

One of the great things about King Midgets is,

Section N
Parts

nearly every part you might need is available, either reproduced, used or NOS. Pretty amazing, considering the rarity of these

cars, their age, unique design and construction. This section summarizes some items mentioned in past newsletters and major parts sources. In the following articles, some part numbers and sources will be out of date. Consider them as a starting point in your search for parts.

N-1 WHERE DO I FIND??? By Bob V.

The major concern of any antique auto maintenance or restoration project is where do I find the missing, worn out, or broken parts? For King Midgets it's much easier than you might think. The major source is Midget Motors Supply, 652 Newland Hill Rd., Waverly, Ohio 45690. However, there are many parts that can be found locally. Jud Gardner, who has restored three King Midgets, sent this information.

Safe brakes are vital. Master Cylinders are same as used in right hand drive Jeep postal vehicles. Jud found them at his NAPA dealer but any good auto supply store should be able to help. Or try your Jeep dealer. Ask for NAPA Part Number 2796 or E2796 for the master cylinder. Rear wheel cylinders are NAPA 7369 and front, NAPA 7568. For the short flex hose brake line the driver's side and also the line that goes across the rear suspension, try EIS SP-871. The long brake line is SP1522.

Delco has generator brushes; P/N 1946427. For transmission seals for both two-speed and the Comet, call Chicago Rawhide Industries, 1-800-822-0008. The large seal is P/N 10074 and the small seal is P/N 7572.

Lights? Parts, buckets, rims, lenses and lamps for head and tail lights are available from local parts stores or farm equipment dealers. Snowplows, tractors, and an assortment of smaller rigs use the same equipment. Midget Motors used two suppliers, and the manufacturer's name is stamped on the ring. Both are still in business.

A garden tractor or farm equipment dealer may have belts. The high speed belt is a

Daco Super Blue Ribbon V P/N BP42. Low is DACO BP48. Replace both belts when replacing either, using a matched set, and keep 'em tight!

Note: Much of the article above is obsolete. Below are listed the King Midget specialists as shown on the Club's website in the fall of 2014. Check there as changes do happen. That list is followed by other sources that have been found to be useful.

Midget Motors

419-663-9287

E-mail- <u>midgetmotors@hotmail.com</u> Website: <u>www.midgetmotors.com</u>

Paul Gerhardt

937-605-4531

E-mail- pgerhardt@woh.rr.com

All types of mechanical work. Vanguards Installed, Restoration Work.

Stults Outdoor Products

812-591-2719

E-mail- dave@westportindiana.org

Website: Stults Outdoor Products (http://www.westportindiana.org/stults.htm)

Engine Parts, Clutch relining..

Fiberglass Reproduction Grilles

For the King Midget Model 1 and Model II

E-mail: gngguy@comcast.net

352-561-0640

Model 1 Plans

A set of 30 11 X 17 scaled drawings documenting the design and details of the original King Midget Model 1 is available for \$40 plus \$7 postage:

Now you can buy using Pay Pal or a credit card. Click on this link; www.kingmidgetswest.com E-mail kingmidgetswest@gmail.com

805-481-2574

Skip Weaver

352-250-7166

For Model II and Model III parts and Body Panels. Model II grilles.

Website: http://www.kingmidgetworks.com/www.kingmidgetworks.com

E-mail- cycleman01@aaahawk.com

Direct Parts

Master Cylinders, and Wheel Cylinders 800-216-4960

The suppliers listed above have available or can build nearly all unique King Midget parts. Below are sources for most of the parts that Midget Motors purchased from their suppliers.:

Speedway

As of October 2014 800-979-0122 http://www.speedwaymotors.com/ Electrical, body, fasteners, hoses and etc.

J.C. Whitney

As of October 2014 1-866-529-5530 or 1-312-431-6098 http://www.jcwhitney.com/ Electrical, body and etc.

Summit Racing Equipment

As of October 2014
800-230-3030
http://www.summitracing.com/
Electrical connectors, bulk wire, brake lines and etc.

Northern Tool & Equipment

As of October 2014 800-221-0516 http://www.northerntool.com/ Tires, rims, tools, shop machinery

Trailer Parts Superstore

As of October 2014 800-453-7379 http://www.easternmarine.com/ 8 inch fixed hub / tire & rim

Eastwood

As of October 2014 800-343-9353 http://www.eastwood.com/ Restoration supplies, hand tools, shop machinery.

McMaster-Carr

As of October 2014 562-692-5911 http://www.mcmaster.com/ Fasteners, sprockets, lubrication, seals and etc.

Small Engine Warehouse

2347 South 800 East, Dunkirk, Indiana 47336 800-321-6725 www.smallenginewarehouse.com

Vanguard and other replacement engines	

"Click n Click" A take off of a PBS program, only applied to King Midgets.

N-2 Cheap Spare Parts to Carry by Gary Wood

First of these would be a spare spark plug (and wrench for this of course). The second is a spare master link for your chain.

A failing plug seems to be a common problem. Tim's car and one of mine didn't go up High Street this year because of a failing plug.

After the long wait at a slow idle, one of my cars pulled up to the starting position, but would not take gas. The car would start and idle but nothing else. After towing it home, all it took to fix the problem was a new plug. Tim's car conked out on the hill due to the same ailment.

As far as the master link, I remember someone having this trouble at one of Ed Demattio's meets. Fortunately someone had a master link with them.

The driver's side front shock tube-to-frame joint is an area subject to breakage. I always check this area out old cars that I am looking to buy. As a mechanical engineer myself, I find it interesting that the driver's side is most likely to fail.

One might suspect that this is a result of hitting obstacles or potholes combined with the usually higher weight on this side of the vehicle. On the other hand, this area is closer to the driver's line of sight, and thus should be less subject to these impact loads.

Perhaps a reason may lie in the larger steering forces on the driver's side. The force at the steering wheel causes over twice the stress in the driver's side joint as on the passenger side.

For equal drag at both struts and for equal friction between both tires and the pavement. The ratio of bending stresses at the joints in question (resulting from a torque around a horizontal axis) is roughly:

$$L+-(2L_b/L_f)$$

Where:

L_b=length of back arm; about 3.13 inch

1_f=length of front arm; about 4.60 inch (these arms are those that are welded to the lower driver's side shock tube).

For the above numbers this gives pretty close to 2.4 times the stress from steering on the driver's side as the passenger side.

Of course all of this is subject to largely variable "real world" factors contributing to the problem. However, I believe the problem may be avoided if one makes sure the front shock tubes are kept well lubricated and correctly adjusted.

