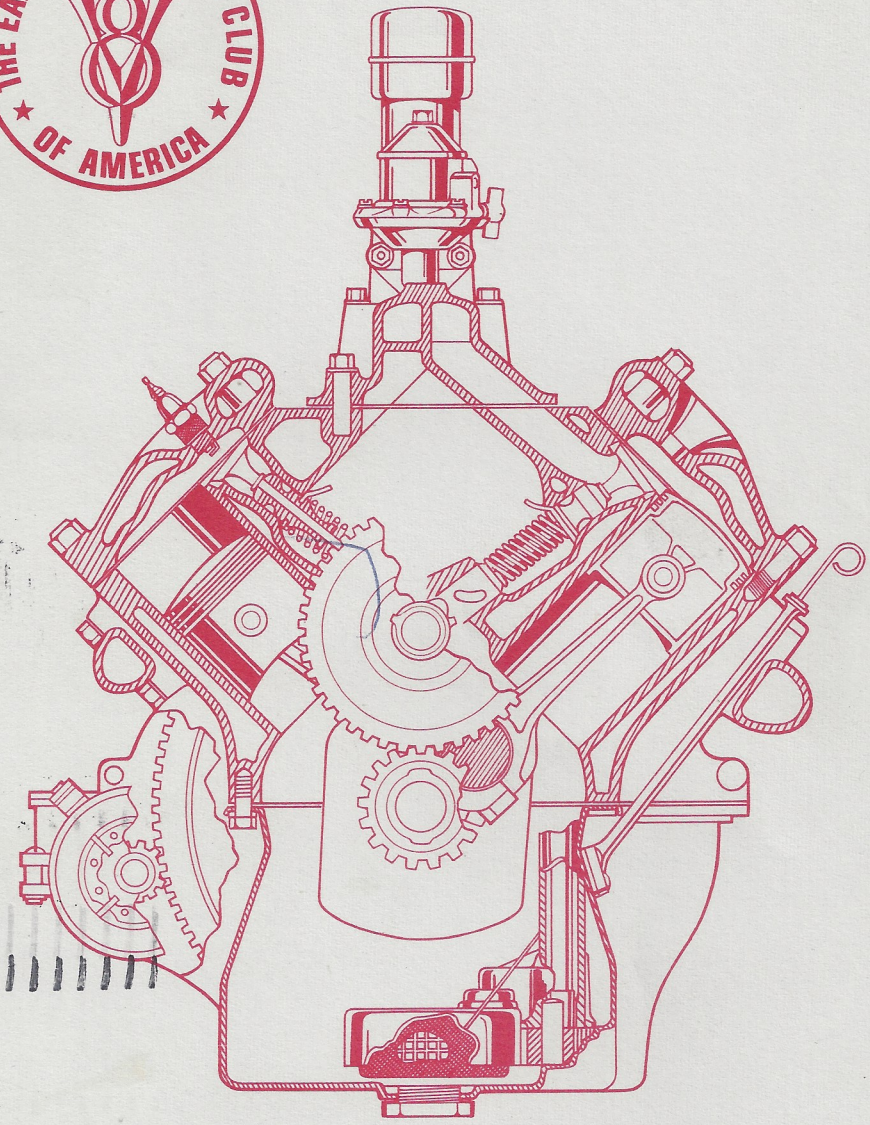
THE EARLY Ford V-8 CLUB OF AMERICA



Drive Lines

The Valley V8's

1981 OFFICERS

PRESIDENT	LARRY CAPLAN
VICE PRESIDENT	DON DURKEE
SECRETARY	SHEL HARRIMAN
TREASURER	BILL CULP
ACTIVITIES	FRANK WILLIAMS
ACCESSORIES	RICK VAN BLAIR
MEMBERSHIP	RON DUNLAP
HISTORIAN	ERNIE BAILY
DIRECTOR	DON DUPREE
REFRESHMENTS	ALBIE CORTES
COORDINATING EDITORS	ED KONECKO KENT LAURY

Drive Lines

Published by

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of the EARLY FORD V8 CLUB of AMERICA

P.O. Box 96
RESEDA, CA. 91335

COVER / ROY JONES

PRESIDENT'S MESSAGE

You may wonder why this last 1981 newsletter arrived so early. It's not that we are getting more efficient, but that we want to remind everyone to order their Christmas Party tickets from Ed Warnock or myself. Please refer to centerfold flyer for details. This year's party should be better than ever with a club-sponsored open-bar, special entertainment and even a few surprises.

