

Orange County Model A Ford Club

THE DISTRIBUTOR

55 Years

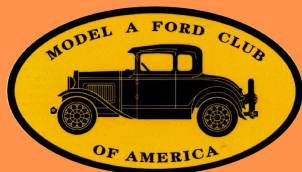


Volume 57, Issue 1

January, 2017

Editor Tissy Smith-Hatcher

Step into a
new year and
kick your
troubles out
of the
window



Inside this issue:

President's Message/ New Members & Changes/Sunshine & Sorrow	2
Tours & Activities/ Calendar/Swap Meets	3
Board Member Contact Info General Meeting Minutes	5
2017 Pancake Break- fast Flyer	6
Tap Clearances and	7
Membership Renewal Form	11

Installation Banquet January 8th-We'll be there

happy
NEW
Year!



Get those dues in so you
can be included in the
Roster

President's Message



Don Ratzlaff
President

Christmas has come and gone and won't be back for another 12 months. Hope you all enjoyed a special day with family and friends. Carolyn and I spent Christmas eve and part of Christmas Day with our son's family in Santa Clarita. There is nothing quite like interacting with 5 year old twins and their excitement with all things Christmas.

Hey, how did you like the December Club Meeting agenda? I thought you all did a great job!

The new year is fast approaching and with it comes the new board members: Jim Runyon as President, Marilyn Hawkins as Treasurer and Norm Kredit as Secretary. They will join the existing board members: Ken Blankshain as Technical Advisor, Tissy Hatcher as

Newsletter Editor and Frank Reese as Vice President/Activity Director. They are good people and will do a good job in keeping the club viable. Your help is needed in support of the monthly Technical sessions and Activity agendas. Please sign up to host one or more sessions.

In closing, let me wish you all a Happy, Healthy and Meaningful New Year!

Remember now; take your Model A out for a drive; find out what it sounds like!

Enjoy, Don R



McMillan, Jean—city changed address to North Tustin, Cell: 714-679-0124
Brown, Frank A.—new phone 562-301-0997



SUNSHINE & SORROW

By Marilyn Hawkins

Sunshine - An animated card was e-mailed to **Rick & Louise Hall**, who became first-time grandparents of twin girls, Ryann Chantelle and Reagan Rebecca born on December 11.

Sorrow – **Mel Collings** was having chest pains early part of December. He was in the hospital overnight for a stent operation on December 16. Mailed a get well card.

May you always have love to share, health to spare, and friends that care.

Upcoming Tours and Activities Calendar



Jan 7 (Sat) First Saturday Breakfast BS Session ~ 8AM at The Katella Grill, 1325 W Katella Ave, Orange



INSTALLATION Banquet

Jan 8, 2017 Annual Installation Banquet at Fullerton Elks' Lodge, 1400 Elks View Lane, Fullerton. No host bar at 1:30PM, buffet at 2PM. Contact Kathie McCall to reserve your space.



Jan 12 (Thu) General Meeting will be at 7:30PM. Guests are always welcome. Board meeting at 6PM

Jan 14 (Sat) Join Ed & Patty Cote for the Night with the Knights musical concert at Holy Family Church, 5:30PM-7:30P, 566 S Glassell St, Orange

Jan 15 (Sun) SCR meeting, 1:30pm at Walt & Carla Hibbard's, 19207 Ronald Ave, Torrance, 310-3711-3008



Jan 26 (Thu) Fourth Thursday Breakfast 8:30AM Flappy Jack's, 2848 Santiago Blvd., Orange 92867, 714-283-2800. For info contact Terry Collings at 714-970-7194



Feb 4 (Sat) First Saturday Breakfast BS Session ~ 8AM at The Katella Grill, 1325 W Katella Ave, Orange



meeting at 6PM

Feb 9 (Thu) General Meeting will be at 7:30PM. Guests are always welcome. Board



at 714-970-7194

Feb 23 (Thu) Fourth Thursday Breakfast 8:30AM TBD For info contact Terry Collings

