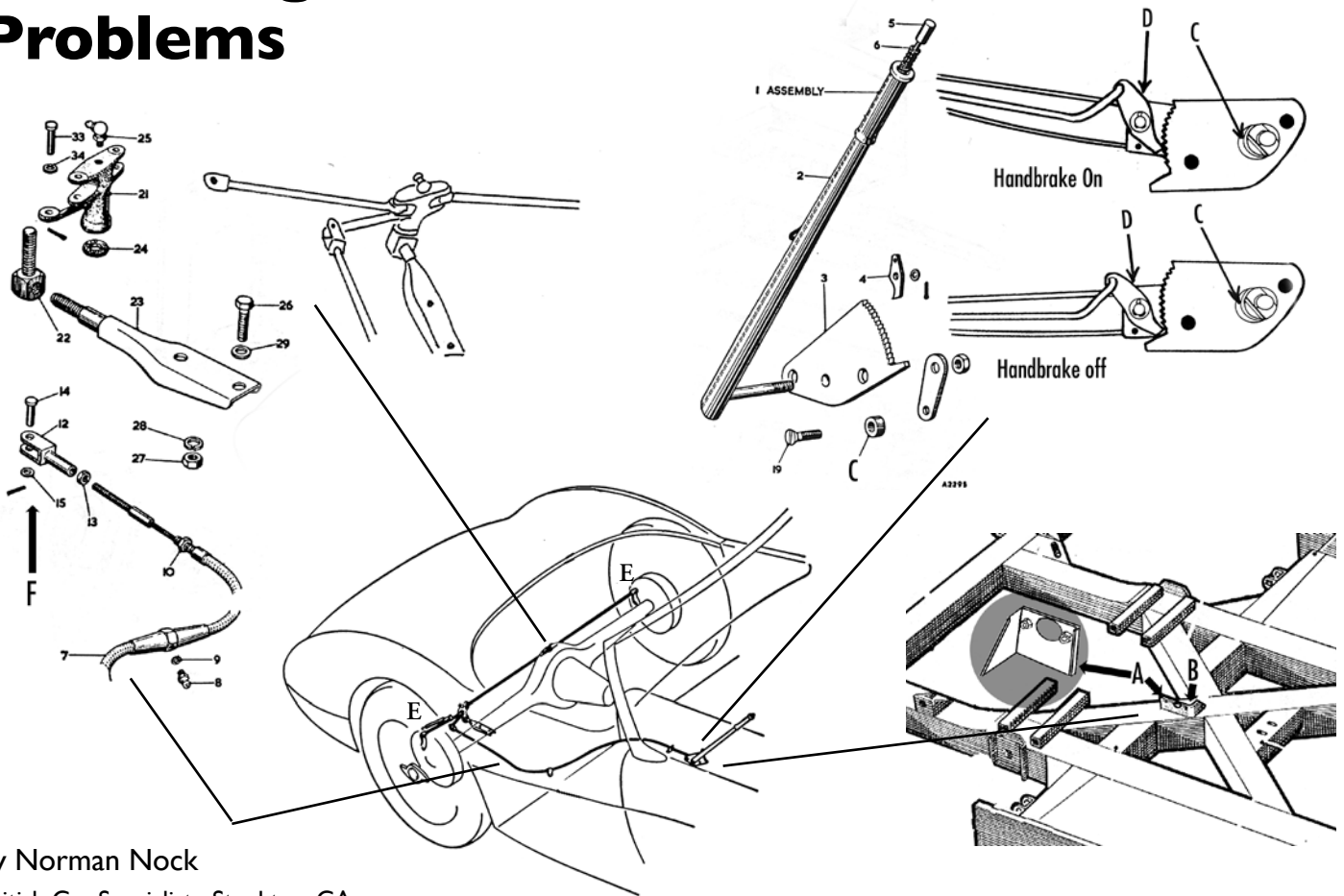


Diagnosing and Fixing Handbrake Problems



by Norman Nock
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The hand brake, or emergency brake, was one of the few parts on the big Healey that didn't change in its design and operation from beginning to end of the Healey's production run.

