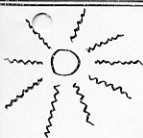
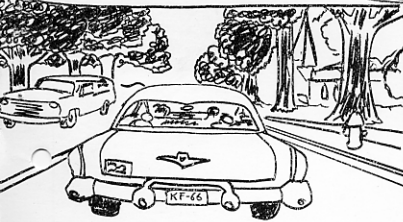


KAISER
QUARTERLY
FRAZER



WELCOME KAISER-
ANNUAL CONVENT



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KFQ

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The Kaiser-Frazer Owners' Club is a nationwide organization. It is an incorporated, non-profit organization, whose sole purpose is the preservation of and promotion of interest in the automobiles manufactured by the Kaiser-Frazer Corporation. Inquiries concerning the nature of the club and its activities should be directed to the club officers.

CLUB FEATURES - K-F TOURS

There is only one thing more complicated than moving - and that is if you are moving and you are a K-F nut. Without a doubt it is easier for a family with a whole household of furniture, several children, and a mortgage to move, than it is for a small family with no furniture, no mortgage, and four (or more) cars, plus approximately one more car in parts, plus heaps of Kaiser-Frazer literature, etc.

Even more complicated was the housing problem which lead to our K-F tour. Upon accepting jobs in another community, we looked for a suitable home in the area. It had to have room for unexpected guests, (you know what I mean) storage space both inside and out, for parts and cars, and acres of driveway. Our search was fruitless until we found an old farm which was to have been vacated one month after we had to be out of our present home.

It was thus decided that we would take a trip during our period of homelessness.

Moving proved more complicated than ever expected. We made a deal to store our things at the house we were going to. At first it was suggested that we put our personal and household goods in the trunk of one of the Frazers, drive it to the new place, and just hire a NYC boxcar to take the car parts, literature, extra cars, chrome, etc., etc., etc. This proved impossible when we found out the cost of hiring an entire boxcar (and that it was not big enough.)

We ended up making quite a few trips. You might like to try playing this game with toy cars on your living room rug. Who knows, it might start a new fad in parlor games.

old -----> station wagon--47 Frazer-----> new
place both full of junk place

old<----- s.w. returns empty<-----new

old-->s.w.--> 51 Frazer hardtop----->new
both stuffed full of junk

old <-----s.w. returns empty <----- new

old --> s.w. --->trailer-51 Frazer convertible--->new
all three stuffed full again

old<---s.w.-trailer<-----new place
station wagon and trailer return, both empty

old-----s.w.-----new place
station wagon makes fourth trip,
filled to the roof fourth time

Next time we will continue this confusing game. Travelling as a club member of KFQC is different from being just another traveller, as we will see.

s.w.
off on trip -->

CLUB FEATURES - RIBBONS AND TROPHIES - by Andy Schroyer

When I inject too much of my personal opinions into the Bulletin I receive a reprimand from the rest of the staff, so I will submit my views through the pages of the Quarterly as member no. 560. I would like to express some thoughts to the gang on the question of awards at the National Convention. We know that many of the members are now or soon will be preparing a car for showing at Starved Rock. To do the job right, a lot of hard work will be spent and a lot of frustrating problems will have to be solved. Some jobs will have to be taken apart and redone, I suspect. Mechanical "goof-ups" and paint runs are all part of the game. When the cars are all ready (and some won't be ready until just minutes before judging time) we'll have a lot of beautiful cars. There won't be too much difference between the cars, really. Even if we had a panel of experts doing the judging, it would be difficult to get a clear, unquestioned verdict on one particular car over another.

I think that the judging in Reno was the next best thing to a panel of experts. This was a large number of judges, divided into groups of four or five for each category. It is true that certain members are not too familiar with the category that they have been chosen to judge on. But there is every reason to believe that this person will judge your car as "poorly" as your rival's car. And with a large number of people involved there can hardly be any complaints of "unfairness."

Now as to whether we should have ribbons or trophies, it is only natural that the more desirable the prize, the more determined we will be to win first place and the greater will be our disappointment if we come in second, third, or fourth.

I can well believe the stories that I have heard of other conventions, where members have stood "toe to toe." This might be all right if we had "toes" to spare, but I feel that we need each other's support more than we need trophies on our mantle at home.

Perhaps ribbons would be the answer to the problem. For a slight extra cost, we could have them made real fancy, and yet they would not be so coveted that we would have any excuse for a serious difference of opinion. I would like to see awards given without misunderstanding. Who can put in 800 sweat-filled hours on a K-F car and then accept a second or third-place trophy with a smile? Certainly not me -- I'm only human.

Ed. note: The "trophy controversy" has been raging for some time now. The importance of the question is relevant to the very core purpose of our club. Can we best preserve the Kaiser Frazer cars by spiking ourselves to excellent preservation and restoration through the awarding of trophies, or should we de-emphasize competition and encourage cooperation in the preservation and restoration of the cars? Your editor welcomes articles and opinions on this question, such as the above article.