March 24-25, 2017 CCRG Jamboree in Porterville, CA. Hosted by Porterville Happy Honkers. For info: Dr. David Bockman, carnut123@gmail.com
Apr 2, 2017 Annual Pancake Breakfast, Hart Park, 701 S Glassell St, Orange, CA

Reminder to club members

All donations made on behalf of the club must be pre-approved by the Board

Swap Meets/Car Shows

Jan 8 (Sun) Long Beach Hi Performance Swap Meet & Car Show, Veterans Stadium, 5000 Lew Davis St., Long Beach, 6am-1pm

Jan 15(Sun) Pomona Swap Meet & Classic Car Show, 5AM-2PM, Pomona Fairplex, Fairplex Drive and McKinley Ave, Pomona 91768 Enter at Gate 17.

Jan 28-29 Turlock Swap Meet, at the Stanislaus County Fairgrounds, 900 N. Broadway, Turlock, CA 95380

Jan 29 (Sun) Long Beach Hi Performance Swap Meet & Car Show, Veterans Stadium, 5000 Lew Davis St., Long Beach, 6am-1pm

Feb 12 (Sun) Long Beach Hi Performance Swap Meet & Car Show, Veterans Stadium, 5000 Lew Davis St., Long Beach, 6am-1pm

Feb 24-26 Big 3 Swap Meet, Qualcomm Stadium, 9949 Friars Rd, San Diego, CA 92108

Mar 5 (Sun) Pomona Swap Meet & Classic Car Show, 5AM-2PM, Pomona Fairplex, Fairplex Drive and McKinley Ave, Pomona 91768 Enter at Gate 17.



Join us for good food
and company

**Fourth Thursday
Breakfast**

January 26 8:30am

Flappy Jack's
2848 Santiago Blvd
Orange 92867
714-283-2800

Info: Terry Collings
714-970-7194



**A Night With the
Knights
with Ed & Patty Cote**

A concert of uninterrupted music
featuring our very own Minh
Nguyen, organist, and Ms. Chelsea
Chaves, a soprano who has
performed with the Astoria Music
Festival, Pacific Symphony, the
University of Southern California, and Opera Santa Barbara.

The concert will be at the Holy Family Church on
January 14, 2017 from 5:30 p.m. until 7:00 p.m located at
566 South Glassell Street, Orange, CA

Leave your troubles and worries at the door and enjoy.

2016 BOARD MEMBERS

President – Don Ratzlaff
 714-529-5062/wadedon@pacbell.net
VP/Activities – Frank Reese
 714-970-6262/Rfrtrust34@yahoo.com
Secretary – Kathie McCall
 714-633-0946/dkmccall@socal.rr.com
Treasurer – Tom Weaver
 714-637-0227/tweaver@surfside.net
Technical – Ken Blankshain
 714-392-1438/ken.blankshain@gmail.com
Editor – Tissy Smith-Hatcher
 714-546-8554/tissysmith1@gmail.com
Immediate Past President – Rick Hall
 714-282-0499/rickandlouise@socal.rr.com

COMMITTEES

ACCC Representative – David Knapp
 (949) 243-5210/dknapp@dslextrreme.com
Breakfast Committee – Terry Collings
 714-970-7194/mtcollings@sbcglobal.net
Club Greeter – Doris Marshall
 310-378-5061/dandd51@gmail.com
Election Chairperson – Joe Goff
 949-768-4627/joe@abt-tax.com
Historian & Librarian – Dick Smith
 949-770-6847/modeladick@yahoo.com
Membership Chairperson – Scott Limbrock
 948-981-8776/sbk@cox.net
Merchandise Director – Cathy O'Brien
 714-777-0771/yglrden@aol.com
Pancake Breakfast Setup & Coordination –
 Frank Reese, 714-970-6262/Rfrtrust34@
 yahoo.com and Mark Schwing, 714-970-
 1696/mschwing@earthlink.net
Raffle – Ed Cote
 714-542-6161/patricia.cote@att.net
Refreshments – Esther Goff
 949-768-4627 and Carolyn Ratzlaff
 714-529-5062, dcratzy@gmail.com
Regional Representative, SCRG –
 Carolyn Ratzlaff, 714-529-5062,
 dcratzy@gmail.com
Sunshine & Sorrow – Marilyn Hawkins
 714-730-4026/jmsinger@pacbell.net
Web Master – Chris Enright
 949-481-8780/webmaster@ocmafc.com

