



Norton Notice

THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH

NO. 97

MAY, 1986

1927 JUNIOR TT RACE

ER

FREDDIE DIXON
1912 - 1928
WINNER
OF SIDECAR TT
& JUNIOR TT

10P

ISLE OF MAN

J.H. NICHOLSON RI



1982

QUESTA

ISLE OF MAN
TT86
26 MAY-6 JUNE

Rush Over!

1932 SENIOR TT RACE

ER

JIMMIE SIMPSON
1922 - 1934
TT RACE WINNER
& FIRST RIDER
TO LAP AT
60, 70 & 80 MPH

24P


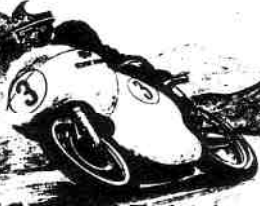
ISLE OF MAN

J.H. NICHOLSON RI

1982

QUESTA

1961 SENIOR TT RACE

ER

MIKE HAILWOOD
1956 - 1970
WINNER
OF FOURTEEN
TT RACES

26P

ISLE OF MAN

J.H. NICHOLSON RI

1982

QUESTA

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THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH



Norton Notice

is published by the Northern California Branch of the Norton Owners Club. Its purpose is to inform and entertain members regarding all aspects of the Norton motorcycle, including history, technical advice, and preservation of the marque.

NORTON NOTICE is a reflection of its readership, who are encouraged to submit any article, technical tip, photograph (original or otherwise) as long as it is in good taste; so that other Norton enthusiasts may enjoy it. For Branch members who cannot attend club meetings or club rides, the NORTON NOTICE affords an opportunity to share experiences and information with the membership of the Branch, and to bring the Branch members closer together.

The deadline for items to be submitted for publication is the 15th of each month.

Membership in the Northern California Branch of the Norton Owners Club is available for \$25.00 per year.

Membership dues are payable to the Branch Secretary/Treasurer.

Renewal dues are payable at the end of the individual's membership year, that month being designated by the last number of the individual's membership number as located on the mailing label of the NORTON NOTICE or the membership card. For example, 745/2 denotes member 745 with dues expiring on the 1st of February.

All changes of address should go to the Branch Secretary/Treasurer, not the NOTICE Editor.

Subscription to the NORTON NOTICE only is available for \$15.00 per year. This does not include membership in the Northern California Branch of the Norton Owners Club, nor does it afford any of the rights or privileges of membership in the NOC.

Membership in the Northern California Branch of the Norton Owners Club entitles a member to monthly issues of the NORTON NOTICE and bi-monthly issues of ROADHOLDER magazine, which is sent directly from England, keeping members informed of Norton owners' activities worldwide. Membership provides voting privileges at all NOC and Branch meetings, and allows one to purchase Norton spares directly from England, at significant savings, through the NOC Spares Program.



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Important!

(Please take note of the following fine print.)

The object of the Northern California Branch of the Norton Owners Club is to promote, encourage and develop all motorcycling activities. The Club's members are owners of Norton motorcycles, and they often submit for publication in the Norton Notice technical tips pertaining to motorcycles of the Norton marque. Technical tips so published have been reviewed for technical content and are believed to be both acceptable and workable, but no guarantee is made or implied that they will work correctly, nor is any liability assumed by either the Norton Owners Club or the authors for any problems resulting from use of these technical tips. The Club also assumes no responsibility for the acts or omissions of its members in connection with Club activities. Norton Notice articles or other material express the authors' views only and not necessarily the official policy of the Norton Owners Club or its Northern California Branch. The editor reserves the right to accept, reject or alter all editorial and advertising material submitted for publication. Advertising published does not imply endorsement of products, goods or services. Now you know.



1963 catalog drawing of Manx 30M and 40M



UPCOMING EVENTS

NOTICE: IN THE EVENT OF RAIN ON THE DAY OF A CLUB RIDE, THE RIDE IS AUTOMATICALLY POSTPONED ONE WEEK. ALSO, RIDERS SHOULD HAVE PLENTY OF OIL AND GASOLINE BY THE SCHEDULED DEPARTURE TIME AND ALL PERSONAL PROBLEMS TAKEN OF. (IN OTHER WORDS FULL TANKS AND EMPTY BLADDERS!)



May 1	Thursday	AMA Speedway, Baylands Raceway, Fremont, 6:00 PM.
May 4 Jose.	Sunday	Camel Pro Mile Dirt Track, Santa Clara Frgds., San
May 4	Sunday	AFM races, Sears Point.
May 8	Thursday	Branch meeting. Class Reunion, Palo Alto, 7:30 PM.
May 17,18	Sat., Sun.	Morro Bay overnighiter. See article and map page five.
May 18	Sunday	AMA Camel Pro, Sears Point.
June 8	Sunday	Swap meet at TT Motors, Berkeley.
June 8	Sunday	AFM races, Sears Point.
June 12	Thursday	Branch meeting. Location to be announced next issue.
June 20-22	Fri-Sun	West Coast Bikefest, Hanford, CA.
June 22	Sunday	Old Timers Ride and Annual Picnic at Huckleberry Flat in San Mateo County Memorial Park. Old Timers ride begins at Alice's at 10:00.
July 8	Sunday	AFM races, Sears Point.
July 13	Sunday	Laguna Seca

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JULY						
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The Norton experience



THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH

TWISTIES

Dedicated effort on the part of Dave Crader and Nick Wiltz has made some of the predictions I made back in January come true. The arrangements have been made for the Morrow Bay ride, and the word is out to the Southern California Norton Owners Club (a USNOA chapter), the Ariel Owners Club, and two of the BSA Owners Clubs. Both motel and camping accommodations are available, and plans include a group dinner Saturday night in Morrow Bay. As usual, the route down and back is spiced with some of California's finest Norton roads.

Nick and Dave also have their eyes on a spot on the North Coast for the Annual Rally, rumored to be somewhere on the Bel River. Redwood Country. Details should be firm'ed up next month, so watch the schedule for final details.

June 8 is the first swap meet of the year, to be held at TT Motors in Berkeley. John Gallivan has once again agreed to open his shop on that Sunday, but he won't be open for business. If last year is any indication, the trading will be hot and heavy, and there will be bargains galore.

June 22 is the Old Timer's Ride/Annual Picnic at Huckleberry Flat Picnic grounds, Area 2 (same as last year). The Old Timers will gather at Alice's Restaurant at about 10:00 am (intersection of Highways 35 and 84) and head down the hill to the Flats over some very nice roads. Commandos welcome, but move to the back of the pack, please. The organizers (that's me) would appreciate a few of you out there volunteering to man the BBQ pit for an hour or so during the day so that I can enjoy the event, too. I could also use a hand with setup and cleanup. Phil Radford (Fair Spares America) has agreed to put on a tech session about transmission overhaul. Phil, in his best Limey drawl, will explain away the many cloaks of misery that surround this little silver box. There will also be a raffle for those of you who feel lucky. It's BYOB again this year, but soft drinks will be available with the hot links.