CLUB FEATURES - KAISER-FRAZER PROGRESS REPORT

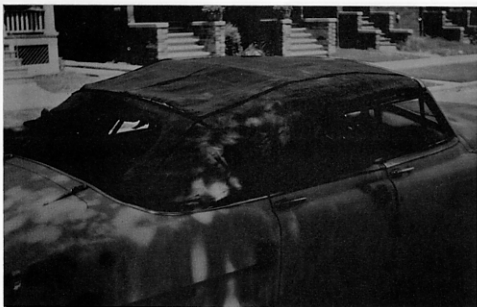
We realize that many club members do not get together with the group very often, so may not be up to date on what is new. For them and all other members, we present this accurate, unbiased Kaiser-Frazer progress report, to demonstrate that the Kaiser-Frazer movement is really moving.



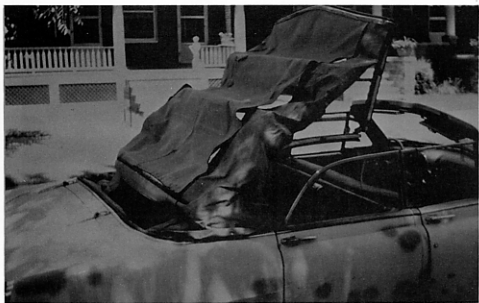
New Frazers are rolling out of our modern factory ... yes, backwards, our latest new production slant!



Other makers' new models cannot be compared to the new K-F cars.



K-F offers smart, new fabrics and finishes.



Tops on our new convertible models are custom-tailored, to keep you snug and warm, protected from the weather.



Large cargoes are easily stored in the mammoth trunk space in the new Frazer convertible.



The Kaiser has become a standard part of every happy family scene.

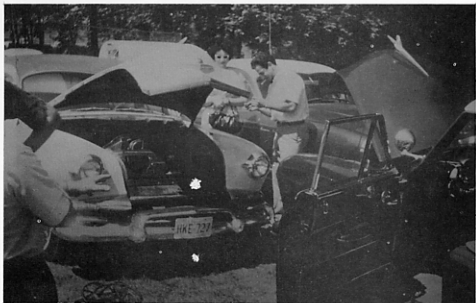


In fact, some families keep several Kaisers, so they can have one for Sundays and another for rainy days.



The modern couple always chooses a new Frazer for a wedding limousine.

KFQ



Increasing familiarity between K-F cars even causes them to raise their hoods in greeting to each other.



Kaiser-Frazer owners are becoming known for their resourcefulness.



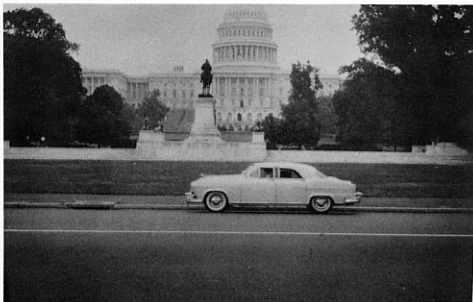
The sleek, new 1951 Kaiser convertible is becoming so popular that one can be seen in any shopping center.



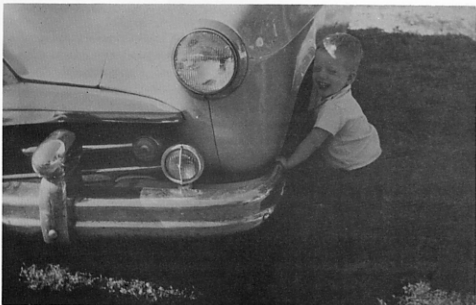
Every day distinguished men look over the new Kaiser and Frazer models and consider their advantages.



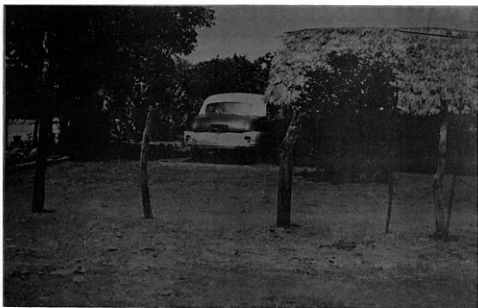
The new Frazer is even finding popularity among top movie stars.



The presidential Frazer speeds past the nation's capitol dome - carrying the president to an important conference.



An occasional squeak or rattle in a K-F product is usually attributable to minor technical difficulties... such as a small, loose nut.



However, our modern service facilities are standing by to serve you.



Our main plant, where your local servicecenter can obtain any part needed, and where our skilled technicians are trained.



Teams of these skilled technicians are sent to investigate difficulties that arise in the field.



Sometimes it even takes a whole bunch of technicians to solve a serious problem in the field, such as installing a radiator cap.



We are now investigating new sources of labor for service centers



...All to keep the typical Kaiser-Frazer owner happy with his new car.

-----KFQ-----

SMALL TALK SECTION

Coming up next issue:

Club features - convention issue, K-F tour (continued)

Kaiser features - The "Sun Goddess" is coming.

Frazer features - We are working up an article on Mr. Frazer, hope to have first part ready by then. Let's have some articles on the Frazer from the members, too.

