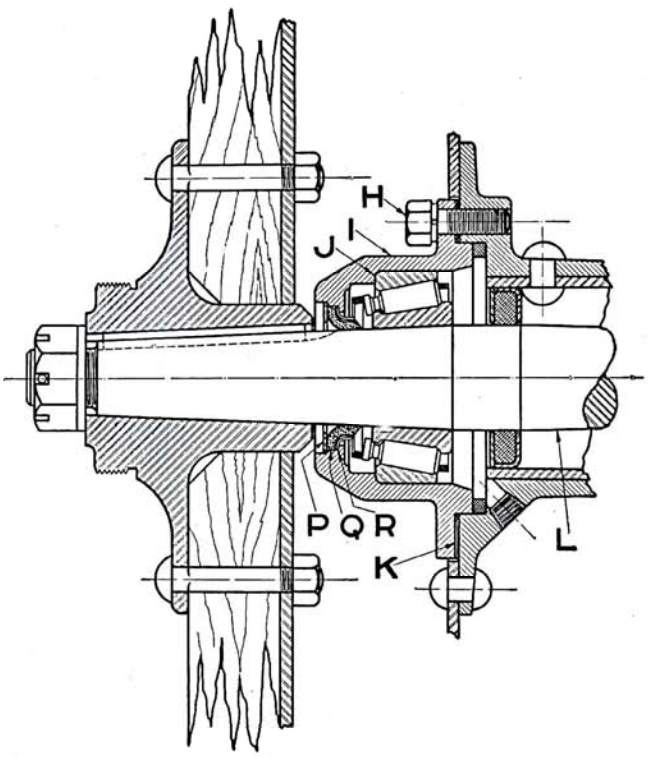
The Kisselgraph

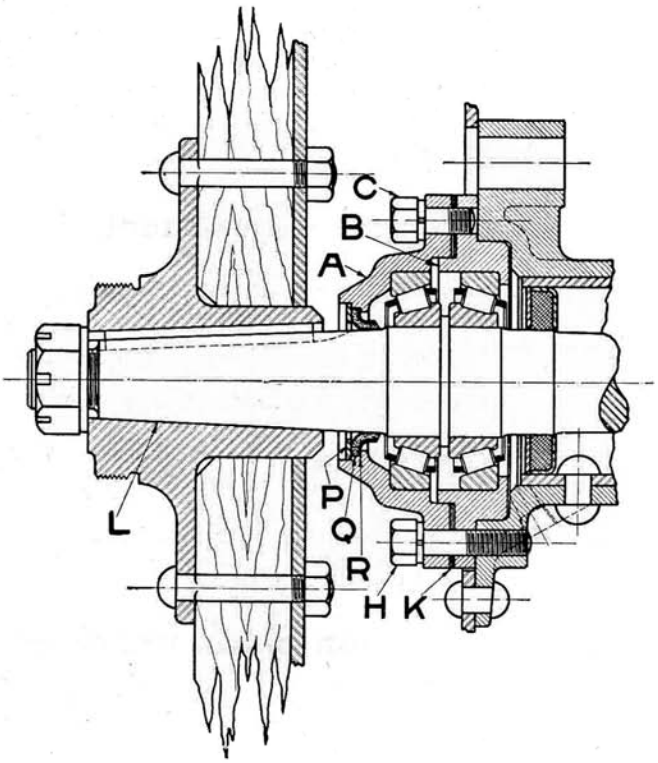
☆ ☆ ☆ The official newsletter of the KisselKar Klub ☆ ☆ ☆

VOL. 43 NO. 2 DECEMBER 2017 10¢ A COPY

Kissel Model 6-55 Rear Bearings



Cars prior to 55-5501



Cars 55-5501 to 55-13049

These drawings show details of the rear bearings on the Model 6-55 (produced 1923-1928) for model years 1923 through 1926. The illustration on the left is from Instruction Book No. 7; the illustration on the right is from Instruction Book No. 8. (We determine the car number of the engineering change from Kissel Parts Book No. 64. These resources, and more, are found the KisselFiles DVD, available from the Wisconsin Automotive Museum.)

Inside, an article by Doug Kissel leads us through the difficulties he encountered with the right-rear bearings while restoring the brakes on his 1925 Enclosed Speedster (car #55-5003). The illustration on the left depicts the bearings on his car; note the taper on the inner race of the single bearing on the left, compared with the straight inner races of the bearings on the right.

(For more details, see Doug's story starting on page 8.)

The Kisselgraph is published for the benefit of members of the KisselKar Klub through substantial support from the Wisconsin Automotive Museum.

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Our website is an on-line presence for the KisselKar Klub and features a gallery of member vehicles, back issues of *The Kisselgraph* and other information.

