

BRAKE LINES

Date: Wed, 03 Dec 1997 17:29:24 -0800
From: Gary Ohst <garyo#globalpac.com>
Subject: GMC: Re: GMC Brake lines

Gcbr#aol.com wrote:

> > Does anyone know of a source for Stainless Steel brake lines? I will make my own if I have
>>to, but thought I would check to see if there are any premade ones out there.

>

Try:

Stainless Steel Brakes Corporation
11470 Main Road
Clarence, New York 14031
800-448-7722

I had some custom length SS lines made up for a frame-off truck restoration project. You need to supply them with the correct length. Standard double-flare tools can not handle SS tubing. They use a special press at SSBC. You can then bend the pre-assembled SS lines with traditional brake line bending tools. Both the tubing and end fitting are stainless. Quality is very good. As you can imagine, you get what you pay for.

Hope that helps

Gary

Date: Thu, 8 Jan 1998 21:24:07 EST
From: Gcbr <Gcbr#aol.com>
Subject: Re: GMC: Brake lines

Here I go folks for the last three weeks I have been working on putting stainless-steel lines and braided the stainless-steel brake hoses on my motorhome. This has been the most frustrating thing I have ever done. I read most of the GMC magazines and newsletters and that are out there. I have heard many stories about stainless-steel break lines and braided stainless-steel brake hoses. I must admit I believed most of what I read. I am now going to enter this piece in the hopes that it will save others from frustration that I have been through. I know that what I say will upset people who disagree with what I have to say. First the whole concept of stainless steel brake lines. Stainless-steel is much more brittle than standard steel brake lines. I do not know if it is true or not but every manufacturer that I have talk to say that stainless-steel lines can not be reflared in the field. In order for you to get a new set of brake lines you really need to send your entire set of lines to a manufacturer of stainless-steel brake lines. Now the causes some problems because of the length of the lines on a GMC motorhome. If you cut the lines the manufacturer cannot guarantee that the profiles or angles will be correct. Many of these old brake lines can not be folded without breaking them. It seems that many local shops do not have the means to do the type of work that is required for stainless-steel brake lines. Most shops will send your lines off to a larger manufacturer. To cover any liability that they may have they just the double or triple the price of the lines. The price of the lines soon become outrageous. The last quote I received was outrageous. \$6.50 for each foot of line, \$2.50 for each flare and \$1.50

for each bend. I think I will replace my brake lines with plain old steel.

I have read in one of the GMC publications how we should replace our brake hoses with braided stainless-steel. This idea appealed to me. I still believe that this would give us a much better feel on the brake pedal, since the stainless-steel lines would not allow the expansion that the rubber hoses do. Well guess again folks! Did you know that braided stainless-steel lines are not approved by DOT! Yes you could get a ticket for having braided stainless-steel lines on your motorhome. I have talk to several manufacturers who say that with in a month or two they will have a braided stainless-steel line which can receive DOT approval. But it does not mean that they have received approval. It seems that DOT requires that any braided line must have a rubber coating or other coating that can protect it from fraying.

I am trying to say here is read what you can do the research on your own. I believe that many people have made honest statements as to what they have done. The problem is as I see it is research was just not good enough. I do not mean to put down anyone's idea, I just want to say it has to be better than this. Good luck to all of you while you navigate this sea of information. You will still have to decide what is best for you!

Take Care
Arch

Date: Thu, 08 Jan 1998 20:22:55 -0800
From: Gary Ohst <garyo#globalpac.com>
Subject: Re: GMC: Brake lines

Hi All,

I'm still in the market for a GMC, but I have worked with stainless brake lines. Here are some comments based on my experience. These may or may not help with your particular situation. I have done stainless lines on another vehicle. Here are some thoughts.

> Stainless-steel is much more brittle than standard steel brake lines. I do not know if it is true or
>not but every manufacturer that I have talk to say that stainless-steel lines can not be reflared in
>the field.

Yes, this is true. Conventional double flare tools will not work.

> In order for you to get a new set of brake lines you really need to send your entire set of lines
>to a manufacturer of stainless-steel brake lines.

I pulled mine off and measured the lengths out in the open. Added a few inches for safe measure and then sent in a request for X number of lines at Y lengths. You can always put in a few extra bends it they are a little long. Bought direct from Stainless Steel Brakes Corp. in Clarence, New York (716) 759-8669. Most local jobbers were of no help. Cost was higher than standard steel lines as should be expected.