Willys features - "The most beautiful compact ever built" is developing into a full-scale article on the Willys auto, so we are holding up on this one.

Special features - K-F poetry will present the "limerick department"

Technical features - "Tips on servicing the '54" will be featured.

It has been pretty rough getting this Quarterly out on the heels of the last one, but we want to get out four per year, and on a rigid schedule, so this is the only way. Let us know how you like (or dislike) the Quarterlies we are putting out. Send us an article or two, too. Looking over our old Quarterlies, we found that some of the most interesting and rare stuff came from regular members.

SPECIAL INTEREST FEATURES - KAISER-FRAZER MUSIC

Little has been said or done in the field of Kaiser-Frazer music. However casual investigation reveals that there are at least three sources of Kaiser-Frazer music, any of which might provide anything from an evening's entertainment to at least a few chuckles. The three sources are (1) commercials broadcast by Kaiser Frazer Sales corporation on radio and TV, (2) regular record releases which make mention of the K-F cars, and (3) finally, music created or adapted by club members or other persons to promote interest in the K-F cars. With an active membership of over 500, there is an excellent chance that we can come up with many, many contributions to a "Kaiser's College of Musical Knowledge." (remember that one, anybody?) Let us look at the different possibilities then.

COMMERCIALS

The most shining example of commercial Kaiser Frazer music we know of is a record which I believe Herb Ivie has a copy of. It is really a full-length song, sung by a group that sounds about like a barber-shop quartet. It has many verses, and its main theme or most-repeated line is "Get a Kaiser, get a Kaiser, The world's first...Safety-first car."

Your editor remembers a commercial that had a sort of musical theme, but not really a song. There were a bunch of people all chanting, or rather mumbling something, which became clearer and clearer until it revealed itself as being..."car-a-minute, car-a-minute, car-a-minute,...." Then some guy came on, saying "Say Joe, I think I'm hearing things... I keep hearing something that sounds like 'car a minute, car a minute!' And of course, good old Joe comes on with "Didn't you know that Kaiser Frazer is producing cars at the rate of one every minute..." and so on into the commercial.

Maybe asking around at a few radio stations or some other likely places (if you can think of any) might turn up a few of these relics.

RECORD RELEASES

This idea never even occurred to us until one night a few weeks ago when we heard an actual Kaiser-Frazer song! It is sung by Patty Reagan on Decca record #DL 9076. The title of the record is "The Billy Barne's Review," and the name of the particular song is "Whatever happened to the Kaiser-Frazer?" We remember only part of the song. The end goes something like this:

Whatever happened to the Kaiser-Frazer?
It surely was a glittering car
Whatever happened to the Kaiser-Frazer
It surely was a glittering
(now won't you stop your tittering)
It surely was a glittering car.

It is sung in a good old give'm hell type "give my regards to Broadway" style.

Kaiser-Frazer Music - cont.

CREATED AND ADAPTED MUSIC

The responsibility for this third group of music rests with us, as loyal Kaiser-Frazer nuts. Surely there are many talented musicians and music teachers among our membership. (we have doctors, business men, lawyers, preachers, probably even a few gangsters, so why not a musician or two?) Here is their chance to write words for a song, or perhaps even create entirely new melodies to further the Kaiser-Frazer interest. To investigate the possibilities here and also to give the membership a hideous example to serve as a springboard, your editor and his wife sat down one night to see what they could come up with. The fruit of their labor is herewith published:

MY HENRY

(sung to the tune of "My Bonnie")

My Henry was full of corrosion
My Henry was rusted, you see
But now its fixed up to perfection
My Henry is restored unto me

Bring back, bring back
Oh bring back my Henry to me, to me
Bring back, bring back
Oh bring back my Henry to me

Oh blow ye winds over the ocean
But blow ye not sand on my "J"
The paint is still wet from the sprayer
And it is as sticky as clay

Blow not, blow not
Oh blow ye not sand on my "J"
Blow not, blow not
Blow ye not sand on my "J"

Last night as I lay on my pillow
I heard such a terrible crash
I jumped up to survey the damage
My "J" had been struck by a Nash

Smash not, smash not
Smash not my red Henry J ay-ay
Smash not, smash not
Smash not my red Henry J

The winds have blow over the ocean
The sand is stuck fast to my "J"
The rear end is caved to the axle
She'll not make the spring meet in May

Bring back, bring back
Bring back my Henry to me, to me
Bring back, bring back
Bring back my Henry to me

SPECIAL FEATURES - YOUR K-F DREAM CAR

Headline: "FIRST REPLICA CORD DELIVERED TO OWNER BY OKLAHOMA FIRM HEADED BY GLENN PRAY"

Headline: INDIANA FIRM PLANS PRODUCTION OF NEW DEUSENBERGS, BOAST 80 BACK ORDERS FOR NEW MODEL AND CLAIMS MILLION AND A HALF CAPITAL

Such headlines remind us that when a car passes from the American scene, it may be only temporary. Whether a car returns to production depends on the enthusiasm shown by those who were interested in that make. Perhaps we can exhibit our enthusiasm and even provide ideas for some future generation of auto makers.