Operation was simple and can easily be followed by looking at the above diagrams.

By pressing on a button at the top of the hand brake lever, the driver releases a pawl (D in the diagram) so that the lever can be pulled up easily. As the handle is pulled up, it rotates around a pivot through a bushing in the hand brake base (C in the diagram), causing a small lever fastened to the pivot to pull on the brake cable.

As the cable is pulled, the other end causes a swivel fastened to the rear axle to rotate, which in turn pulled two levers that caused the rear brake shoes to press against the brake drums.

When the button on the handle is released, the pawl engages a ratchet near the pivot, holding the lever in place and keeping the rear brakes engaged.

However, even a simple mechanism like this can have its problems. Typical brake problems include: the lever can come up too high, it can be sloppy in operation, it can be frozen and refuse to move, or it can pull up and down without engaging the brakes. Norman Nock takes us through these one at a time.

Lever Comes Up Too High

The lever should come up only three clicks before beginning to engage the brakes. If it comes up too high, it's a sign that an adjustment is needed in either the brakes or the hand brake cable.

Start by adjusting the brake shoes. First remove the clevis pins from the levers on the backs of both brake drums (E in the diagrams above). Adjust the rear brakes using the square peg located on the back of the brake drum backing plate. Turn the pegs clockwise one click at a time until the brakes drag. Then back off the peg just enough so that the wheels turn freely, and reconnect the clevises to the brake levers.

Once the brake shoes are adjusted, the hand brake movement can be adjusted.

With the handbrake off, as shown in upper right figure, the pawl (D) should be engaged in the bottom of the ratchet teeth. If the release button is pressed in and the brake lever is pulled up too far, the pawl may over-ride its stop and get caught up too high.

If the lever and rear brakes are properly adjusted, this should move up only three clicks before the brake shoes start to drag. If not, you will need to remove the clevis pin from the rear end of the hand brake cable (F on the diagram) and screw in the fork of the clevis two or three turns. Be careful not to turn the inner hand brake cable when turning the fork. Reconnect the clevis and check the lever adjustment again. Readjust if required.

Hand Brake Pulls Hard or Not at All

If the hand brake is difficult or impossible to pull, it may indicate that the brake cable is frozen or the grease inside has solidified, a problem that is often encountered on cars that have been parked for many years.

To correct this, remove the brake cable from the car and soak it in solvent for a few days, then use a grease gun to free it up. If the cable is rusted or frayed, then it should be replaced.

In use, the cable should be greased every time the rest of the car is greased, using the grease fitting in the middle of the cable.

Frozen or Sloppy Hand Brake Lever

The hand brake lever is bolted to a bracket (A in the diagram and shown from the opposite side in the inset detail) that is welded to the main chassis rail. Over time if the bushing around the pivot (C in the diagrams) has frozen from rust, and the weld at B was bad, a hard yank on the lever could have broken the weld completely, so that the brake lever moves around in a sloppy fashion.

If inspection shows that this bracket is loose, the brake lever should be removed, all rust and grease cleaned away, then the drive shaft can be temporarily removed and the bracket can be electrode-arc welded back to the frame.

Hand Brake Ratchet Worn

When the driver pulls the brake lever up, he should press the lever release knob down to release the pawl (D). If the release knob is not pressed, then the pawl drags across the teeth, causing the pawl to wear, which can eventually prevent the lever from engaging in a positive manner. If this is the case, the pawl, and possibly the hand brake base, will have to be replaced.

Broken Lever Rod

The hand brake lever assembly itself, consisting of the lever, pawl, rod, spring, and release button, can be broken when it is being disassembled. In particular, as you remove the pin that connects the rod to the release button, the rod can break off at the small hole in the rod where the pin goes through it. Replacement parts, including the rod and button, are readily available.