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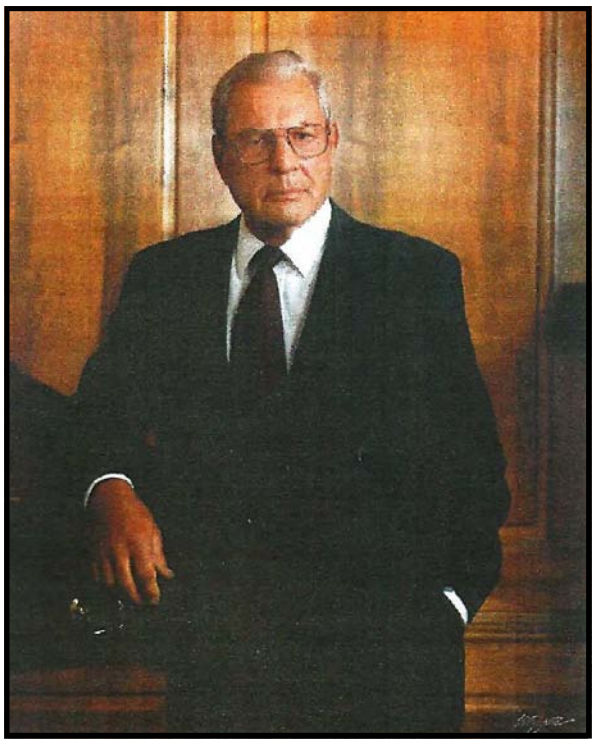
IN MEMORIAM

DELYLE "DEL" GORDON BEYER

A long time Klub member, Del Beyer of Hartford passed peacefully on September 1, 2017 at the age of 92. He will be missed. The following is contributed to us by his son George Beyer…



Del Beyer circa 2001

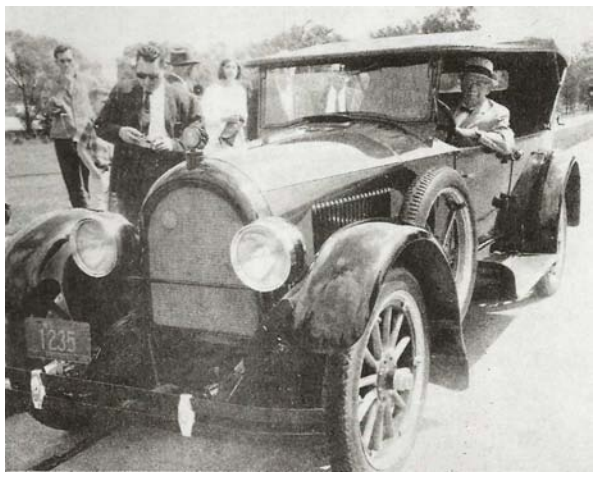
Del purchased a 120-acre farm in 1958, which would become his residence and base of car collecting operations. The farm was located in Town of Erin, but had a Hartford, Wisconsin mailing address. Hartford, of course, is the home of the Kissel.

At that time, an immense brick Chrysler Marine manufacturing plant, was located in the center of the city. Wrapping the top of the building was a painted black band with huge white letters reading "The Kissel Motor Car Co." In the early 1960's, Del was just beginning his antique auto collecting, and he just had to know more about the cars made in his new hometown, and acquiring a Kissel of his own became a priority.

He purchased a 1923 Kissel 6-55 Phaeton in Quebec, Canada in 1967. The seller, Charlie Munn, had found the car in Maine and restored it in 1957. Del did extensive mechanical rehabilitation and installed a new top and upholstery, but the car still wears the same maroon and black paint from its one and only repaint 60 years ago. Del and his Kissel were present when the Wisconsin Historical Society erected a historical marker near the Kissel plant in 1968, and also present at the first KisselKar Klub meet held in 1971.

Del was involved in the formation of the Wisconsin Automotive Museum in 1986, and served on the board for the next 40 years. He donated his beloved 1923 Phaeton to the museum's Kissel collection, together with a 1925 Kissel Coupe, many porcelain automotive signs and other automobilia.

Del served two terms as the president of the Wisconsin Region of the Antique Automobile Club of America in 1966-68. He was also a charter member of the Wisconsin Region of the Classic Car Club of America, and a founding life member of the Classic Car Club of America Museum in Michigan. For many years, Del enjoyed buying and selling antique automotive parts at the Antique Automobile Club Fall National Meet in Hershey, Pennsylvania each October.



Del Beyer (dark jacket left of hood) with his 1923 Kissel in 1968. William L Kissel is behind the wheel.

Mining the Kissel Roster

What do we know about the location, model, body type and year of Kissel vehicles? Using the Klub roster, we can infer the location of surviving Kissel vehicles based on the address of the vehicle owners.