Please Note: Some information contained in our newsletter has been reprinted from other newsletters; we thank and acknowledge them.

General Meeting Minutes

OCMAFC General Meeting
Thursday, December 15, 2016
Wade Education Center at CHOC
58 in attendance/no Model A's



The membership was greeted by President Don Ratzlaff at 7:30pm. Flag salute led by Norm Kredit.

There were no visitors.

Minutes from November were approved without correction or additions.

Financial Records were briefly reviewed by Treasurer Tom Weaver.

Current membership is 169 family units. Renewals still pending by 01/30/2017 for inclusion in 2017 published roster, currently at 85 paid. Banquet payment of \$20.00 pp due by 12/20/16.

Activities: Frank Reese reviewed pending tour events including plans going forward for the 04/02/17 pancake breakfast. See calendar for dates of future events.

Ed Cote announced a planned free concert at Holy Family Cathedral in Orange for Saturday 1/14/17 @ 5:30pm.

Sunshine and Sorrow: Marilyn Hawkins reported that Mel Collings is currently hospitalized for a heart related issue. Rick & Louise Hall announced the birth of twin girls making them 1st time grandparents.

Babies will remain in NICU due to prematurity, Mommy doing well.

Don announced the need to replace Marilyn. Pam Heiland immediately Volunteered, followed by enthusiastic applause.

PROGRAM: With balloons, cake and much fanfare it was announced that today is Ed Cote's 70th birthday, resulting in a very off tune Happy Birthday chorus. Ed then proceeded to conduct the auction for a donated Car Polisher Kit resulting in a generous donation from Greg Witz.

Karen Gaynor conducted a table game holiday themed questionnaire.

Another game planned by Tissy Smith-Hatcher with multiple left/right gift exchanges guided by Ed Cote's reading of "A Christmas Story" somehow ended up with everyone participating actually going home with a present of some type.

Steve and Debbie Povich led the group in a Model a song and the "12 Days of Christmas", with MOST people participating.

Drawings: Membership Roster Drawing: Scott Limbrock's name was drawn, but alas he is currently residing in Texas.

Name Badge Cathy O'Brien went home with some \$\$.

No Hard Luck candidates tonight.

No Model A Driver drawing since there were no Model A's driven.

Many people furnished a plethora of wonderful desserts including the birthday cake, as well as coffee and other beverages. Thank you to all who contributed as well as Esther Goff and Carolyn Ratzlaff who faithfully organize this each month.

We were finally done by 9:30pm and a good time was had by all at this final meeting of Don's reign as club president. Thank you Don.

Submitted by Kathie McCall (final meeting as Secretary).

Orange County Model A Ford Club 56th Annual Pancake Breakfast Sunday, April 2, 2017 Hart Park, 701 S Glassell St., Orange

Breakfast from 8am-11am
Pancakes, sausage, eggs
juice & hot coffee

Bring your Model A,
family & friends for
a great time

Many raffle opportunities
Expecting 300+ Model A's on Display

For more info contact:

Frank Reese at 714-348-2507 or Don Ratzlaff at 714-529-5062

Tap Clearances and Cam

By Murray Fahnestock
Member, Society of Automotive Engineers

Valve tappet clearances are a fine field for discussion when good Model A friends get together and, since each is entitled to his own opinions, here's more fuel for the flames.