I, along with most of the members I've talked to, am very pleased with the new look of the Notice. Lou Caputo has taken the bull by the horns and really put a nice job together. The darn things bigger than ever, thanks mainly to the generous input of the members. If you like what you see, let Lou know it, and most importantly, keep those contributions coming!

Happy Trails,

APRIL 10th MEETING NOTES

A small but enthusiastic group of Norton owners, eighteen or twenty of us, met at the Hotel Utah on April 10th for dinner and talk. The food has improved dramatically along with the decor. They call it the Last Chance Cafe now, and serve a number of Greek dishes, soups, sandwiches, etc. Good desserts and coffee.

Scott Marburger provided the usual announcements of upcoming events (See the Upcoming Events page) including a possible joint meeting with the North Stars Motorcycle Club of SF. This would take place at the Redwood City Malibu Raceway and incorporate a benefit for a motorcycle racer, Danny "Magoo" Chandler, who was badly injured last year. Tentatively scheduled for late July or August.

SANTA CRUZ ALERT

The NOTICE has received word that the CHP has begun using radar on 14 Santa Cruz County roads. While the State Legislature has refused to appropriate money for the CHP to use the devices, local counties can purchase the equipment for use by the CHP. Three units are currently patrolling the following areas: Highways 9 and 17 between Scotts Valley and the summit, Branciforte Drive, Sequel Drive, 17th Ave., Rio Del Mar Blvd., Clubhouse Dr. in Rio Del Mar, San Andreas Rd./Freedom Blvd., Green Valley Rd., Airport Rd./Holoan Rd., Amesti Rd., Graham Hill Rd., and Old San Jose Rd. Since the state forbids the use of radar to enforce the 55mph speed limit, radar will not be used on Hwy. 1.

CHP officers can monitor the speeds of cars in both directions when the patrol car is stationary. When the patrol car is moving, it can monitor the speeds of approaching cars only.

The 14 roadways selected for the first phase of the program will be patrolled for about six months. The CHP is currently studying 20 other roads for possible radar use later in the year.

NOCCERS traveling in the Santa Cruz area stay low and turn your jammers on.

Lou

PORTLAND RIDERS ALERT

The NOTICE has received word from Alan Peterson that he is interested in organizing the Pacific Northwest Chapter of the NOC. If you are a rider in the area and would like to get together with some fellow Norton owners get in touch with him at:

11950 S.E. Holgate
Portland, 97266
Work phone (503)771-8995
M-F 9 to 5

Most of the meeting was devoted to technical tips. Art Sirota gave a pitch for the quality fiberglass coming from Sprint Manufacturing. Good stuff at a reasonable price. Art has some of their brochures, primarily showing production racer and JFN equipment.

(Continued on page 8)

WELCOME NEW MEMBERS

Wren Coleman	San Francisco, CA
Joe Brandecker	Oxnard, CA
Jon Durell	Palo Alto, CA

WELCOME BACK

Mike Medina	San Jose, CA
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EDITOR'S NOTES



I have conveniently left myself little room this month for comments. That's in large part due to the efforts of those who are contributing this month. You too can have your article in print-- just send it on in.

We have received a binder of Norton Service Notes from Marshall and this forms a nice complement to the ones already in the Norton Library (the what?). Thanks to Marshall and also Mike Rettle who once again proved he IS the fastest stamplicker in the West by helping to get the NOTICE out last month. By the way, one member received his NOTICE with the inside pages missing-- if something like this happens to you let me know so I can get another copy to you.

The club ride to Mt. Hamilton was fantastic. I don't have room for a ride report this issue but I took lots of photos and will put some in the next issue. Phil Anderson and friend Jim from ACE BRITISH MOTORCYCLE PARTS, 1680 Pittman St., Sparks, NV 89431 (702)356-1731 joined us from the day. Add their shop to your list.

I'd also like to mention another new shop in Soquel. I had the chance to ride to Big Sur for a three day break and decided on the trip that I could no longer tolerate the spongy rear end on my Beemer. Bill Plam, who runs Santa Cruz BMW at 3335 Soquel Drive in Soquel ((408)476-6262), was most helpful in providing me with a set of Koni shocks which cured the problem. The Koni's came off of HIS bike since he had no new ones in stock. The ride back was exactly what I had hoped for. Now if I can find time to put those stiffer springs in the front end I may be able to keep up with the Nortons.

Morro Bay is just around the corner. Get those beasts ready.

Lou

COVER: Thanks to Gene Austin for the loan of these postcard copies of some Isle of Man stamps.

MORRO

INVITATIONAL
at MORRO BAY
MAY 17 & 18

B
A
Y



THE NORTHERN CAL BRANCH EXTENDS GREETINGS AND AN INVITATION TO BRITISH MOTORCYCLE CLUBS AND INDIVIDUALS TO JOIN US AT MORRO BAY.

THE NORTHERN CAL BRANCH WILL BE MEETING AT SUMMIT INN ON HIGHWAY 17 FOR A DEPARTURE AT 9:00, THE MORNING OF THE 17TH. ALL WISHING TO RIDE ALONG PLEASE MEET US THERE. GAS STOPS ARE PLANNED APPROX. EVERY 100 MILES TO ACCOMMODATE SMALL PETROL TANKS. SEE STARS ON THE MAP.

WE PLAN TO CAMP OUT OR MOTEL THE EVENING OF THE 17TH AS WELL AS HAVE A GROUP DINNER AT 1 OF MORRO BAY'S SEAFOOD RESTAURANTS.

PLEASE MAKE YOUR MOTEL RESERVATIONS EARLY. IF YOU PLAN TO CAMP OUT LET NICK OR DAVID KNOW SO WE CAN WARN THE CAMPGROUND.

ALSO LET US KNOW IF YOU WILL JOIN US AT THE RESTAURANT.

DAVID CRADER 408 973-0838
NICK WILTZ 408 978-5985

FROM SUMMIT INN
SOUTH ON 17 TO
MONTEREY AND CARMEL.
TAKE CARMEL VALLEY RD
TO ARROYO SECO RD.
SOUTH PAST JOLON TO
PASO ROBLES. SOUTH ON
101 TO ATASCADERO THEN
41 TO MORROBAY.

RETURN WILL BE UP HIGHWAY 1.





THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH

PARAPHERNALIA

1. "My success is due to my unapproachable Norton" T-shirt, black with gold print. Large only.	\$8.00
2. NOC classic "N" T-shirt, dark blue with white print. Large and X-large only.	8.00
3. " " " " " " , black with white print. Large only.	8.00
4. " " " " " " , white with black print. Medium and large only.	8.00
5. Northern California Branch logo T-shirt, white with blue and red print. Small, medium and large.	8.00
6. Northern California Branch logo baseball jersey, white with blue and red print. X-large only.	9.50

NOTE: All T-shirts are \$1.50 postage.