Countries, # (%):

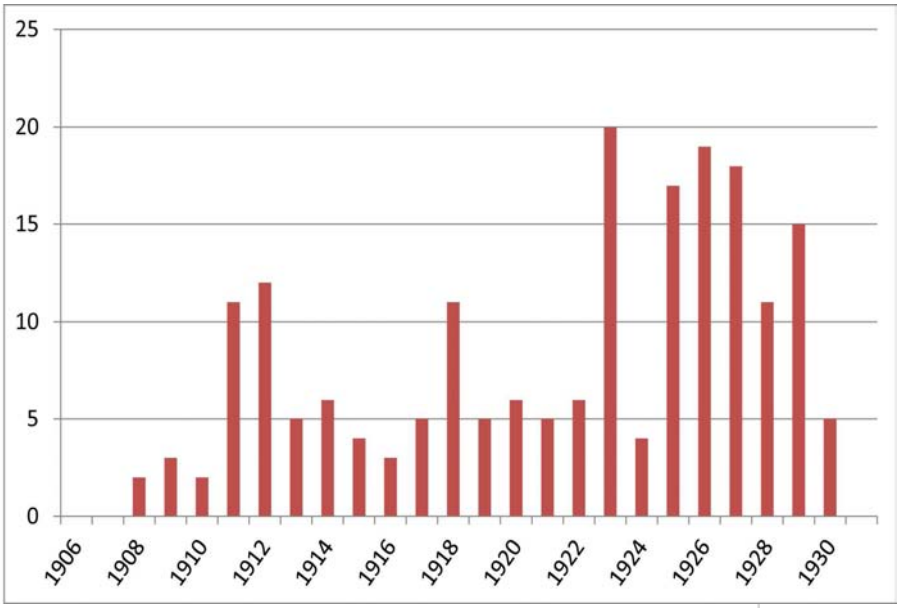
USA, 171 (88%);

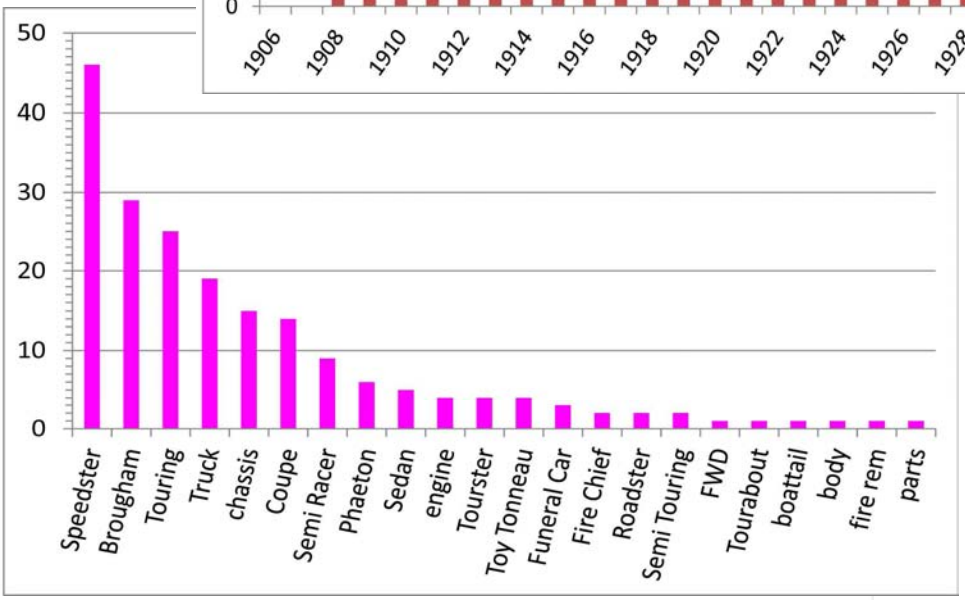
Canada, 7 (4%);