It is easy to be fooled by the apparent simplicity of the Model A Ford valve operating mechanism. But it is "precision" designed and tappet clearances must be precisely set. if best performance is to be achieved.

While made of a single piece of forged steel, the camshaft is said by Ford engineers to be the "most complicated" part of the Model A engine. Yet few Model A owners seem aware of its existence!

(While Model T Ford tappet clearances could be set at 1/64 to 1/32 inch, and the Model T would amble along at 35 miles an hour; the Model A with twice the power and speed is a horsepower of a different breed.)

Tappet Clearances and Cam



When your scribe was sent into the Engineering Department of the company and met the engineers who had actually designed the Model A valve operating mechanism; he learned a new respect for this vitally important factor in the operating performance of the Model A Ford engine. (Cont'd Page 8)

*Join us for the
2017
Installation Banquet
as we celebrate the
accomplishments of the
outgoing and
welcome the newest
Board and Committee
Members*

*January 8th
1:30pm - No host bar
2:00pm - Buffet served
Fullerton Elks Lodge
1400 Elks View Lane
Fullerton, CA
RSVP by December 20th
to Kathie McCall
\$20 per person (club to subsidize balance)*

(Cont'd from Page 7) After 35 years memory is a poor crutch, but I think Mr. George Pascoe was one of those who said "It all begins with the camshaft," as he went to filing cabinet for a 24 by 36-inch blueprint of an atomic size cam, on which had been calculated, for each and every one of the 360 degrees of camshaft rotation, the speed of the timing, and casually remarked "Of course you understand calculus."

Pleasantly flattered, I had to admit that, while I had slightly studied calculus in college, my present recollections of it were like those I had of the mumps, which I had enjoyed as a child ... or did I?

But Mr. Pascoe did what he could to explain the sweet simplicity of the Ford camshaft, and so shall I.

All valve stems lengthen when heated and this expansion may easily be as much as .008 to .010 inch. Since reliability comes first with Model A Fords, ample valve clearance was used. This is one of the reasons why Model A engines stand up so well under extreme conditions,

But ample tappet clearance tends to cause noise, as shown on other makes of 1930 cars, when the tappet was tossed swiftly up against the end of the valve stem (against the 36 lb. resistance of Model A valve spring) causing a definite "click." Also when the valve dropped on its seat, there was another "click," giving eight clicks per crankshaft rotation.

But Ford engineers had made a great improvement in the Lincoln engine cams, which was carried over into the design of Model A Ford cams, to eliminate the cause of this noise at its source, by using a "multi-speed" cam profile which might be fancifully compared with an "eight-speed" transmission! Model A Ford cams may appear to be the same as other engine cams . . . but they are not. They change speeds . . . *automatically*.

The Ford cam is designed so that when the tappet is on the heel of the cam, the valve is closed. As cam revolves, the tappet is moved up swiftly, to take up the .010 to .013 inch clearance between the tappet and the valve stem. But hark! Just as the tappet is about to contact the valve stem, a section of the cam is reached which has a "much gentler slope, so that the upward motion of the tappet is slowed down considerably. Instead of hitting the valve stem a hard blow, the tappet is eased up gently and quietly against it!

After contact has been made the cam reaches a section of greater slope and the valve is pushed open as quickly as possible.

When the point or nose of the cam is reached the shape of the cam is such that the speed is slowed down considerably, thus holding the valve open for a predetermined time.

Even though the Ford valves are quiet, they are also fast in action, because the cam "shifts" into high speed, the instant the tappet touches the valve stem, thus giving quiet opening of the valve. Also, because of the reduction of hammering, the Ford valves can be lifted farther than the valves in other cars, which do not have such highly intelligent valve action.

According to the factory blueprints, the "Velocity Chart" shows that the push rod is rising rapidly during the first 27 degrees of its stroke. Then the speed slows down, so that at 29 degrees, the tappet "almost hesitates" with practically zero movement and so "floats" into contact with the valve stem.

