12 -0400 (EDT)  
From: "Thomas G. Warner" <warner#borg.com>  
Subject: RE: GMC: Powermaster Brake Assembly

They can be purchased completely remanufactured at you auto parts store for \$295. They were on 1986 lesabre and electra estate wagons.

GMCnetters

I dont want to throw any cold water on this whole thread. I have been doing some research on the Powermaster Brakes. Since I have replaced my brake lines I consider this a real option for me. These puppys develop some real high brake line pressures. When I took off my old lines the one across the boggie crumbled trying to get it off. There was another spot along the rear frame that broke. When I put my new brake lines in I put a piece of plastic tubing around the line then clamped it down. This kept the line off the frame and the boggie. Dirt and stuff wont build up as bad as before. ANYWAY, I would be real careful putting one of these units on a rig with 20 yr old brake lines on it. I would sure change out any cracked rubber lines. I know I am starting to sound like Wes BUT I cant help it.

Take Care  
Arch

-----

Date: Fri, 5 Jun 1998 19:28:12 -0400 (EDT)  
From: "Thomas G. Warner" <warner#borg.com>  
Subject: Re: GMC: Powermaster Brake Assembly

Arch, everyone should be replacing all of the brake lines by this time. I am in the process of rebuilding the complete brake system form one end to the other. new calipers, disks, wheel cylinders, metering balance assy and all hoses. Now is the time to make the decision on how to go!

Justin,

Actually, the boosters are modified and are available exchanged through Leigh Harrison and myself. They cost \$175.00 plus \$50.00 core charge which will be returned to you when we receive a core GM booster.

You can get more sensitivity without the elaborate modifications. This unit is a bolt on replacement for the OEM booster.

Give me a call on monday if you are interested. 1-877-275-4462  
Jim Bounds [www.gmccoop.com](http://www.gmccoop.com)

Date: Fri, 05 Jun 1998 23:16:52 -0700  
From: Jim Bounds <[jimbounds@sprintmail.com](mailto:jimbounds@sprintmail.com)>  
Subject: Re: GMC: Powermaster Brake Assembly

Arch,

Hey, that is a great pick up! The brake lines are badly neglected until you strike oil one day standing on the brake and reaffirm your religion! The hoses too need more attention. If your rear hoses are swollen at the end, you had better replace them soon. The swell is a rusted cremp and will give you no warning before she blows. Golby has reproduced a really nice hose, give them a call. The front hoses have a tendency to collapse and should be replaced at the same time, you can pick them up locally (part # is BH36675).

Again, thanks for keeping the big picture in focus.  
Jim Bounds [www.gmccoop.com](http://www.gmccoop.com)

Date: Sat, 6 Jun 1998 10:14:16 -0400  
From: "The Hamiltons" <[hamilton#king.igs.net](mailto:hamilton#king.igs.net)>  
Subject: GMC: Sensitised Vacuum Booster

Does increasing the pedal sensitivity actually increase brake line pressure and give improved braking or only require less pedal effort? If there is an increase in line pressure, does anyone know what it is? That would help in a comparison with Powermaster. What is done to a booster to make it more sensitive? I assume the modifications are strong enough to be safe using the original equipment booster.

Is a larger master cylinder suggested with the modified booster?

Al Hamilton  
Kingston, Ont

Date: Sat, 06 Jun 1998 10:29:30 -0400  
From: "Ralph D. Edelbach" <[edelbach#tcnj.edu](mailto:edelbach#tcnj.edu)>  
Subject: Re: GMC: Powermaster Brake Assembly

I just came back from a visit to my local Buick dealer and he pulled up drawings and part numbers on his computer for the Powermaster unit for a 1985-87 Regal with the 3.8L SFI Turbo. He kindly printed out the drawings and parts listings including one showing the entire assembly including the pedal mounting components.

He said the price for everything, call part numbers 1 thru 39, was \$1298. In the

interest of my financial situation, I'm going to check with some local parts emporiums to see what they have and then consider rebuilding whatever it might need.

Many thanks to everyone who put some info on our list about brakes. My feeling is that while it is nice to have a motor home that starts and runs well, it is essential that it stop quickly when necessary. That is my goal before taking ours on any trips.

Ralph Edelbach, '74 Glacier

Date: Sun, 7 Jun 1998 22:02:55 EDT  
From: CHill113#aol.com  
Subject: Re: GMC: Powermaster Brake Assembly

Ralph

I first bought a used Powermaster with a new accumulator and new pressure switch. I think I paid one of our club members \$150 for it. Several years later it was acting up and the Chevy dealer where I was having my work done happened to have a new one on the shelf (3 or 4 years ago). I think he said list was a little over \$700 but I bought it for \$500 because he wanted to get it out of inventory. The price quoted you sounds excessive. The adapter that is necessary costs about \$30 or \$35 and that's all you need, except a "couple of golf tees" top plug up the vacuum lines. (just kidding about the golf tees)

Justin

Date: Sun, 07 Jun 1998 23:29:23 -0700  
From: Jim Bounds <jimbounds@sprintmail.com>  
Subject: Re: GMC: Sensitised Vacuum Booster

Al,

Instead of trying to answer your question with what I know about the system, I would encourage you to call Leigh Harrison who, I'm sure, will be able to discuss with you in depth his booster system. His phone # is: 1-703-494-9914 and FAX 1-703-490-0902. Anyone else with similar questions should also give Leigh a ring, be sure to tell him we were talking and that you got his number from the GMCnet and our conversations.

Jim Bounds [www.gmccoop.com](http://www.gmccoop.com)

Date: Sun, 21 Jun 1998 19:29:35 -0700  
From: "Heinz Wittenbecher" <heinz#bytedesigns.com>  
Subject: How much real improvement with Disc Brakes on the rear?

I'm about to accelerate my brake project, i.e. change to Disc Brakes on the 4 rears as supplied by TSM of Colorado.

Just wondering how much improvement, i.e. how much improvement in decreased stopping distance can one expect with the switch from drum to disc?

TIA -- Heinz  
www.bytedesigns.com/gmc

Date: Sun, 21 Jun 1998 22:51:03 -0400 (EDT)  
From: "Thomas G. Warner" <warner#borg.com>  
Subject: Re: GMC: How much real improvement with Disc Brakes on the rear?

AT our last GMC Heritage Cruiser rally in Kingston Canada, several of the members were suggesting a change to the carbon metallic disks in front, and a special asbestos lined brake for the rear, with the addition of the Powermaster brake unit to replace the original master cylinder and booster. They claim that this conversin really makes the coach stand on end! Maybe one of the members will read this, I know Al Hamilton does and can give the particulars...As usual my mind was on something else I was working on and I did not get all of the details, only enough to know who to ask when I start. I already have the powermaster unit, found in Auto parts yard for \$10.