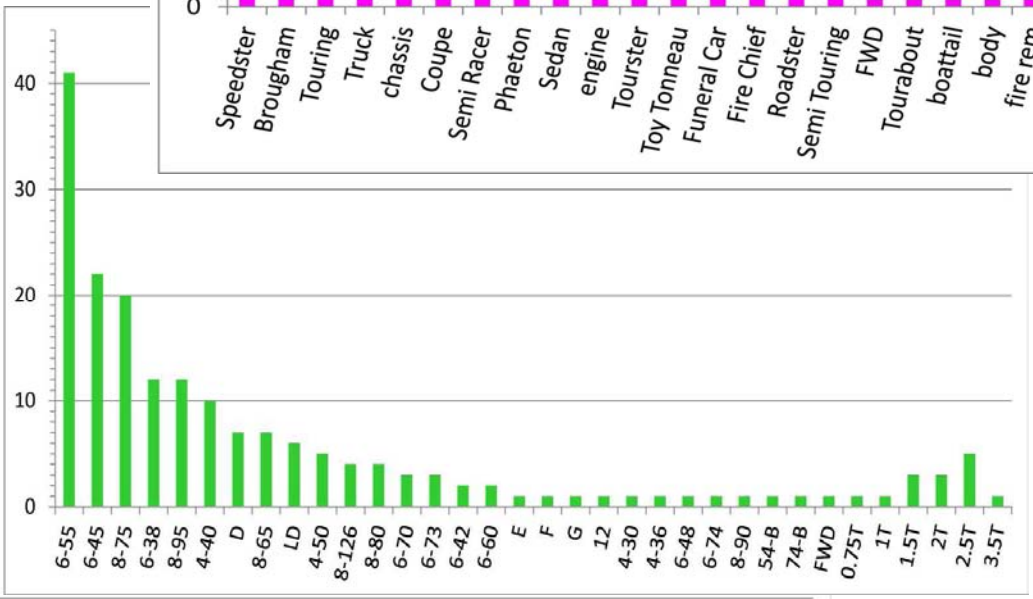
Australia, 5 (3%);

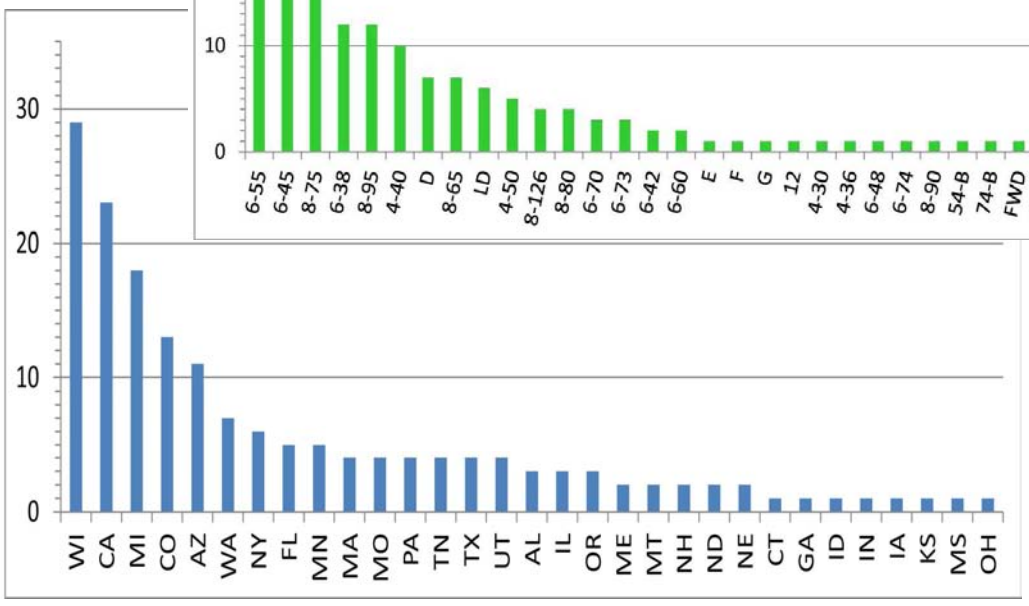
Norway and Sweden, 2 (1%);

Denmark, Brazil, Mexico, New Zealand, Portugal, Slovakia and Spain, 1 (<1%) .









Updated BB1 Float Valve,
from Pat Farrell
(*Pat.Farrell@kisselkar.net*)

1910 KisselKar D-10 Toy Tonneau (eng# 1219), owned by Pat Farrell.

Interesting discovery that I had with our 1910 Kissel Kar, model D10. When sold new, the Kissel had gravity feed to its Stromberg carburetor and it needed nothing more than gravity feed to run properly. Somewhere in time, someone installed a Carter BB1 carb and from that day forward, the Kissel needed an electric fuel pump plus its support battery to make the engine get enough gasoline. The BB1 had the outdated tapered needle float valve in the carb that wouldn't let enough gas feed by at gravity. I purchased a BB1 carb rebuild kit from Mike's Carburetor Parts in Chehalis, WA that came with the newly designed "Daytona Float Valve". The Daytona float valve updates the design of the tapered needle in that the Daytona valve seats properly every time with its flat fluorocarbon disc seating perfectly each time against it large inverted flair end of its much larger inverted orifice. The Daytona Float valve has a much less fuel restriction, it can operate at higher fuel pressures if needed, and a more perfect fuel level is maintained in the carburetor bowl from idle through top speed. To be able to run at all speeds, our Kissel Kar is no longer at the mercy of an operating electric fuel pump and a fully charged battery.