Many K-F club members have speculated about what a couple of years more production might have brought...if only they had made a V-8, if only... if only. Some members have even put their ideas into reality, such as Terry Zeug's 55 Kaiser V-8, or better yet, Larry Smith's beautiful two-door Dragon.

Here is your chance to speculate on what might have been. Fill out your order for "Your K-F Dream Car" and send it in to the Quarterly. We will choose the best ones (if we get any) and fill your order as we have on the following page. If we get an enthusiastic response to this feature, it will continue. If not, the feature will disappear.

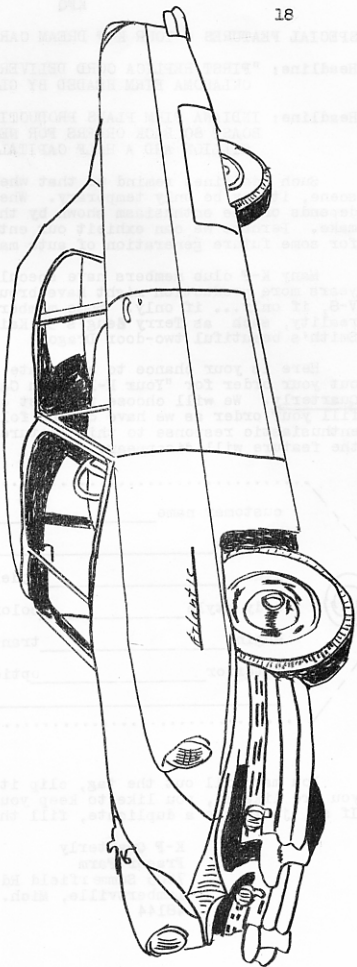
customer name _____
 address _____
 make _____ model _____ year _____
 body style _____ color _____
 engine _____ transmission _____
 interior _____ options _____

You may fill out the tag, clip it out, and send it in, but if you are like me, you like to keep your club publications intact. If so, just make a duplicate, fill that out, and send it in.

K-F Quarterly
 Frazer Farm
 7605 Summerfield Rd.
 Lambertville, Mich.
 48144

Your K-F Dream Car - cont.

CUSTOMER NAME Thomas J. Wulcher
 ADDRESS 7605 Summerfield rd, Louisville
MOORE, Kentucky, year '52
 MAKE Ford MODEL convertible
 COLOR crimson yellow
 BUY TYPE cash ENGINE V-8 with 461 TRANSMISSION automatic
 INTERIOR black bucket seats; power windows, steering
 PRICE 3,400.88 plus tax



WILLYS FEATURES - A PORTRAIT FOR YOUR COLLECTION



SPECIAL FEATURES - K-F POETRY DEPARTMENT

"GOING TO THE MEET"

The day was set for the meet
and the Kaiser was all polished up,
Road maps were stowed 'neath the seat
and a kennel was found for the pup.

Extra parts "trading stock" were loaded in the trunk
hub caps were removed to prevent loss,
Throats were sprayed for all night shooting of bunk
and Friday afternoon off was gotten from the boss.

The carpets were scrubbed nice and clean
the windows cleaned lustroously clear,
A coat of simonize polished the ceramic green
the spare tire removed to store cold beer

A last-minute sew job on the 'gator top
and a new fuse for the radio,
We were set for our trip to be non-stop
and then we were off to the show.

We were only a mile from town
doing sixty just like a breeze,
Hit a bump where the road has a crown
and the motor conked out with a wheeze.

We looked under the hood amid smoke
to see what could be found,
The neck on the distributor had broke
allowing this device to roam around.

The distributor had hopped forth at will
and into the carburetor veered,
The cap had jumped into the oil fill
and the rotor had completely disappeared.

Spark wires had into the fan belt tangled
the belt had broken and whipped,
The power steering hose by this belt was strangled
and a flying nut the firewall paint had chipped.

Fluid had sprayed all over the place
causing the head to crack,
And escaping water from the cooling space
had sprayed onto the battery rack.

This caused the battery to slip from its place
and be chopped up by the fan,
The pieces scattered like dogs in a race
and peppered holes in the oil pan.