Heinz,

I think the main benefit from the disk conversion is reduced brake fade. The open construction of disk brake assemblies lets them shed heat faster than drum brakes.

My \$.02,

Patrick

- - -

Patrick Flowers  
Mailto:patri63#ibm.net

The asbestos lined rear shoes are no longer available(in the US at least). IIRC, 9/30/97 was the last date that they could be sold. Don't know what the "hot tip" is now, except that you should be sure to get 2" wide shoes.

Patrick Flowers

Date: Mon, 22 Jun 1998 09:34:30 -0400 (EDT)  
From: "Thomas G. Warner" <warner#borg.com>  
Subject: Re: GMC: How much real improvement with Disc Brakes on the rear?

Patrick, not true that asbestos is no longer available in the US. It is not advertised and does not say asbestos is used on the shoe box, but I have personally checked and there is a thin veneer of asbestos between the new linings and the metal. I have some additional information that I found and will dig it up as to part numbers and where you get them. I looked at a pair at my local parts store after returning from the last rally.

I did the switch to Leigh's rear brakes and it was quite good. I estimate about a 20% better stopping distance and no fade after 10 hard panic stops from about 45 mph.

Let us know how you like the TSM setup, I may use them on my other coaches.

Marcus  
-----

Date: Mon, 22 Jun 1998 10:03:07 EDT  
From: <Gcbr#aol.com>  
Subject: Re: GMC: How much real improvement with Disc Brakes on the rear?

In a message dated 98-06-22 07:52:01 EDT, you write:  
Patrick

Don't know if they still have the rear brakes with asbestos but Eaton Hitch still had them as of last Nov when I got mine.

Take Care  
Arch

Date: Mon, 22 Jun 1998 11:43:47 -0400  
From: Patrick Flowers <patri63#ibm.net>  
Subject: Re: GMC: How much real improvement with Disc Brakes on the rear?

Thomas G. Warner wrote:

>

> Maybe but remember there is less actual pad contacting the disk than shoe to drum, look at the difference in area between the two. It is the disk pad that causes the fade at first and not the rotor. maybe people are going to spend a lot of money with little if any gain in performance. If you can already lock up the tires what is the point?

Well, that is partly the point. Another big advantage to disks is that they are more resistant to locking than drums - which also make them poor parking brakes. Once the tires lose traction, you're along for the ride from that point on. Also, swept area is only part of the equation. The caliper cylinder is much larger diameter, generating more force per unit area. Fade does begin with the pad surface and the heat must be sloughed off in order for the brakes to become effective again. With drum brakes the heat must be passed through the drum. With discs, it's passed through the rotor and convectively by airflow around the caliper.

This issue was settled by the racing community years ago. We can debate it here all we want, but, with the exception of lockup (which is only desirable for parking) disc brakes just perform better.

Patrick

--

Patrick Flowers  
Mailto:patri63#ibm.net

Date: Mon, 22 Jun 1998 17:43:47 -0400



From: "The Hamiltons" <hamilton#king.igs.net>  
Subject: Disc Brakes on the Rear

I cannot compare the system I have and six disc brakes. I've never driven a coach with all discs. What I can compare is the marginal original system and Powermaster, 80mm calipers with carbon metallic pads on front and larger cylinders on the intermediate wheels. Nothing else. I now have good brakes that work well. Some people have also put 2 1\2" shoes on the rear and that also works well. At the time I was redoing the rear wheels I couldn't find asbestos shoes. I might also add that at the same time I replaced the original rear brake springs, that still had paint on them and looked good, but what I got was easier adjustment of the rear brakes and my parking brake back that works! The springs had lost a lot of their tension over 19 years.

Al Hamilton  
Kingston, Ont

Date: Tue, 23 Jun 1998 00:16:15 EDT  
From: <RickStapls#aol.com>  
Subject: Re: GMC: How much real improvement with Disc Brakes on the rear?

To all,

Sorry, but I've just gotta jump into this discussion with some brake system basics.

1. Disc brakes vs drum brakes: When drum brakes overheat, the drum tends to expand and "bell-mouth". (The open side of the drum expands more than the side with the mounting web.) This causes the shoes to lose contact with that open side, reducing the shoe contact area, accelerating lining fade, etc. Things go downhill fast after that, and so do you. 8-0  
By contrast, the disc brake disc (or "rotor" as the ever-pretentious American manufacturers like to call them) gets much hotter than a typical brake drum (Ever see pictures of a race car at night, its brake discs glowing cherry red?), but they don't distort in such a way to lose contact with the pads.

Also, the disc brake pads operate at much higher pressure per square inch of lining. This makes them less susceptible to fade due to reduced coefficient of friction from heat. Further, they can cut through a film of water to stop better when wet, and their harder denser material doesn't absorb water as much as typical drum brake linings.

2 Disc brake disadvantages: Aside from higher initial cost, the main problem is the difficulty and expense of adding a parking brake to a disc brake caliper. Since the pads require very high pressure to apply them, you must contrive a very strong lever system with great mechanical advantage. (The service brakes just use a really big piston with large surface area.) This mechanism must somehow apply pressure more or less concentric with the hydraulic piston. Some cars (Subaru comes to mind) use a pushrod right into the cylinder, but this can cause leaks. I once owned a Citroen with a completely separate set of pads operated by the hand brake on the front discs. Some cars (Corvette, Porsche, et al) put a separate drum brake in the middle of the rear brake discs just to get a parking brake.

One other problem which has come to light recently is brake fluid boiling due to the higher temperatures involved. This of course causes total loss of braking, and excessive exercise of the

driver's sphincter muscles! Metallic and semi-metallic brake pads, introduced to replace the now-banned asbestos friction material, do a fine job of providing friction at high temperatures, but they transmit much more of that heat to the caliper piston and the fluid. (Asbestos of course is a good insulator.) Numerous accidents have resulted from the EPA's drive to clean the air of the last particle of asbestos. This is why we all go to our friendly Ford dealer to buy their super high-boiling point brake fluid. (You do know this, don't you?)

3 Duo-servo plusses and minusses: The rear drum brakes on our GMCs (as on most American cars for the last 40 years) are Bendix duo-servo brakes. These brakes derive much of their application force from the forward rotation of the drum. The wheel cylinder (or E-brake lever) pushes the leading shoe out against the drum, whereupon it is dragged in the direction of rotation slightly. This motion is transmitted through the adjuster strut to the rear shoe, pressing it firmly against the drum. This allows a simpler hydraulic system with smaller wheel cylinders, and at least the possibility of stopping should the power booster fail. OTOH, when things start to fade, that fade is multiplied, just as the apply force was, so.....

