

NORTHSTAR NEWS

My Pride and Joy....

As told by Ed Haedtke....

I heard about this car from my friend Bill back in 1971. He was working with a man who told him he had a Lincoln sitting in his car port in St. Paul. He was in the process of a divorce and he wanted it removed. I told my buddy that if the car is in as good condition as he said, I would be there on Saturday to buy it. The understanding was that it had not been run in 5 years.

pected to tow it home. The car was in pretty nice shape under a thick layer of dirt. The top was up and the glass was not broke. While we were looking at our "find" the car the owner came out and said that he would like \$75, I was pleased. He was unable to find the title right then and being reasonably young and naïve, I gave him the \$75 and he assured me that if I stop back the first of next week, he would have the title.

Bill and I went to St. Paul in the middle of January. By the looks of the dirt on the car I did believe that it had not been running in 5 years. We had ex-

While surveying our great "find" we noticed all four of the tires were flat.

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Ed and Linda Haedtke's 1954 Capri Convertible

Welcome to the Northstar News, the monthly publication of the Northstar Region of the Lincoln and Continental Owners Club. We value your opinions and appreciate your input concerning this newsletter and the operation of the club. This is your club.

This Issue Contains

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Members and guests are welcome to attend the Board Meetings which are held the second Thursday of every month except December at 7:00 PM at Whitaker Lincoln-Mercury on South Robert Street just north of Highways 110 and I 494 in Inver Grove Heights, Minnesota.

Articles and other information for the newsletter should be sent to David Gustafson, Editor, at 308 Brandywine Drive, Burnsville, MN 55337.

My Pride and Joy Continued...

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We jacked each tire separately, taking them to the station and they all took air. Daylight is short in January, and by the time we got the tires on the car it was starting to get dark. We hooked the tow bar up to the Lincoln, then to Bill's truck. Taped one flashlight to the back bumper for a tail light. It took a little rocking but eventually we were able to pull it from where it had been resting all those years. It towed great; the only problem was stopping a 6,000 lbs. car with a 4,000 lbs. truck. We drove home very slow and it took us 2 hours to go 20 miles. We parked it along side my home for the next four years.

I was young, had just bought a new home and money was tight. By 1975, this was the first year I could afford to do something with the Lincoln. I spent the year working on the mechanics. In



Nice looking, both inside and out.

1976, I had body work done, a new top, and interior reupholstered.

I drove the car for many summers until 1999. The Lincoln was repainted white diamond pearl

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Trivia from the Internet.

Color TV Turns 52
Rose Parade marks the beginning of the end of black-and-white
It was 52 years ago on New Year's Day, that NBC made history with the first live national broadcast in "living color," over a 22-city network hastily constructed by AT&T. The event, the Tournament of Roses Parade in Pasadena, Calif., was tailor-made to demonstrate color television technology.



1954 RCA 15 Inch Color TV

Only a few thousand people actually saw the parade in color on TV that day. For the occasion, RCA built a special run of only 200 color sets-designated the Model 5 (the prototype number)-for the NBC affiliates and RCA Victor retail distributors. Other manufacturers, wanting to enter the color TV business, also built their own prototypes for the occasion.

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Editors Message

Dear friends... We hope that your holiday season was joyous and that the New Year will treat you and your loved ones kindly. This issue of the Northstar News marks the beginning of fifth year of this publication. The time has gone by very quickly. It seems as though we just finish getting one issue in the mail and we are already working on another. It still is fun to do and we have got to meet many of our club members as a result. There is something about seeing the excitement in a owners eye as they tell you about their beloved Lincolns. Our members are very passionate about their cars and the pride of ownership is evident whatever the model or year Lincoln they have.



Faithie, dog tired from helping her Dad with the Northstar News, recharges her batteries for the New Year ahead.

The American auto industry is at a crossroads. If you read any of the financial publications, the Detroit News or Free Press, or any of the auto publications you soon get the picture that things are not good. How did the industry get in such bad shape? Everyone seems to have an answer. From workers wages and benefits which many believe are far to generous, to overanxious stock funds which own most of the shares of the auto companies and expect obscene rates of returns, to badly designed and poorly assembled vehicles from the big three. Yes, over the years there were some turkeys out there. No manufactures were exempt. The Chevy Vegas, and other wretched little cars that GM sold and assembled under the various divisions (Buick, Olds, Chev, Pontiac and

even the Cadillac Cimarron), Chrysler had their "K" cars and even Ford was not immune to this silliness either. Take note, the tide has turned and for a number of years now, we have seen some really nice cars coming out of the American manufactures. The mileage is getting to be fairly respectable, even the large Town Cars and Cadillacs will turn out mpg figures in the 20's. We will look forward to Lincoln bringing forward new offerings, such as the new Zephyr, which is already in the showrooms, the Aviator, late next summer or fall and sometime after that perhaps a new Town Car or a Continental. Great cars are in the works, we just have to be a bit patient.