Wheel Balancing Technique

As no place, at least around Athens, is able to balance the small wheels of a King Midget, I use the following technique. With the car lifted and the brake adjusters backed off, I install the wheel without a grease seal and with dry or lightly oiled bearings. The wheel then turns freely and you can determine where to install weights. This seems to be adequate at least to speeds of 60 mph (a Kohler car with favorable gearing and winds).

Note: Gary strayed a bit beyond the theme of spare parts to carry, but it's all good stuff. Other vital items to have along include spare setscrews, Allen wrench of the right size and Loc-Tite. I've found those pesky drive sprocket setscrews to be an embarrassing problem! It's good to have spare belts and a basic tool kit, and on a cruise, be sure someone has spare gas! When trailering, spare tie downs and bungees. Always a toolbox with some basic tools. Bob V.

N-3 Where Are My Parts? By Bob and Hall

One of the great features of the King Midget as a car hobby is the availability of parts. Try finding a new fender for your DeSoto! It's an asset many of us don't appreciate as much as we should.

Here at *King Midget Motoring*, we get complaints from those who have ordered parts and not been satisfied with their service. We suspect that the King Midget parts suppliers have served plenty who were as happy as pigs in a pie factory—but clearly some were not. Both of us have been on the receiving end of customer complaints in other businesses and know that, in general, customer gripes come from a highly vocal minority.

In recent years the main task of providing us all with parts has fallen into the hands of King Midget enthusiasts. The first was Dave Stults, who managed by tagging the King Midget business onto his lawn and garden line. Alan Conley came next and hoped to make King Midget sales and restoration a full time enterprise. Mike Beebe currently owns and operates Midget Motors Supply as a part time business. These are good guys and we believe each in his own way has done his best to service customers.

How those good intentions translated into service, we don't know. One thing we're pretty sure of; running a small parts business for a—shall we say—mostly anonymous car, is not a road to riches. Let's try to better understand some problems that go with the KM parts business.

There are somewhere close to a thousand King Midgets still known to be in existence. Let's take a guess and say a fourth of them have been restored. Most of the remainder are sitting in someone's barn or garage, waiting for that wonderful day when time and funds are available for restoration—let's guess they represent two-thirds of the remainder, suggesting perhaps 250 might be under restoration. But there are some parts cars too far gone for hope and a growing number are greatly modified cars that need few original parts. Maybe the number of cars being worked on today is more realistically 200, with enough still waiting to maintain this rate of restoration for some years. How long does a restoration take? Some people do it in a couple of months, while others take many years. Let's guess that on average, it takes two years.

While we're guessing, let's take a stab at costs. That's a huge variable. Some cars need only paint, tuning; maybe a top and some tires. Others involve as much cost and effort as building a new car. How about we agree on an average of \$1,500 restoration cost? Some of that is labor paid to subcontractors, but maybe \$1,000 is for parts.

If we accept the above as a fair approximation, we can estimate that the annual market for King Midget parts is on the order of \$100,000. Maybe half that goes to the likes of NAPA and other assorted sources for generic parts. That leaves a crude estimate of an annual potential market of \$50,000 sales of specific King Midget parts available to the KM parts vendor.

That supplier has to buy them, and in the case of most of the parts offered, inventory them. For providing this valuable service, hopefully his markup averages around 100%. If so, he'd have a gross profit for the year of \$25,000. From that, he must pay all his costs

of doing business—which would surely sop up most of the profit potential. Whether he has anything left to jingle in his jeans is a very real question.

This is no way to make a living.

The customer ordering the part often needs help figuring out what he needs because he's not familiar with the car's construction or the part numbers, nor does he know how to use the part once received. The seller can expect to spend a lot of time on the phone explaining all that stuff, not to mention dealing with King Midget owners who love to chat about their cars and their restoration challenges and accomplishments. The vendor can't bill the customer for advice or time wasted, even if nothing is ordered.

Volume is so low that the dealer can't really afford to inventory against demand. Yet he does carry a large inventory—the huge pile of NOS left over from Midget Motors—from which parts are rarely ordered, and when they are, the needed piece is hard to sort out of the pile. He also owns the "asset" of the King Midget name, which investment generates virtually no revenue. He can't afford a proper warehousing system for parts that might not generate a single order in a given year. His suppliers of the new parts that represent most of the volume are almost all part-timers who make the stuff when they get around to it, so predicting delivery against back orders is tough.

How would you like to be in the business of supplying KM parts? Those who do must be motivated primarily by their love of these little cars.

Perhaps many or most of the fans' complaints against all three major suppliers were justified. Bob's experience has been satisfactory. Years ago, he ordered parts from Dave Stults, which arrived in good time and were correct. In addition, Dave helped Bob locate the cars he bought.

Hal's first contact was also with Dave. He inquired about joining IKMCC and asked if there were any cars for sale. Dave sent a note with the info and a list of cars he knew were for sale. Later on Hal ordered parts from Dave and was advised that Alan had taken over the business, and the order was forwarded to him. During the next few years Hal ordered a variety of parts from Alan and never had a problem. Alan was also very helpful in answering questions.

Neither of us have had dealings with Mike Beebe, but we've both heard the complaints—slow service and not very communicative. We suggest everyone realize that his is a part-time business and pay attention to the hours he's open when trying to make contact.

Perhaps if our suppliers of King Midget parts are held to the standard of Dell computers or Amazon.com, they are indeed unreliable. But that's not a realistic expectation for this kind of business.

We mostly hear from the customers who gripe about the suppliers and we hope they are in the minority. The number of complaints that have come up in our surveys has been small, but it's not an area we've asked about directly. Most of what we've heard has been general grousing about deliveries not received on time, difficulty in contacting the supplier and the like.

We join many of you in wishing the guys who sell the parts would put a little more

effort in to delivering and a little less into making promises. That being said, we should all get down on our knees and give thanks that we have a source for the parts we'd otherwise have to get built at local shops for big bucks.

You've all seen mentions in these pages of alternative sources for King Midget parts. We provide that information to help you get the parts you need and perhaps save a few bucks along the way. We use such sources ourselves. But in doing so, it's fair to ask if we're doing the right thing for the future of these cars. As we've attempted to show above, the King Midget parts suppliers don't make much for their efforts. They must be in it primarily to support the cars and fans. If we go someplace else to buy stuff the King Midget suppliers offer just to get a better price or quicker delivery, perhaps one day we'll find there is no specialist supplying us the unique parts we so often need.