Bottom line: If you drive in the mountains and/or with a heavy load or toad, the rear disc brakes may reduce your chance of brake fade. Otherwise, you shouldn't need them IF your stock system is in good condition, properly adjusted, etc. The GMC was noted for its great brakes when it was new, we just need to get it back to that condition, IMHO.

Returning the soapbox to the next speaker,

Rick Staples,  
Burned-out certified Master Technician.

Date: Tue, 23 Jun 1998 09:31:58 -0400  
From: Patrick Flowers <patri63@ibm.net>  
Subject: Disk Brakes - One More Advantage

Taking one more whack at this dead horse, another advantage of disk brakes is less unsprung weight. About 13lbs less per wheel. This should translate into a more compliant suspension and less stress on suspension components.

Patrick  
- -  
Patrick Flowers

Date: Tue, 23 Jun 1998 13:36:04 EDT  
From: davegreenberg1@juno.com (David L. Greenberg)  
Subject: Re: GMC: How much real improvement with Disc Brakes on the rear?

This, I think, is a key question. It would be nice if some testing had been done using both systems, either a before and after or using similarly configured coaches.

I had larger calipers added to the front and larger wheel cylinders all around and quite frankly never "noticed" any difference. The problem is with the noticed or perceived effect. Before I make that kind of investment there would have to be some controlled testing done.

As it is I have never had a problem stopping either of my GMCs.

Dave Greenberg  
GMC Motorhome Registry  
200 MacFarlane Dr  
Delray Beach, FL 33483-6829  
1977 Eleganza II  
-----

Date: Wed, 9 Dec 1998 22:22:04 -0600 (CST)  
From: hdavis@ix.netcom.com  
Subject: GMC: Manny's Brake Pictures

Manny sent me e-mails of his brake pictures. I've just collected them into a single page on my site. images are moderate size - - I haven't had the time to make thumbnails.

The url is:

<http://www.henry-davis.com/GMC>

When I'm done with my headlight update I'll redo the site.

Henry  
Henry Davis Consulting, Inc / new product consulting  
PO Box 1270 / product readiness reviews  
Soquel, Ca 95073 / IP reviews  
ph: (408) 462-5199 / full service marketing  
fax: (408) 462-5198  
<http://www.henry-davis.com>

Date: Thu, 10 Dec 1998 08:44:55 -0600 (CST)  
From: hdavis@ix.netcom.com  
Subject: Re: GMC: Mannys brake project

On 12/10/98 06:26:39 you wrote:

>

>

>Hi Henry and Manny!

>

>Thanks for getting together and posting those pictures. Manny keep up the text on your progress. Are you telling us about the whole project or just telling us about the good things. ie.

you haven't skinned your knuckles yet-- come on?

I spoke to Manny briefly yesterday afternoon about his brake rebuild. He's got a lot of practical experience with this kit and the SS brake lines. He told me that he's taking his time with the rebuild - lots of little things to consider.

Whatever he sends me or posts here I'll try to work into his stuff on my site.

>

>Henry, you have a very nice site, after spending 2.5 hours reading everything,

>I don't have a life yet.

Wait a minute! You're doing a frame off reconstruction and don't have a life??? How much more fun could you possibly have?

Still having to digest that shoe site though. Do they sell sexy stuff too?

Nope. Ruby Shoes is a graphics design company working for high tech companies and also in businesses related to the gift industry (children's books, t-shirt design, retail packaging, etc)

Thanks for the kind words. Think that you could take up-close pictures of the frame, underside of the coach body etc? That way we could make a very large scale mosaic of the (well at least your) GMC for those looking for more information than is found in the manuals.

Henry

Date: Thu, 10 Dec 1998 22:09:21 EST

From: MTrovao@aol.com

Subject: Re: GMC: Mannys brake project

In a message dated 12/10/98 8:27:04 AM Pacific Standard Time, warner@borg.com writes:

<< Manny forgot to ask if the disc brake kits use standard off the shelf components, rotors, calipers, backing plates etc >>

TSM uses a 75-79 Lincoln 11" rotor. The calipers are small G. M. cars.

Mine are from a 77 Cad El Dorado. But there are many others if you don't want the parking brake. The bore needs to be enlarged to 3.900" and of the five holes to bolt the rotor to the hub, only one is used, so seven more holes need to be drilled. Too much machine work for me. The backing plates are custom built.

Manny 73 Custom/ex-Glacier

Date: Thu, 10 Dec 1998 23:16:52 EST  
From: Gcbr@aol.com  
Subject: GMC: Holy Grail

GMCers

OK how should I put this. I have found it. Since I bought a SUV today I also bought a magazine to tell me all about them. These folks must be just about as crazy as we are. The same fears-----left in the boondocks all alone-----dead in the water. OOPS sorry that is the fears of cardboard boaters! Anyway found an ad for braided brake lines that are DOT approved. Gosh thats an old thread. Any way here is what I know. The company name is Goodridge-----product is Goodridge G-STOP. Any body near Torrance, CA call 310-533-1924. Any body near Mooresville, NC call 704-662-9095. For all the rest of us call 800-662-2466. Somebody head this thing up. Get us some SS braided brake lines. This is the last week of the semester so I will be out of the loop. Have fun. Tell me what happens. Thats what I found.

Take Care

Arch

PS dont forget those of us who have the 80 MM front calipers.

Date: Fri, 11 Dec 1998 00:00:06 EST  
From: Adohen@aol.com  
Subject: GMC: REAR BRAKE ROTORS

Could someone explain why only 11 inch rotors are used on the back wheels, when there are 13" available? It seems to me if you are going to install a new braking system on the rear wheels 13" rotors could have been used and 80 mm calipers. The larger the rotors and calipers the more surface areas and leverage.

I'd love to have discs on mine, even 11" ones, but I just wanted to throw out that question.

Scott Nehoda Adohen@aol.com

Scott,

That's what Leigh Harrison uses on his disk brake conversion - on the front bogie, which does the majority(some say all) of the rear braking. To accomplish this he makes a spacer to backspace the rotor away from the wheel. Otherwise the caliper doesn't fit inside the wheel. Check the pic's on my site from the Marion rally. I've got a couple shots of his setup there. The braking his setup provides is awesome and the quality is first rate, and it's priced to match - but then, you get what you pay for, eh?

Patrick

- - -

Patrick Flowers  
Mailto:patri63@ibm.net  
-----

Date: Fri, 2 Oct 1998 20:16:42 -0700

From: Bill Guise <billg#halcyon.com>

Subject: GMC: West Coast checking in!

Bill Guise: billg#halcyon.com Seattle, WA=20

Ok, I admit it! Have brake problems and I am baffled. Installed Eaton system, everything fine for the first two trips, then split a rear steel line and that spelled trouble in getting the system back on line. Have been working on and off the problem for three months!

Replaced the broken line.