Our membership dues statements will be in the mail toward the middle of January. We would appreciate it very much if you would send in your payment as soon as possible. Our yearly dues, by necessity, has risen to \$20 to cover increases in postage and other costs associated with the newsletter. Our treasury is not growing and every dollar paid in goes back out to our membership.

Advertising in our newsletter is free to our members. Please mail (or email) your information on what you have to sell and we will include it in the newsletter.

Winter is moving along quite quickly. We have just three somewhat tough months ahead, then we can sort of start thinking about raising those garage doors once again and take to the road with those great looking Lincolns. The winter of our discontent will eventually end.

In the meantime, we look forward to seeing many of you at the January brunch at Al Bakers (January 15th) and at the CCAA potluck, time and date to be nailed down in time for the February issue.

Till next month, our warmest regards...

David, Marion and Faithie the dog...

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The idea was to build excitement about color TV, and it did.

The first consumer color televisions hit the market a few weeks later, with 5,000 units rolling off the RCA assembly line in Bloomington, Ind. in March, 1954. Nick-named "the Merrill," the RCA Model CT-100 had a 12-inch diagonal screen and cost a whopping \$1,000 (well over \$6,000 by today's standards).

Since only 31 stations in the United States had color capability, there wasn't much to watch. In fact, any color program broadcast in the 1950s was a big event. Just before the inaugural live Rose Parade broadcast, the first filmed series to have a color episode aired was "Dragnet" in December 1953. Other notable events were the first color broadcast of a president (Dwight Eisenhower in June 1955) and the first color broadcast of the World Series (Dodgers vs. Yankees in September 1955).



Even with these special broadcasts, it would be a long time before most Americans experi-

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Looking Back On 2005 The North Star Region Year in Review

By Bob Johnson
Our Pride and Joy Contributors

January Ron and Linda Fenlon, Alexandria, My Lincoln affair, several marvelous Lincolns

February, Arden and Mary King, Austin, Dark Green 1946 Lincoln Custom Coupe
March, Brian Carlson, Oakdale, article on Arizona auctions held in January, featuring Barrett-Jackson auction

April, Ray and Jeanine Nelson, Princeton, Maroon 1956 Lincoln Mark II

May, Mark and Becky Hoag, West Des Moines Iowa, Dark Green 1966 Continental Sedan

June, Richard and Mary Magner, Stillwater, Light Gold 1994 Lincoln Town Car

July, Ray and Arlene Schmit, St Cloud, Yellow Cream 1940 Mercury Convertible Coupe

August, Jerry and Millie Prettyman, Alexandria, 1956 Lincoln Premiere Custom

September, Dick and Bev Koop, Verona Wisconsin, Black 1956 Lincoln Mark II

October, Jack and Joyce Simler, Evansville, Pearl/Amethyst 1956 Lincoln Premiere

November, Jim and Anna Taplin, Champlin, Black 1957 Premiere Sedan

December, Elrod and Harriet Kaufman, Freeman, South Dakota, Black 1956 Lincoln Mark II

Sunday Brunch, a main winter activity especially while the snow is on the ground.

January 16th, Al Bakers, in Eagan, 23 hardy members braved 10 degree below weather. Ed Myhre won our door prize, a region denim shirt.

February 26th, potluck dinner and auction with the CCCA at Dick Pellow's garage in St Paul. About 65 members from both clubs attended this great annual event.

March 13th, Plymouth Radisson, 23 members enjoyed great food and atmosphere. Our door prizes were won by Bob Gavrilesco, a black Lincoln flag and Ray Nelson, a region denim shirt.

April 17th, Chickadees, Woodbury, 35 members enjoyed great food and weather. Brad Yoho, Stillwater, attended his first event and won one of our door prizes, a black Lincoln flag, Jim Bergstrom won a region denim shirt.

June 12th, North Coast Restaurant, Wayzata, 19 members attended brunch in the very ornate old Minnetonka Boat Works building. The first of our region license plates were given to attending members.

November 13th, Piccadilly's, Mahtomedi, this year end brunch was attended by 48 members who braved cold wind and rain to enjoy great food and friendship. Our door prizes were won by Ed and Linda Haedtke, Andover, a black Lincoln flag; Tim and Gaye Purvis, Cottage Grove, and Brad and DJ Johnson, Maple Grove, won 2006 North Star Region calendars.