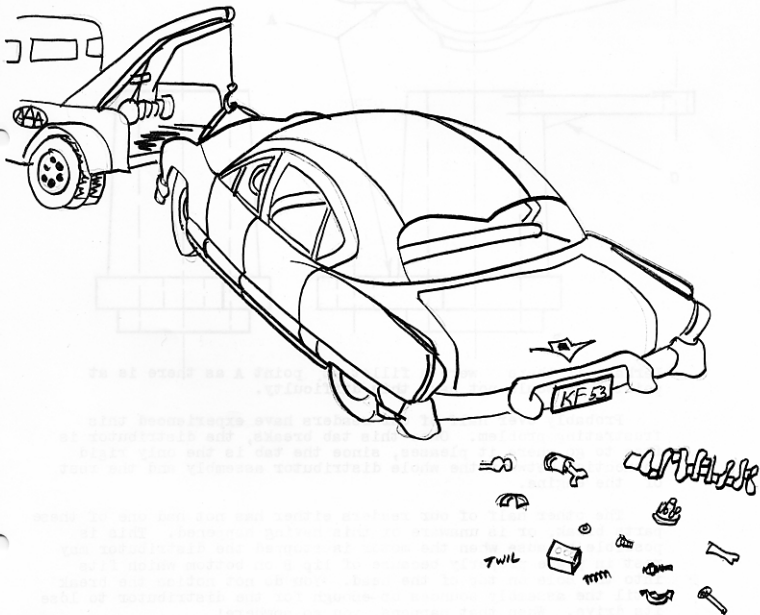
This and the aforementioned distributor cap
caused the oil to drain away,
Thus number four rod broke and began to slap
while the mains a song began to play.

K-F Poetry - "Going To the Meet" - cont.

The excessively inordinate vibration
caused by all this disturbance we've said,
loosened the motor mounts drastically
letting the motor sink from its bed.

Now all you K-F bugs
come hear my word for thee,
As long as your Kaiser motor chugs
things may not be as safe as they seem to be.

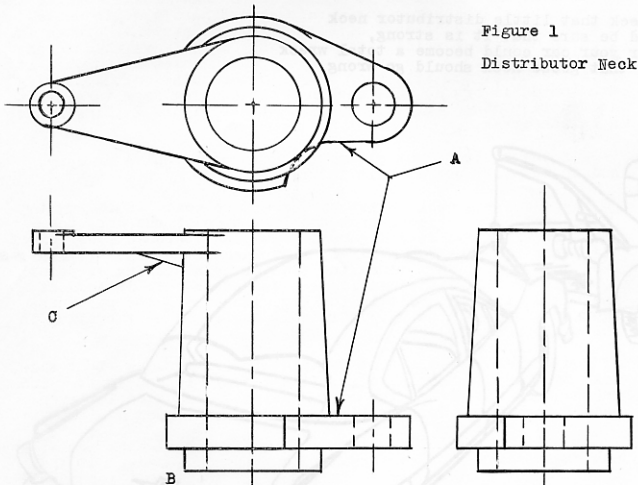
Check that little distributor neck
and be sure that it is strong,
For your car could become a total wreck
if that goose-neck should go wrong.



TECHNICAL FEATURES - DISTRIBUTOR NECK

by Tom Wilson

The more we work on Kaiser-Frazer cars, it seems the more problems we encounter. One such problem is the distributor neck that mounts on top of the engine head between spark plugs four and five, to which the distributor is mounted. Figure 1 shows a full-size, three-view drawing of the part. Failure occurs at the lower tab with the hole in the end, shown as point "A".



Perhaps if there were a fillet at point A as there is at point C we would not have this difficulty.

Probably over half of our readers have experienced this frustrating problem. Once this tab breaks, the distributor is free to go where it pleases, since the tab is the only rigid connection between the whole distributor assembly and the rest of the engine.

The other half of our readers either has not had one of these parts break, or is unaware of this having happened. This is possible because when the motor is stopped the distributor may rest in place properly because of lip B on bottom which fits into the hole on top of the head. You do not notice the break until the assembly bounces up enough for the distributor to lose its drive. When that happens, you go nowhere!

Distributor Neck - cont.

To date, everyone we have discussed this problem with has assumed that the solution was replacement of the part. As we continue replacing these parts, the supply of new and used replacements will diminish and eventually disappear. The purpose of this article is to point out one system of simplified repair, and discuss the cause and remedy for the problem.

REPAIR

The repair method is so simple as to make a trip down to the neighborhood junk yard for a replacement hardly worth while. The repair method is most effective if the part has broken in a clean crossways split. This allows you to leave the broken off tab right in place over the stud which comes up through it from the head. It will bear against the point on the housing from which it broke, thus keeping the housing from turning and putting the distributor out of time. Figure 2 illustrates a clean break.

If the break is not clean, the job is not quite as easy, and so we will look at this later.

Assemble the neck on top of the engine head, including the broken off part. Viewed from the left side of the car, the assembly will look like figure 3. Now look through your box of old parts and junk for a large, flat washer that when placed over stud bolt E will just touch the side of main housing at point D. This is illustrated in figures 4a and 4b. It is good if the washer is just a little too big, increasing the pressure against the main housing. This will reduce loose vibration in the whole assembly.

If you cannot locate a flat washer that is just the right size, take one that is too large and file a small recess in it. This recess will fit around the main housing and provide for even better tightness. This is illustrated in figure 6.

Now it is a simple matter to place the usual lock washer and nut on the stud and the repair is completed. However if the break is not a clean one as in figure 2, the repair job should be done differently. The broken tab in figure 7, for example, would not prevent the housing from rotating slightly, throwing the distributor out of time. The method of repair which follows is an emergency measure which may serve until you can get a replacement part.