Bled system, but no pedal

Bled about 5 times, no result

Gravity bled, no results

Reverse bled, no results (Pressure from each wheel)

Removed lines to Master cylinder, plugged outlets, MC ok.

Bled lines once more, no sign of air.

Adjusted rear brakes all the way tight.

Brake pedal is normal when engine off

Engine on, pedal goes 20 all the way down, about 1" to floor, can hit the bottom with excess pressure

All lines are new, inspected for balloon lines, all are ok!

Any Suggestions? (Have handicapped booster installed)

Bill Guise

Date: Fri, 23 Oct 1998 21:22:38 EDT

From: Gcbr#aol.com

Subject: Re: GMC: Hard use ??

Lanier

Would love to hear them. I want to see if I can find a pattern. My friend who has the shop where we worked all last winter tells me that Toros had a lot of wheel bearing failures about 10--15 years out. The problem was not the bearings but owners who did not replace front brake hoses. They would blister on the inside and form a flap valve. The pressure would not bleed of the caliper when you took your foot off the brake. The disc would at up and so would the bearing. He says GMC had a lot of problems with front brake hoses during this era. The problem that Les and Des had sounded like maybe it could have been----who knows.

Take Care

Arch

Date: Sun, 25 Oct 1998 11:10:23 -0800  
From: "Heinz Wittenbecher" <heinz#bytedesigns.com>  
Subject: GMC: Electric Parking Brake & some more Flowmaster pics.

As part of testing my new GMC 'puter I'm been playing on my website some.

Finally have pics of the electric parking brake I installed a while back. I have several trips on it by now and it works great. Only downside is that after having a parking brake in name only for so long I keep forgetting to use it all the time :-)

Have also taken a couple more pics of the exhaust, in particular the elbow area. The closeness while cold sure makes it look like an invitation to rattle, or does the exhaust expand with heat to 'fill' the hole?

Well... now it's on to finalizing the 'puter and to install it and hopefully have less wires on the floor afterwards.

To head directly for the parking brake page:  
[www.bytedesigns.com/gmc/parking.htm](http://www.bytedesigns.com/gmc/parking.htm)

Cheers

Heinz -- [www.bytedesigns.com/gmc](http://www.bytedesigns.com/gmc)  
'76 Transmode, Langley, BC

Date: Fri, 11 Dec 1998 14:59:42 -0500  
From: Patrick Flowers <patri63@ibm.net>  
Subject: Re: GMC: REAR BRAKE ROTORS

Donald W. Miller wrote:

>

> If 11" disks easily lock up a rear wheel, 13" disks add unnecessary weight.

The larger rotors will give you more swept area and more heat capacity. Keep in mind that the idea is not to "lock up" the wheels at all. Once the brakes lock you're along for the ride.

> Lower unsprung weight is an excellent reason to add either rear disk system.

Yep - as well as simplicity and the ability to better shed heat(less likely to fade).

> Anyone know how rear disks affect brake system balance in a panic stop ?

>

Wouldn't a properly proportioned system lock all six wheels up about the > same time ?

Equal braking force on all six wheels would be the ideal, but on a vehicle like the GMC it would be nearly impossible to obtain. The combination valve limits front brake action until the rear line pressure is up to around 100psi(IIRC) and weight transfer on the bogies means that the front bogie does the lions share of the braking. Trying to achieve that balance with mechanical components alone would be a nightmare, and then it would only be good for one specific weight loading/bias. To achieve it under all conditions would require a 6 wheel electronic ABS system.

My opinions - worth the price :)  
Patrick Flowers  
Mailto:patri63@ibm.net

Date: Fri, 11 Dec 1998 20:13:36 -0500 (EST)  
From: "Thomas G. Warner" <warner@borg.com>  
Subject: Re: GMC: REAR BRAKE ROTORS

Don, just get an adjustable proportioning valve and adjust it to the coach.  
They are readily available and cheap. Hot rodders use them all the time.

At 06:34 PM 12/11/98 -0000, you wrote:

>Hi Scott,  
>  
>Here is a different slant from a weight fanatic.  
>If 11" disks easily lock up a rear wheel, 13" disks add unnecessary weight.  
>Lower unsprung weight is an excellent reason to add either rear disk system.  
>I heard the 13" disk system reduces unsprung weight by about 14 lbs.. per  
>wheel.  
>  
>An 11" disk would shave off a few more pounds where it is important to ride,  
>handling, shock life, etc.  
>  
>Anyone know how rear disks affect brake system balance in a panic stop ?  
>Wouldn't a properly proportioned system lock all six wheels up about the  
>same time ?  
>  
>Don Miller  
>Shenandoah Valley of Virginia  
>

Tom & Marg Warner  
Vernon Center NY  
1976 palmbeach  
-----

Date: Fri, 11 Dec 1998 20:16:18 -0500 (EST)  
From: "Thomas G. Warner" <warner@borg.com>



Subject: Re: GMC: REAR BRAKE ROTORS

Or double proportioning adjustable valves!

At 02:59 PM 12/11/98 -0500, you wrote:

>Donald W. Miller wrote:

>>

>> If 11" disks easily lock up a rear wheel, 13" disks add unnecessary weight. ETC.

-----

Date: Fri, 11 Dec 1998 11:25:46 -0500

From: Zachary Zehnacker <zakz@erols.com>

Subject: Re: GMC: Suitable weight for Toad

Dave,

There is no reason for the engine to go just because of towing. We have used several tow vehicles over the years. The first was an Elcamino with a 454. No problems, but not many towing miles either. The first real towing vehicle was a Dodge Van with a 318 Chrysler engine in it. It had over 150,000 miles on it (probably about 90,000 towing) when we took it out as preventative maintenance. The motor still ran fine and actually used less oil than the rebuilt 360 we replaced it with. The next vehicle was a Class C motorhome which came with the Chrysler 360. We put quite a few miles on it also without any engine trouble. The Elcamino towed an open one car trailer, but the others all towed an enclosed 19' one car trailer ~6500 pounds.

We are now on the GMC. The 455 had about 130,000 miles on it (probably about 70,000-80,000 towing half with ~6500 pound trailer and half with ~10,000 pound trailer). We were having some trouble with it 2 race seasons ago, so we decided to rebuild it. The motor had 2 burned valves, but the bottom end was PERFECT. Because we changed to forged pistons, the motor actually went back together with more piston to wall clearance than it had when it got taken apart! All it really needed was new valves and a new intake.

We have never had transmission trouble in any of the previous vehicles. In the GMC, we have changed the trans about every 3 years (~40,000 miles) as preventative maintenance. One time, the trans shop guy said it was pretty bad (probably due to final drive failure), but it never gave any symptoms on the road. We have had the venting problem (started when we put in outside dipstick, fixed now with breather tube), and also may have experienced some slippage recently, but have yet to have any trans failures.