North Star Region Lincoln Car Shows, The awards are peoples choice, voted on by Lincoln owners that show a Lincoln. The Best of Show can only

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enced color television in their living rooms. Those indelible images from the November 1963 Kennedy assassination-ten years after the Rose parade colorcast-were still in black and white. The tide began to turn in the early '60s, after about half-a-million color sets had been sold. Walt Disney's "Wonderful World of Color" began in 1961. The first color cartoons, the "Flintstones" and the "Jetsons," began in the fall of 1962. However, to baby boomers and their parents, one show would come to define the move to color television. The first episode of "Bonanza" aired on Sept. 12, 1959. Shot on location in the scenic Lake Tahoe area, this NBC western was filmed in color to showcase color technology from RCA, NBC's parent corporation. At first, Bonanza aired on Saturday nights, where it bombed in the ratings. Kept alive simply because it was in color, the show was moved after its first two seasons to Sunday nights, where it found an audience and became a huge hit for 14 seasons. From 1964 to 1967, "Bonanza" was the single most watched television program in America. The year 1966 also signaled NBC's switch to an all-color network. During this period, sales of color television sets fi-

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Directors Message January 2006

by Bob Johnson

I hope that each of you had a great Christmas with family and friends. We had a great Christmas and really enjoyed the grandchildren. What a white Christmas season we had with all the snow. I believe we were getting spoiled, when minimal shoveling or plowing of snow was required the past few years. I now realize that it is easier to plow three feet of snow than it is to pump out three feet of water after a hurricane. We may have cold weather but our seasons are more predictable.

Looking back over the past four years on being your Region Director, the new friends and fun Mary and I have had made the time just fly.

To those of you who are long time members we thank you for your continued support and interest in this Lincoln hobby that we share.

For those of you who are new to the North Star Region, we welcome you and hope that you stay with us for many years to come. We have had a fun time and really enjoy all the new friendships and great Lincoln cars you have let us see. Lincolns may be the reason for the club, but it is the great friendships and fun that keep us staying in the Club.

I will again be attending the LCOC Winter Board of Directors meeting February 3 -4, 2006, in Daytona Beach Florida. Again, my main theme is to try making attending National Car Shows easier and more fun for LCOC members. This year we will be electing a new set of officers, Doug Mattix is retiring after nine years as our President. We will try getting a driving event as part of the National Car Show, with a People

Choice Award as a way of getting more members to participate in these shows.

Toward the middle of January, we will be sending out renewal notices for your North Star LCOC Region membership. Please send back to Dave Gustafson, as soon as possible, as that will make his job so much easier.

Our first event for 2006 is a Sunday Brunch, January 15th at Al Bakers in Eagan at 11:30 AM.

Please RSVP to Bob Johnson, 651-257-1715 or email arbor-bob41@aol.com by Thursday, January 12th, as we will be making reservations for 30 to 45 people. We have been to Al Bakers several times; it is a very nice place with great food at a reasonable price.

We still need "Our Pride and Joy" articles about your Lincoln. This winter is a great time to write that article about your car that you keep putting off during the summer because you were to busy. Please share your story about your car with all of our members, we would like to know how you got it, what you enjoy about it, what you have done to it or have left to do. Please send your article to Dave Gustafson, he can only do the newsletter with material that you send him, so get busy.

As always, keep the journey continuing in our marvelous Lincolns. Mary and I wish you a very special and happy New Year.

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 nally took off. By the end of '60s, the black-and-white era was over.

As with the current transition to digital television, the road to color also took a complex, tortured path. The earliest recorded patent for color television dates back to 1904 in Germany. A steady stream of developments occurred from then on. In 1940, CBS, under the leadership of Peter Goldmark, designed a mechanical color system based on designs from the 1920s. In 1950, the FCC named the CBS technology-called the Field Sequential Color System-the U.S. national standard.

Competitor RCA sued to stop CBS's technology. Though RCA eventually lost the lawsuit, it won the technology war by causing delay. The CBS system had a temporal alias problem, with 144 fields per second compared to NTSC's 59.94-and was incompatible with the more than 10 million black-and-white TV sets that had been already sold.

Consumers avoided expensive, incompatible TV sets that could receive little color programming. Eventually, sluggish sales and a prohibition on color television receiver manufacturing during the Korean War caused the CBS initiative to fail.

RCA followed the war with a better design, based on the 1947 patent application of RCA researcher Alfred Schroeder for a shadow mask cathode ray tube. RCA's improved color system employed a shadow mask full of tiny holes. Electron guns, one each for red,

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Pride and Joy continued...

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with interior reupholstered to match the outside paint.

Though the years the only mechanical problem that I had was the power steering gear. I have had the steering gear rebuilt 3 times to the tune of \$2,000.

One hot summer night in 2002, I was coming down University Avenue, by Dale Street, headed for the Lincoln car show on Wabasha in St. Paul when the car started to cut out. It seem like the fuel pump to me, feathering it seem to help. We headed back to Andover. After checking the fuel pump volume, I



Not to be confused with any other make, this is a Lincoln.

found very little gas coming out of the fuel line. Lucky I had made it home. On Monday I called Kanter and for \$100 I had a rebuilt sitting on my door step in 4 days. I have had good luck with this old car as it has never left me sitting anywhere. During the winter of 2004, I pulled the engine and transmission. Put in new gaskets, seals in the engine, and painted the engine. I hired a company to reseal the transmission. I also had the steering gear resealed for the third time. It has been run-

ning well since.