- > Now the causes some problems because of the length of the lines on a GMC motorhome. If
- >you cut the lines the manufacturer cannot guarantee that the profiles or angles will be correct.
- >Many of these old brake lines can not be folded without breaking them.

What I did was to order the correct lengths with fittings installed and ends flared. Then bent them up myself after they arrived. They bend fine with conventional bending tools, it is flaring the end that is a different story. Lay the old next to the new and work your way along the new line until all the bends are in place. A local outfit should be able to bend them up to match the existing lines.

- > It seems that many local shops do not have the means to do the type of work that is required
- >for stainless-steel brake lines. Most shops will send your lines off to a larger manufacturer. To
- >cover any liability that they may have they just the double or triple the price of the lines. The
- >price of the lines soon becomes outrageous. The last quote I received was outrageous. \$6.50
- >for each foot of line, \$2.50 for each flare and \$1.50 for each bend.

This relates back to the fact that conventional flaring tools are not strong enough to handle stainless. I ordered direct from the manufacture and only requested simple straight sections.

- > I think I will replace my brake lines with plain old steel.

Can't argue with that. Seems that several GMCs are still running around with 20-25 year old steel lines. If you went with new steel lines now, they should be good to the year 2020!

- > I have read in one of the GMC publications how we should replace our brake hoses with
- >braided stainless-steel. This idea appealed to me. I still believe that this would give us a
- >much better feel on the brake pedal, since the stainless-steel lines would not allow the
- >expansion that the rubber hoses do. Well guess again folks!

Braided lines are good for resistance to rock dings and cuts. They also have a teflon inner liner which gives them extra stiffness. The hose expansion issue is only a factor under very heavy line pressures or hard stops. They are worth it if you are racing cars and going deep into corners, standing on the brake late, slowing down very fast, and then getting back on the gas. Under this all-on or all-off cycling, the extra stiffness can make a big difference. For normal driving, it is not necessary. Stock lines in *Good* condition should be fine. If you are driving a GMC hard enough to really need braided lines, stay away from me! Oh, they do look nice though.

- > Did you know that braided stainless-steel lines are not approved by DOT! Yes you could get a
- >ticket for having braided stainless-steel lines on your motorhome. I have talk to several
- >manufacturers who say that with in a month or two they will have a braided stainless-steel line
- >which can receive DOT approval. But it does not mean that they have received approval. It
- >seems that DOT requires that any braided line must have a rubber coating or other coating that
- >can protect it from fraying.

>

I have run them on other cars without problems. Some report that over time the outer braid

works loose and begins to chaffe the inner rubber tube. You have to keep an eye on them. They will be more maintenance sensitive than the stock factory type hoses. Factory parts are usually better if you want to install it and forget about it. The DOT certification implies it has to live over a wide range of operating temperatures and conditions. The race car stuff is usually maintained frequently and operated under ideal weather conditions.

> I am trying to say here is read what you can do the research on your own. I believe that many
>people have made honest statements as to what they have done. The problem is as I see it is
>research was just not good enough. I do not mean to put down anyone's idea, I just want to say
>it has to be better than this. Good luck to all of you while you navigate this sea of information.
>You will still have to decide what is best for you!

>
My sports car has braided lines. When I get a GMC it is going to get stainless brake tubing, but will retain the factory-type rubber brake hose. For added rock protection, you could just cover them with a section of black plastic electrical split loom. I have seen Detroit do this on several types of rubber hose routed into harms way.

Hope this helps some.
Gary

Date: Fri, 16 Jan 1998 21:25:44 -0500
From: Patrick Flowers <patri63#ibm.net>
Subject: Re: GMC: Re: GMC Motorhome Digest V1 #72

HTer007 wrote:

>
>The new lines I referred to from J.R. Slaten are made of TEFLON with an outer protective
>braid of stainless steel. Teflon does not break down like rubber. These particular lines are rated
>at 1500psi pressure and operating temperature of 450 deg. F. This may be a little bit over-kill
>but they should never have to be replaced again. This is one less worry off our already
>overloaded minds.

Keep in mind that, while teflon is not broken down by heat, it can be abraded. This is the problem with the braided stainless steel reinforced teflon brake lines. Road grime works its way under the braid and then vibration and flexing takes its toll. They'll sure last a lot longer than the original rubber hoses, but I'd still check them closely whenever I changed the oil.