It is obvious that precisely and exactly at this point is the ideal movement for the contact, between tappet and valve stem, to occur. And correct tappet clearance makes it so.

After leaving the nose of the cam, the tappet then follows down the opposite slope of the cam, allowing the 36 lb. pressure of the valve spring to force the valve swiftly downward to its seat as rapidly as it was opened. However, just as the valve is reaching its seat, a second section (of lessened slope) is reached on the cam, thus slowing down the valve motion considerably. Instead of hitting the seat with a bang, the valve is placed gently and quietly on it. (See diagram on Page 10)

Then there is a sudden increase in cam slope, allowing the tappet to move away from the valve stem, until the heel is reached with the tappet once more at rest.

If we use too little tappet clearance, the contact occurs on the moderate velocity slope of the first 27 degrees of the cam. With the result that too little clearance greatly increases wear and noise, as well as throws the valves out of "time." (Cont'd Page 9)



OCMAFC thanks you for your continued support

**Orange County
Ronald
McDonald
House**

Deadline for submissions for the next

Distributor is

January 25, 2017

Submit all articles and ads to tismith@cookseylaw.com

or mail to

P.O. Box 10595

Santa Ana, CA 92711

(Cont'd from Page 8) If we use too much clearance, we pass the 29-degree point and get into the high velocity slope, where the acceleration is very rapid. This explains why, if we allow the engine to go so far, (without ever checking the valve tappet clearance) that the clearance reaches .016 to .017 inch, the tappet will strike the valve stem with a sharp rap, causing unnecessary wear and noise. Not only of the valve operating mechanism, but also of the seat in the cylinder block.

When the engine is developing its maximum 40 horse. power at 2,200 revolutions per minute, this cycle takes place in only 1/366th of a second, which seems a short enough period of time. But we must consider that each of the two sections of the cam (where the slope is lessened) and the tappet is laid gently against the valve stem, or where the head of the valve is placed quietly on its seat, occupies only 9 degrees on the cam. At 2,200 revolutions per minute, it takes only 1/14,000th of a second for the tappet to pass over this vital section of the cam. What happens in that infinitesimal period of time is what made the Model A Ford valve action so quiet!

Note: When the Model B, or "Improved Ford Four," was introduced, the recommended tappet clearances were: the same .010 to .013 inch for the inlet valves; but from .015 to .017 inch for the exhaust valves.

This suggests that Model A and Model B camshafts were not interchangeable. Part of the increase from the 40 hp of the Model A to the 50 hp of the Model B may have been due to a change in camshafts.

The camshaft is of special Ford carbon manganese steel, the manganese being used to give a combination of strength and hardness and ductility which makes the camshaft endure long service, together with the pounding of the tappets without appreciable wear. This is especially important in the camshaft, as otherwise the accuracy of timing of the valves cannot be maintained.

The large $\frac{7}{16}$ inch diameter of the camshaft not only adds strength, but also tends to prevent torsional (twisting) vibration caused by the intermittent impact of the valve tappets. This gives more accurate valve timing and means a smoother running engine.

The vertical rigidity of the camshaft, against the downward thrust of the tappets, is not only due to the size and strength of the camshaft, but also to the manner in which it is supported by three large camshaft bearings, all of 1-9/16-inch diameter. The length of these camshaft bearings are: Front. 1 1/2 inches; middle, 2 inches; rear, 1 inch.

In the manufacture of the Ford camshaft, an interesting method of quenching was used to avoid warping during the heat treatment. The camshaft was heated in a continuous furnace, 14 feet long and 5 feet square in cross section. This furnace had a mechanical pusher, and the camshafts rode through on rails laid on the hearth.

When up to heat, the camshafts were removed with tongs by an operator, and put into a quenching machine designed to prevent warping. This machine consisted of an upright (Cont'd on Page 10)

(Cont'd from Page 9) cylindrical tank, containing three vertical bars with sets of rollers. These rollers were clamped around the camshaft to hold it straight, while water was sprayed on it. The camshafts were not drawn. The hardening furnace was heated to 1470° Fahrenheit, and the camshafts remained in the furnace for 45 minutes. The output was 400 camshafts in eight hours.