Saturday nights during the summer we enjoy driving around Lake Calhoun, and Lake Harriet in Minneapolis. We then head towards Lake Street then into St. Paul with a drive through Porky's drive in.

The summer of 2005, I added new wire wheels and tires. Evidently in my haste of putting the rear skirts on the car I had not latched one tight. I had driven all the way from Andover to the Uptown area when I heard a bang. By looking in my rear mirror I could see my skirt sliding along the pavement and ended up under a parked car., I got the skirt from under the vehicle and surveyed the damage. It was scrapped up but no dents. This was a lesson for me to double check when I latch the skirts. I was so happy that no one drove over it before I retrieved the skirt. I ended up taking the skirt to the paint shop and they did a perfect match. No one would ever know. Being a pearl paint it is a little tricky to match.

Each time I sit behind the wheel, turn the key, press the button and hear that engine purr under the hood, I get great enjoyment from owning this one of a kind "54 Lincoln Capri".

Editors note: Our sincere thanks to Ed Haedtke for this fine story on his great looking 1954 Capri. We look forward to seeing it again next summer.

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green and blue, targeted light through the holes to create phosphors for each primary color.

Most importantly, it avoided the trap that had caused failure for CBS. RCA's new system was backwardly compatible with the existing black-and-white television system. Color programs could be received in black and white on standard 6 MHz TV channels. RCA's contribution was rolled into the color standard that came to be known as NTSC, and was approved by the FCC in late 1953.

Ed Reitan, then ten years old, remembers being rustled out of bed very early the snowy morning of Jan. 1, 1954 for a ride in the family Studebaker to the Paxton Hotel in downtown Omaha, Neb. In the lobby, he swept past a placard displaying General David Sarnoff's picture as he entered a "dark and mysterious grand ballroom" filled with about 400 people.

"Across the side wall of the pitch-black ballroom were five flickering television receivers," he said. "Three were conventional 21-inch black-and-white sets. But between them were two bulky, red-mahogany cabinets with small but incredibly beautiful color pictures on them. The cabinets had only 12-inch screens, so tiny and blurry that you had to look at the larger black-and-white screens to recognize detail. But it was color and it was gorgeous-rich Technicolor reds, greens, and blues."

Reitan retained a vivid memory of the rich velvet

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Looking Back on 2005, continued....

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be won once by a specific car.

Saturday May 7th, Sixth Annual All Lincoln Car Show, at Whitaker Lincoln-Mercury, Inver Grove Heights. 28 beautiful Lincolns braved cold rain showers to attend the car show. People Choice Awards for Best of Show:

First Place - Tom Brace, Falcon Heights, with a 1937 K 2 window sedan

Second place - Floyd Homstad, Plymouth, with a 1962 Continental Convertible

Third place - Bob Roth, Plymouth, with a 1978 Continental Mark V

Long Distance - Ray and Jeanine Nelson from Princeton, with a 1957 Lincoln Premiere

Our top door prizes were won by Dave Bodziak, a region denim shirt and Jim Bergstrom won a black Lincoln flag.

We want to thank Chuck Whitaker for putting on this Lincoln Car Show at his dealership, the great BBQ lunch and donation of Lincoln Baseball caps for door prizes.

Saturday July 16th, 3rd Annual Out State Lincoln Car Show, at Juettner Motors, Alexandria. We had 21 Lincolns attend on a hot and sunny day, with the temperature in the mid-nineties. We all should thank Oberg's, Vanatta's and Nelson's for driving so far with out air conditioning in their cars. People Choice Awards for Best of Show:

First place - Jerry and Millie Prettyman, Alexandria, with a 1956 Lincoln Premiere Custom

Second place - Vaughn Ebbighausen, Fergus Falls, with a triple black Lincoln Mark III

Third place - Jack and Julia Vanatta, Minneapolis, with a all original 1946 Lincoln 4 Door Sedan

Long Distance - Bruce Crawford, South St Paul with a 1979 Lincoln Continental 4 Door Sedan

Our top door prizes were won by Vaughn Ebbighausen, a black Lincoln Flag and Ray Nelson won a Lincoln Wrist Watch

We want to thank our hosts JR Richards and Mike Juettner for putting on this Lincoln Car Show at their dealership. We had a great time because of their hospitality, which included a fine lunch and door prizes.

Saturday October 1st, 2nd Annual Lincoln Car Show, at Coon Rapids Lincoln Mercury, Coon Rapids MN. We again had fantastic weather, mid 80's and 31 classic Lincolns made the drive to Coon Rapids. We had 9 Lincolns that were shown for the first time.