As we wrap up 1981, this is a good time to think about your club. Did we meet your 1981 needs and expectations? If not, please tell us what you would like to see happen. Better yet, why not volunteer to help the new officers in the upcoming months to achieve these goals?

In looking over our group's accomplishments for 1981, we can boast about:

(1) Growing to over 70 members.

(2) More tours and outings than ever before.

(3) Finding a local sponsor for July 4th Car Show.

(4) Timely and interesting newsletters.

(5) Exciting and informative meetings.

Personally, this year has been rewarding to me in that I have had a chance to get to know all of you far better than in previous years. Collectively, this group contains an awesome amount of knowledge pertaining to those V-8 Fords.

My parting thought for 1981 is that you can benefit from all this wealth by becoming more active in the Valley V-8s during 1982. See you at the Xmas party.

Larry

SECRETARY SEZ . . .

Cars driven to the November 1st meeting were as follows:

Andy Tarlow	'36 Sedan delivery
Steve Waller	'35 Fordor
Ernie Baily	'47 Pickup
Jerry Jensen	'39 Convertible sedan
Don Durkee	'40 Convertible
Bill Culp	'29 Roadster
Bill Woods	'40 Mercury coupe
Don Dupree	'46 Telephone truck
Bill Boyer	'52 Victoria

We signed up several new members at the meeting. We'd also like to get you old members (some are young) to cough up your '82 dues - it's easier to come up with the bucks now than at Xmas time - right.

Durkee is peddling his jackets and also looking for stocking stuffers. He says he can supply the elves if members can come up with advertising trinkets etc., from where they work or whatever. We all suspected Don had a hot line to Santa but I never thought he would be able to get the elves on loan. Get your party money, $12 a head into Ed Warnoch ASAP for our December 4 Xmas bash at the Skytrails by Van Nuys Airport (SW corner). This friendly price includes all drinks too! Ever get the feeling that everyone's trying to take your money away this time of year - well that's the holiday spirit folks.

Rick Van Blair is leaving for Oregon and he has many things for immediate sale ('46 coupe, '48 rear end, '49 engine parts etc.) this meeting was fondly being referred to as "his last harrah" - we'll miss you Rick.

The feature presentation was made by John Powell, who showed three Ford factory film strips instructing dealers on how to sell Fords to brand x (chevy, plymouth) owners. They were fascinating shots with

sound (record player) backup. Of course the usual propaganda about value, performance, economy, comfort, and safety were made. I'd still like to know how they rigged that Gilmore Yosemite economy run which touted 23.76 MPG for the '41 Mercury and over 24 MPG for the '41 Ford - it must have been down hill with a tail wind. There also was a fourth strip on Ford lubrication and you better start draining your rear end every five thousand miles or your warranty will be void.

Oh yes, a couple of members from a rival gang (Ford Mercury Club) showed up to announce that they're trying to get our members to join their club - we let them leave peaceably this time - next time look out!

SHEL HARRIMAN

UPCOMING EVENTS

Dec. 4	Valley V-8 annual Christmas party and 10th anniversary celebration. (See flyer for details.)
Jan. 3	Swap Meet, Pomona Fairgrounds by Rust Peddlers. Info: (714) 547-5257

Compression Ratios For The Early V8 Engine

If your V8 engine is rebuilt to exact factory specifications this subject is of little concern to you since factory compression ratios are well below 7:1 and today's poorest fuels should be more than adequate. However, in these days of deteriorating octane ratings one must be careful when modifying an early V8 that an acceptable compression ratio results.