7. Commando Service Notes, 45 pages compiled and printed in England by NOC.	5.00
8. 3"x 3" NOC machine badge.	6.00
9. 4 1/2" red NOC sticker	1.00
10. 2" " " "	.50
11. 2 1/2" x 3 1/2" red, white, and blue NOC sticker	Tom Borman .75
12. 2" red, silver, and black NOC sticker	4278 25th St. .75
13. 4" red and white embroidered cloth NOC patch	San Francisco, CA 94114 2.50
14. 2" " " " " " " " " " "	(415) 282-9304 1.50
15. red enamel NOC lapel pin	1.25
16. " " " " " " key fob	1.50
17. red, white, and blue enamel John Player Norton lapel pin	1.50
18. " " " " " " " " " " " " key fob	1.75

Call or write for details concerning availability and postage of items.

NORTHERN CALIFORNIA BRANCH TOOL LOAN-OUT PROGRAM

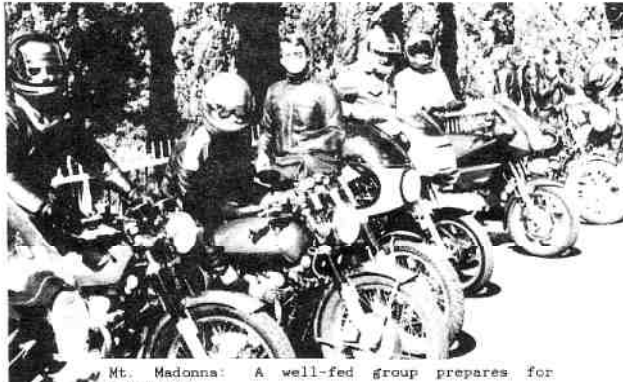
Get in touch with Harry Bunting if you need one or more of the following tools for working on your Commando. A refundable deposit equal to the replacement cost of the tool is required at the time you pick it up.

TOOL	DEPOSIT
exhaust lock ring tool.....	\$10
timing cover oil seal guide.....	5
clutch spring compressor.....	12
clutch locking tool.....	18
valve spring compressor.....	22
rocker spindle puller.....	25
crankshaft sprocket puller.....	12
timing pinion puller.....	20
gearbox layshaft bearing extractor..	15

Harry Bunting (415) 968-2020
1401 Gilmore St.
Mountain View, CA 94040



"I'm getting a bit worried about Malcolm..."



Mt. Madonna: A well-fed group prepares for departure.



\$ WANT ADS £



ALL ADS WILL RUN FOR TWO MONTHS UNLESS YOU RESUBMIT THEM IN WRITING TO THE EDITOR.

FOR SALE

1970 Dunstall Norton, not running but complete. Needs considerable work. \$500.
 1976 Triumph Bonneville, runs well. \$1100.
 1961 Chevrolet pickup, 6 cyl. 3 spd. Hauls both of the above. \$1,000.

Pete Nawro
 3929 Fairway Ave.
 Oakland, CA 94605
 415-582-4518

FOR SALE

1. Used 932 Amal carbs, \$20 pair.
2. K&N air filter, used, \$3.
3. Early style headsteady, \$2.
4. Chainguard, used, no dents, \$12.
5. MkII oil tank, perfect, \$15.
6. Luggage rack, \$5.
7. Steel Roadster gas tank, no dents, \$45.
8. Steel Roadster side panels, \$15 pair.
9. Interstate pipes, need rechroming. FREE.
10. Roadster seat, like new, no rips, \$25.
11. Fastback gas tank, new, BRG only, \$95.
12. Fastback tail section, new, \$45.
13. Haynes latest Commando manual, new, \$10.
14. Pre-MKIII r/h rider's footrest support, \$15.
15. Pre-MKIII l/h brake lever and footrest support, \$25.
16. Atlas camshaft, used, \$7.

Art Sirota
 Menlo Park
 415-327-3167

FOR SALE

1975 Norton MKIII Commando, 15,800 original miles, Boyer, perfect running cond., always garaged. \$1850 or thereabouts.

Ivan Crow
 1508 L St.
 Davis, CA 95616
 (916)753-0120

FOR SALE

Pair of aluminum Campbray wheels with new Avon Roadrunners installed. Each wheel has fourteen gold painted spokes with polished rim edges. Front wheel is WM3-19 (4.10-19 tire) and rear is WM4-10 (4.85-10 tire). Wheels bolt right on '71-'74 Commandos with cush drive rear hub and disc front brake. Speedometer drive is included. Write for more info or pictures. \$400./set.

Gene Austin
 985 E. Grant Pl.
 San Mateo, CA 94402

FOR SALE

1. 4 speed Commando trans. w/9,000 miles on it. \$100./best offer
2. Dunstall 1/2 fairing with dash for instruments, mirrors and all bracketry. Exlnt cond. \$200/best offer.
3. Leather bombardier type jacket, very warm. sz 36. \$80./best offer.
4. Stock Commando mirror and stem (mirror not available in stores) and one stem w/o mirror. \$7.50.
5. One pr. Fiam horns (get rid of that wimpy horn). \$20.
6. One pr. Commando shocks w/springs. \$15.

Doug McCulloch
 (415)547-6708
 (Between 1-9 PM)

1975 NORTON 850 ELECTRIC START,
 NEEDS ELECTRICAL WORK, IGNITION CONSOLE MISSING, SIDE PANEL AND BATTERY MISSING, EVERYTHING ELSE IN GOOD CONDITION, ENGINE AND TRANS REAL GOOD CONDITION, W/ BARNETT CLUTCH. 964-9234 AFT. 5:00PM

FOR SALE

1. 1975 Norton MKIII, steel Interstate tank, new forks, good tires, new seat, carbs, Boyer, registration. Runs well but intake cam lobe is wearing. \$1,000/B.O.
2. 1950 Norton ES-2, plunger frame, basket in process of restoration, new steel armor fenders, good toolbox, fender stays, new fork legs, cast ears, NOS headlight, new handlebars, new muffler, etc. 80% complete, ready for paint and ass'y. Motor ran fine and tranny shifted fine before disass'y. \$1,000.
3. Large black fairing w/tall windshield. \$40.00.
4. Sm. Shoel fairing w/short shield. \$10.00.
5. Craven bags. Lg., black w/rack. \$100.
6. 20 copies of Classic Bike. \$10.00.
7. Roy Bacon's NORTON SINGLES. \$10.00.
8. Front wheel 1950ish Norton. \$30.00.

Call Dave Kerst at (209)835-7468, 4-10 PM. 371 Hickory Ave., Tracy, CA 95376.

FOR SALE

'76(?) 850 Commando that is partly disassembled and does not run. Owner is moving. \$425.

David
 (415)754-8976



THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH

LETTERS

Dear Editor,

After losing contact with NOC/NC I finally got back in touch.

I have a 1960 350cc Navigator. It's a basket case but most of the major parts are there. Does anyone else in the club have a Navigator? I need some info on restoring.

I received a copy of Roadholder #123-- Sept/Oct '85. Mr. John Green of England has a Jubilee pictured. They made three lightweight twins; Jubilee, 250cc; Navigator, 350cc; and Electra, 400cc electric start. Anyone with knowledge of the lightweight twins would be very helpful.