Remove the broken tab and completely remove the neck fitting. With the neck placed in your workshop vise, file what is left of the stub off at an angle. As viewed from the top, your new filed surface should be at right angles to a line coming from the stud bolt. As viewed from the side, your surface should tip down toward the head. See figure 8.

Now proceed with a washer as previously described, except this time omit the broken off part. The washer should rest

Fig. 2

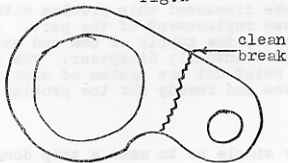


Fig. 3

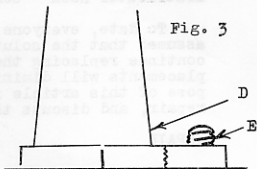


Fig. 4a top view

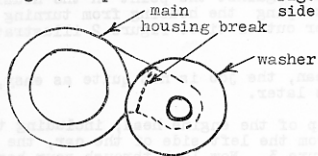


Fig. 4b side view

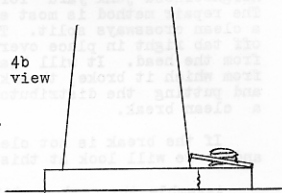


Fig. 6

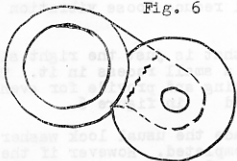


Fig. 7

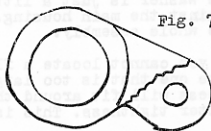


Fig. 8a

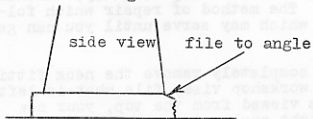
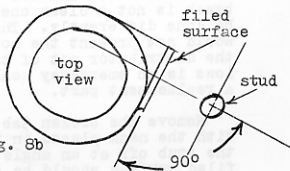


Fig. 8b



Distributor Neck - cont.

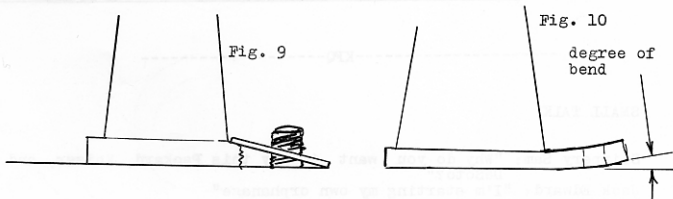
between your filed surface and the top of the head, as shown in figure 9. Then add the lock washer and nut. This method is considered an emergency measure. It may work well for some and last a long time, but not so for other cases.

CAUSE

Recently we were assembling an engine on our 47 Frazer. Upon tightening the nut that holds the distributor neck tab, we were astonished to see the neck and distributor rise slightly. Examination of the casting revealed that its bottom surface was not flat. The tab actually was bent up slightly, as shown in figure 10, (slightly exaggerated). This means that a properly tightened assembly would depend entirely on this weak little tab for its support, as in figure 11. We do not know why the tab would be like this, but here are some guesses: Perhaps shrinkage in cooling of the original casting, perhaps vibration and stress over the years, perhaps some effect of uneven heat from the engine head. Maybe even at one time the nut was tightened on the tab when there was a bit of material between the edge of the housing and the head. Pressure at the tab hole would then bend the casting slightly. (It is hard to imagine the casting bending, rather than breaking.)

REMEDY

It may be possible to prevent straining and breaking the casting by putting a bit of soft material, such as rubber or leather under the tab on the side of the stud bolt AWAY from the main body of the casting. This should push the main part of the casting back onto the top of the head. CAUTION: too much material could cause you to break the tab as you tighten the nut down on the stud. We are experimenting with this at Frazer farm and so far have not broken a casting. It is a little early to tell how satisfactory the results will be.



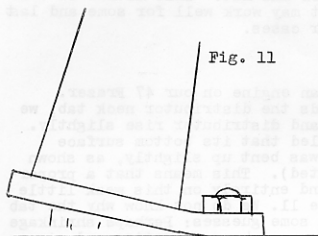


Fig. 11

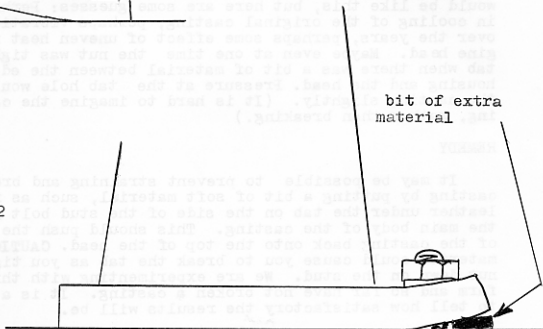


Fig. 12

bit of extra
material

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SMALL TALK

Slippery Sam: "Why do you want to buy this Packard, Kaiser, and DeSoto?"

Jack Edward: "I'm starting my own orphanage"

New Car Dealer: "You don't want to drive that rusty old Frazer any more. Why, its an orphan!"

Bob Fittro: "Yeah, I guess you're right. I'll buy a new Citation."