People Choice Awards for Best of Show:

First place - Ed Haedtke, Andover, with a pearl white 1954 Lincoln Capri Convertible. This is the first time the car was shown at any Lincoln event, what a beauty

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 purples on the cape of a horseman riding in the parade past the two NBC (prototype pre-production RCA TK-40) cameras. "Suddenly it was no longer a dull black-and-white world, just like Dorothy opening the door to Oz, the world was now in living color," he said.
 Reitan recalled that he was so excited, his father had to practically drag him from the RCA demonstration. He peppered his father with questions about the 90-minute WOW-TV, (Omaha's NBC affiliate, now WOWT-TV) color broadcast all the way home. The day had made a life-long impression. Today, Reitan, a developer of air-traffic control systems who lives in Los Angeles. He also personally owns one of a handful of the known remaining RCA Model 5 prototypes made for the Rose parade broadcast. In its coverage of the 1954 Rose parade broadcast, "The New York Times" said, "With so many sets in operation, each subject to relatively critical tuning controls and possible vagaries of electronics, the quality of the tinted images from Pasadena undoubtedly varied on some receivers. But, overall, there is no question that the essence of the parades' panorama of color was projected successfully on home screens some 3,000 miles away. In comparison, the monochrome pictures seen on existing receivers seemed virtually meaningless."

From the Internet...

Looking Back on 2005, continued....

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Second Place - Jeff Eisenburg, Plymouth, with a 1956 Lincoln Mark II

Third Place - Jack and Joyce Simler, Evesville, with a 1956 Lincoln Premiere

Long Distance - Kevin Sherek, Virginia, who drove a 1962 Lincoln Continental Sedan

Our door prizes won by Ed Haedtke, a black Lincoln flag and Kevin Wilson won a North Star Region calendar. Bob Jenkins, General Manager, Coon Rapids Lincoln & Mercury, gave a cutlery set to everyone who registered a car in the car show.

We want to thank Bob Jenkins and his staff for putting on this Lincoln Car Show at his dealership. We had a great time, met new Region members, saw new classic Lincolns, it doesn't get any better than this.

August 20th, Down Town Saturday Night, Kellogg Boulevard, St Paul, we had 13 Lincolns on a cool rain free evening. We hope that the city of St Paul continues this venue, it is a place to enjoy all classics and hot rods. The Zephyr or Continental V-12 will draw a crowd, just like a magnet, people just enjoy looking at the fine lines of a Continental.

Caravan/Tour, to LaCrosse, Wisconsin, Dahl Automotive (Lincoln and Mercury), Saturday, August 13th. Fourteen Lincolns made the two and half hour trip, along the scenic Mississippi river from Hastings to Lacrosse. Harry Dahl, served us BBQ chicken with all the fixings and

no one went away hungry. After lunch Harry led 19 Lincolns in his 60's Lincoln Convertible to his Ford dealership where his Ford car collection is across the street. We want to thank our host Harry Dahl, for a terrific BBQ lunch and the opportunity to see his great Ford car collection.

Annual North Star Region Picnic, Sunday, September 11th, hosted by Roger and Barb Wothe, at their Environments Facility. Once again great hosts Roger and Barb did a fantastic job on this picnic. Thank you, for preparing the great food and letting us share your great facility. The picnic was attended by 55 members who also drove 24 Lincolns for us to enjoy. Ed Myhre again conducted our annual auction, he did a great job and makes it a lot of fun. The auction again paid for our picnic with \$158 left over after expenses. Door prize winners were Kevin Wilson, who won a Lincoln Wrist Watch and Lloyd Pearson, who won a Lincoln Wall Clock. We had several new members attend the picnic, Nick Duerkop & Sue Olson, from Houston, Brad & DJ Johnson, from Maple Grove, Bill Holaday, from Monticello, and Richard Proctor, from Minneapolis.

*January 15th, 2006
 Sunday Brunch
 Al Bakers*

See details in attached flyer.

Technical Tips by Ron Fenelon....

**POWER WINDOWS
DIAGNOSING AND REPAIRING**

Power windows are sure nice when they work as intended. But when they don't, what is wrong, and how do you fix it??

We have owned 11 Lincolns from a 1954 thru the 60's, 70's and 88, and a 2000 LS. On these cars, I have had to repair one or more power window systems on 9 of these 11 vehicles. Only the 62 and the 2000LS didn't require a window system repair. Of all of these repairs, only one was a window switch(1965), and one was a motor mounting bracket (1954). The remainder all were motor oriented.

On the 50's thru the 1996 model Ford cars, the Power Window System consisted of switch(s), Wiring, A scissors Lift Mechanism, and a motor to power the lift system. In 1997, this system was changed from a Scissors Lift to a Cable driven system. More on this later.

In my experience, 75 to 80 % of the systems problems are motor associated, 10 to 15% are switch related, and the balance are due to dry slides and runners or broken rollers in the scissors lift and guide mechanisms.