We have no editorial position or magic answers to the questions we've raised here. W	e
put this out in the hopes of stimulating thought and discussion. Should we do a survey	?
We'd love to hear your views. □	

N-4 Supplier Survey By Bob Olbers

RECENTLY I SENT OUT EMAILS asking for ratings and comments on several suppliers of King Midget parts and services:

Dear King Midget Fan,

We, the King Midget Club, survey the fan base from time-to-time in efforts to do our best for the membership. This time we're focusing on our suppliers, who are so important to the future of these cars. Our objective in this survey is to provide suppliers with useful feedback to help them do their best.

We're very fortunate in having suppliers who, in total, can furnish nearly all the parts needed to restore or rebuild any King Midget from the ground up. But we should all bear in mind, it's a challenge to provide service for these cars. All our suppliers are part-time businesses and most of the critical parts are made to order as opposed to pulled off the shelf. We should all be grateful for our supplier support, but also do whatever we can to help them do their job better. That's the purpose of this survey.

We ask that you put in a response only for suppliers where you have been their actual customer. We're not looking for rumors or guesses, but solid feedback that will be useful to each supplier.

I have sent each supplier a summary of their individual ratings and how they compare to average of all the suppliers as well as their customers' comments. These ratings and comments are confidential, but a couple of observations are worth making:

Generally, ratings and comments were favorable.

Most of the critical comments concerned shipping or response time. As noted in the original email, we should bear in mind that these suppliers are part-time small businesses making small quantities of parts to order.

Here are a few comments, edited to maintain confidentiality:

I use Xxxxxx and have had very few problems. Xxxxxx is a part-time business which everyone needs to understand when you order; it might take a couple of calls. I have always been satisfied with the service and parts.

Xxxxx deserves more than a 5, he has given me a lot of advice and has fixed my transmission, number one guy to know and do business with.

Xxxxx makes most parts to order, give him time. Also a great source of information.

Hopefully this survey will make people a little more understanding of the problems KM suppliers face, and realize that, all things considered, they do a pretty good job. □

Note: There were substantial variations in how you view your King Midget specialists, but the major suppliers, who sell most of the parts and draw most of the complaints, rated comparably, and rather well, considering what they're up against.

N-5 LETTERS: Tires What Kind?

Now that Skip has corrected my steering challenge, I want to address the flat spot (square) tires on my KM III. I started by recording the size from the side of the tires (General 670/600-6) and traveled to Wal-Mart to see what they have. Nothing matched exactly so now the question is ... what is going to work and where do I get them??? Thanks, **Dave Craig**

Dave, Carlisle makes two different $5:70 \times 8$ tires. One is the Sure Trail or Sport Trail. It's a little smaller than the other $5:70 \times 8$ that Carlisle makes and NOT speed rated, so they will not balance well and are NOT round. Not a good selection. Their other $5:70 \times 8$ is called the USA Trail (available at boat shops or on line) and are speed rated and balance very well. They are 1×2 taller than the Sure Trail and the ride is more cushy. Now that you have the steering fixed, these tires will make your King drive like a dream (as far as Kings go!). **Lee**

Thanks for the tire info; guess what? Carlisle "USA Trail" in the size you mentioned on the rack in the tire section of my local Wal-Mart !!! **Dave Craig**

That's great! Here at my Tennessee Wal-Mart they only have the cheapos. To get those rims and tires balanced, go to a motorcycle shop. Their balancer will handle the 3\4 bearings; be sure to take a couple of bearings with you. They can mount the tires too. **Lee**

Dave, try Richards Tire Inc. in Petoskey MI. The number is 231-347-7522. They have the best prices and the best service. Four tires #CL519086 570-8 Carlisle USA Trail LRB for \$125 plus \$27 from MI to PA; total \$152. Arrived at my door in two days after phone order! As per Lee, these are the ones that are a little taller. **Sal Fallaice**

Hi Sal, Too late; good info though. I may be looking for inner tubes. [The problem is] the rims ... one pumped up without a tube, but for how long? The second one would not seat around the rim due to rusting and roughness! Local Carlisle dealer got me four tubes overnight from the company warehouse in Port Canaveral. I should be back on the road tomorrow. After a cycle dealer balances them we'll be in hog heaven! **Dave C.**

Dave, you can get the tubes at a lawnmower shop or a motorcycle shop. An ATV or a lawnmower tube will work fine too. Lee \Box

Note: You need inner tubes for two reasons. The rusty rims most KMs have and more importantly, the low pressure recommended for KM tires. Tubeless tires need higher pressure to stay on the rims. Bob V.

N-6 White Porta Walls

For eight-inch wheels are available from Lucas Classic Tire, 2850 Temple Ave., Long Beach, California 90806. \$39.95 for a set of four. This was submitted by Scott Olene, who's good at digging up stuff like this. Give Scott a call at 765-360-5370 after five, Central time. He's happy to help, especially in the winter when it's too cold in Minnesota

to work on his King Midgets.	0		

N-7 LETTERS: Tires

Bob: A follow-up on the vibration discussion last issue, I talked about the U.S.-made Carlisle tires for the KMs with Trini, my tire guy. He will check to see what he can get them for. I am looking at the Carlisle USA Trail 5.70-8, 6 ply and 8 ply tires. Trini's recommendation is that we lean to the 6 ply because of the light weight of our cars. The ride will be much softer and they will work better with the low pressure we use. I'll let you all know what I find out. I sure hope that when I install and balance the new tires I'll have a smooth running KM—as far as KM's ever run smooth. **Gert Gehlhaar** \square *I'm with Trini! Eight ply tires are for Mack trucks! (Bigger size, though.)*

N-8 Teeny Tears in Tiny Tubes By Randy Chesnutt

WE SHOULD ALL USE INNER TUBES on original KM tires and wheels. However, the rim holes on old rusted wheels can be sharp enough to damage the valve stem.

I've heard that some people drill a new stem hole and weld the old one shut. I've never had a stem problem but the local tire shop puts a "cowboy hat" over the valve stem. I like this since it centers the stem with the hole and adds protection. An internet search reveals a better name is "rim grommets."



The photo isn't the best, but hope you can see the "cowboy hat" slipped over the valve stem. \Box

TECHNICAL NOTE #18

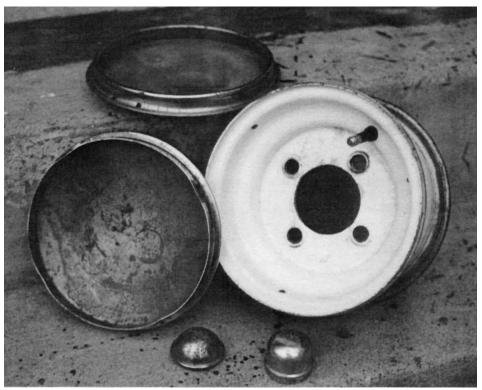
N-9 King Midget Hubcaps by John Weitlauf

I know of at least four different hubcaps used on King Midgets; there may be more.

