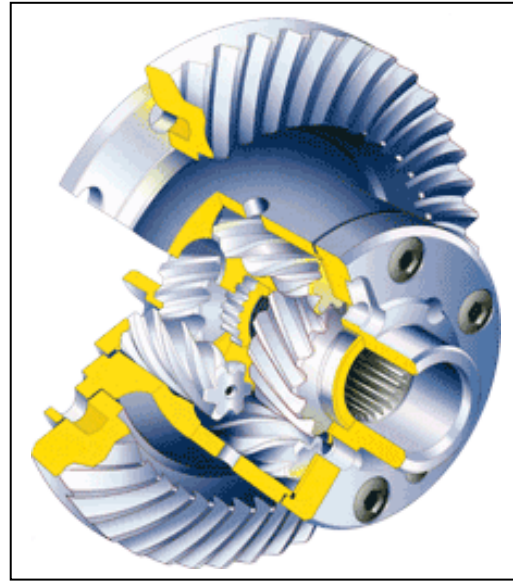
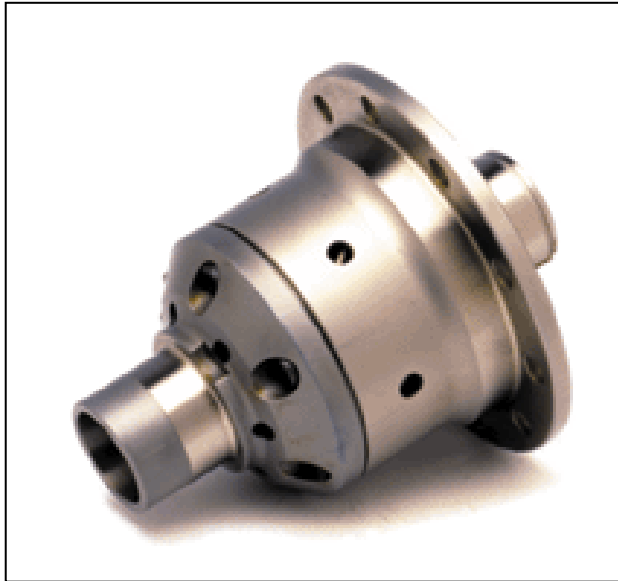


1 Supplemental Information  
2 for  
3 **Quaife Limited Slip Differential**  
4 **267-055 or MGS20720 MGB with Tube Type Axle**  
5 **267-065 or TMG20720 MGB with Banjo Type Axle**  
6



22  
23  
24 The Quaife torque biasing differential enables your car to accelerate quicker and corner faster. How?

25  
26 ***By getting the power to the ground!***  
27

28 The Quaife Differential powers both drive wheels under nearly all conditions, instead of just one. With an  
29 ordinary open differential, standard on most cars, a lot of precious power is wasted during wheelspin  
30 under acceleration. This happens because the open differential shifts power to the wheel with less grip  
31 (along the path of least resistance). The Quaife, however, does just the opposite. It senses which wheel  
32 has the better grip, and biases the power to that wheel. It does this smoothly and constantly, and without  
33 ever completely removing power from the other wheel.

34  
35 In drag-race style, straight-line acceleration runs, this results in a close to ideal 50/50 power split to both  
36 drive wheels, resulting in essentially twice the grip of an ordinary differential (they don't call open diffs  
37 "peglegs" for nothing).

38  
39 In cornering, while accelerating out of a turn, the Quaife biases power to the outside wheel, reducing  
40 inside-wheel spin. This allows the driver to begin accelerating earlier, exiting the corner at a higher speed.  
41 The Quaife also controls loss of traction when the front wheels are on slippery surfaces such as ice and  
42 snow or mud, providing the appropriate biased traction needed to overcome these adverse conditions.

43  
44 The Quaife Differential provides constant and infinitely variable drive. Power is transferred automatically  
45 without the use of normal friction pads or plates seen in other limited-slip designs. This is an important  
46 design feature because the plates in other diffs require special lubricants, and they eventually wear out.  
47 The Quaife's unique design offers maximum traction, improves handling and steering, and puts the power  
48 where it is needed most, without any special lubricants. And there are no clutches or friction plates to  
49 wear out. These are definite advantages whether you run your MGB on the track or on the street.

50 The Quaife is great for street driving or racing. Racers don't have to put up with locking mechanisms or  
51 spools that created unwanted understeer under power. Because it behaves like an open differential  
52 during ordinary driving, street drivers will have trouble telling it's there until pushing the car's limits.

53 The Quaife has been proven in everything from SCCA Rally to Formula 1. It provides autocrossers with  
54 such an advantage, it has become "required" equipment for a winning effort.

55 More and more auto manufacturers are specifying the Quaife ATB Differential as original equipment in  
56 their high performance models - for good reason - it works!

## 57 **FAQ's**

58  
59 ***What sort of gear lube should I use ?***

60 For a QUAIFE ATB differential, running in a rear axle – use a hypoid 90 or 75W90.

61  
62 ***What is the torque bias ratio of the Quaife differential?***

63 QUAIFE does not specify bias ratio details and generally, does not use the term. The QUAIFE ATB  
64 differential is an all helical gear design. The angle and tooth form of the helix used, the number of pinions  
65 used, and many other factors (including the particular car fitted) all contribute to how the differential  
66 behaves and biases drive torque. Each QUAIFE differential application is designed to offer the best  
67 compromise between performance and durability.

68  
69 ***What kind of horsepower can the Quaife differential handle?***

70 The QUAIFE differential is engineered to take just about as much horsepower as you can throw at it. In  
71 almost any given transmission or rear axle, the QUAIFE ATB Differential will not be the limiting factor. If  
72 you have any questions regarding this, please feel free to contact us.

73  
74 ***What sort of maintenance is required when using a Quaife differential?***

75 There is no additional maintenance required when using the QUAIFE differential. You can simply "forget"  
76 about it, and let it do its magic!

77  
78 ***Are there any special parts needed to install a Quaife differential?***

79 There are no special parts required to install a QUAIFE differential, beyond what may normally be needed  
80 to install a stock unit. The basic parts needed will be: differential bearings, transmission or rear end  
81 gaskets, and possibly some shims if required.

82  
83  
84  
85  
86  
87 *Although every effort has been made to ensure the clarity of this information, errors and/or omissions on our*  
88 *part are almost inevitable. Any suggestions that you may have that will improve the information (especially*  
89 *detailed installation notes) are welcome. Please use the simple email form on the “**Contact Us**” page on the*  
*Moss website: <http://www.mossmotors.com/AboutMoss/ContactUs.aspx>*  
*If you prefer, you may call our Technical Services Department at 805-681-3411. So many people call us for*  
*help that we are often not able to answer the calls as fast as we'd like, and you may be asked to leave a*  
*message. We apologize in advance for the inconvenience. We will get back to you within 2 business days.*



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