If maximum performance is desired one would select a compression ratio as high as possible. Exactly how high one can set the compression ratio and still avoid pre-ignition/detonation with today's premium fuels is a complex issue. With specially ground cams, water injection and careful ignition timing, experts in the field of modified street engines (such as Bruce Crower) are still suggesting that it is possible to run at ratios of 12:1 or 13:1.

Based on the experiences of several individuals using modified flathead engines for street driving it appears that a conservative upper limit for compression ratio might be 9:1 with a sporty upper limit of 10:1.

For my current project, a 59A flathead modified to 276 cubic inches, a compression ratio of 8.5:1 was selected.

By definition the compression ratio is the ratio of the volume which gases can expand to with the piston fully down to volume with piston fully up. This can be written

$$\text{Compression Ratio} = \frac{\text{Volume}_{\text{Down}}}{\text{Volume}_{\text{Up}}}$$

Where

$$\text{Volume}_{\text{Down}} = \text{Volume}_{\text{Up}} + \text{Volume of Cylinder Displacement}$$

Rewriting in simplified form

$$\text{Compression Ratio} = \frac{\text{Vol}_{\text{Up}} + \text{Vol}_{\text{Cyl Disp}}}{\text{Vol}_{\text{Up}}}$$

Where:

$$\text{Vol}_{\text{Up}} = \text{Vol}_{\text{Hd}} + \text{Vol}_{\text{Hd Gskt}} + \text{Vol}_{\text{Vlv Pock}} + \text{Vol}_{\text{Piston Drop}} - \text{Vol}_{\text{Dome}}$$

And

$$Vol_{Cyl\ Disp} = \pi \left(\frac{Bore}{2}\right)^2 \times Stroke$$

For my engine

$$Vol_{Cyl\ Disp} = \pi \left(\frac{3.3125}{2}\right)^2 \times 4.00 = 34.47\ in^3$$

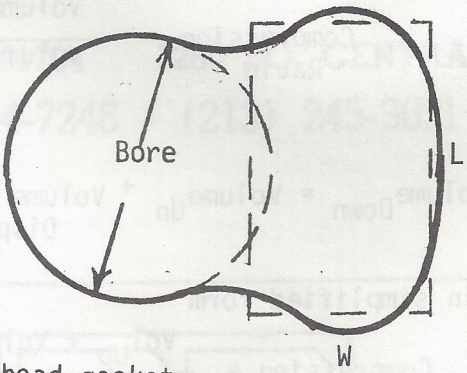
This can be converted to cubic centimeters (cc) or milliliters (ml) by 1 cubic inch = 16.387 cc = 16.387 ml

So $Vol_{Cyl\ Disp} = 565$ cc

The component terms in Vol_{Up} are found by:

1) Vol_{Hd} is the volume of liquid which is poured from a graduated cylinder into each combustion chamber of the head with spark plug inserted. For my aluminum aftermarket heads this volume is 60 cc.

2) $Vol_{Hd\ Gskt}$ is volume due to head gasket opening. Since these gaskets are about .050 inch thick when compressed this volume cannot be ignored. A close estimate of this volume is found by approximating a circle and a rectangle as shown.



For my big bore head gasket

$$Vol_{Hd\ Gskt} = \pi \left(\frac{Bore}{2}\right)^2 \times h + l \times W \times h = 13.3\ cc$$

Where h is head gasket thickness

3) $Vol_{Valve\ Pocket}$ is volume about valves (when closed).