Raymond Wiltshire
7539 Bowen Cir.
Sacramento, 95822
(916)422-7380

LAST OF THE SURVEY

I no longer ride my '74 Interstate Commando as it has under 3,000 miles and road use will only decrease its condition. I'm content to keep it in my display room with a new 1965 BMW R-27. I bought my first Norton (Dominator 88) in 1956. Lately I ride my restored '64 BMW R-60 with Globe sidecar. The Norton is my favorite. If I had a spare 850 I'd probably ride it but with one in 100% stock, as new shape, I just can't chance beating it up. It reminds me of my '55 Dominator. Is that 30 years ago?

The club shouldn't take itself so seriously. It should be more owner and rider oriented, and less of a collector's and restorer's club. No tech tips from Art unless personally checked out by Bert Hopwood.

NN is greatly improved over the last few issues. It's great to see you concerned about what we want out of the club [Thanks]. I would personally like to ask questions concerning present and future changes I have made or will make to improve my Norton's handling, brakes, ride, etc. P.S. I weigh 155 lbs and my suspension seems too stiff. Can someone recommend spring rate and oil weight for my front end and spring weight for my Koni oil shocks? Presently the springs are stock and front oil 15W. Where can I buy the front springs?

We need a Washington State chapter. Who's our vintage bike specialist? Where do I get Smiths from or fixed?

Good job to all the club top dogs. It's a real help to know all the Norton guys are out there. Although I have lots of Nortons and wierd parts, I occasionally feel that despite my best efforts my bikes are mundane and unoriginal and not as exotic as everybody else's. Anyway, keep up the good work and we'll see you all pretty soon.

I'd like to see some tech articles on the following:

1. British thread forms

2. Material specs-- What is Dural? 2024-T6, 7075 Al, or what? What should axle spindles be made of?

If there are some people out there who can share some of their knowledge of "What the sonnafabitch is made of" it would be helpful. Could we get a form letter, for anyone interested, to tell Norton that we would like to BUY a Norton Rotary? Anyway, thanks for listening.

Don't ride as much as I used to. Once owned three Nortons but got into other hobbies instead. I'll never sell my WKIII (46,000 miles on it) and had a GREAT ride on the November club ride -- first time in a long time I went on a club ride 'cause I kept seeing too many accidents on those rides. See you someday.

LUCAS SPARES?

A note from Phil Radford brings us this letter to the Editor which appeared in a March 3, 1986 British newspaper:

The letter from A.J. Gough headed "Buy British" prompts me to write in reply.

In July last year I ordered 2,000 contact sets from Lucas to suit Norton Commando motorcycles. They arrived in December.

Each contact set was vacuum sealed into nice Lucas cards bearing the legend "Joseph Lucas, Birmingham, England," but each component was neatly stamped "Made in Japan." Needless to say, they went straight back with the appropriate comments, and I had them made elsewhere.

I, for one, and not surprised that Lucas are closing factories in the Midlands if they pursue this policy.

L.J. Emery
Fair Spares
Albion St.
Rugeley

(April 10th Meeting Notes cont.)

Scot offered some rather discouraging insights into the belt drive kits from Fair Spares. He feels that they might be of some use for racing with an open primary case, but they seem to tear themselves up in regular road use. Not much fun to have to fix out on the road in the dark.

Bert Kranzel gave a relatively brief report on his two year battle with Sprag clutches and electric starters. The bottom line, according to Bert, is that they can be made to work reliably, but it takes continuing care and effort.

The meeting finished with a raffle of an electric-orange headlamp cover kindly donated by Scot. It was won by your truly and generated eight bucks for the Treasury. Two very good causes, and a good time had by all.

Tim Coburn

THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH



A BEGINNING RACER TELLS ALL (Well, almost all)

MULLER Dan Phillips has taken the plunge. He's done gone racin'. I had the opportunity recently to stop by and see him at his home in San Jose where we talked about his experiences thus far. We chatted in an immaculately kept garage over a sweet looking BSA B50.

LC: What prompted you to start racing?

DP: I have a friend who lives back East who got me interested. Last year we went to Laguna together. His name is Lou Sneddon of Lou's Leathers. While he used to live out here, he now lives and races a 250 Ducati in Kentucky. He's been to Daytona for a couple of years and is planning on coming to Laguna again this year. That, plus the CVRG just approved B50's just this year and I had this one sitting back there collecting dust.

LC: How did you find out that it had been approved?

DP: Well, the CVRG, the California Vintage Racing Group, is the body which handles vintage racing around here and they're the ones who determine eligibility. They're a club and the AFM gives them so many trophies on race days and they add to that. They're a nice bunch of guys, guys like Fred Mark, Mike Green, and Chris Quinn and have a shop called West Coast British. They participated at Daytona this year and did very well. Mike Green won the 250 event. I'd like to try Daytona some day.

(Continued on page 10)

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motorcycle parts & service
at Raber's!



At Raber's you'll find an honest, experienced friend with cycle expertise. Ask for Bob or Bill and solve your motorcycle problems today. Raber's supplies parts for:

TRIUMPH
Norton

BSA
DUCATI

and more!

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San Jose, CA 95125

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Sat 9-5

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New Product Release

After much time and testing of intake systems, we have developed the ultimate in dependability and performance for your British motorcycle. This Dellorto pumper carburetor gives amazing response in all throttle ranges. Kit comes ready to bolt on with simple frame modification.

- Kit consists of:
- 36 mm Dellorto pumper carburetor
 - Polished aluminum intake manifold
 - K & N air filter
 - Barnett throttle cable

Sold retail \$249.00.

Discount available to qualified dealers.

Technical information available upon request.

Thanks for your interest in our products.

Sincerely,

Perry Kime
FLO Dynamics

25% DISCOUNT ON 3 KITS
TO NOC MEMBERS ONLY

Triumph Belt Drive

For 1964 and later 650 and 750 twin. Developed by the world's leading belt drive manufacturer. Guaranteed to fit and work perfectly. Now only \$849 plus shipping. We also accept Mastercard and Visa by telephone. Dealer inquiries invited.

No Lead Gasoline Conversion

For Norton Commando and Triumph Twin. These USA Import model British motorcycles were designed to use premium gasoline with 98 octane with 4 grams of lead per gallon included. As of January 1, 1985, the EPA has limited our gasoline to 92 with 0.1 grams of lead and caused big problems for the Norton-Triumph owner. Top end overhaul don't come cheap but our Auto Advance Conversion does. We can overhaul your auto advance and modify the spark curve to use no lead gasoline and return it to you the following day for only \$99 plus shipping. Send \$\$\$ and avoid COD charge.



THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH

(Cont. from page 9)

LC: How would you describe the bike?

DP: It's a 1971 B50 SS model which has a street motor. It's mostly stock-- there's not much done to the engine. It's got a different pipe, a different carb, total loss ignition, and that's it-- virtually stock. I've got some other plans for it but right now I've got to learn to ride it this way.

LC: Does the front brake have enough stopping power for you?