COMING NEXT ISSUE: Another portrait for your collection - Original art drawing of the '47 Frazer, by Gary Blackwood.

TECHNICAL FEATURES - HOW TO CHANGE WINDOW GLASS & WIND WINGS

by Andy Schroyer, KFQC Assistant Bulletin Editor

Before a beginner attempts to tackle this job, he should read this article through at least once, then re-read any parts about which he is not certain. The actual job itself should require about one to one and one-half hours. (Not counting time to have new glass made.) If possible, the job should be finished on the same day it is started, so that the beginner will have the dismantling procedure fresh in his mind and will be able to reassemble the door without forgetting how it came apart. Be careful not to lose parts.

This is a fairly easy job to do, and unless you really have six thumbs on each hand, you should be able to carry it off successfully. If you are serious about keeping K-F cars on the road, I would strongly advise that you learn to do some of the minor jobs yourself. Garages and mechanics are increasingly reluctant to give service on K-F cars.

And too, we all suffer from some degree of "mental block." I myself am "chicken" to tackle a hydramatic unit. I have a half dozen to experiment with, but have not gotten up the courage. I am sure that with a good instruction book I could dismantle and reassemble one. This is not relevant to window glass changing, I know, but I'm using it as an example for you who are reluctant to tackle a new problem. So come on, you beginners, take a shot of "mental block killer" and let's get started! (Just one shot, now, We're working with glass and we don't want to get too strong!)

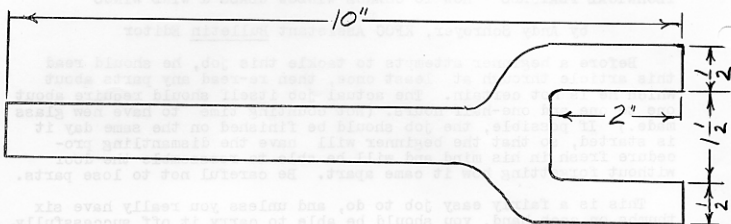
Here are the tools that you will need for this job

Phillips-head screw driver - 1 medium, 1 small
 ice pick or slender nail (1½" finishing nail is fine)
 standard screw driver - 6" or 8"
 long-nosed pliers or tweezers
 ring-depressing tool (see illustration) which you can
 make yourself

A spare parts car is the best source of window glass. If you do not have one or you do not know a fellow member who will sell you one, there are the auto wreckers and the auto glass shops. You might compare cost between the wreckers and the glass shop. (Ed. note: In Michigan we pay 4-6 times as much for new glass.) Sometimes the wreckers will give you a good price if you pay in advance and remove the glass yourself. If you deal with the auto glass store, you may have to take your old glass in for a pattern.

Have your car where there is a hard surface, or else spread a blanket or canvas to catch the small pins that you will have to remove. The door should be open full width.

Start with the removal of the inside door handle and the window crank-handle. This operation is one of the two rough parts of the whole job. Behind each door handle and window crank is a large chrome or rubber ring, about 2½" in diameter. Use the ring depresser and place the two prongs against the chrome or rubber ring. A hard push will force the ring back far enough so that you can see the ½" square shaft behind the handle or window crank. Keep



pushing harder until you can see the $1/8$ " hole through the square shaft. Use the ice pick to push the pin out. Try to catch the pin as it falls out, then you won't have to hunt for it. Once the pins have been removed from both handles, they are ready to come off. They often stick. Wiggle the handle as you keep pulling back. Keep the handle close by, as you will need it several times to raise and lower the window.

Next, remove the arm rest with a medium phillips screw driver. Look at the underside of the arm rest, and you will see the heads of the screws, recessed in two holes.

The window frame may be removed next. The front door frame has four screws, the rear five. Use small phillips screw driver on these. Roll the window glass all the way down before removing the screws. There is one screw in each lower corner, and two or three across the top. I'd advise laying out the screws so that each screw goes back in the same hole later. I have often had to move them around to make them fit right after I threw them all together during the dismantling operation. Now remove the hard rubber inside door lock knob. It unscrews with a lot of turning due to the long threads inside. The window frame is now ready to come out. After the frame is out, a piece of tape across the frame will prevent the stem of the inside door lock from falling down.

Now to remove the upholstery panel. The two sides and the bottom edge are held in place with 12 clips. The panel can be snapped off by using an ordinary screw driver. NOTE: Be careful -- these panels are now 12 to 18 years old, and the inner cardboard will crumble easily. Be sure to insert your screw driver between the door frame and the flat part of the clip that rests against the door frame. Place the screw driver here rather than on the cardboard nearby. If you tear the cardboard out at the clip you are in trouble. Be very careful on the first one (or torn, ed.) it out, study it carefully, and you will know what we mean. Work down one side from the top to the bottom, then along the other side the same way. If possible, have someone hold the panel across the top edge while you complete the snaps along the bottom edge. There are supposed to be two coil springs, one on the door release and one on the window riser. Remove and lay these on the floor of the car or any convenient spot out of the work area.



Technical Features - Window Glass - cont.