This volume is very small for most factory blocks but should be considered when an engine has been relieved. I have found that clay packed about the top of valves and leveled to deck height permits finding this volume. After clay is contoured you simply remove it and drop it into a graduated cylinder and measure the rise in volume. For my engine which has been relieved this volume is 7 cc

4) $Vol_{Piston\ Drop}$ is volume at top of cylinder

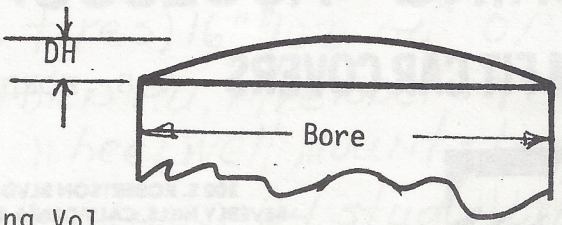
if outer edge of piston does not reach deck level at top of stroke. This volume for my engine is:

$$Vol_{Pist\ Drop} = \pi \left(\frac{Bore}{2}\right)^2 h = 8.2 \text{ cc}$$

where h is distance below deck level at top of stroke and measures 1/16 inches.

5) Vol_{Dome} is dome volume for a domed piston. This volume is easily found by knowing two measurements, the bore and dome height (DH) from piston outer edge. For my engine DH = 3/16" and

$$Vol_{Dome} = \frac{\pi}{2} DH \left(\frac{Bore}{2}\right)^2 = 13.2 \text{ cc}$$



Now finding Vol_{Up}

$Vol_{Up} = 1 + 2 + 3 + 4 - 5 = 60 + 13.3 + 7. + 8.2 - 13.2 = 75.3$cc

finally giving

$$\text{Compression Ratio} = \frac{Vol_{Up} + Vol_{Cyl\ Disp}}{Vol_{Up}} = \frac{75 + 565}{75} = 8.5$$

Any final adjustment will require cylinder head milling for increasing the ratio or head chamber increase to lower the ratio.

LARRY CAPLAN

FOR SALE -

1950 FORD DELUX CLUB CPE.
3/8 FLATHEAD - PORTED & RELIEVED - NEW HOT
ISKY CAM & RIT - JHAINS PISTONS (3 RING)
MERC CRANK - 4 TWO'S - OFFY HEADS -
MALLORY DUAL POINT - T-10 FOUR SPEED.
EXTRA 6 CYL & TRANS - RAD - MANY EXTRAS
$1500 - ALL

1932-3 FORD steering box & column - $50.00

3 LATE 40's REAR ENDS - 2 COMPLETE $15.00 all

1936 FORD PASS CAR F/FENDER [illegible] (HORN) $65.00

4 1934-5 wire wheels (two with good tires) 16" $100.00 O.B.O.

1934 FORD P.U. F/FENDERS very nice plus wheel well mount - best offer.

N.O.S. WEILAND 24 stud ALUMINUM HEADS PRE-48 - thickston DUAL 2 BBL HIGH RISE & CARBS $250.00 FIRM.

V-8 WICO TWIN "4" MAG, very good condition $300 - OBO.

4 1950's CADWIRE WHEELS - 3 good HUBCAPS $25. O.B.O.

CALL BILL LASH - (885-5976 / 886-4693) After 2:30 PM.

Valley V8's

Christmas Party and
Tenth Anniversary Celebration

Skytrails Restaurant
16435 Sherman Way
Van Nuys, CA. (SW side of airport)

December 4, 1981

Restoration Hour 7:30 PM
Buffet Dinner 8:30 PM

Open Bar, Entertainment, Raffle,
Fun and More.
Only $12.00 each, paid in advance
by December 1st.

Contact: Ed Warnock 346-7882
Larry Caplan 363-2849
for reservations and info.

FOR SALE:

37 85HP with ACCESSORIES & ENGINE STAND $250

MODEL B ENGINE COMPLETE $200

32 V-8 RADIATOR $70.

WANTED:

FIVE MODEL B HUB CAPS —

CHICK LATCH
4379 OCEAN VIEW BLVD
MONTROSE, CALIFORNIA 91020
957-1557

The Valley Y's

P.O. BOX 96 – RESEDA, CA 91335

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