I hear that the DOT approved teflon brake lines come with an outer protective covering over the braid. If Slaten used that type of hose, then they might last forever<g>.

My \$.02,
Patrick
Patrick Flowers

Date: Tue, 9 Jun 1998 00:17:42 EDT
From: Gcbr#aol.com
Subject: Re: GMC: Found a hole in my brake line

In a message dated 98-06-08 22:00:27 EDT, you write:

<<

Hi,

I found a hole in my brakeline today. I'm going to have to replace all the lines before I try to move it. Anyone done this? What do I have to look forward to? The line is rusted out near the engine compartment.

See Ya,

Rob

>>

Rob

I have replaced all of my brake lines. It takes two 25ft rolls if 1/4 inch line and one 25 ft roll if 3/16 line to replace all the brake lines. You will have lots of 1/4 inch left.

Take Care

Arch

Date: Tue, 09 Jun 1998 05:47:16 -0700
From: Jim Bounds <jimbounds@sprintmail.com>
Subject: Re: GMC: Found a hole in my brake line
Robert,

I believe you answered your own question, rust is what you have to look forward to! I would suggest replacing all of the brake lines if you want a reliable brake system. It's not really as hard as it sounds, especially if you're going to take it all out. I would also suggest replacing the front & rear hoses if they have any age on them as well.

You need to rely that there are no weak links in your brakes. If I can be of help, let me know.
Jim Bounds www.gmccoop.com

Glenn

The first 2 rolls I bought from JC Whitney the third roll came from Jeggs. The reason I switched was Jeggs had it in sale. It was all the same line. NAPA told me the same thing about bulk stock. The reason I went looking was that all of the brake line in town was the same. Just plain steel. I wanted to get the good stuff. It is copper and lead coated. From my old days or restoring cars I know that stuff lasts longer. The double flare is not too bad to do. You have to be very careful and get the right amount of tubing above the holding device. Just do it like the instructions say and you will be fine. I can't comment on price of the tool as we were using one my friend has had for at least 10 yrs.

I would like to add a comment here. I wanted to do my lines in SS. My local shop wanted almost \$600.00 to do them. SS is very hard to flare. Did not want to do it myself. There is a company

called Classic Tubes. They make SS brake lines for classic cars. About \$180.00 for a standard car. I have since talked to them about doing SS brake lines for the GMC. They said if we could send them a complete set marked as to how go on they would be glad to do them for us. They said the first set would be no more than \$250. The price would probably be less after that they said. How about it Jim--- hopp on it.

Date: Thu, 11 Jun 1998 21:16:06 -0400 (EDT)
From: "Thomas G. Warner" <warner#borg.com>
Subject: Re: GMC: Brake Lines

I also found the Classic Tube company. 1-800-882-3711, 80 Rotech Drive, Lancaster NY 14086. they are also on the internet at:
www.classictube.com
they will duplicate any brake, fuel line etc in stainless steel. Hope this helps

Date: Thu, 11 Jun 1998 23:40:17 -0400
From: Dick Kennedy <rakennedy#iquest.net>
Subject: Re: GMC: Brake Lines

I too am replacing brake lines. Just thought I would update where I am. Am only in rear at this time so don't have whole story but can answer some of the questions I've seen here.

I found a set of double flare dies for use with a standard flaring tool at Car Quest. The total cost was about \$7.00 for the 3/16 and 1/4 sizes. It's a two step flaring process but I haven't actually done it yet.

The lines from the rear hubs to the rubber hose measure about 3/16 x 24". NAPA has 20" and 30" so I bought 30" and will cut them down to size so I don't have excess weight to vibrate. Their recommendation was to just use them as is and not worry about the excess.

The rubber 'T' hose going to each wheel is not available so I had to substitute by purchasing a pair of 1/4" brakeline T's and four hoses to go from the T's to the wheels. The NAPA part number on the bill for thr T's is #702 x 4. They cost \$2.64 each. The NAPA part number for the hoses is #36827 and the cost is \$22.53 each. The total assembly looks like the original except it comes out about two inches longer. The 'T' blocks didn't have the thru hole for mounting so I soldered a piece of copper tubing to it for a mount. If this happens not to hold it will only cause a rattle. This took them quite a lot of searching to match the combination so I didn't want to press my luck by insisting on a T with a thru hole.