There are two different *full-wheel cover* hubcaps shown in photo from the rear view. Which one is used depends upon the kind of wheel your car has. The later model car wheels have three little raised "bumps" (marked in black on photo of white wheel). If your car wheel has these three "bumps," you need the full-wheel hubcap shown at top of photo. There are *no* "clips" on the full hubcap itself.

If your 8" wheel *doesn't* have the three "bumps," then the only full wheel cap that will fit has a knife-edge in the rear with four small spring clips that hold it to the wheel. See other full-wheel hubcap in photo.

The wheels on the King Midget were originally made by the Saginaw Wheel Co. in Michigan. However, these 8" wheels are very common and are also made by other companies. Any lawnmower shop should carry the full-wheel cover caps.



I have owned King Midgets over the years that used two different *small* hubcaps (bearing dust covers). See photo. One has a rounded outer "dome"; the other, more flat across the top. They don't interchange. The earlier wheels used the rounded dome caps, the later wheels used the more flat caps. Inside diameter of wheel hubs are different. If you are trying to buy these small caps, you should carry an original spare to check dimensions. \square

N-10 Improvised M2 Hub Caps



Model 2 hub caps are very hard to find. Wanting an authentic restoration, Dale Bain had to improvise. Doesn't that hubcap look just like the original?

Look up on the fender. Did you ever see those little napkin holders at the lunch counter? They're exactly right for Model 2 hubcaps, and made of stainless steel.

Dale says, "I just broke off the napkin ring part and filed smooth. I then got a piece of copper pipe and machined it on a lathe to the inside diameter of the hub race—not too much to machine—then cut into 1/4" rings and silver-soldered to the inside of the caps and sent them off to be chromed. Cost was about \$12

per cap. I use an 8" piece of plastic pipe to tap them into place and wrap cloth around a screwdriver to pop them off."

N-11 Hub Caps, aka Dust Caps By John White II

Bonus Tech Tip: You know those little "heavy chromed" hub caps on your early KM that are so darned hard to find? The later ones, which are $1^{25/3}$ can be found and will work on cars newer than 1961. The older ones, $1^{27/3}$ in diameter, are scarce as hen's teeth. We've talked about this before—remember Dale Bain's napkin holders? Now Paul Gerhardt has come up with a neat solution to the problem. Get a set of the new smaller caps (which are properly called dust caps) and put them in a metal lathe, with the three-jaw chuck inside the cap. Crank 'er out tight against the cap and release. Spin the cap and do the same again, repeating several times, measuring as you go. After a few such steps you'll be able to stretch the smaller cap enough to get an exact fit on your older and more historic King Midget.

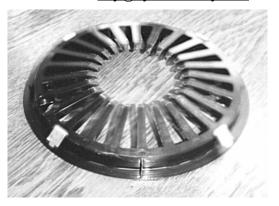
Another approach. I (John) get strips of .032 thickness brass, 1/4" wide from the hobby store. I cut them to length and form them into a circle that fits around the lip of the new caps and drive the assembly on. They go on easier if you file the edge.

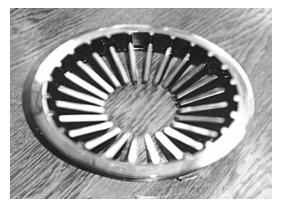
N-12 Dressing Up Wheels By Bob V.

For the spring, 1999 issue of *King Midget News*, I wrote about King Midget wheel coverings. I asked where I could get port-a-walls for my car, and somebody (I forget who) suggested Coker Tire. I got 'em but they may not have any more. The set cost \$27.

That article showed golf-cart spoked discs that several people have put on their KMs. Bevan Best was kind enough to send me his source:

Cycle Country in Milford, Iowa. Phone 712/338-2701 www.cyclecountry.com E-mail: any@cyclecountry.com





They have three styles, all of which I've seen on KMs.

I just bought a new set of Carlisle tires for my KM. \$56.91 plus tax for all four at Wal-Mart. Tubes are available from J.C. Whitney for about \$8 each.



Shown left is another popular way to dress up your wheels. Use the narrower (5/16") width chrome plastic C Channel on the edge of the wheel. It takes about 100 feet for all four wheels. Get it at auto parts stores or order from J.C. Whitney for around \$40.

N-13 Wheel Discs by Bob V.

Last issue we told you about EV Parts, a source of a large variety of wheel discs. Don Kersey got his elsewhere, but EV has the ones featured on our cover car. They're widely available from golf cart dealers as well. Don found some modifications were needed to make them work right.

He hogged out the back of the teeth as shown above to enable the disc to fit snuggly against the wheel rim, with the hub sticking through the middle.

Don reports that the clips really do a good job of holding the discs in place. Fortunately, it is not necessary to remove them to take off a wheel.

Technical Tidbits

N-14 Kohler Engine Cushion by Gary Wood

The plant manager under Joseph Stehlin, Richard Lamprey, has told me that Midget Motors at that time used (or maybe just experimented with) different stiffnesses of rubber on the engine cushioner. This is the rubber mount which connects, the engine tightening rod to the frame on Kohler powered cars. Different stiffnesses being used depending on the drive chain sprocket ratio.

I have a few of these parts which are NOS. These have a red "40-R" printed on them. I suspect that this stands for 40 durometer rubber. Durometer is a measurement of stiffness of rubber, with 40 being a fairly solid rubber. I would be interested if anyone has noticed similar markings on this part on their own cars.

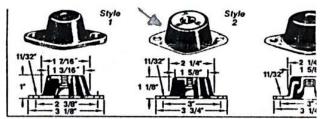
I have not been able to find a present day supplier who makes an identical replacement. Maybe someday someone will find a supplier or have these parts re-manufactured. If that happens, this information would be useful.

Technical Tidbits

Actually this is an update on the belt tensioner cushion for Kohler-equipped cars I mentioned in the last *Shiftlever*.

Soon after I sent out the last Shiftlever, I found a mount that seems to be very close, if not a perfect replacement for, the original part.

Note that this is the rubber cushion used between the frame and the belt tensioner rod used on Kohler equipped cars. It is not the upper cradle-to-frame mount, which is used on both Kohler and Wisconsin powered cars.



Protect against excessive vibration, shock, and noise from compressive-load machinery. Use with compressors, generators, bearings, blowers, motors, fans, and more. Easy-to-install mounts are encapsulated in neoprene rubber.