We have had a final drive failure occur. We had been hearing a noise for a long time that sounded to us like it could have been the trans chain dragging on its case. It would usually go away so we didn't think much of it. After several more trips, we smelled gear oil a couple of miles away from home. One of the bearings in the final drive had eaten itself up and the seals were now leaking as a result. The final drive made it home and even backed up the GMC and trailer into the driveway. We put new bearings in the final drive ourselves and put another 20,000 miles on it before changing to the 3.42. Considering the mileage and towing we had put

on our GMC, we do not consider the final drive failure premature. It gave us a big warning with the sounds it was making as well, but we just didn't know what it was. We do now :)!

I agree with the recommendation to add brakes to whatever you tow. It is really the only way to keep the stopping distance close to what it is when not towing. All our trailers have always had brakes. Our current trailer is a triple axle with brakes on each axle. We have 12 brakes with the trailer and GMC, and have no trouble stopping. In fact, it may even stop a little better with the trailer than without.

If the GMC braking system is working correctly, it should stop very well. We recently found that our brake booster vacuum line was severely restricting vacuum to the booster. Upon changing that (we already had the asbestos shoes in the back, bigger front calipers with carbon metallic pads, and bigger wheel cylinders on middle wheel brakes), our stopping has been MUCH better. Changing the vacuum line made the biggest braking improvement by far out of any of our changes.

Just our experiences. YMMV,  
Zak

Date: Fri, 11 Dec 1998 07:49:14 -0800  
From: "Mike Finnicum" <songtekpub@msn.com>  
Subject: RE: GMC: Motorhome Rotors

Last year when I did a brake job my local Goodyear shop (who did the work) claimed a GMC 1 ton truck had the same rotor.

The cost of the rotor was \$135. I called Golby and he sold me the GMC rotor for \$100. Golby was cheaper than the local parts store AND he had it in stock.

I also ordered rebuilt calipers from GY. Later I found out that Golby was \$30 cheaper per caliper.

This is not always true but I now always check multiple sources and often find that Golby, Sirum or Bounds will most often save me money and I don't have to change careers and become a detective to find parts.

But for those who want an alternative, I was told (you know how that goes) that a 1 ton GMC truck uses the same rotor as the GMC.

FYI  
Mike Finnicum  
78 GMC Eleganza II  
74 GMC 28 Stretch  
<http://www.songtek.com/gmc/>

Naples, FL  
Email: mike@songtek.com  
Phone: (941) 775-4522  
Site: <http://www.songtek.com/>

>> Scott,  
>> I too would like to know of a cross. To my knowledge there is not one.  
>> As far as I know, Cinnabar and Golby are the only 2 sources.  
>> This is a badly needed replacement part and I would truly love to find a  
>> locally available suitable cross.  
>> If you need one now, give one of those guys a call.  
>>  
>> Jim Bounds  
>> -----  
>> At 10:03 PM 12/8/98 EST, you wrote:  
>> >  
>> >Does anyone have the part # for Rotors?  
>> >  
>> >Has anyone bought these at Napa?  
>> >  
>> >  
>> >Scott Nehoda Adohen@aol.com  
>> >

Date: Sat, 12 Dec 1998 11:50:09 -0500  
From: Patrick Flowers <patri63@ibm.net>  
Subject: GMC: Eldorado rear disc brakes?

I went out on a salvage yard "safari" yesterday. Picked up a good HEI distributor and an extra coil and cap. I was eluded by the main object of my search - 76 to 78 Eldorado rear disc brake hardware. The rotors and backing plates can be modified to fit the GMC. Found two first generation Eldos - both with complete drivetrains for anyone that wants to do a 500 Caddy conversion(not me!). One was a nearly complete convertible. Also found a bunch of third generation cars. My question is - does anyone know if the backing plates and calipers were the same on the third gen Eldos? I know the rotors are thinner, but I'm thinking they may be the same diameter. Sure, I could just send TSM \$560 for their backing plates and rotors, but where would the challenge be in that!?

Patrick Flowers

Date: Mon, 14 Dec 1998 07:02:05 +0000  
From: "Walter M. Drew" <wdrew@ni.net>  
Subject: Re: GMC: Eldorado rear disc brakes?

Patrick,

The height sensor is pictured in figure 14 section 4B-10 Rear Suspension in Maintenance manual supplement x-7725. If you don't have that I can fax you a page or mail you one. I don't know the years of the Cadillac and Olds applications, but I will be willing to track them down unless someone else out there knows. Come on power of the net.

Walter  
78 Royale

Date: Mon, 14 Dec 1998 06:24:11 PST  
From: "Frank Folkmann" <fmfolkmann@hotmail.com>  
Subject: Re: GMC: Eldorado rear disc brakes?

These sensors are also on Pontiac TRANSPORTS. I have a 1992 with air bags in rear. My model is a GT

Date: Mon, 14 Dec 1998 11:23:13 -0500  
From: Patrick Flowers <patri63@ibm.net>  
Subject: Re: GMC: Eldorado rear disc brakes?

Walter,  
Fax me a copy. Since I have a 73, I have the X-7425 manual(why does that sound like a Walter Mitty line?<g>) which only covers the Power Level system. Fax no. is 404-818-1798 - be sure to use a cover sheet as this is my work fax number.

Thanks,  
Patrick

Date: Fri, 11 Dec 1998 20:16:18 -0500 (EST)  
From: "Thomas G. Warner" <warner@borg.com>  
Subject: Re: GMC: REAR BRAKE ROTORS

Or double proportioning adjustable valves!

I agree with the recommendation to add brakes to whatever you tow. It is really the only way to keep the stopping distance close to what it is when not towing. All our trailers have always had brakes. Our current trailer is a triple axle with brakes on each axle. We have 12 brakes with the trailer and GMC, and have no trouble stopping. In fact, it may even stop a little better with the trailer than without.

If the GMC braking system is working correctly, it should stop very well. We recently found that our brake booster vacuum line was severely restricting vacuum to the booster. Upon changing that (we already had the asbestos shoes in the back, bigger front calipers with carbon metallic pads, and bigger wheel cylinders on middle wheel brakes), our stopping has been MUCH better.

Changing the vacuum line made the biggest braking improvement by far out of any of our changes.

Just our experiences. YMMV,  
Zak

Date: Thu, 24 Dec 1998 11:44:31 -0500  
From: "The Hamiltons" <hamilton@king.igs.net>  
Subject: GMC: Brake Shoe Material

For two years we have had carbon metallic brake pads on our coach and have noticed an improvement in braking. Recently there has been discussion on carbon metallic and kevlar metallic rear brake shoes. There is little information on the pros and cons/goods and not so goods of either. Does anyone have experience or knowledge of either or both types of material for use on the rear?