In doing repairs to these systems, I have learned that FOMOCO has used the same basic motor Assembly since either 1963 or 1965, up and thru the 1996 Model Year when they changed to the Cable Drive Lift System for the 1997 Model year. These motor assemblies consist of the following individual parts or pieces:

1. Motor Housing with Permanent Magnets.
2. Wound wire Armatures (or rotor) with a segmented copper commutator at one end and a worm gear at the other end.
3. End Plate with Brush holder, wire Pigtail, and Electrical Connector.
4. Drive End Housing with Mounting Bosses.
5. Drive Gear Assembly, which was mounted in the End Housing.

6. Drive Housing Cover Plate.

Some interesting Observations about these six Drive Motor Components:

1. Motor Housings with Permanent Magnets are all identical for all Model Years.
2. Wound Armature Assemblies are all common for all Model Years.
3. End Plate/Brush Holder Assemblies are all the same except for the Wire Connector on the end of the pigtail. These connectors vary by model years and can be substituted to make the correct connections but cutting and soldering on the correct connection to an earlier motor.
4. Drive End Housings. Two different housing, one for right side and left side mountings. Merely a mirror image of each other.
5. Drive Gear Assemblies. Two variations. One with 9 tooth Drive Gear for all except Mini-Vent equipped front window assemblies. The Mini Vent windows require a 7-tooth drive gear.
6. Drive Gear Housing Cover Plate. Common on all Motors.

Trouble Shooting/Diagnosis

1. Window Works intermittently or sluggishly with Jerking Motions.
Causes - Bad Drive Gear Assembly requiring Rebuild or Replacement
- Slide Lubricant Dried up and not allowing window to move - Regrease
2. Window fails in the up, down, or partial up or down position.
Causes -High Probability - Gear Drive Assembly failed - replace
- Switch may be dirty - Clean Switch Contacts
3. Motor does not operate all.
Causes -Armature may have a non-conductive film on the copper commutator. - Clean commutator with emery cloth.
- Brushes may be worn out - replace brushes in Brush Holders.

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Technical Tips continued....

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In most cases, to affect these repairs (except for cleaning switch contacts), the inside door trim panel must be removed to allow for determination of what is really happening with the motor assembly and whether you are getting power to the motor assembly. A typical troubleshooting technique would be as follows:

1. Switch is getting power to motor?
If yes, is motor able to run in either direction?
If motor attempts to run, but window will not move, check and lubricate slides.
If No, Clean Switch contacts or find open circuit in wire harness.
2. If power is present at the motor, and it doesn't run in either direction, remove the motor assembly and disassemble the end plate with pigtail. If the Armature (rotor) has a black film on the commutator, clean this off with emery cloth and reassemble the endplate and brushes to the Motor Assembly. If the motor still doesn't run, remove the cover plate from the gear drive and determine if the Nylon outer Drive Gear which contacts the worm gear is cracked and binding on the housing. If so, replace the gear drive assembly.
3. If the motor runs in both directions but won't move the window, remove the motor assembly and repair or replace the drive gear assembly.

Now you ask the question "How do you get the Drive Motor out of the door without removing the entire Scissors Lift Assembly? I learned the hard way (after removing the entire lift assembly with Motor from a 69 Mark III), that Ford came to our rescue starting with the 1970 Model Year. To facilitate the easy removal of the motor assembly, Ford has provided three dimples in the inner door sheet metal. These dimples are directly opposite of the 3 motor mounting screws. After you have removed the inner trim panel, by

placing your hand inside the door and locating the motor, you will feel the 3 mounting screws on the motor Drive housing. You will also note that it is nearly impossible to get to these screws. But this will lead you to the 3 dimples. Using a 1/2 " drill or a drill piloted 5/8" hole saw, make 3 holes in the door inner panel at these dimples. This will expose the 3 mounting screws. Using a 5/6" socket or nut drive, remove the 3 screws, disconnect the wire harness, and lift the motor out thru one of the large openings in the inner panel. This process is made easier if you push the window to the up position when the motor is removed from the scissor mechanism.

Once the motor is out, you can use a 12-Volt power source connected to the two terminals to see if the motor will run in either direction to determine your next step in the repair process. If it turns but the gear won't turn, the drive assembly must be replaced or rebuilt.

If the motor doesn't turn in either direction, high probability is the commutator has a black insulating coating. This coating prevents power transmission to the armature. This coating is easily removed with emery cloth. I have also seen where the large outer drive gear is cracked and binds up the whole assembly.

The reason for the high failure rate of the drive gear assemblies is the the nylon rollers which dry up, crumble, and fail to transmit the motors power to the lift mechanism. Ford Service Management admits that these drive gear assemblies were a quite high replacement item. Most dealers no longer stock this assembly as a repair part, but they can order them. However, they can be obtained from NAPA, O'Riellys, Advanced Auto parts, and other local auto parts stores. Normally 9 tooth kits are in stock, and 7 tooth kits can be ordered. These kits retail for approx \$25 to \$30. I believe kits can also be obtained from the normal Lincoln parts suppliers like Bakers, Lincoln Land, etc.