	Load, Lbs.	Maximum Deflection	Duro- meter	Each
		Yis'-18 Thread		Lucii
	45	0.10"	40	64875K61\$2.57
	65	0.10"	50	64875K62 2.57
	130	0.10"	60	64875K63 2.57
	215	0.10"	70	64875K64 2.57
	Style 2-	1/2"-20 Thread		
	175	0.1875"	40	64875K75 4.43
3.00	250	0.1875*	50	64875K76 4.43
	475	0.1875*	60	64875K77 4.43
	675	0.1875*		64875K78 4.43

This is from McMaster Supply Co. (708) 833-0300 □

N-15 PAINT IT! KM Colors By Hal Douse

We have received inquiries about King Midget paint and upholstery colors. This is good news, indicating interest in getting the cars back to original.

The Midget Motors factory color for the Model 2's and 3's was Bone White; a Ford color. Ford changed the name to Corinthian White and later Wimbledon White. Rangoon Red was added as a choice in 1966 and in 68-69 the factory added yellow and Aquamarine.



Dale Bain (left) is lucky enough to have an official can of touchup!

Customers always had a choice of colors for their King Midget. The company would paint the car any solid color for two quarts of paint plus a ten-dollar charge for cleaning the equipment. That stipulation leaves the door open for restorers to use just about any non-metallic color they want and still have an authentic restoration. KMs were not two toned or trimmed fancy, although they did offer a few special models.

The factory painted six cars at a clip, generating a few runs and some orange peel here along with over spray on the tires and inside the engine compartment.

Interior coloring is less defined. The bright Red Model 2 on the cover of the November 1951 issue of *Popular Science* shows a tan seat and matching top. I have also seen black and black on a Model 2. Model 3's often used red and white upholstery as well as solid colors, which could be tan, black, red, or white, depending on what material was available cheap. Model 2 and early Model 3 tops were tan or black number 11 duck. Later Model 3's used vinyl tops. All early cars had a basic black rubber floor mat. Late 60's Model 3's (after the company was sold) had floor and side panels up past the frame

carpeted with Ozite.

Kohler engines were painted green, available in spray cans from Kohler dealers. Wisconsin engines were painted battleship gray. It can be purchased at your local Army / Navy store in convenient, 55 gallon drums. (Just kidding!) Your local parts store should have high temp battleship gray in a spray can.

If you're lucky, your car came with a title or the old invoice, which makes bringing the car back to its original color easier. If not, then someplace in the rust and layers of paint the original color may be found (try looking under the tail lights). If your luck holds out, the original upholstery may still be on the seat, or under the current cover.

The frames appear to have been sprayed with some type of black tar undercoating that in most cases has peeled off. Any good quality undercoating would be an acceptable replacement.

Choosing a color to paint your restored KM is no easy task because they are, of course, naturally cute!

Special thanks to Glenn Anderson, Pres. of IKMCC for the color facts. □

N-16 King Midget Paint Colors Dave Stults?

There has been considerable discussion about King Midget paint colors, both on the Yahoo King Midget computer Group and in phone questions to me from IKMCC members. I've done some research through the Midget Motors original price lists that I possess and in copies of price lists that people have provided me over the years. I wish that I had a price list for every year, so that I could also make a spreadsheet of prices as the prices increased over the years. It would also be informative about the accessories offered at different times. An example comes to mind that someone said Midget Motors offered a speedometer on the Model 2 as an accessory. Has anyone seen Midget Motors literature that makes such an offer? Well! I just found it offered in the 1956 32 page booklet with a Confidential Rider Agent Price List in the back. One can learn something every day. Anyway, once in a while I'm able to get something off e-bay that helps fill the gaps. So here's what I can put together about paint colors.

California Cream	· 1951 Model I/ Model 2 Price List
Peace Rose Cream	Unknown date Price List – Model 2 after 1951 and before 1955
Peace Rose Cream	1955 Price List
Cream Color	· 1956 32 page booklet with Rider Agent Price List–Standard King Midget Model
Bone White	· 1956 32 page booklet above – Special Sport Model
Bone White	1956 32 page booklet above – Golf Model
Bone White	1958 32 page booklet with Rider Agent Price List

Bone White	1959 32 page booklet with Rider Agent Price List
No color listed	-1960 (August) Sales Brochure
No color listed	1961 (December 1960) Sales Brochure
No color listed	-1962 (December 1961) Sales Brochure
Touch up Bone White	-1962 (January) King Midget Parts Price List
No color listed	- 1963 (December 1962) Sales Brochure
No color listed	-1964 (December 1963) Sales Brochure
No color listed	- 1964 (January) Sales Brochure
Bone White	-1964 (May) Sales Brochure
No color listed	- 1965 (July) Sales Brochure
Bone White	- 1966 (February) Sales Brochure Corinthian White or Rangoon Red 1967 (January) Sales Brochure – DuPont's Finest Alkyd High Gloss Enamel
Corinthian White or Rangoon Red	- 1967 (July) Sales Brochure
Corinthian White or Rangoon Red	1968 (September) Price List included with 32 page booklet
Corinthian White or Rangoon Red	- 1969 (August) Price List included with 32 page booklet
Rangoon Red, Corinthian White	
Yellow or Aqua	1969 Undated color Sales Brochure

These are Ford paint colors. The 1951 through 1955 price lists each listed a price of \$10.00 to paint the car some color other than the California Cream or Peace Rose Cream. No later price lists or sales brochures list a price for that item. It's my belief that Midget Motors continued that policy in later production, though. I seem to recall that both Vernon Eads, the last owner of the company, and the former employees who did the painting and who were conducting tours of the former manufacturing facility at the 1992 Athens Jamboree, said that the policy was continued throughout production. As you can see above, though, there is no written proof of that belief \Box

N-17 Rust Preventative Paint by Tim Gross

I recently have had occasion to paint a lot of old metal parts black. I have found a paint that I really like! This stuff brushes or sprays on right over the rust. Just wire brush off the loose scales and get it smooth, and then paint over any rust that is left. It seals the metal so it will never again rust.

The paint dries to a finish so hard you can hardly sand it off (it also does not come off hands of skin once dry.) I thought I was careful, but when I went in the house after

cleaning up, I looked into the mirror and found that I had black splatter on my face. It had dried and WOULD NOT COME OFF. My friend told me it would take about three weeks to wear off if it had dried on skin. I tried everything but the body grinder! I finally had SOME success shaving the paint off my previously beautiful face.