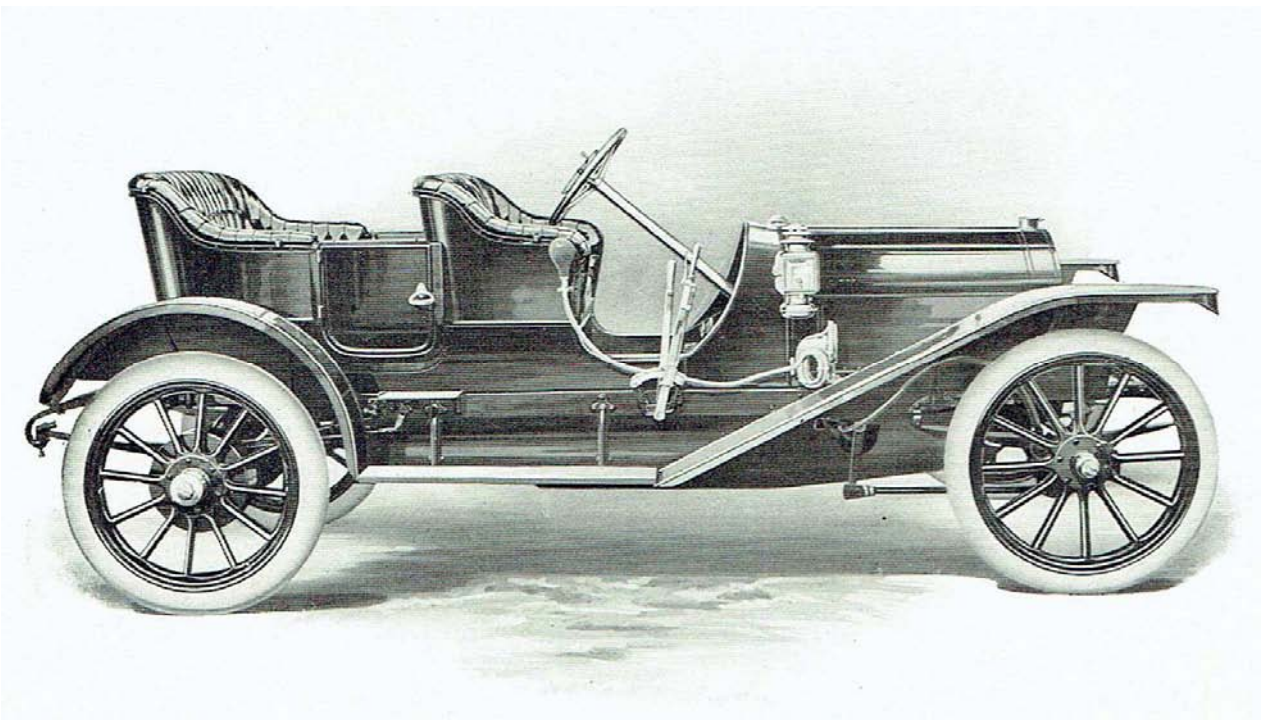
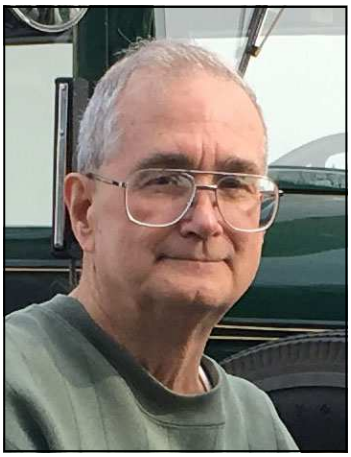


Illustration of a 1910 KisselKar D-10 Toy Tonneau from a Kissel sales brochure.



A Kissel Trip Report

By Charles L Kissel

The Santa Clara Valley Model T Ford Club's annual car show in San Jose is called the Antique Autos in History Park, and this was the 17th annual show, held Sep. 9, 2017. My son and I displayed our 1930 Kissel 8-95 Brougham Sedan (car #95-4616). Naturally, due to the presenting club's name and the fact that antique Fords and their parts are numerous, the large component present are Fords, with Chevy's being the number two component, and all others being the lesser third part of the show's approximate 100+ participants. The displayed vehicles represented 1900-1940s vehicles. For the spectators that wandered about to see the various displayed vehicles, some had never seen a Kissel, nor knew that the Kissel Motor Company actually existed, which is for us, a standard reaction.