DP: Yes, right now it's fine, but if I start to go a little faster I may need something a little stronger.

LC: What modifications can you make according to the CVRS?

DP: You have to run original type carbs, you're limited to a WM4 rear wheel width, no disc brakes, no slicks. These are some of the major requirements. The bike should look like a "vintage" racer.

LC: You weigh 135. How's the power for you?

DP: It pulls strong but it's undergeared. It's geared for about 97 right now and so it comes out of the hole pretty quickly but then runs out of steam. So I'm working on a 19 tooth counter which should give me around 105. Acceleration-wise it's probably on a par with a 350 Ducati. But from what I've heard some guys have made B50's run real fast. They're only putting out about 38hp stock.

LC: What classes can you run in?

DP: For my first race I just ran Vintage. But there are other classes I can run in-- Formula S, for example, and I plan to run in that. That's 4-stroke singles up to 600cc. I'll try for both classes because I want to get some track time.

LC: Tell us a little about the New Riders School.

DP: It's a one day school which runs from 9-5. It costs \$40.00 for the school and an additional \$45.00 to join the AFM if you want to get a license to race. The course is taught by professional riders-- Mile Rose, Vance Breeze, and other AFM riders. They do a really great job. They have a classroom session in the morning and Mile talks about the best way through a corner-- lines, adhesion, etc. They emphasize two things real heavily there-- safety and having a good time. They teach you that the object is to be smooth. Speed will come naturally. They point out what is required in the way of bike preparation and have informal bike inspections before you actually go out on the track. On race day you have to pass a very rigorous tech inspection.

LC: During the morning session is the track being used for practice?

DP: Yes, but only for experienced riders.

LC: So the only time you get to practice is on the day of the race?

DP: Yes, and the reason is that that's an unattended practice session-- no ambulance, no track turn attendants. During the afternoon practice for new riders they do have people at the turns-- many are AFM people.

LC: What does it take for you to get out of the novice class?

DP: I think you have to compete in four events during the year and then you're classed as an 'OK' rider.

LC: What happens in the afternoon?

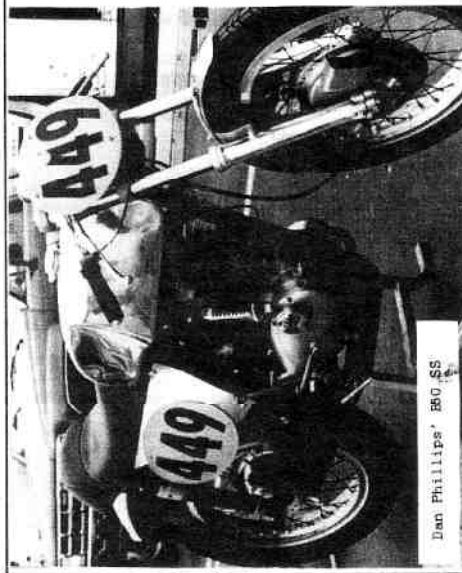
DP: The new riders are divided into groups of eight or nine and two AFM instructors are assigned to each group. We had a total of fifty or sixty students that day. Each group walks the track. The instructors tell you the lines for the turns. It's a lot of information. The Sondrant school has placed dots on the track to assist in training people in how to take the turns. If you use the dots you'll be hitting the apexes of the turns pretty well. So I just connect the dots unless I can't because of other bikes. After walking the track everyone gets their bikes and you go out onto the track single file with one of the AFM riders in front and one behind the group. They go relatively slow at first, 60-70mph, and then you return for a critique. Then they go out and pick up the pace a bit. You do this all afternoon for a good two hours. I got some personal instruction because I obviously had the slowest bike-- some were running 750's, Ninjas, and so on. At around 4:00 PM they have an open practice session. That's scary because everyone is out there and some of the guys with a lot of horsepower are having trouble handling it. They tell you during the day that if you fall you fall the course automatically. We had two guys fall in our group. There were probably four or five from the entire group who didn't make it.

LC: How would you describe your first race?

DP: Well, I got a good start. But I let off way early for the corner and the other 500's went right by me along with half of the 250's. But halfway through the event I had a good little race with a guy on a 350 Ducati.

LC: Which turns caused the most problems for you?

DP: I'd have to say it was the carousel. It's a big, wide, sweeping turn. Also the downhill turns and the esses on the backside of the track. I feel pretty comfortable through 2 and 3. But then I'm sure I'll feel more comfortable as I race more.



Dan Phillips' B50 SS

THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH



port'n the norton

(Reprinted from the Feb. '71 issue of Modern Cycle magazine)

If you had to pinpoint the one, most influencing factor in the design and development of the internal combustion engine today, the answer would have to be the consumer. To a large extent the consumer dictates what an engine should be capable of doing. This is only fair as the majority should rule and the manufacturer must comply if he intends to stay in business. Factories are constantly changing existing engines, or designing new ones in an effort to fulfill the demands imposed by the consumer. On the surface the demands don't appear to be that hard to meet. They only want an engine that is powerful, quiet, smooth running, very dependable, and, last but not least, easy on gas.

On the other hand their demands present a very perplexing problem to the poor engineer who is to design this multi-faceted miracle, since many of the demands are in direct conflict with one another. The engineer is forced to "rob from Peter to pay Paul" in order to fulfill each demand to the greatest possible degree. Somewhere along the line a happy compromise is found that will hopefully keep the vast majority satisfied, at least for a while. Yet, no particular demand has been completely fulfilled because that would mean a lesser percentage of the other demands would be met.

Then again there will always be people like you and me who don't mind sacrificing the smooth idle and easy starting for some added horsepower. For us there is one of two choices. We can either accept the compromises that have been made for the vast majority, or we can spend our hard earned bread and rework much of the factory engineering until the engine meets our individual demands. These modifications can vary considerably depending upon the intended usage. Usually a few simple modifications can make most street bikes quicker than the norm in the same displacement category.

If one of the many forms of bike racing is your thing, you are usually limited to some extent because of engine displacement; or the type of racing will tend to govern how extensive the modification will be. For example, a road racing bike would have some problems in trying to utilize the same engine that had been running in an all-out drag bike. If the drag bike was competitive then the engine would probably have been sacrificing a lot of dependability for the added horsepower needed to be competitive in that form of racing. Chances are that even if the road racer could handle this power he would never see the finish line because he needs a much larger margin of reliability than the drag bike engine offers.

Most modifications are done with the intention of increasing the horsepower output of an engine. In a stock factory engine there are quite a few areas where you can pick up an appreciable amount of power. Generally, these areas will all relate in some way to the amount of air going into the combustion chamber. The simple reason being that, the power output of an internal combustion engine is limited by the amount of air that reaches the combustion chamber. To follow this a little better let's take a close look at what an engine actually accomplishes. Essentially, an internal combustion engine is like a big control valve which is able to control and regulate explosions in the combustion chamber and convert them into power. The explosion is set off by way of the ignition system. How powerful this force will be is determined by the amount of fuel and air that flows into the cylinder and for this mixture to be most effective it has to be kept at a proper ratio.