Again, hope everyone has a Merry Christmas.  
Kathy & Al Hamilton  
76 Eleganza II

-----  
Date: Thu, 24 Dec 1998 11:53:15 -0500  
From: "Bartz, Paul" <s9d3452@mail.drms.dla.mil>  
Subject: RE: GMC: Brake Shoe Material

Al:  
I installed Leigh Harrison's six-wheel disk brake system, which included carbon metallic pads at all wheels, during the GMCMI Myrtle Beach Rally in March 1995. I have driven approximately 40,000 miles since installing. A few months back, I visually checked the pads for wear and was pleasantly surprised to see that none of them was less than half worn in my estimation. They appear to wear like "iron".

Paul Bartz  
-----

Date: Tue, 29 Dec 1998 07:35:22, -0500  
From: JDDP32B@prodigy.com (MR EUGENE R FISHER)  
Subject: Re: GMC: Brake Shoe Material  
To: Chill113 \ America On-Line: (chill113)  
Hi

Was your lock controlled mechanically or electrically? gene

Date: Monday, 28-Dec-98 08:47 PM

From: Chill113 \ America On-Line: (chill113)  
Subject: Re: GMC: Brake Shoe Material

Paul

You make me drool for a six wheel disc brake system, but gotta put more money in the piggy bank first. As to the brake lock. As an alternative, 7 or 8 years ago I bought one from J C Whitney and had it installed. It worked fine until this year. Bought another just like it and installed it. Very inexpensive. I think about \$15. One caution to anyone who installs it. Use steel brake line, not flexible rubber lines. The lines are so long we found that the slight expansion of the flexible lines affected the pedal a bit, so switch to steel.

Justin 77PB

Date: Mon, 28 Dec 1998 14:18:20 -0500  
From: "Bartz, Paul" <s9d3452@mail.drms.dla.mil>  
Subject: RE: GMC: Brake Shoe Material

JR:

I got the Mico lock (hydraulic line lock valve) system from Leigh when I bought and installed his brake system. However, so far I haven't taken the time to install it and am careful not to park on much of a slope, which hasn't been a problem so far. It's a future project.

It goes in the rear wheel brake line circuit and is operated electrically with a switch.

Believe it or not, but my wife, after hearing Leigh talk about the six-wheel brake system at the GMCMI Grand Island Rally in Sep 94, was adamant about getting it.

I know of two brothers with the original drum brakes on their coach's, driving on the Blue Ridge Pkwy when returning to MI from the Myrtle Beach Rally who stopped at an intersection and experienced uncontrolled creep because the drums were so hot. With disc brakes, you needn't worry about that. They do give you increased confidence and I wouldn't be without it. I'm never concerned about being able to stop the coach.

By installing the system on all wheels, I've eliminated a lot of unsprung weight from the suspension. Also, I haven't had to do any maintenance, except for replacing a seized brake caliper, on the system since installing in Mar 95. I do visually check the system every year though. In 40,000 miles, pads are not less than half original thickness. But then I don't use a lot of brake. Do a lot of coasting in anticipation of road conditions ahead of me though.

Paul Bartz

From: Jrwheeler7@aol.com [mailto:Jrwheeler7@aol.com]  
Sent: Thursday, December 24, 1998 6:21 PM  
Subject: Re: GMC: Brake Shoe Material

paul,

i will be installing leigh harrison's brake system. what have you done for an emergency brake?? or, have you never parked on a hill. I'm considering only doing 4 wheels, leaving the rear axle with the drums and shoes since I have been told that that axle only provides about 10% of the braking. What else do you have to say about his system?

-----

Date: Mon, 28 Dec 1998 14:49:49 EST  
From: SDAVIS2024@aol.com  
Subject: GMC: : Re: Brake Shoe Material

On Christmas Eve, JR Wheeler said, "I'm considering only doing 4 wheels, leaving the rear axle with the drums and shoes since I have been told that that axle only provides about 10% of the braking."

When we redo the brakes on Mariah, we are also interested in leaving the rear axle with drums and shoes in order to operate the emergency brake. The other four will be disc brakes. Has anyone tried this? Any problems? Anything we should look out for?

Thanks for your help.  
Sandy and Larry Davis  
'73 Sequoia - Mariah  
Frankfort KY

-----

Date: Thu, 31 Dec 1998 21:42:54 EST  
From: Jrwheeler7@aol.com  
Subject: Re: GMC: : Re: Brake Shoe Material

Patrick,

Flic Acosta, current president of the Dixielanders, has this disk brake setup, leaving the rear boogies wheels with drum brakes. He also pulls a Geo Tracker as a toad. I believe his address and phone number are in the latest GMC Motorhome Marketplace; I have never seen him on the Internet. I had asked him about his system; he told me stories about how he almost rear ended others before he put Harrison's brakes on his coach; about the brakes heating up in stop and go traffic in Florida. He also said he has no brake system on his toad; doesn't need it since it weighs less than 3000 pounds and has never had a problem stopping his coach with Harrison's brake system. I'm sure he would talk to you over the phone.

Happy New Year.  
JRW 77 Transmode NC a lurker....

-----

Date: Tue, 29 Dec 1998 22:09:24 -0500

From: Patrick Flowers <patri63@ibm.net>  
Subject: Re: GMC: : Re: Brake Shoe Material

SDAVIS2024@aol.com wrote:

>  
> On Christmas Eve, JR Wheeler said, "I'm considering only doing 4 wheels,  
> leaving the rear axle with the drums and shoes since I have been told that  
> that axle only provides about 10% of the braking."  
>  
> When we redo the brakes on Mariah, we are also interested in leaving the rear  
> axle with drums and shoes in order to operate the emergency brake. The other  
> four will be disc brakes. Has anyone tried this? Any problems? Anything we  
> should look out for?

My plan is to use the Eldorado calipers on the rear bogies connect the park brake system to them. I'll use a larger piston caliper on the front bogies. Probably will include a "line lock" too.  
Patrick

Date: Tue, 5 Jan 1999 09:13:24 EST  
From: Gcbr@aol.com  
Subject: GMC: Brake lines and oil cooler lines

GMCers

OK here is my post for the day. I must admit that I am doing it so early in the day that I may do another today if anything else breaks. There is a company that makes good old racing stuff that I have been talking to. You can find them at

<http://www.paragonperformance.com>  
1-800-270-0333

This is the mail I sent them two days ago. I had contacted them some time ago. I think Patrick talked to them too.

From 1973 till 1978 GMC built a motorhome. Of the 13000 built there are still 9000 of them on the road. Would you be interested in building brake hoses for them?