This event always has other displays and demonstrations besides the cars on display. These events included: a jazz band, a functional Ford truck with an operating calliope, period dance performances, a roaming barbershop quartet, period costume displays, and children's events. A major car sub-theme was one pertaining to early trucks. Many were present, and there was a reoccurring video on earlier trucking called "Trucks, the Workhorse of the 20th Century." Additionally, the park maintains a permanent trolley, tractors, and a 0-6-0 SP steam locomotive display, with chances to ride on the trolleys.

One of the attendees was Stephen Hite, whose grandparents actually worked for and at the Kissel Motor Car Company shops in Hartford, WI during the latter half the company's existence. George Butzler, an engineering technician, married Kathryn Schnitzler, an executive secretary. One of his contributions was creation of gold-leaf ornament on Kissel fire trucks. He used an original ornament to make Kathryn's wedding ring. Hite and his wife occasionally return to Hartford, and stay at one of the Kissel company founder's home.

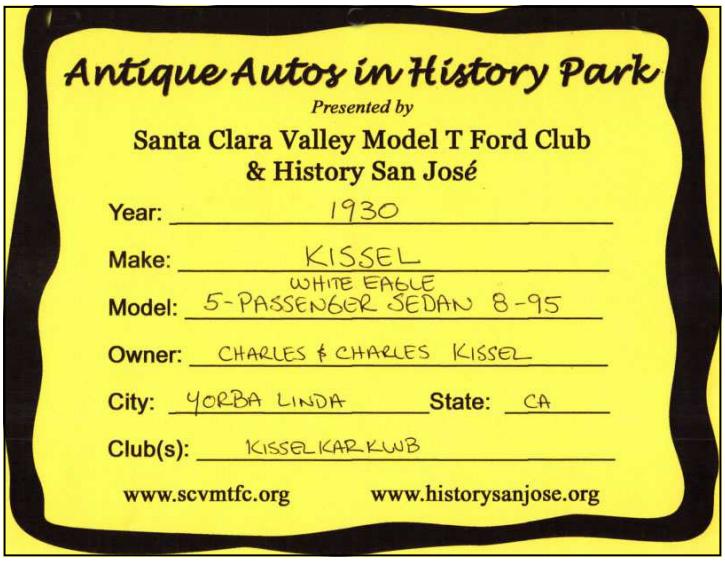
We were pleased to find that BSA Troup 233 and San Jose Fire Explorer Post 888 were present in strength and served as helpers in support for the show. We are excited when scouts or veterans are in-

volved in an event as the American Flag holds more interest with them, and the Flag is also a personal interest of mine. We used the opportunity to tell visitors about AMVETS and the Americanism activities we promote. AMVETS (American Veterans) is a Congressionally-chartered veterans service organization.

San Jose Car Show: (1) trailered KisselKar, (2) 2nd blowout replacement, (3) replace other tires, (4) son Chuck w/Hite.

As a "thank you" to Hite and his scouts, I will be sending them cases of the book *The American Flag and Its Lineage*, and copies of *Encapsulated American History*. That the USA has had over 2,000 federal versions of the flag in our history is a big surprise to most anyone. I have a collection with 300 replicas that are shown in my Flag book.

We trailered our Kissel 750-miles to and from this show. The trip to the event was marred by experiencing two tire blow-outs, with the second one happening just eight miles after the first. This added three hours to the normal six hour one-way travel time. We decided to just replace all four tires when the second one blew.



We were interviewed on camera by Mike Hennessy, creator of the YouTube "Car Guy Channel." To find his interview with us, search for "Car Guy Channel Episode 123" on YouTube; we appear starting at time 18:20 in the video.

[Ed. Charles notes that their History-Park adventure fell near the one-year anniversary of taking delivery of their Kissel, acquired in 2016 from an owner in Denmark. That story appears in the *Kisselgraph* 42:2 (Dec 2016).]

Charles L Kissel lives in Anaheim, CA. Not to be confused with son Charles D "Chuck" Kissel who also has an interest in this car. You can contact Charles L via email to 'Charles.Kissel@kisselkar.net', and Charles D via email to 'Chuck.Kissel@kisselkar.net'.

Giving My Kissel a Brake

By Doug Kissel

For the June 2016 KisselKar Klub Meet, I planned to participate in the activities using our beautiful 1925 Enclosed Speedster (car #55-5003). The Enclosed Speedster was a new model first offered by Kissel in 1925. Lockheed four-wheel hydraulic brakes also became standard on all Kissel cars starting in 1925; it was an option on some 1924 cars.

Our Speedster has been on display in the Wisconsin Automotive Museum for some years. I guess I was somewhat optimistic when I tried to retrieve the car from the museum with only three days before the meet. To my dismay I found that the car had no operational service brake. As a result I became one of the "carless" participants at the meet.