Most engines require somewhere around 15 parts air to 1 part fuel to perform most efficiently. Increasing this mixture is like adding more powder to a bomb; it will create a bigger explosion and in turn, more power. Sounds simple enough, doesn't it? Well it isn't. Remember, for this explosion or combustion to be most effective the proper ratio of fuel and air must be maintained, and this is where the problem lies. The amount of fuel can be easily increased through a jet change in the carburetor, but where is the additional air going to come from? The atmospheric pressure has to be cheated in some way to allow more air to enter the cylinder.

One of the most common practices that has been applied for years is referred to as porting and polishing. This effort to increase air flow seems to be the most logical in theory. The basic operation consists of a general enlarging of the intake and exhaust ports in the cylinder head. The greater area of the ports should, by rights, increase the amount of flow. After grinding the ports to the larger sizes, the pas-

sageways are polished to a mirror-like finish. The general theory for this procedure is that it will reduce the amount of friction so the air will be further enhanced by being allowed to flow smoother and easier. Sometimes this work produced a noticeable change; but in other instances the engine didn't show any significant response. Many of the shops that specialized in head modification work had their own, supposedly "super trick," way of allowing the greatest amount of air to flow to the cylinder. The only problem with this whole procedure is that, theory rather than fact was the only criterion for these modifications. Although there is no way that the direct effects of these modifications could be measured and evaluated other than that if it ran better it worked, many people have accepted it as the only way to go.

Air, when in motion and acting against other bodies, is more unpredictable than a woman. This can be graphically illustrated by our new 747 jumbo jets. The air turbulence from the wings of these big planes is so great that it can take and tumble a 727 in mid air, five miles in its wake. Realizing that air flow is a strange phenomenon, and human nature being what it is, a few people set out to try to find out what is really happening with the air flowing to a cylinder. The most natural line of approach would be a machine that could simulate the conditions within the cylinder of an engine. Ideally, this machine should have a way of measuring the amount of air that actually enters the cylinder to establish a comparative analysis of modifications and their effects.

As progress would have it, old flathead "Henry" is fading away in favor of more advanced technology. The advent of "flow bench" is shining a completely new light on many of the past theories on air flow. This device is built and designed to pass air (in various quantities) through a passage, intake or exhaust, across a piston-filled combustion chamber, around a valve head and give more of an insight as to what is happening. Since air does have weight, the amount of air allowed to flow through a passage can be measured. Direct readings from the instruments attached to the flow bench indicate air flow quantities as well as corresponding changes relative to any alterations in the flow path. After intensive testing with many heads, the old theory of "make the port big and it will breathe" doesn't seem to hold completely true. Tests indicate that the port size is not as important as the port shape in achieving maximum air flow rate. The port should be shaped to control the air completely in its most natural course. Many of the "super trick" theories such as back cutting a taper on valves, altering valve seat and pocket design, etc., are proving to be of significant value in many applications.

Intake and exhaust ports are considerably different from one manufacturer to the next, insofar as size, shape, length, and curvature are concerned. As mentioned earlier, air flow is unpredictable and will do weird things, as test indicate. For this reason each different head takes on a character of its own. Modifications that might show a tremendous flow increase in one head, could create an adverse condition in another.

Recently, we stopped by Valley Head Service, in Tarzana, California, to observe some flow testing that was being done with a Norton Commando head. Larry Oflia, owner of VHS, has been utilizing a flow bench for quite some time in his research programs. For the Norton test, two heads were to be used. A completely stock Commando head, and another Norton calls their "Standard Production Road Racer Head." The Road Racer head is a factory modified version of the stock Commando head. The Road Racer head from Norton utilizes many of the theories thought to be the way to go until recently. The intake ports had been enlarged 1/16-inch at the gasket flange. The combustion chamber has been reworked to a large extent. The chamber work included removing the "lip" which in the stock head makes the chamber appear to offset. The intake valves were .085-inch over stock while the exhaust valve measured .020-inch under the stock diameter. The stem diameter of the intake valve was changed from the stock diameter of .312-inch to an undersize of .281-inch. The stock head uses iron valve seats for both intake and exhaust. The Road Racer had a bronze seat for the exhaust side. And lastly, all of the air passages had been polished, including the combustion chamber. Although we do not know, it would appear that the head had not seen a flow bench before judging from the modifications that had been performed.

(Continued on page 11)



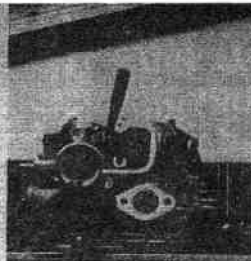
Stock Norton Commando head with the carburetor and manifold bolted to intake port, is all set for the first in a series of flow tests on the Valley Head Service bench. Readings from the stock head give a good base line to measure the effects of various modifications.

a



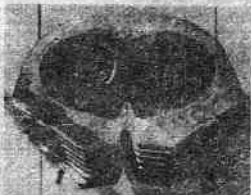
A fixture is attached to the head which holds a micrometer. The intake valve is adjusted to an initial opening of .050-inch. After the initial reading valve is opened at intervals of .050 inch, and a flow reading is recorded. This gives a clear picture of the flow characteristics.

b



After each modification the head is put back on the flow bench to see if the flow of air increased, or not, and what the next step might be.

c



Valley Head Service increased the size of the intake valve in the stock head by .060-inch, and the exhaust measures .020-inch larger. Size and shape of valve pocket, seats, and back face of valve itself are very critical, in relation to the air flow.

d



Side by side comparison of both the Road Racer head (left) and one Valley Head Service is modifying reveals vast difference in combustion chambers. Road Racer head has the "lip" removed that surrounds the intake side of the stock head. Chamber has been polished where as Valley Head Service left chamber un-polished.

e

The whole idea behind the flow testing was to see what, if anything, could be gained in the stock head to make it flow more air than the factory special head. Other than to check the amount of air flow the special head produced, nothing was to be done to it. Racing to a large extent, is a tremendous amount of trial and error. The flow bench is really no different; all it does is check your trial and tell if you made a step ahead or took two steps back. If you went back, you delete that modification and try something else until you feel that the ultimate, or close to it, has been attained. The end might not have been reached, but at least you can measure the gain or loss with something more positive than theory. Follow along, you might be as surprised as we were with the results.

In order to get a better picture of what is happening throughout the entire induction system, a manifold and carburetor were bolted to the stock head. With automotive heads this is not generally done because of the size and awkwardness of the components. A bike head, being smaller, allows this extra. The next step was to install valves in the chamber to be flow checked. A low-pressure spring is used on the intake valve, and a fixture which holds a micrometer is positioned on the valve stem. The intake valve is then adjusted to an initial .050-inch lift (off the seat). Later, the valve will be opened at .050-inch intervals until a maximum lift of .450-inch is obtained. Flow calibrations are measured in inches of water from the direct readings of the instruments and then converted into cubic feet per minute (cfm) of air flow. Readings are taken at each one of the lift intervals, then recorded on a chart. This procedure gives a clear picture on the flow characteristics of the port at each reading as well as a better overall picture.