>  
>Take Care  
>Arch

Now here is the mail I got back from them. I honestly feel I cannot answer the questions they ask here. I think I know the answer but I don't know for sure that I know the answer. Would some of you old pros please talk to them. Jim might even be a new product for you to handle. PLEASE would some of you contact them so they know we are serious.

Arch,



We now have the front lines for the 1973 motorhome. The configurations are as follows (so you can verify that these are correct):

2 count: 3/8-24 female inverted flare by 10mm 20 degree banjo, 28" overall length.

Our part number for the front line kit is: PLGMCMH73 and sells for \$70.00

We also have developed the oil cooler hose assemblies for the 1973 GMC motorhome oil coolers. Our part number is PP-GMCOC73 and sells for \$90.00.

What we don't have confirmation on is if the brake lines and the oil cooler hose assemblies for the '73 motorhome will fit the other years of the 1973-1978 GMC motorhomes. Can you give us this info?

I'll go ahead and put these on the site!

Thank you for e-mailing again. I know we corresponded early last summer, but I mis-placed your e-mail addy and wanted to let you know what we had developed.

Mike

Please talk to Mike and maybe we can get him to do a line for those of us who have gone to 80 MM calipers on the front. Maybe if he can see intrust we can him to do rear hoses. Well, once again the NET at its best.

Take Care  
Arch 76 GB IL  
-----

Date: Tue, 5 Jan 1999 13:36:27 EST  
From: Gcbr@aol.com  
Subject: Re: GMC: Master Cylinder

Frank

These are Car Quest #s my NAPA was able to cross them over.

80 MM calipers right--#4188 left---#4189

Master cylinder #E71270

Front hoses Right---#SP5766 Left---#SP6514

The hoses will have to be bent some. The 80 MMs have a banjo fitting so you will also need the right bolt for the hoses.

GM part # 140004404

When you get the hoses you will swear there is no way to get them to fit. Just stand there and look at it -----it will come to you. There are pics on Patrick's site showing what it starts out looking like and what you have to do to it. BTW dont forget to knock out the stupid brake adjuster slots. I forgot to and then had to hunt them down with a magnet. NOT fun! The little covers are Car Quest #W-1368. If you are going to do the carbon-metalic brake pads they are Performance Friction #0524. Auto Zone will sell them to you real cheap compared to what I have seen on the net. Last but not least the 500 degree Dot brake fluid is Performance Friction #8134. Hope this helps.

-----

At 04:45 PM 1/6/99 EST, you wrote:

>Frank

>

>Yes, you will need two. The bolts and calipers and the hoses (I think) are all off 3/4 ton Chevy truck built from 79 to 86. These trucks used the JB7 brake system with the 13 inch rear drums. When you get the dont tell them what you are going to do. They may say you cant send them cores for something you did not get. I went to one place that I would not buy from and told them what I wanted to do. \$25 extra since I had no core. When I went to NAPA I got the calipers put them on returned the cores. They did not even look at them.

>

>BTW does anybody have the Blisteen shock #s handy. My Auto Zone

>has a banner out front saying they now carry them. I cant wait to

>compare prices.

>

>Take Care

>Arch 76 GB IL

>

>In a message dated 1/6/99 11:20:01 AM Central Standard Time,

>fmfolkmann@hotmail.com writes:

>

>> Arch.????????????????????? Will I need 2 GM #140004404. Calipers what

>> vehicle are they from?????????????????????

>

Tom & Marg Warner

Vernon Center NY

1976 palmbeach

-----

Date: Wed, 06 Jan 1999 14:30:37 PST

From: "Frank Folkmann" <fmfolkmann@hotmail.com>

Subject: Re: GMC: Parts

Arch. Thanks Doing some checking. The hoses are \$7.00 each less at Auto Zone. The master cylinder \$8.00 less at Big A .

From: Gcbr@aol.com

>Date: Wed, 6 Jan 1999 16:45:12 EST

>To: gmcmotorhome@mailinglists.org

>Subject: Re: GMC: Parts

>Reply-To: gmcmotorhome@mailinglists.org

>

>Frank

>

>Yes, you will need two. The bolts and calipers and the hoses (I think) are all off 3/4 ton Chevy truck built from 79 to 86. These trucks used the JB7 brake system with the 13 inch rear drums. When you get the dont tell them what you are going to do. They may say you cant send them cores for something you did not get. I went to one place that I would not buy from and told them what I wanted to do. \$25 extra since I had no core. When I went to NAPA I got the calipers put them on returned the cores. They did not even look at them.

>Take Care

>Arch 76 GB IL

Date: Tue, 22 Dec 1998 08:58:11 EST

From: EMERYSTORA@aol.com

Subject: Re: GMC: Speed Bleeders

I purchased a Vacuum pump which includes a brake bleeding cup attachment. It works great for one man brake bleeding. It also is excellent for checking the engine vacuum, servos, etc. I found one vacuum leak. It was the thermostatic air valve in the air cleaner which I had to be replace. The pump was obtained at AutoZone for a cost of \$24.95. it has a plastic body which is actually very durable. It comes with a wide range of adapters and hoses.

Emery Stora  
77 Kingsley  
Santa Fe, NM

Date: Tue, 12 Jan 1999 21:19:08 -0500

From: John Wright <powerjon@tm.net>

Subject: Re: GMC: Ready or Not...Here I Go (come)? MADE IT!...WPHEW!!!

The April 1996 issue of GMC Motorhome Marketplace has a great article by Keith Oxford on an electric powered parking brake. Uses parts available from grainger. You can order that issue from: GMC Motorhome Marketplace

7091 Broadway, Suite D  
Merrillville, IN 46410-3537

You can buy the April 1996 back issue for 5 dollars.

J.R. Wright  
GMC Greatlaker

77 Eleganza II  
Michigan

Thom Hole wrote:

>

> Did anyone continue with the 'Screw' type of parking brake puller that was talked about here in  
>Oct/Nov?? Sounded like a great idea! It used an electric motor to turn a screw that pulled on  
>the standard cable with alot more force than the brake handle can exert. Don't know where to  
>look for this kind of device other than seeing it used on highend garage door openers.

> At 04:39 AM 1/12/99 +0000, you wrote:

> >At 10:21 PM 1/11/99 EST, you wrote:

> >>John

> >>Please tell me your secret for a working handbrake !

> >>Take Care

> >>Arch 76 GB IL

> > Don,t work right now, looking to replace the cables. BUT did work when I needed them.

-----

Date: Thu, 14 Jan 1999 13:09:37 -0500

From: "Bartz, Paul" <s9d3452@mail.drms.dla.mil>

Subject: RE: GMC: Electric paking brake (subject changed)

Heinz:

I talked to Bobby last night. He claims that the motor and gear box he used, came from a 1986 Sterling 825 SL (Honda based coupe, I believe) power seat mechanism. However, in the NADA price book, I only find a Sterling listed starting in 1987??