At the meet banquet and awards ceremony, I pleaded my case and retold my hard-luck "no-brakes" story to the audience in an effort to win the coveted "Crispy Critter" award. This award is given to the attendee who suffered the greatest hardship in preparing for, traveling to, or participating at the meet, as determined by voice vote of those present. My sad story was not good enough to win; I was bested by a greater hardship story told by **Andrew and Cindy Wilson,** winners of the prize.

Doug Kissel's 1925 Enclosed Speedster

To further delay the telling of my brake story, here is a bit of automotive brake history. Fred Duesenberg developed hydraulic brakes on his 1914 racing cars and Duesenberg was the first marque to use them on passenger cars in 1921. Kissel's 1924 introduction of "juice brakes" demonstrates that Kissel was indeed a forward leaning automotive manufacturer and an early adopter of advanced technology. By contrast, Ford was the last manufacturer to switch, using mechanical brakes on their cars through 1938.

As I recall it, when I delivered the car to the museum in late 2001, everything was properly prepared for storage. Yet in June 2016, it came as a rude discovery that the brake pedal sank all the way to the floor boards and there was no fluid in the master brake cylinder reservoir. To my knowledge the car had not moved in those 15 years at the museum and no fluid had found its way to the floor. Where did the brake fluid go? Did it evaporate?

Fast forward to August 2017, I am now retired so I have more time available for things that interest me. Let's get the "25" functional again I say to myself. I wishfully thought that adding some fluid and bleeding the brakes was all that was needed, but I was wrong. As many things in life, this job turned out to be harder than I first thought.

Museum staff member **Pete Klug** offered to assist me in my repair efforts. We moved the Speedster to the museum garage and proceeded to check it out. This led

to removing *three* of the four brake drums and wheel cylinders; all these wheel cylinders were corroded and seized up. But all our efforts failed and we simply could not free the right-rear drum from the axle. Yikes!

Doug is holding a steel ruler along the tapered outboard end of the right axle. Notice the punch marks used to expand this axle to mate the inner race of a wrong bearing.

For those not familiar with the type of assembly used on the rear wheels of our Kissel, the drum and wheel are bolted to a hub that is fixed to the axle with a tapered fit; additionally, the hub is fixed with a key. The wheel/drum/hub/axle assembly rides on a single roller bearing. The outer race of the bearing is fixed by a cap bolted to the backing plate and axle housing. Our problem was that our hub was "frozen" to the axle and we didn't know why.

We removed the right wheel/drum/hub/axle from the car as an assembly. A local machine shop was able to heat the hub to near "cherry red" and use a 3-jaw puller to separate the hub from the axle.

It was only at this point that we discovered that a previous owner had made modifications to use a substitute and incorrect bearing. (A straight-bore bearing was substituted for the correct tapered-bore bearing. To compensate for the difference, the axle was "knurled" using a prick punch to expand it to fit the inner race of the incorrect bearing. To make things even more miserable, epoxy was used to glue the straight-bore bearing to the knurled tapered axle.)

We also found that the bearing was pressed more than 0.31" too far on the axle. This meant the gap between the left and right axles (in the differential) was about 0.31" instead of the called for 0.005" gap.

Our 1925 Kissel is equipped with Timken axles and bearings. I contacted Timken customer support and giving them the bearing number from the left rear (F3382 TM), they said they needed to check further. Asked what it was used on, I explained it was a 1925 Kissel Speedster. Checking their "old records," they confirmed the old part number and said that the new P/N is 3382T and that they are readily available. Great, so I ordered the part!

[Ed. Kissel parts book #63 lists this bearing as part # 3382-TE.]

I ordered cylinder rebuild kits and had the cylinders cleaned at the shop. It was interesting to find the rear cylinders had been sleeved down from 1.50" ID to 1.375" with a bronze like sleeve. The internal pistons were not the same as the front either [and were nonstandard]. These were literally slugs about 0.625 inch thick and just under 1.375 dia. They were missing the important detail of an exterior lip to prevent them from moving too far into the cylinder.

Having gotten this deep into the restora-

Characteristics of Common Brake Fluids

	Comments	Main Constituents[1]	Dry Boiling Point[1]	Wet Boiling Point[1] (3.7% water)
DOT 3	absorbs moisture, damages paint, requires periodic replacement	glycol ether	205 °C (401 °F)	140 °C (284 °F)
DOT 4	absorbs moisture, damages paint, requires periodic replacement	glycol ether, borate ester	230 °C (446 °F)	155 °C (311 °F)
DOT 5	absorbs little moisture, little damage to paint, reduced need for replacement, incompatible with DOT 3/4/5.1	silicone	260 °C (500 °F)	180 °C (356 °F)
DOT 5.1	absorbs moisture, damages paint, requires periodic replacement	glycol ether, borate ester	260 °C (500 °F)	180 °C (356 °F)

[1] https://en.Wikipedia.org/wiki/Brake_fluid

tion of the brakes, I decided to have new flexible lines made. The existing banjo bolts (which connect the flex line to the wheel cylinders) were all different and had thread issues. I had a local machine shop drill out the cylinder body so all clamping could be done from the bolt head on top and bottom acorn nut. The car now has Chevy head bolts that I modified to being banjo bolts and it has worked well. I did have to make custom copper washers using a Dremel tool to get the best fit. This worked great, with no leaks at the bolts.