With all of the preliminaries accomplished, the head was placed over the opening of the flow bench. Ted Wells, who conducts most of the flow tests at Valley Head Service, checked the air temperature in the room then turned on the flow bench. The air temperature plays a role in that the weight of the air is affected by temperature changes and to gain truly accurate figures on each of the many tests, the conditions should remain constant. The readings the stock Commando head recorded can be seen in the first column of the comparison chart. All in all, the stock Commando head was put on the flow bench eight different times. Various modifications were measured and evaluated until they eventually netted the last row of figures on the chart. One of the largest gains can be attributed to extensive valve seat and pocket alterations. These tests, as well as others, indicate that air does not pass the valve seat equally on all sides (circumferentially). The seats and pockets were contoured by hand to eliminate any restrictions that might cause turbulence in the flow path. Because air moves at its greatest speed past the valve seats, this phase of modifications is very critical. The diameter of the intake valve was increased .060-inch over stock, while the exhaust valve measured .020-inch oversize. The valve stem diameter remained the same as stock, at .312-inch. The ports, valve seats, and valve shapes (including valve backs) were all developed simultaneously. Material was ground from the ports, only to allow the flow of air to take its most natural course. Just one slight modification was made between the last two tests shown on the chart. Throughout all of the tests a 1-inch intake manifold was used, but in the last test it was milled down 3/8-inch to see what, if

(Continued on page 15)

THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH

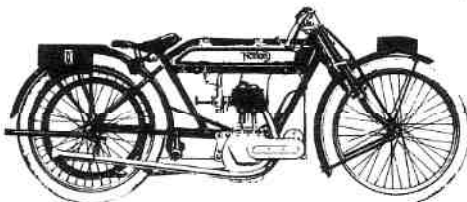


TALKIN' ALICE'S

words and music by Art Sirota

1. If you want to see a parking lot come alive
next Sunday morning take a little drive
up to Alice's restaurant on 84
at 9 a.m. they open the door
2. As the sun comes up on a brand-new day
motorcycle riders from all over the Bay
assemble there to chat and eat
while cats and dogs run between their feet
3. You'll see all the latest Honda 4's
pretty waitresses kickin' open screen doors
cops cruisin' through the nervous mob
lettin' bikers know they're on the job
4. A hush falls over all the talkin' and the munchin'
as a distant sound approaches the junction
an old single cylinder, for Heaven's sake
leavin' nuts and bolts of British Iron in its wake
(souvenirs!)
5. Some dummy parks his Gold Wing Touring Mutation
right in front of the fire station
and while he's off having a friendly chat
a big red truck mows his bike down flat
(I can hear ol' Larry Randall laughin' now!)
6. Pray to the Lord that it don't rain
hope to God the coffee won't stain
those two old outhouses couldn't smell stronger
maybe I can hold it in a little bit longer!!
7. Now I've heard nasty rumors that development swine
are planning to destroy this two-wheeler shrine
they may get rich up at Skylonda Corners
but if they succeed, we'll all be poorer

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1921 BELT DRIVE 9TT



BURBERRY MOTOR CYCLE OUTRIG

keeps its wearer
Healthfully warm in cold winds;
Healthfully dry in wet weather;
Healthfully cool on warm days.

BURBERRY ventilates like ordinary cloth, obviating all danger of overheating or chill.

BURBERRY prevents penetration by cold winds, because it is woven from minutely fine threads, closely welded.

BURBERRY is Burberry-processed, a system that renders the materials antagonistic to rain and damp of every kind.

BURBERRY, lined with light camel-hair or wool, is delightful in the equable temperature it maintains.

PRICES:
MOTOR CYCLE BURBERRY, as illustrated, a light-fronted model, lined, pocketed, \$27.50.
TROUSER OVERALLS, \$14.
MOTOR CYCLE CAP which can be transformed into a kangaroo helmet, \$5.

Mr. W. J. Clarke (Holder of the World's Six Days' Motor Cycle Record, covering 2,000 mi/3200), writes: "Your overall was a great comfort to me. I had several sharp showers to pass through, and although several times I had a pool of water on me, never once did there any sign of water getting through the overall. They were certainly splendid, and they are the only overalls I have ever had that are absolutely waterproof."

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KLIPSTEIN'S LAW (Application to prototyping and production)

If a project requires 'n' components, there will be 'n-1' units in stock.

COROLLARY TO THE FIRST LAW OF REVISION OF KLIPSTEIN'S LAW OF SPECIFICATION:

The more innocuous the modification appears to be, the further its influence will extend and the more plans will have to be redrawn.



THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH

March 18, 1986

It had been brought up at the meeting in January that the club would offer honorary membership to Bert Hopwood, the person who designed the Norton twin cylinder engine in 1947 and who wrote the book, Whatever Happened to the British Motorcycle Industry? Well, Mr. Hopwood has responded enthusiastically to our offer, and I would like to quote some of the things he had to say in his letter.

"I was so surprised that you, in your kindness, bothered to contact me. Of course I would be pleased and feel very privileged to become one of your club members. Your short description of your surroundings in your wonderful State leave me with a great sense of nostalgia.

During early 1950 I was fortunate enough to visit most of the B.S.A. dealers in the Eastern and Western States of the U.S.A., (travelling by road), and I have very vivid and happy memories of the Western Seaboard from Mexico to Canada. The name San Jose rings a bell. Could it be that I saw some races there so long ago?

Your campfire outings sound superb and I just would like to be among you to swap a few comments even though mine may be a little out of date, but I guess I could colour them a little.

I have spent a very pleasant time digesting every bit of your newsletter....I feel honored by your offer and I would like to be involved. If there is anything that you feel that I could do please let me know.

with my thank and best wishes,
Bert



So there you have it fellow members. Our humble little newsletter is going out to many different far flung corners of the globe and is being read by none other than the man mainly responsible for all your happiness and greasy fingernails.

- AT

HELMET MOD

Ever come riding to a club gathering and want to greet fellow members in an unusual way? NOC member Russell Niles sends in this idea which should require a minimum of modifications to your present helmet. Writes Russell:

This invention relates to a novel device for automatically effecting polite salutations by the elevation and rotation of the hat on the head of the saluting party when said person bows to the person or persons saluted, the actuation of the hat being produced by mechanism therein and without the use of hands in any manner.

Should the wearer of the hat having the novel mechanism within it and engaging his head, as before explained, desire to salute another party, it will only be necessary for him to bow his head to cause his

his head to cause the weight-block 30 to swing forwardly. The swinging of the block 30, as stated, will, by the consequent vibration rearwardly of the upper end of the arm 29, push the rod 31 backward and release the stud 34 on the rock-arm 32 from an engagement with the lifting-arm 27, so that the latter will, by stress of the spring 16, be forcibly rocked down into contact with the pin 33, as indicated by dotted lines in Fig. 2. . . .

SALUTING DEVICE.

Fig. 1.