The first coat (on the parts ... not the face) is all you need if the surface will not be exposed to sunlight. If the part will be exposed to sunlight, it must be painted over with another enamel. It dries to a nice gloss.

The paint is called POR 15, (paint over rust).

It would be great for a King Midget frame, or to undercoat a car or just to rustproof inside areas of the body.

MAKE SURE YOU WEAR LATEX GLOVES AND KEEP YOUR FACE OUT OF THE WAY! □

Note: I checked and the stuff is still available. I've not used it. Bob V.

N-18 Parts Sources

Scott Olene shared his sources and when we thanked him, he offered to find more stuff. All right! We provided a shopping list, and he's still finding treasures.

The [Wisconsin] starter Scott mentioned is available through Car Quest via a special order from Westling Mfr., Part #2537A. The Wisconsin engine parts come from National Bushing and Parts Company and Wisconsin Continental Engine Company in St. Cloud, MN, phone 320-251-3221. They'll supply or direct you to someone who can. New carburetors are not available, but a Zenith Wisconsin Carb kit is available. Scott has found sources for many other parts and is expanding the list.

Steering Wheel Jolly MacLean notes that the Model 2 uses the same steering wheel as a Crosley and Jeep. Scott sent a source for that wheel: Walck's, a Jeep supply house in Bowmanstown, PA, phone 610-852-3110.

Electrical Scott found turning lights that, with modification, can be used for the Model 2 from Billet Specialties, 800-245-5382. They're about a hundred bucks. Units from Southern Rods & Parts, he says, are more stock looking—a Pontiac style of tail lights at \$80 a pair and '41-'48 Chevy turn lights at \$42 a pair.

For the frugal, Scott found J.C. Whitney has decent turn signal lights, headlights (6 & 12V) and windshield wiper arms.

Peterson Automotive Light Co. has turning lights and brake lights for the Model 3. These are cheap and you should be able to find them at a local auto-parts store.

The flexible tube to the heater is Dayco defroster tube. They also have the clamps.

A complete wiper setup, 6 or 12V is available from Pacific Western Design, 639 Blue Sky Drive Pt., Townsend, WA 98368, 360-385-5493.

Scott found most needed parts at Midget Motors Supply, and that's the first place you should look. We hear they're giving good service, and we're just trying to find stuff they

don't offer. If you can't find something, let us know and we'll turn Scott loose!

He's working on Model 3 bumpers. Those were originally commercial door sills. Scott found a guy who would mill them from bar stock. Too expensive and too brittle. Then he saw a supermarket sill similar to the later Model 3 bumper.

Scott found the manufacturer and hopes to get Mike Beebe to make them available.

Note: Midget Motors Supply now has M3 bumpers available.

N-19 More Sources

Scott Olene has found you can buy belts for your King Midget transmission from NAPA. They're made by Gates, and you just ask for NAPA numbers B48 and B42. Always replace both belts at the same time and always buy them in pairs.

You can buy tires at Wal-Mart at a very low price, but Lee Seats says quality tires such as [Carlisle's] USA Trail brand are worth the difference.

John White says the Jeep steering wheel mentioned last issue is larger in diameter. Try one from an Economy tractor. □

Note: There have recently been new Jeep steering wheels available on eBay for \$35. I have one on my M2 and it seems to be fine—but I'm not girth—challenged. Bob V.

N-20 Finding the Pieces By Scott Olene

Scott's M2 restoration set off another flurry of parts-seeking, the results of which he kindly shares here:

The following parts are six-volt only. 12 volt is available by merely asking.

J. C. Whitney's Everything Auto Catalog:

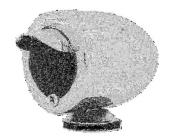
Turn signal switch –	138972	\$50.00
Headlight w/ bucket -	729531	50.00
Wiper arm & blade –	811298	9.00
Jeep tail lamp –	474882; 47883	20.99

The following came from my discount parts house. Numbers can be cross-reference to NAPA.

6 volt cutout –	STI CO-109 \$1	103.93
6 volt flasher –	BUS NO 535	9.00
Amp gauge –	PMA PSS 2200	10.00
Starter button –	SSB-5	8.00
Headlight switch -	D5121	9.00
Ignition switch –	US 78	20.00
Dimmer switch –	DS 50	16.00

Starter solenoid –	STI SS 558	25.00
Brake light switch –	PL-7-01859	8.00
Flex tubing -	AL 40013	28.00
Muffler –	WAS 21040	32.00

J.C. Whitney's \$12 cowl lamp (CBLO 63344) looks good but should have a clear lens. Maybe you can carve a clear plastic lens from something else and make it fit! Paul Gerhardt did that sort of trick for the Museum Car's taillight. □



N-21 Wheel Spinners Available

With the help of Lee Seats, Scott Olene located the two or three prong wheel spinners like Lee has and can be used on all King Midgets. They're all metal and chrome plated. Simply remove the old hubcap and set-screw the wheel spinners in place. Includes all hardware but no instructions—they're that simple to install. Cost is \$46.95 including shipping. California Pacific J Bugs, 2040 Oceanside Blvd. Oceanside, CA 92504 1-800-231-1784 www.ibugs.com

N-22 Available for Super-Cycle:

Super-Cycle script decals, from Scott Olene \$20. Call him at 765-360-5370 □

N-23 Model 1 Headlights:

Unhappy with the headlights on his Model 1, Scott did some digging. It appears that Midget Motors used motorcycle headlights originally and similar units are available from Harley Davidson for \$130 each. Ouch. They also sell knock-offs for \$80, each but those are only available chrome plated. For authenticity you could sand and paint or powdercoat them. J.C. Whitney has a similar product for \$36.99, part #VB890170, complete and ready to install, which is also chrome. The size is about 5 ½" diameter by 2" deep. □

Old Doc Buckeye

N-24 King Midget vs. Jeep Parts

Some of you fellers don't know that although I've been fiddlin' with King Midget cars for years, old Jeeps have also been around the hospital. As we work with both types of cars, we've noticed that many parts found on King Midgets are actually Jeep parts. Here's a list of some that we've discovered.

Master cylinder

- All wheel cylinders
- All rubber brake hoses
- Rebuilding kits for master and wheel cylinders
- Brake "Y" fitting
- Brake "T" fittings and square hole clips
- Three spoke steering wheel
- High beam indicator
- Speedometer
- Speedometer cable and housing.
- Ignition switch and starter button on older style cars.
- Engine cradle mount rubber bushings were Jeep body to frame bushings.