We are now ready to remove the screws from the wind wing. The first screw will be at the highest point on the wind wing. There is a small extension of metal from the wind wing that extends into the door up under the channel where the window glass touches the top of the inside window opening. Roll the window glass all the way down by slipping the handle back on temporarily. This screw is hidden under a thin piece of rubber, and you have to poke around at the top of the wind wing to expose it. Remove it, then follow down to the bottom of the window opening where you will find two more screws holding the wind wing to the door. Remove these and then go to the third corner of the triangle. There is one, and sometimes two, screws holding the third corner. They are hidden down under the frame on the door. Keep looking, because they have to be removed. Good -- I knew you'd find 'em. Now there is one more screw left. Usually the inside panel is covered with a sort of tar paper, stuck in place with glue or masking tape. Peel this paper up carefully about half way from the bottom towards the top. Follow a straight line down from where you removed the first screw, past the second and third screws removed. You will be following the leg of the wind wing that serves as one guide for the window in the down position. At the bottom of this leg is a medium sized phillips screw. Pass the tip of the screw driver through the hole (about half-dollar size) through which the screw can be seen, and remove the screw.

We are now ready to remove the window glass. If the window is already broken, you do not have to be so careful about breaking the glass. However, if you are trying to replace the wind wing and the present window is o.k., proceed cautiously...or else.

At this point the window is fastened to the car at only one place. This is at a clip that is at the lower end of the window raising arm. This clip is the last and one of the two "exasperating" operations. I use a screw driver to force it off. It should not be removed by hammering against it. It takes a side movement like opening a sliding (Darrán, ed.) door. I would suggest that the beginner might use a flashlight and a small mirror held up in behind at an angle so that this clip can be examined. There is a "key" to this clip and when you have the idea, it is not too much of a problem. Try using a real small hammer, or else hold the screw driver along the side of the clip and tap on the shank of the screwdriver. Remember that the clip should be slid off to the side, and NOT driven off away from you. Note the position of the channel across the bottom where the clip was. The channel must be in the same position when it is reinstalled. The window glass is now free, and ready to be turned 90°, then raised up and out at the normal window opening. Do not try to take the glass out of the lower half of the door opening. Go easy -- if the glass catches, lower it down and raise it slowly again. It will come out because this is how it went in. They do not build doors around the window glass. O.K., psychiatry anyone? I get more K-F products right along about here for \$5.00, with a string of profanity thrown in.

It is not really so bad though, if you will take it easy and not lose your temper. If you start to boil, just quit and take a coffee break to settle down. While we have the window out, inspect the channel guide material. If the guides are badly worn, replace them. Large auto supply stores have this material.

TECHNICAL FEATURES - Window Glass - cont.

I would advise finishing off the job by completely reassembling the door while all of the past procedures are fresh in your mind.

The wind wing is free to remove now. Replace it if it is broken. While you have the wind wing out, check it for cracks, and be sure to oil around the tension spring and top swivel joint. Also, oil the working mechanism of the door riser and the moving parts of the door opener. Check and see if the small coil spring that pushes the inside handle back down is still in one piece. If it is broken, replace it. Most auto parts stores have duplicates for these. Oil the contact points and everything else that moves. Wipe off excess oil. Try sliding the clip on and off of the pin, so as to get familiar with it while the window is out of the way. Now start to reassemble by putting back the wind wing first -- carefully. Do not put in any screws yet - then lower a good window glass by the same route you previously removed the old one. When the window glass is down in the door compartment, swing it 90° and slip the bottom channel piece back on the window raiser pin and slide the clip into place on the back side. Be sure that the clip is on properly and not just partially caught in place. Next, carefully check to see that the wind wing bottom window guide piece is properly in place with the window glass in its channel on each side. With the window glass and the wind wing in their proper places we can start replacing the five or six screws in the wind wing, starting at the bottom and going to the top. After all the screws are in place, tighten them all snug. Next, put the two coil springs on the door opener shaft and the window riser shaft, the small end against the door.

Now replace the door panel. Line up one clip at the top, and then hit the panel a sharp blow with the side of your fist, directly over the clip. Go on down the edge, across the bottom, and up the other side. Take a handle and crank the window glass up to the top carefully. Run the glass to the top on the opposite door so you can see what position the handle should be on the side you are working on. Slip handle off of the shaft and slip the ring in place. Slip the handle back on in the correct position and use the ring depressor to push against the ring so that you can return the small 1/8 pin back through the shaft. Repeat for the window raiser handle, and then install the arm rest.

Now run the window glass all the way down and re-install the window frame. Be sure to slip the frame over the shaft of the inside door lock. Then fasten in place the same screws that were removed earlier. Replace the hard rubber door lock button. Raise and lower the glass carefully a couple of times, to be sure there are no signs of binding. Remember, the next time the job will seem much simpler.

Next issue our "Technical Features" will include "Technical Tips on the '54 Manhattan," by Ben Lamboy. There is no technical editor at this time, so keep these good technical articles coming, and send them to the Quarterly office here at Frazer Farm, 7605 Summerfield Rd., Lambertville, Michigan, 48144.