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Technical Tips continued....

(Continued from page 10)

In my experience of rebuilding 12 to 15 motor assemblies, I have never experienced a defective armature beyond needing commutator cleaning. Occasionally the brushes may wear out, but not often. I have also experienced a broken outer drive gear in the gear drive assembly.

If you are an adventuresome repairperson, the failed nylon rollers can be replaced. I have made new ones from a 0.500" nylon bar stock, cutting them 0.400" long and making a generous radius on either side to facilitate assembly into the cavity in the outer nylon gear. Into the thoroughly cleaned outer gear cavity, place lithium grease in the roller pockets to hold the rollers in place, position the drive gear against the rollers, and using a vise or arbor press, carefully press these parts together. Good luck, and it is not fun; can be exasperating but it does work. Once this is done, place this assembly in the cleaned up motor housing, add additional grease, and replace the cover plate.

Reassembly is merely the reverse of the removal. The three mounting screws will re-center the motor on the scissors lift. Of course, before replacing the inner trim panel, cycle the motor in both directions a couple of times to assure every thing was repaired ok. This is also a good time to regrease the slide rails and the rollers.

Good luck, and any questions don't hesitate to call me.

Ron Fenelon may be reached at 320-763-4197 or email: rlf8536@rea-alp.com.

Our thanks to Ron for this informative article and we eagerly await future contributions from him on other subjects of interest to us technical neophytes.

1953 Lincoln Capri...

What once was old is new again...



1953 Capri Two Door Hardtop

Clean-lined, without gingerbread or superfluous brightwork, it is a superb achievement in functional design. "Come accept Lincoln's invitation to depart from the past." That could be an advertising slogan for the Lincoln LS, but it actually applied to the '53 Lincoln Capri. Yes, FoMoCo used the Capri moniker decades before hanging it on a European Mustang.

One especially modern-looking detail is the tail-light lenses, which have a semi-clear, unfluted red outer cover over a more typical bullet-shaped red lens. The effect is similar to that used on many cars today. Fog lights are integrated into the bumper, also according to today's practice.

The Lincoln featured a load of power-assisted equipment as standard fare, such as power steering, power brakes and four-way electric power seat, an industry first. A Hydra-Matic slushbox sourced from GM was standard equipment for the first time in 1953, starting a manual transmission drought in the Land of Lincoln that only ended with that more recent "invitation to depart from the past," the LS.

The Capri is probably best remembered for its dominance of the Carrera Panamericana road race in Mexico, where it swept the top four spots in

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The 1953 Lincoln Capri continued....

1952 and '53. The 317-cid engines were hot-rodged with high-performance cams, porting and polishing and modified carburetors. The race cars could reach 130 mph, a top speed out of reach of the stock 205-horsepower model. But the '53's 205 horsepower was a useful 28 percent rise over the previous year's output. The increase was the result of bumping the compression ratio up to 8.0:1 from 7.5:1, using larger intake valves and ports and a higher-lift cam. A new four-barrel carb configured with two primary venturis and two secondaries was a big innovation for the '53.



1953 Capri Convertible

The Capri appeared in 1952 as Lincoln's high-line model, with the Cosmopolitan manning the entry-level spot. The '53 is visually identical, save for a change from script to block lettering on the hood, but the car enjoyed a horsepower upgrade that makes it nicer to drive on today's highways.

John Sweet found his rare '53 Capri convertible in 1996. He drove it for a year and then had it refurbished by New York Lincoln specialist Ed Poole. The convertible cost \$4,031 in 1953, but Sweet's immaculately restored car could be worth as much as \$75,000 today, according to Poole. "I think there are only about 14 of them in the world," he said. What happened to the rest of the 2372 beautiful convertibles built that year? "The second owners turned them into hot rods," he complained. "They were people that used them pretty hard."

Hmmm, ne'er-do-wells, eh? "I was one of those guys," admitted Poole. "I beat it all up like a young fool."

Sweet caught the Lincoln bug as a young man, too. He got a ride in a 1947 Continental coupe, "and I never forgot it," said Sweet. A few years later, his neighbor bought a '53 convertible, which obviously also made an impression. In 1976, Sweet got his own Lincoln, a '46 V12.

But as nice a car as that is, it isn't one that he can drive regularly. Hence, the '53, which Sweet and his wife drove to a Lincoln club show (where the car won) in Cape Cod from their home in Virginia without any trouble. "It is a great car on the road," said Sweet. "You can keep up with traffic today. That is what really sold me on it," he added. In comparison, his older Lincoln is much less driver-friendly. "There is no comparison to my '46," Sweet said.