We did find leaks from under the wheel-cylinder dust boot on the right rear. Pete correctly concluded the issue was the piston detail with no lip. I had 4 pistons made at a local machine shop and we replaced both sets on the rear wheel cylinders. This resolved most of the leaks, except for a very minor weep from the right-rear wheel cylinder. I plan to address this in the future with new sleeves for the wheel cylinders.

Following advice from John Lewis, I used DOT 5 brake fluid and am quite satisfied with the extra effort to use it. Pressure bleeding in conjunction with a hand vacuum pump, got it done. DOT 5 is a silicone based fluid that does not readily absorb moisture, reducing future corrosion issues.

During the assembly process, we noticed that the old leather grease seals were in poor condition, doing little to keep dirt out of the bearing. Working with the machine shop, new seats were cut in the hubs to accept modern grease seals. We used a Timken National 470808 oil seal (nitrile, double lip with spring, type 47 design, 1.4375” ID, 2.7540” OD, 0.5000” width).

At last it was time for the trial run. We added a battery and gasoline and tried to start the car. It took a considerable amount of cranking to get it started. Dale Anderson was present and suggested a shot of gas directly down the throat of the carburetor. With the addition of raw fuel the car started immediately. Apparently I’ll have to add something to get the fuel system primed for easier starts, some kind of primer button.

The coolant level was low so we topped it off. After several old faithful gushers and burping we got the air out. But the car was running hot (this might be partially attributed to the reduce airflow as the car was stationary in the garage). We examined the hose from the head to the radiator and found that it contained an add-in thermostat. Further investigation revealed it was more of a solid plug than an active thermostat. For now I'm running the car with no thermostat and a straight hose. I have installed thermocouples on two head bolts, front and mid block, to monitor the temperature. So far the temperature is much lower but I am continuing to monitor the temperature.

Pete Klug and Doug Kissel (right) working on the 1925 Kissel in the garage of the Wisconsin Automotive Museum.

About this time we got some sage advice from Pete Rasmussen who is on the museum's board of directors. Overseeing some of our efforts with the car, Pete suggested "Let the coolant level be determined by the car." I took this to mean that the proper coolant level is less than a completely full radiator for cars this old. Because of the expansion of the coolant, old cars with zero-pressure radiators and no overflow reservoir need some headroom. If completely filled when cold, the car will spit out some of the coolant as it warms.

Now the engine runs smoothly, but work remains on some other items; we are still fine tuning the clutch.

Here are some things that I see looking back on this effort. This project took way more time and expense than I ever imagined heading into it, but I think it is important that the problems were uncovered and addressed. This is especially true of the brakes, a critical safety component of an automobile.

Another lesson, I will give myself more than three days to check out my old car before the next Kissel meet.

Finally, I greatly benefited from the help and support of a number of people. I wish to extend a special thanks to museum staffer **Pete Klug** who helped me throughout this entire effort. I also greatly appreciate the support and encouragement that I got from many people including wife **Sheila**, museum executive director **Dawn Bondhus-Mueller**, museum director emeritus and Klub executive director **Dale Anderson**, museum director **Pete Rasmussen**, Klub editor **Lynn Kissel** and Klub director **John Lewis**.

Doug Kissel lives in Hartford, WI, and is the grandson of William L Kissel, company founder. Doug is on the board of directors for the KisselKar Klub and the Wisconsin Automotive Museum. You can contact him via email to 'Doug.Kissel@kisselkar.net'.

The KisselKar Klub
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ADDRESS SERVICE REQUESTED

1925 Kissel 6-55 Enclosed Speedster

This Enclosed Speedster (car #55-5003) is owned by Doug and Sheila Kissel. It is pictured here on a cruise in Aug. 2001 with William G "Willie" Kissel at the wheel. Willie is cousin to Doug and both are grandsons of company founder William L Kissel.

The Enclosed Speedster was a new body style introduced in 1925. Offering more protection from the elements than the open Speedster, the windows lowered into the doors.

(See Doug's article on restoring this car's brakes that starts on page 8.)