He tells me that the seat he used had four sets of motors and gearbox's. Not all are suitable for the parking brake application, because of shortness of a worm gear, I believe. Bobby (502-964-6416) would be happy to provided further details to anyone interested.

Paul Bartz

-----

Date: Sat, 23 Jan 1999 11:49:29, -0500

From: JDDP32B@prodigy.com (MR EUGENE R FISHER)

Subject: Re: GMC: Brake Locks

I'am thinking

I'am thinking

I believe there is a difference between emergency brake and Parking brake.

I think the fluid lock is a good EMERGENCY LOCK since it can go on and off quick and lock disk or drum brakes. It is not so good as a parking brake since it should not be left on for long term because it leaves pressure on the cups and brake lines.

I think the electric cable pulling PARKING BRAKE is good for long term since it comes on slow (motor worm gear) and comes off slow. The only long term limit is rusting the brake pads to the brake drums or disks. It is better to use wheel chocks for storage since the brake pads do rust into place.

Thats my story and I am sticking to it---(I think)  
gene

Date: Friday, 22-Jan-99 12:16 AM  
From: Mr.c \ Internet: (mr.c@twrol.com)  
To: Eugene Fisher \ PRODIGY: (JDDP32B)  
Subject: Brake Locks

Are we going to talk about brake locks... Since I do not have disk brkaes, can I still install a emergency brake.

Regards  
-----

Date: Tue, 26 Jan 1999 16:45:03 -0800  
From: "Claude Brousson" <cbrousson@sprint.ca>  
Subject: GMC: Emergency Brake

Two years ago when doing my brakes I renewed the cables at the rear wheels for the emergency brake. Recently when checking various things before taking off to south of the border in March , I noticed that there is alot off chaffing taking place on the outer wrapping of the cables where they go through a large guide strap just by the front of the mid boggie wheel. This is the cable that goes to the mid wheels brakes). I was very surprised at how much wear there was in just under 10,000 miles. The plastic cover was worn through and the outer metal casing was starting to get worn as well. I recall that when I took off the old ones they wear badly worn at this point. Once the outer casing gets cut through on one side, this could at least to some degree affect operation of the cable and emergency brakes. Although the strap is insulated, I believe the wear occurs due to the constant up and down movement of the wheels causing the cable to rub on the strap at exactly one spot all the time. For those who are not fussy or if you don't use your hand brakes it most likely doesn't matter, however I like to keep my mechanics all working well so I keep my brakes adjusted and they all, including my emergency, work very well.

For a fix I cut a 3 - 4 inch piece of soft plastic tubing, spit it down the centre, squeezed some rubber like cement into it and wrapped it around the wear area. Goop ,silicone or any glue/filler that stays soft and malible would do. Whether repositioning the strap would help further or not

I'm not sure ; I'll look at that one further. Some folks may want to check this area.

Claude

Date: Tue, 26 Jan 1999 22:40:13 EST  
From: CHill113@aol.com  
Subject: Re: GMC: Hydra-Boost

I've had excellent results with my Power Master. As long as you have battery power, you have brakes. Mine has been on the coach at least 5 or 6 years. You do need a fairly inexpensive adapter available from Marvin Peck to install it.  
Justin

-----  
Date: Sun, 07 Feb 1999 11:59:17 -0800  
From: Chuck Will <willa@impulse.net>  
Subject: GMC: Brakes'

If you will take the time to clean all the lines from the Master to each wheel cylinder independely with ALCOHOL you will be a few steps ahead. Then re introduce your DOT 4 or 5 to the system. Bleeding as directed in the book. You will be a much happier camper in the long run, you may find a leak at the wheel cylinders. I put in new ones rather than a rebuild job. At this point check the STARS for self adjusting the brakes. Be sure to back out the brakes to the drum and then back in so you have a free wheeling of each of the rear wheels. You may want to pull the drums and check the brake shoes and drums at this time too. I use High Temp Engine paint on my drums (outside) usually BLACK and it seems to work well. There are several weights on each of the drums so you want to ensure they are there and did not get mysteriously knocked off. Wire brush and air blow clean. Wear a respriator or dust mask and goggles. Don't get any of the residues into you eyes or breath the stuff. At our ages we do not need to hurry the GRIM REAPER! I also clean each wheel inside and out very carefully and check the boggies at this point too. The front is different and of course takes a little care there also. Take Care Chuck

Date: Sun, 07 Feb 1999 22:11:14 -0500  
From: Ted Schurman <tedsch@erols.com>  
Subject: Re: GMC: Brake Fluid

Arch, Let me say again that I am not very knowledgeable about the power master system. I knew that it had an electric motor to develop hydraulic pressure but I assumed that this was a separate system to act as a booster much like the vacuum booster does. As I understand your explanation the pump actually pumps up the brake fluid and meters it to the brakes. Is this correct?

Ted Schurman  
73 Glacier VA

-----  
Date: Sun, 7 Feb 1999 22:27:09 -0500 (EST)  
From: "Thomas G. Warner" <warner@borg.com>  
Subject: Re: GMC: Power master unit

If you want to see the powermaster go to:  
<http://ni.umd.edu/gnttype/www/PwrMstr.html>  
-----

Date: Tue, 09 Feb 1999 10:11:56 -0500  
From: Patrick Flowers <patri63@ibm.net>  
Subject: Re: GMC: Power master unit

The Powermaster tech pages are now at:

<http://www.gnttype.org/techarea/techpage.html>

No pictures of the powermaster unit there tho'.

Patrick

Date: Mon, 8 Feb 1999 03:17:42 EST  
From: RickStapls@aol.com  
Subject: Re: GMC: Brakes'

In a message dated 2/7/99 1:03:48 PM MST, willa@impulse.net writes:

> I use High Temp Engine paint on my drums (outside) usually BLACK and it seems to work well.

Chuck,

I recall many years ago, reading an article reporting research done for/by some NASCAR teams, back in the days when they and all of us had to live with only drum brakes. Seems they tried to find the best finish to apply to their brake drums to dissipate heat as rapidly as possible. Some proposed polished machined surface, some painting with flat black (theoretically, a flat black body will radiate, and absorb, heat faster than any other color), some proposed plating, etc.

The bottom line was: the fastest heat dissipation from an iron brake drum was from a surface of slightly rusted iron! The slight roughness increased surface area and air turbulence, and the rust (thin layer only, no scale!) was firmly bonded (hell it was part of!) the brake drum for fastest heat transfer. Any improvement due to the radiative powers of flat black coating were offset by the insulative power of the paint or other coating.

Of course, if you MUST paint your drums or discs, flat black is the way to go. Just thought you'd like to know..... ;-)

Rick Staples

'75 Eleganza  
Louisville, CO