Now when you boys need something and you go to the local auto parts store, they will look on their stupid computers ('cause they're all a bunch of young whippersnappers that don't know nothin' about cars) so you outsmart 'um and say you have a 1964 Jeep CJ-5.

Listen boys, Bob and Hal are doin' a great job getting this paper out to you but they just write stuff, they can't invent it so now's your turn. Like the blood bank. □

N-25 Lenses and Lights by Lee Seats

Royce Davis sent the editor and me the name of a shop that makes short-run plastic parts, and Bob asked Ted Richardson to have a look at it, thinking that might be a source of tail light and parking light lenses. He also asked me if I knew of a source for such parts.

NAPA carries the replacements for the Do-Ray King Midget taillights and parking lights found on most Model 3s. That company became Nu-Ray and no longer exists. Replacements are made by Truck Lite. These were designed as clearance lights, but were modified by Midget Motors by soldering in a second connection so they can serve as brake light and turn signals. You can do the same. Here are the NAPA numbers and prices:

Signal Light Assembly # 440, (specify clear, yellow or red) \$19.99 each. Replacement lens # 8972 (red), # 8972A (yellow) or # 8972W (clear) \$5.45 each. Taillight lens # 99105R (no clear window for license illumination) \$6.99 each.

If you get a lens having the clear window for illuminating the license, you can change it to red with transparent red paint (glass stain) commonly sold in craft stores and even your local Wal-Mart.

These are 3 1\8" lenses and fit housing # 80310R which has been discontinued. The chrome trim ring that holds the lens in place can be bought from Arcadia Cushman and is a Dennis Carpenter product. The only difference is the ring is a Cushman part and has four holes instead of three. Its part# is 809682LA, \$8.50 each. Contact Arcadia Cushman, 106 Washington St., Arcadia IN 46030 phone 317-984-2874.

Notes from Readers (from an early issue)

Monte Frost says tail lights for Model 3s are available from Dennis Carpenter Inc. P.O. Box 26398, Charlotte, North Carolina 28221-6398, Phone 1-800-763-4948. □

Note: This is the same source Lee mentions above, with different contact information. Apparently they've been around a long time, and those of us who've seen their facility will agree it's a huge operation. Bob V.

N-26 LETTERS: Cowl Gasket Rubber

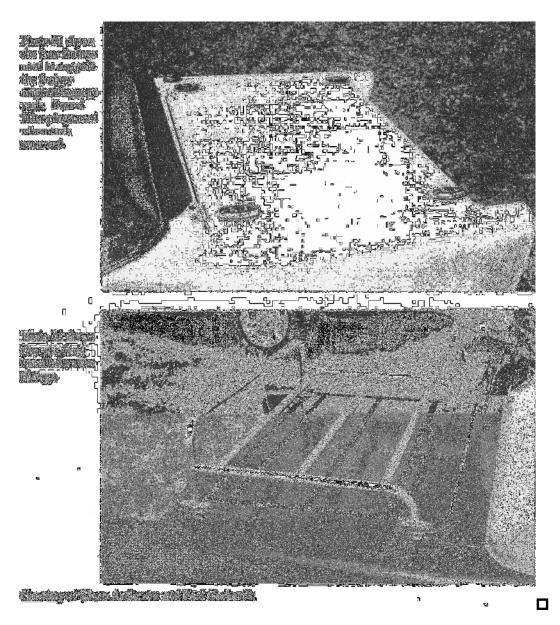
Gasket material for the lower edge of the windshield glass on classic boats works perfectly for the bottom edge of the windshield on the KM Model 2 where the windshield meets the cowl. I used it on my Model 2. The part name is WSRUBBER and it sells for \$3.00 per foot, available in both black and white. Classic Boat Connection, 75 Navaho Ave., Suite 5, Mankato, MN 56001 Phone 507-344-8024 **Gale Roberts** (from the Yahoo site).

N-27 Wheel Cylinders

Gary Chu is rebuilding brakes and finds that Raybestos wheel cylinders, number WK 127 work on the front wheels of a Model 3, and WK 160 fit the rear. □

TECHNICAL NOTE #19

N-28 Deck Lid Luggage Rack by John Weitlauf



Note: Jim Daniel has reproduced a number of these and still has them available. Bob V.

N-29 **TOOL TIP** by Gary Chu

All non-powered hand tools sold at Harbor Freight Tools carry a lifetime guarantee. I wait for the tool to come on sale. If you're lucky enough to live close to a retail store, you can get free sale fliers by going to the store and signing up. They have tool sales every two weeks and you "can't beat their prices with a stick." They also add new tools almost weekly, and I keep a sharp eye out for these. If you don't live near a retail store, you can get their free catalogs in the mail by dialing 1-800-423-2567.

Sometimes you get more than one catalog each month. It will take four to eight weeks to receive your first catalog. They also have an "Insider's Buying Club." I was leery about joining it—\$20 for, I believe, 15 months. But sometimes the savings you get by using this special catalog more than pays for the membership. Also, the stores will honor any sale price if you take in the current catalog which may be lower than the store price. A lot of customers do not know this.

Of course, most of their merchandise is made in India or China and a very small percentage of their tools are so-so. I have been buying tools from them for approximately 20 years.

Note: Harbor Freight is also a prime source of "Chonda" engines. These little rascals (mostly 6 and 13 hp) are light in weight, very cheap, and the 13/14 hp version teamed with a Comet drive makes your KM sing. Bob V.

N-3 Omixies that might have been

Mumber Five of a Series

More on Towing King Minigets



In a prefect world, we'd all drive our King hildgets to Jembouse, but we for as I've been able to determine, notody drives from much herfar these across town. Everybody leads hair King blidgets in. One of the features I enjoy at Jemboures is seeing the variety of resister people and so lead here. For those of us wish resister people and so lead here. For those of us wish resister for auce a long distance, a good traiter is an important King Blidget accessory.

hilighet blotons made a tow but, and Alan Conky has then if you want to order one. I understand they work very well, but as nead in the carnet issue of Kay, hiligher hiswe, you really should inhe the chain off. If you den't, you would run the issuemission; besides which that's a let of weak for the chain to shouth. A better solution is tweing the King bildight backwards on a small delly, and that's what would be ideal the pulling behind a merchance. For first of us with a first or so inverted in a spaint jeb, a little brater presention is declarable.

Perhaps the ideal trailer is a light weight fully conjugate trailer, but they're expensive, pull hard said are difficult to access when the car is maide. And half the far of terring a King Edificit is the comments you get, along with publicity for our favorite car. I pulled my enclosed trailer access the confusion a few years ago, and cut my gas mileage is half. For our 1996 trip to Atlant to thew caf our "64 Milger that Might have Been, I decided to try something sifferent.