The spiral gear, cut on the middle of the camshaft, drives the distributor and oil pump. Cutting the spiral gears for the distributor and oil pump drive on the middle of the camshaft eliminates the need for several separate parts and the labor of assembling them.

The Ford camshaft lifts the valves a distance of .287 inch.

The valve timing of the Model A Ford engine is: Intake opens 7 1/2 degrees before upper dead center. Intake closes 48 1/2 degrees after lower dead center. Exhaust opens 51 1/2 degrees before lower dead center. Exhaust closes 4 1/2 degrees after upper dead center. The two sides of the *cams* **are** not alike. the "like" side having a convex or rounded contour in order to give a smooth, quiet lift of the valve. The "drop" side of the cam is more nearly straight, so as to give quicker closing of the valve. This is different from the camshafts of many cars, which have both sides of the cams alike.

A coil spring, in the end of the camshaft, presses against the timing gear cover and holds the camshaft pressed toward the rear, thus eliminating any possibility of knocks due to endplay of the camshaft.

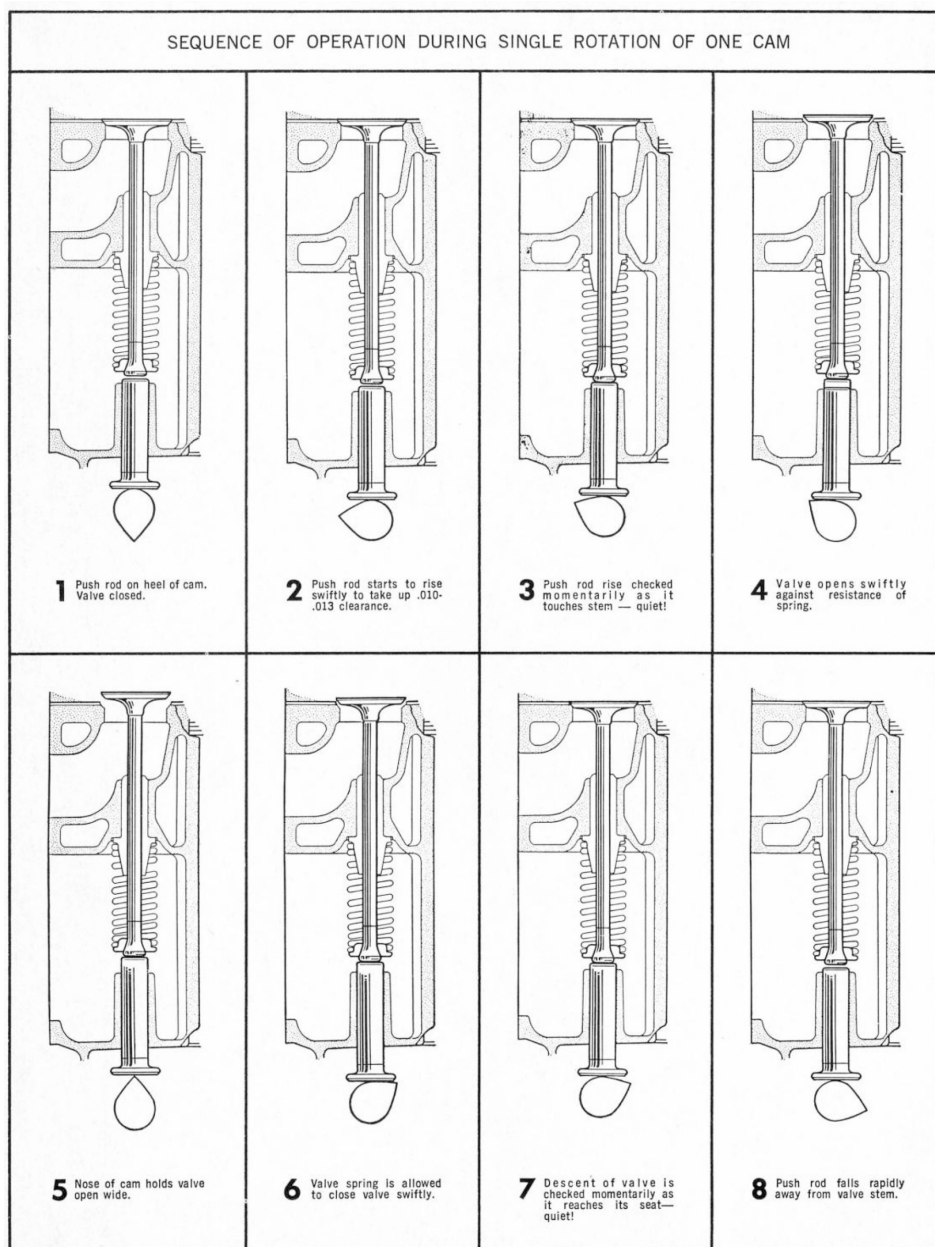
Some Random Notes

Spring tension varies from 35 to 40 pounds with valve closed, to 60 pounds with valves open.

Water in crankcase oil breaks valve springs, as they are under critical stress and even slight rusting weakens them.

At 80 miles per hour, or 4,000 engine revolutions per minute. a weight of lb. causes inertia load of 110 lbs. Noise is caused by combination of inertia, acceleration and spring load.