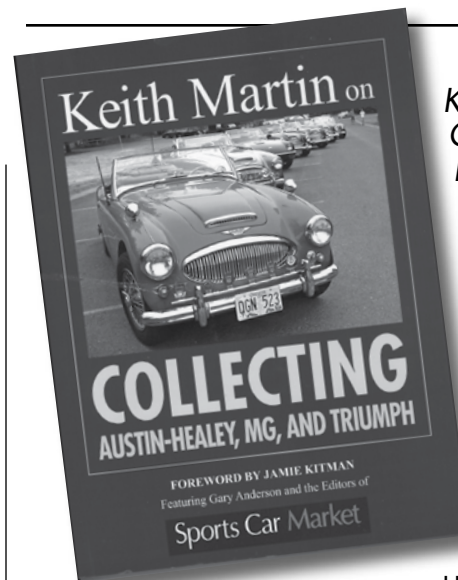
Sticking or Broken Rear Swivel Linkage

The swivel linkage at the rear generally gives very little problem. If it doesn't seem to be operating correctly, and certainly when work is done on the rear end, it can be disassembled, cleaned and greased.

Note that it has a grease fitting on top and should be greased during normal maintenance to keep it operating correctly.

Editor's note:

Our word for this issue is **Clevis**. A clevis is defined as a U-shaped or forked metal connector, usually at the end of a rod, which is fastened to another component with a pin that goes through one side of the open end of the U or fork, through the component, and then through the other side of the U or fork, with the pin retained in place with a cotter pin. The pin that connects the clevis and the other component in place is called a clevis pin, and has a head formed at one end that keeps it from going all the way through, and a hole through it at the other end for the cotter pin. A clevis is used where some rotating movement is needed between the two connected pieces. In the hand-brake, there are at least six clevises. Can you find them all?



Keith Martin on Collecting Austin-Healey, MG, and Triumph. Foreword by Jamie Kitman, featuring Gary Anderson and the staff of Sports Car Market Magazine. Motorbooks, 2006. Softbound 8in x10in. 128 pages, over 200 illus. Available at Amazon.com \$14.00

I recently received my copy of *Keith Martin on Collecting Austin Healey, MG, and Triumph.*

Having owned a Healey for over 30 years, having been a founder of San Diego British Car Day and having spent considerable time around British cars of all makes, I thought I might want to add this book to my library. My first thought when I saw Keith's book being advertised was that it was going to be just a compilation of the articles that have been written and published in his magazine, Sports Car Market. Though the book certainly is a collection of previously published articles, as I reviewed the work more thoroughly, I was pleasantly surprised to see that the articles covered so much ground and were nicely organized to create a very useful collectors' guide.

With the exception of the 100S, every model of Austin Healey was covered in detail. The articles go over what to look for, what to buy and even how to buy that particular model of Austin Healey you want to add to your collection.

I particularly liked the article titled, "Leather and Louvers" written by our own Gary Anderson. When I was thinking about selling my Sprite, I started looking at replacing it with a "big" Healey. I really liked the shape of the Healey 100, and thought it would be nice to find a "factory" 100M for my collection. Gary does a fine job going over in detail what constitutes one of the 640 100Ms. For someone looking to purchase such a car, having this information would be handy. There is also an article titled "Why Your Healey 3000 Isn't Worth \$143K" and a follow-up article that interviews Kurt Tanner of Kurt Tanner Restorations.

There are also examples of cars that have been for sale or have sold over the last couple of years. In time, this information will be dated, but it gives the reader insight as to the market value for a particular model at this particular time in history.

MGs and Triumphs are also reviewed in the same detail as the Austin-Healey was in the beginning of the book. One of the last chapters is titled "Collecting Thoughts." In this chapter are articles on concours, another on "Restoration, for Street, Show or Race," one that goes over wheels and tires, and an article that discusses "Six Solid Roadsters." An Austin-Healey is listed as one of the six.

So, is this a book for your library? If you want to know more about the car you are driving, think you might want to add something new to the collection, or just like Austin Healeys, MG's & Triumphs, then the answer would be "Yes." **by Bob Segui**

In the interest of full disclosure, though the editor of Austin-Healey Magazine is listed as the primary contributor to this book, he is not receiving any royalties or other compensation from its publication since contributors to Sports Car Market Magazine retain no rights in any republication of their material.