Lagondaforum: Disc Brakes for a DB3L

Disc Brakes for a DB3L

Written by ken douch at Nov 22, 2012 7:16 am

Martin Peters mention in the November Gazette that a car has been modified is of high interest as I am in the process of a nut and bolt restoration of 1/207. Completed the car will be somewhat heavier and faster than original and could do with more stopping power. Conversion will require a disc adaptor for the hub and a bracket to mount the caliper, simplified by the right choice of components. Details or pictures of an existing conversion would be a great help and if someone out there has these would they publish them please.

Ken

Re: Disc Brakes for a DB3L

Written by SRD at Nov 22, 2012 4:35 pm

Ken hi

I was considering this modification for my 3.0 dhc with front disc's, but it is is far from simple. and potentially pretty expensive

If you want d a degree of extra safety, then why not fit a dual circuit system. You will have a little more space for fitment of the servo's, if you have an engine with original exhaust layout, and not a Ford or Jaguar replacement.

The owner of a 3.0 litre 4 door, Robin Allum has done this, and there is a good article on the other Lagonda web-site, and he feels the car now stops much more reliably and quickly.

http://www.lagonda1949-1958.co.uk/RobinAllum/Allum5.html

Simon

Re: Disc Brakes for a DB3L

Written by Peter S30 at Nov 22, 2012 5:57 pm

I thought Robin Allum has converted to two circuit brake system for safety reasons (if one would fail you still could brake on the remaining 2 wheels), not to increase braking power. And I think braking power will not increase with dual circuit. And I do not see that you need it, the servo brakes are quite good and the DB 3 ltr cars are no racers.

Re: Disc Brakes for a DB3L

Written by SRD at Nov 22, 2012 6:44 pm

Peter hi

The English testing system was causing him problems, and you are correct his system gives separate braking for front and rear wheels.

On his car he always needed a lot of effort when applying the brakes and every year the handbrake would fail the MOT. According to the inspector, as the car has a single circuit system, the handbrake is also the emergency brake should the hydraulic system fail. If it had a dual system the handbrake is then a parking brake and in theory the handbrake should pass at a lower figure.

According to Robin, who has both a five speed Tremec box and a rebuilt engine, his car is fairly quick, the change in the braking system has given him better stopping ability.

Having been in a fair few DB cars, their stopping ability sometimes leaves a lot to be desired. I plan to investigate this option, cost effective and reasonably straightforward to fit. Would be interesting to compare two 3.0 litre cars, one with the standard single circuit and the other Robins car.

As you say, I wonder if there is a real difference, maybe you are right and there is none ?

Re: Disc Brakes for a DB3L

Written by mjpetersP24 at Mar 04, 2013 3:42 pm

Hi Ken,

The car in Hong Kong I referred to has now been identified and the Club magazine article has been located (no. 93, Winter '76 - a bit later than I had thought.) Unfortunately there are no pictures or diagrams, just a written description. I will try to fit the entire disc brakes section into the April Gazette but to quickly summarise, the front disc parts this owner used were ex. Jaguar S type. The other interesting thing is that he fitted discs to the rear as well - doesn't specifically say if these too were Jaguar. Also twin master cylinders were subsequently installed. One for the initially fitted front calipers and rear calipers and the second for an additional set of calipers at the front! He replaced the factory servo unit with a Girling one from a Commer Bantam commercial. Seems like an awful lot of work to me. I agree with Simon's comments that a modification along the lines of Robin Allum's 3 Litre is the way to go. For real excitement you should try a panic stop in a servo-less 2.6 with its narrower shoes and drums!

Martin

Re: Disc Brakes for a DB3L

Written by ken douch at Mar 10, 2013 6:35 am

Martin

I do not think Jaguar discs and calipers will adapt to the Lagonda hubs, however it is possible to persuade Jag. hubs to fit,but you would also have to fit Jag. wheels. This would be OK if they were wires I suppose.

The attached photos show how close the fit is with some carefully chosen components.

Updating to dual circuit servos is a given to my mind.

Ken

Attachments:

DSCN2167.JPG (filesize: 170.42 KB)

DSCN2165.JPG (filesize: 183.50 KB)

Re: Disc Brakes for a DB3L

Written by ray sherratt at Mar 10, 2013 4:38 pm

I hope this insterlation Is a mock-up and not the real think.
The bracket is far to thin, it should be -375" at least. The
disc is to close to the rod end, disc deflection will machine
a groove in the inner face of the disc. I do hope a more
engineered approach is looked into.
Ray.

Re: Disc Brakes for a DB3L

Written by ken douch at Mar 10, 2013 7:33 pm

Thanks Ray for your reply.

Yes just a mock up to get you thinking.

3/8 plate caliper brackets mounted on the rear of the lugs are planned.

Without extending the stub shaft there is a limit to the extent that the disc and hub can be moved outboard,so clearance at the steering arm will always be small probably necessitating a special rubber boot

If there is any interest I could lay this out on cad.,but as far as Engineering is concerned I have forgotten how this is spelled 20 years ago .

Ken

Re: Disc Brakes for a DB3L

Written by ray sherratt at Mar 10, 2013 8:29 pm

Hi Ken

Is the disc bolted to the hub? could it be turned round

to give more rod end clearance. I think a rubber boot

so close would last five minutes, 4-5 hundred deg-Celsius

would set them alight. M O T rules new fail cracked or

split boots

Ray.

Re: Disc Brakes for a DB3L

Written by ken douch at Mar 11, 2013 7:33 pm

Hi Ray

I have included a sketch of the assembly.

You can see that if the hub and wheel attachment plane is not to go outboard, moving the disc away from the steering arm requires the caliper to be moved by the same amount and causes interference at the heads of the wheel studs.

A smaller caliper would help but pad friction area is compromised.

If someone really has converted these hubs it would be a great help to know what components were used

Ken

Attachments:

discbr.jpg (filesize: 111.47 KB)