

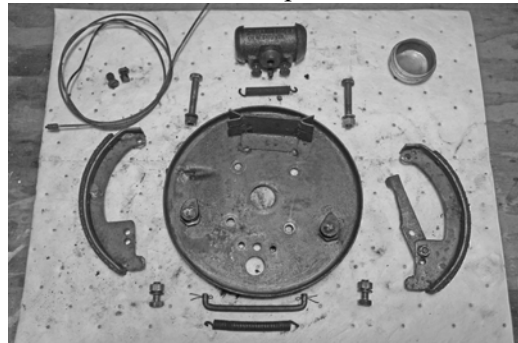
SHOP NOTES King Midget Maintenance and Restoration

D-19 Overhauling M3 Brakes

Bob: My wife and I inherited a 1967 Model 3 two years ago. It's been stored inside and I believe, other than one paint job and a horn mounted on the driver's side fender, it's pretty much original. The odometer reads 6,173 miles.

We joined the IKMCC and I've got a copy of the *Shop Notes* and all the other books that are in print. We're super excited to be part of the King Midget family. Ours has been up on blocks in our garage waiting until this Fall for time to start working on it. When I put the car on blocks the wheels were difficult to turn so, I figured a brake job is in order. I removed the wheels, pressed out the wheel bearings, removed the tires, and had the wheels sand blasted. I used the POR-15 system to prime them and got great results. The wheel bearings are Timken LM11949, the cones are Timken LM11910, and the seals have 178HDI and C/R stamped on them. Are these original parts? I couldn't find anything on-line about the seals. I'd like to install new bearings, etc. Do you have any recommendations?

I removed and disassembled the left rear brake assembly. Everything came apart fairly easily. I'd like to have new brake pads installed on the shoes as they are worn down to the rivets in spots and they look really dry and crumbly. Any recommendations? I've read wheel cylinders are fairly inexpensive so, to save time, I'd like to just get new ones along with a new Master as well. Sources? I plan on replacing as many of the rigid and flexible brake lines as possible. Can the long one that runs through the frame on the passenger side be replaced without pulling the whole car apart? Also, I understand the principle behind the eccentric brake shoe adjusters but, I'm not clear on how to lock them in place once adjusted. The brake backing plates seem to be somewhat bent where those adjusters pass through them - is this correct? That backing plate is quite thin and I suspect improper adjustment may have bent the plate? Here's a photo of the disassembled brake assembly.



I'm hoping our little car isn't going to need too much work to get it up and running. For once, I'm actually going to take my wife's advice and not make this project bigger than it needs to be. Get it on the road and have some fun! Doesn't need to be perfect ... yet. I'm going to try to save the frame off restoration for retirement. In addition to new tires, wheel bearings, and the brake job, I know I need to tighten up the front suspension and steering. Beyond that, the only thing that obviously needs attention now is the pulleys on the transmission input shaft are loose. Clean fuel system and some fresh oil in the shocks and we're off! I hope! **Craig Brimicombe**

Craig: Thanks for your note and the photo. I'm forwarding your message and photo to our Technical Advisory Panel. I must say though, from what you've said plus the photo I'm thinking replacing the wheel cylinders and master cylinder might be all that's needed to put your car in fine running condition. Yes, one brake lining looks worn on one end. If they're replaced, it is important to use the old style linings used on vintage cars. The new stuff is too hard. **Bob V.**

Craig: Yes, we can help you with your questions. Brake shoes can be replaced by Paul Gerhardt in Springfield, Ohio (his email included). He can also give you the seal part number for the wheels. The brake adjustment stays where you turn it and is in a bind for that reason. For brake

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parts, I use Direct Parts in Kansas; a Cushman Truckster parts house, the cheapest source I have found, and they're also all new parts. When you call tell them I sent you and you're working on a King Midget. The master is exactly the same, and buy all 4 wheel cylinders. They sell 13/16" and the King used 3/4" on the front and 7/8" on the back. I have used the 13/16" for years as replacement and there is no difference in stopping power.

If you need hoses, Paul Gerhardt can give you the NAPA part numbers for those. The backing plates may be bent a little but won't matter much; you can straighten them if you like; new ones are hard to find. I recommend using carb cleaner to flush out the metal brake lines, but if rusted inside, then local parts stores have lengths of brake line to replace them. And yes, the brake line can be removed without taking the car apart. There are some small tabs that can be pried up that secure the brake line to the inside of the frame rail. Be careful of the brass fitting on the back of the master. They can be bought but with care can be reused. Also, usually the wheel bearings don't give problems, even if there are small pits of rust, but can be replaced if you want. If you need to call me I'm available in the evenings and welcome your call. **Lee Seats**

Lee: My name is Jeff and my father-in-law had a 1962 King Midget that he and my two boys took to parades and car shows and always got the looks and laughs. He passed away about two years ago. We had to sell it to help pay the nursing home and the person who bought it thought it was cool, thinking he would just start it and drive way. Well, it did run but no brakes so he let it sit. Long story short I bought it back. So I remember my father-in-law talking about the King Midget Club. He might have been a member. His name was Jerry Phillips of Fulton, Illinois. So I found this site hoping you can help me out getting parts for the brakes. Engine runs good and it moves. Does stop using the emergency brake, but I want to make my father-in-law proud and do it right. Thanks for any help and will be joining the Club soon **Jeff Cossman**.

Jeff: At Quarter Ton Military, the parts numbers you need are as follows: Wheel Cylinders part #A-1502, 637787 \$63.00 for all four cylinders. Master Cylinder part #8136618 \$38.00. Their phone number is 423-762-5858. Talk to Matt Fox. He also has other parts that fit the King. The brake light switch, brake hoses, the two brass blocks, one on the end of the master cylinder, the other on the passenger side front on the frame and horn button. Maybe more but that is all I saw at a glance. Remember the one-inch wheel cylinders go on the back and the 3/4 inch go on the front. **Lee**

Jeff: Lee sent me a copy of your correspondence and I'm glad he's able to help with your brakes. And no, apparently your father-in-law was not a member of the King Midget Club, but did send in some information more than 20 years ago. I found reference to Gerald Phillips from the Fulton zip code in our database, owning a 1960 Model 3. Also Ron Stage joined the Club in 2017 from Fulton with a 1960 Model 3, serial number S602688, engine 2968142. There seems to be some question if that engine is the original, since its serial number suggests it was built in 1958 or 1959. Your car was apparently built in the spring of 1960 and Midget Motors did not install engines in an organized sequence, so nothing is certain. Nonetheless, I'd appreciate if you can confirm both serial numbers. Your car's serial number is on the top of the frame on the driver's side. **Bob V.**

D. Brakes