A supplement to the *Ford News*, of October 1931. gave tappet clearance of .0125 to .0135 inch, a difference of only .001 inch which seems rather close for average use.



2017 DUES INVOICE—You can use this form to submit your dues

**MEMBERSHIP
RENEWAL**
Annual Dues

Orange County Model A Ford Club

NAME(S): _____

AMOUNT: \$30.00

ANY ROSTER CHANGES?

If so, please list below:

Cars: _____

Telephone numbers: _____

Address: _____

E-mail address(es): _____

Any other changes: _____

Please check the current Roster for accuracy!!!!

Make your check payable to Orange County Model A Ford Club
(OCMAFC) and mail to the club at:

P.O. Box10595
Santa Ana CA 92711

**Payment MUST be received by 1/31/17 to be included in the club's
2017 Roster**

ORANGE COUNTY
MODEL A FORD
CLUB

Post Office Box 10595
Santa Ana, CA 92711

E-mail: info@ocmafc.org

Next General Meeting

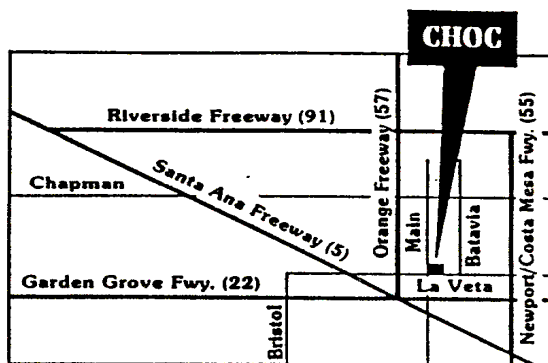
7:30 PM

[Second Thursday of every month]

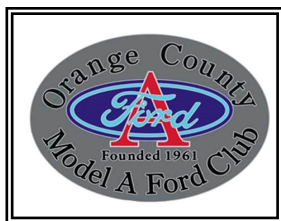
Next Meeting January 12, 2017

CHOC Hospital Complex

455 South Main Street, Orange, CA



From Main Street, turn east on to Providence Ave. and immediately on your right, enter the structure and park on the second level. Meetings are held in Building 2 in the Wade Education Center-2nd Floor. Access meeting room through the double door entry off the 2nd Floor parking structure



Return Address:
Post Office Box 10595
Santa Ana, CA 92711

We are on the Web!
www.ocmafc.org

To:

First Class Mail