The car's leather interior, red in this case, was standard equipment on all '53 convertibles. The enormous steering wheel dominates the driver's view and is decorated with a large chrome horn ring that would look at home in Flash Gordon's rocketship.

Okay, so maybe not everything about this car forecast modern tastes. But the AM radio reflected the growing interest in entertainment on the road, even if it is a far cry from today's GPS navigation screens and back-seat televisions.

Article courtesy of automotive writer Daniel Carney and AutoWeek.

Interesting Articles Wanted for Publication in the Northstar News

Mail to "Northstar News",
308 Brandywine Drive
Burnsville, MN 55337

Great Cars For Sale..... Other Stuff too....

Ron Fenelon, club member, Alexandria, MN, needs to reduce the size of his fleet. The following cars are now available:

1969 Mark III, 71,500 miles. Champagne Pewter Metallic, with dark brown/black twill top, with gold leather interior. A/C needs to be recharged after compressor and clutch replaced with new components. New heater core, AM/8 track. \$7,500

1978 Mark V Diamond Jubilee in Blue. Blue Velour interior, with 460 and all options except CB radio. Car runs and drives well. Still on California title. All surfaces repainted from side pinstripes up. A very nice driver. 67,000 miles \$4,500.

1979 Mark V Collector Series. Triple white with white leather interior. No sun roof or CB radio. Purchased from original owner in California. Car has won numerous Pre-Primary and Primary 1st place awards in National LCOG meets. Has all collector series amenities including wood toned keys. New correct Michelin X WSW tires. Needs nothing. 69,000 miles. Have factory window sticker \$10,900

1979 Mark V Collector Series. Rare Diamond Blue Metallic Paint (1 of 197 painted this color in 1979). Blue leather interior, with power moon roof and 40 channel CB. Car has been completely repainted to show quality, and correctly stripped. Has won a Pre-Primary 1st place in LCOG competition, but needs some detailing to be a 1st place primary car. Has tool kit, owner's manual, and garage door opener. No umbrella. 88,000 miles with newer correct Michelin X WSW tires. \$8,500 Both Factory Interiors Available...

1979 Mark V Collector Series Factory Kasman Blue Velour Interior Components. Both bucket seats, Seat adjusters available, both rear seat cushions. Padded leather console, padded leather dash cover, both dash face plates. In above average to good condition. Make me an offer (not ridiculously low!)

Call Ron Fenelon at 320-763-4197 or email rlf8536@rea-alp.com for more details on these Lincolns

FOR SALE

1948 V12 Continental Cabriolet Medium Blue
\$20,000/ Best Offer
Jim Jacobson - 612-205-5499

150 - LINCOLNS - 150

I have over 150 1960's Lincolns now, mostly parts cars. More than I will ever use. I have now decided to sell my extra parts; sheet metal, trim, whatever...

If you are restoring a Lincoln of this era and need parts, please contact me now. I may have what you need.

Please call Gordy Jensen at 952-851-2721 or Gary Arneson at 612-781-5148

STORAGE

AVAILABLE

Safe, Secure Storage for
your classic
now available

Southwest Metro Location

Contact
Gary Rosenwinkle

520-219-1550

Preview of Coming Attractions

The following include scheduled club events

- January Sunday Brunch, Al Bakers, Eagan January 15th, 11:30 AM RSVP Bob Johnson at 651-257-1715 by January 12th.
- February Pot Luck with CCCA
- March Sunday Brunch. Date and place to be determined
- April Sunday Brunch, Paradise Inn, Balsam Lake, Wis, April 30th 11:30 AM
Caravan meeting place to be determined.
LCOC Western National Meet, Scottsdale, Arizona, April 20th- 24th
- May Saturday May 20th, 10AM to 3PM
7th Annual Car Show, Whitaker Lincoln - Mercury
- June Picnic Ray Nelson's, Princeton MN, Saturday June 17th, 11:30 AM
LCOC Eastern Nation Meet with CCCA, Gilmore Museum, Kalamazoo Michigan
June 2nd-4th, this will be the "Grand Lincoln Experience" with LOC and LZOC.
- July 4th Annual Out State Car Show – Southern Minnesota
Rochester or Albert Lea - to be determined
Saturday night on Kellogg Blvd
- August Caravan tour/overnight to Dick Koop's Orphan car collection, Verona, Wisconsin
- September Annual Region picnic at Roger & Barb Wothe's Environments.
Sunday, September 24th 11:30 AM
LCOC Mid-America National Meet, Indianapolis Indiana, September 14th -18th
- October 3rd Annual Car Show at Coon Rapids Lincoln - Mercury. Saturday, October 7th,
10AM to 3PM
- November Year End Sunday Brunch, November 19th 11:30 AM, Machine Shed, Woodbury

If you have any ideas for future club activities, please let your board members know. We welcome your suggestions for future events. Call us today, or email: Activities@northstarlcoc.org

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