The run from the front to the rear is quite a lot longer than available standard lengths so I purchased a 25' roll of 1/4" from NAPA. (About \$17 + connectors) This should be enough for the front also.

I'll also replace the front hoses and this should give me more confidence in the system.

I hope what I've learned is of some help to someone. Those rear hoses were a tough one that completely stumped several parts guys.

Dick

Date: Fri, 12 Jun 1998 08:39:40 -0400 (EDT)
From: "Thomas G. Warner" <warner#borg.com>
Subject: Re: GMC: Brake Lines

just received a reply from Classic tube company after my inquiry. They have all of the original OEM specs for the GMC motorhome and have sets in stock from a previous customer that went out of business. The set consists of all lines from the master cylinder to the brakes including all fittings other than flexible hoses. Price for 1 set is \$295.

Date: Fri, 12 Jun 1998 14:04:44 -0400
From: "Bartz, Paul" <s9d3452#mail.drms.dla.mil>
Subject: RE: GMC: Brake Lines

Golby also has the T hose.

Paul Bartz

> Dick
>
> Gateway Motorhome has the "T" hose. I just bought 2 from them.
>
> Take Care
> Arch

Date: Sat, 13 Jun 1998 08:48:45 -0700
From: Jim Bounds <jimbounds@sprintmail.com>
Subject: Re: GMC: Brake Lines

Dick,

The rear brake hose Golby has is a perfect fit, the only difference is the center block is squared off as opposed to rounded and who really cares! Actually, if you look at someones hoses, it is easy to see if they have been replaced recently, squared blocks mean they are new!

Golby went through the expense of having those built, they are the supplier to everyone, if it's square- it's a Golby. The only other unit is offered by Cinnabar which has the rounded block.
Jim Bounds www.gmccoop.com

Date: Mon, 15 Jun 1998 18:11:21 -0400
From: Dick Kennedy <rakennedy#iquest.net>
Subject: Re: GMC: Brake Lines

The hose part numbers I posted earlier are in error. When I started putting it together it didn't go together quite right. It turned out that the hoses have a 7/16-20 thread while the brake fittings are 7/16-24. I assume that I could have gone back and gotten the right thread but didn't pursue it. The Golby price is about \$48 per side which is near enough that it isn't worth pursuing.
Dick

Date: Sat, 20 Jun 1998 23:50:14 EDT
From: <Gcbr#aol.com>
Subject: Re: GMC: Why 3/16" brake line

In a message dated 98-06-20 19:28:49 EDT, you write:

<<

Why does the GMC have a 3/16th inch brake line coming out of the master cyl. running to a connector under the driver side wheelwell. Would a 1/4" line be better?

Anyone know?

Thanks,

Rob

>>

Rob

The 1/4 line goes to the rear brakes the 3/16 goes to the front brakes. The amount of fluid needed to operate the front brakes is much less than the rear ones. That's why the line is smaller.

Take Care

Arch

Date: Wed, 24 Jun 1998 09:30:57 -0700
From: Gary Ohst <garyo#globalpac.com>
Subject: SS Brake Tubing Characteristics

I have worked with both steel and SS brake tubing. They handle about the same. The SS brake tubing has no more propensity to kink, crush or pinch flat than the steel tubing. I have bent SS tubing into a variety of shapes with conventional hand-held brake line bending tools with no problems.

The big difference is you cannot use conventional double-flare tooling on the SS line. You have to order the correct length with the end fittings pre-assembled if you are bending up your own lines. This also means you cannot tap into an existing SS brake line or section in a repair without finding a shop that can redo the SS flares.

Gary

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 heat 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: 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 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 that's 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.
That's what I found.

Take Care

Arch

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

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-GMCO73 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: 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: Sun, 21 Feb 1999 05:38:13 PST
From: "Frank Folkmann" <fmfolkmann@hotmail.com>
Subject: GMC: Stainless Brake lines

I have 3/4 completed the installation. It is time consuming. Should be done on a day when a person can stay calm. Two of the lengths do not match the original form. One being the short piece to the right rear bogies. This section should be 1" shorter as it has to be jammed between T fitting and frame. After hock up I reformed it. The other is the last long piece along the frame that attaches to the rear T. I will call Classic Tub be and inform them they should make changes.

Frank SW Indiana
Home of Toyota
TUNDRA