After reveral verchands of shopping, I perchased a little eight foot best that came wife a good drop early trailer of the size I wanted—just big enough to hold a King Afolget. After edding the best, I find a handsed backs or so invested in the trailer. I feid a piece of

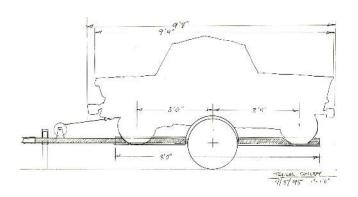
suparier quanter inch physicold on the fitame as a floor, and built a pair of ramps to run the King Midget's valued on. I left wheel-size depressions where I vasced the whole, hearing determined that about three but from trailer nais center to King Midget as a first center provided about the sight hinch weight.

A freed created which proved howbashic for trading, and a pair of temps stable the car to be loaded single-hearist, while the traiter is histhed up. I made my which nearles as inch and a baif deep, which really became the our well, but if a hard to pull it can of the wells when unbacking. I stoop the King Bildgest those at all finer country, plus a center single ever the trait stabilizes but, pulled down to the traiter with a bounce. I trust the down to the traiter the top and hack them tagether across the car with Sunger cords. It's important that the doors not thy agen in transit!

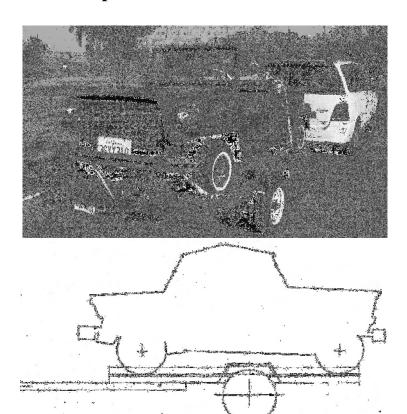
Phally, I severed my newly peladed E by blidget with a car cover, find does securely. Big mistoire. After a thousand miles of Happing and severel attempts at tighteeing the cover. I took it off and capount my car to the elements. That resulted in a few rack dings, but made gas stops a between fun. Everybody loves to ask questions about King Midaste.

This little trailer pulled files a dream, costing one culy about 1 % miles per gallon of extra find, and I never nedeed the cairs load except on leng bill elimbs.

bilidget biletere built a utility twiker in its last desperate days. They could have built a trader like mine, aspecifically switch for handing King bilidgets, but excity used for general light handing purposes. Even in the case prime years, I'll bet King bilidgets traveled as seeny wiles on builters as they did under their own present.



N-31 Trailers: Open or Closed? By Bob V.



I'm a fan of open trailers for hauling a King Midget as related [the previous page]. I've built two of 'em, the latest of which is shown at [in the photo and diagram above].

My first trailer, [previous page], was built on a boat trailer that I bought for a hundred bucks. It proved a joy to pull and had the advantage of being low to the ground because of its underslung axle. But the tread was too narrow and I had to make arched ramps above the fenders. It got complicated.

My current trailer is widely used for hauling King Midgets. It's cheap (around \$600 brand new, complete, Harbor Freight) and also has proven a dream to tow with my old four-cylinder minivan.

For short trips in good weather, I leave the top down as shown here, secured by straps. For long or rainy trips, put the top up, tuck the side curtains under the top and cinch 'em together with a bungee cord. I don't like to rely on the KM door and deck latches alone!



Those ramps shown above are cheap steel ones. A 2x6 can be trimmed to slide inside serving as ramp extenders when needed.

My floor is 1x6 T&G boards topped with a layer of quarter inch plywood. I widened the floor a bit using beveled 2x6s on edge that tend to guide the tires into position, with blocks that help hold the car in the right place for strapping. The tires need a 51 inch width to clear. I use a manual winch. An electric might be helpful if you load it by yourself. □

N-32 Trailer Shopping in 2011 by Phil Shearrow

Shopping for an enclosed trailer, I decided I wanted 16" on-center walls and floors. Lots of trailers have bias tires. Get radials! Cheap upgrade, and better tires. Treated plywood vs surface treated, vs Advantech flooring? I have had a limited amount of time to work with Advantec stuff but it's loaded with glues and resins—probably is the best option, but you pay for it. I had regular plywood with surface treatment on my old trailer and it served me well. V nose vs flat nose? I prefer the V. I think it makes it pull easier, but hear if in a lot of semi traffic they can be more affected by turbulence. I figure go for the gas mileage and make the truck's job easier. Twin axle vs single? Twin will ride better and is easier on the truck. And twin axles generally have brakes. I like this option. Single is usually a smaller trailer and can be pulled with a smaller vehicle.

I've decided overall weight is a good measure of quality. If the trailer doesn't weigh at least 2,200 lbs maybe they've taken a shortcut somewhere. If more than that, chances are it is well put together. I prefer a 7x14 V nose, dual axle. \square

N-33 Comet Description and Part Numbers by Randy Chesnutt

The Comet clutch operates as a contentiously variable transmission (CVT). It will contentiously change its ratio based upon engine rpm and the force needed to move your King Midget. If you are in the operational range of this CVT arrangement as you go up a hill it will automatically adjust its ratio as required. Therefore, you do not need to increase engine rpm (mash the gas pedal to the floor). If not in the operational range then more rpm is needed to accelerate or maintain up hill speed. Observing the CVT changing ratio can best been seen on YouTube (for example: http://youtu.be/dcDs27QWrRQ) or Wikipedia (for example:

http://en.wikipedia.org/wiki/Continuously variable transmission).

The Comet clutch can be purchase at several internet suppliers. For example: www.gokartsupply.com/ or <a href="https://www.gokartsupply.com

The following is a list of the clutch combinations used for King Midget modifications. Combinations 1 or 3 are typically selected. It's your responsibility to ensure the configurations match your particulate installation. For example the clutch combinations listed below are for an engine with a 1 inch diameter output shaft and the transmission has a ¾ in diameter input shaft (which the KM transmission does have). The part numbers are the Comet numbers. If a supplier uses a different number they will reference there number as being compatible with the Comet number.

Combinations: Driver / Driven
1. Comet 40C / 40D: 203015A / 209133A
2. Comet 44C / 40D: 209418A / 209133A
3. Comet 44C / 44D: 209709A / 209621A

For the belt you need one size does <u>not</u> fits all configuration. The internet supplier does have a chart to help you decide.

Which clutch part number and belt can get confusing. Internet supplier are there to help so CALL them. Your not the first person to call with question about the clutches and belts.