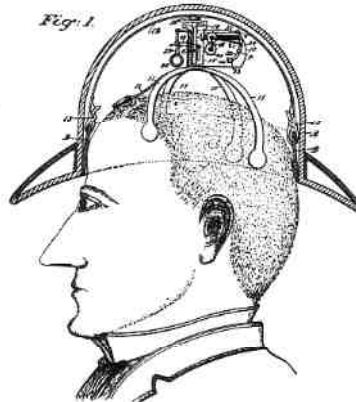
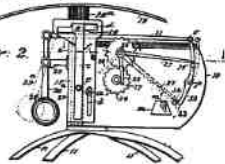


Fig. 2.



He continues on to a full explanation of this extraordinary device. Owing to a premium on space in this issue, we regretably cannot reproduce Russell's description in its entirety. Interested members can, however, call Russell directly at (572) 852-2010 and get the full story from him.

THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH



any, effect this would have. As you can see, with 5/8-inch manifold, only a very minimal increase through the mid-range was gained netting a .3% overall average increase over the previous test. At this point, Valley Head Service felt they were nearing, or had reached, the end of the road. The next test would be to check the Standard Production Road Racer head on the flow bench.

As was mentioned earlier, all that was to be done with the Road Racer head is to use it as a comparison against the stock, and now modified, Commando head. The manifold (1-inch) and carburetor were bolted on the head, and after a check on the air temperature, the flow bench was turned on. The comparison chart reveals the findings of the flow bench on the Road Racer. The intake valve was unable to be opened much over .350-inch because at this point the spring retainer bottomed on the valve guide.

Using the flow results of the stock Commando head for our comparison, the Standard Production Road Racer head showed a 4% average increase. The end result of Valley Head Service's modifications to the stock head realized a gain of 17.3%. This was the same head tested in the first column. An increase of 13% over the Norton Standard Production Road Racer head had been gained. These figures are the overall average percent of increase, so the lift interval variations noted on the chart between the three heads does not affect this average.

What do all of these figures mean in relation to an increase of horsepower? According to Larry Ofria of Valley Head Service, the reworked stock Commando head should produce an increase of 11 horsepower or better. If other components, such as the cam and exhaust, are able to utilize this new found air efficiently, the increase could be greater. Sometimes this may require a cam or exhaust change to realize the maximum.

Anyway you look at it, volumetric efficiency, which is the air we have been talking about, is the label on the horsepower jug. More air, more pressure, more go. In racing, or any form of competition, it is the combination of everything performing its function as efficiently as possible that produces a winner. Cam grinders, such as Norris Cams, who were greatly involved in the Norton tests, can take these flow figures and design a cam that will take the fullest advantage of this flow increase. No one modification alone is going to produce super horsepower, it just isn't that simple. But increasing the per-cycle volume of mixture is the key to horsepower and the fullest benefits from that cam or new exhaust system will never be seen if the ports in the head are not allowing the best possible flow of air. There is magic in the air, and that magic spells out horsepower for you anytime you can fill more of the combustion chamber with it. Head work is a good starting point for increased power, and if you already started with other modifications, it can further complement and add to them also. We might add that these modifications are all applicable to the Norton Atlas head as well.

/j/c

Thanks to John Covell for typing "port'n the norton".

LOCAL BOY STARTS BUSINESS

We have just received word that Phil Radford has begun distribution of Norton spares in the US.

FAIR SPARES AMERICA, INC. is now a distributor for FAIR SPARES, the well-established Norton specialists, of England. FAIR SPARES is the largest customer of Norton Motors Ltd. and sells more genuine Norton parts worldwide than any other Norton retailer.

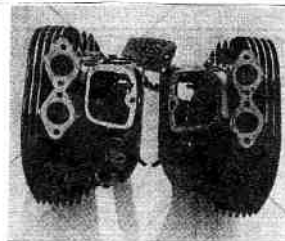
Write him a request for a parts list at the following address:

FAIR SPARES AMERICA, INC.
P.O. Box 8224
San Jose, CA 95155
(408)292-6563
M-F 9-2:00 PST

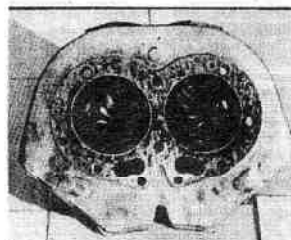
NORTON COMMANDO COMPARISON CHART

INTAKE VALVE DEFLECTION	STOCK HEAD	STANDARD PRODUCTION ROAD RACING HEAD	VALLEY HEAD SERVICE MODIFIED HEAD	SAME AS TEST #3 EXCEPT FOR 1 1/16" INCH MANIFOLD
.050	1.94	1.79	1.67	1.66
.100	2.90	3.52	3.39	3.39
.150	4.24	4.88	5.08	5.10
.200	5.33	6.04	6.80	6.81
.250	6.17	6.88	7.42	7.43
.300	6.79	7.23	7.84	7.88
.350	7.15	7.33	8.10	8.23
.400	7.37	*	8.44	8.46
.425	*	*	8.52	8.56
.450	*	*	8.67	8.64

*SPRING RETAINER HIT VALVE GUIDE BEYOND .350 VALVE LIFT



Intake side of both heads is somewhat different in modifications. Norton Road Racer (left) has had the intake ports opened up a 1/16-inch at the gasket flange, note also that passage all the way down has been enlarged and polished. Parts on the Valley Head Service one (right) haven't been opened up as large, and passageway is smaller.

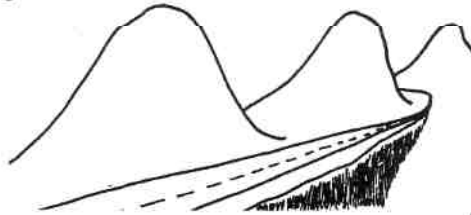


Material was removed from the intake port of stock head, not necessarily to enlarge the port, but to allow the flow of air to follow its most natural path. This can be measured on the flow bench as the instruments will fluctuate and bounce if the air becomes turbulent, indicating the path is not natural.

NORTON OWNERS CLUB



THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH



RIDE REPORT

EASTER MORNING RIDE

Well, the sun never did come out but it was a heartwarming day anyway. Two dozen or so riders from the East Bay gathered at the Ashby Bart Station in Berkeley as scheduled (4:00 A.M.). On our way across the San Rafael Bridge we added another half dozen and this group, added to those waiting at Tam Junction, put the Easter Sunrise Ride total at about 80 bikes. It was foggy on Mt. Tam but with so many bikes and good natured folks around who could mind a bit o' the damp. From the bikes departing Ashby it looked like Norton might be a strong runner to carry the day marquo-wise, but Triumph owners were out in force and won the count handily. I met Bruce Graf from the SCNOC who had driven all the way up from Valinda for this event and he is anxious for the So. and No. Cal clubs to get together. He told me tales of an annual San Diego Britbike gathering of 300 machines and of inviting So. Cal roads. And while it is a ways from the Bay Area, I'll keep you posted on that and other So. Cal Norton/Brit events as I receive them.

The ride to the restaurants was great once we slipped down under the fog. My navigator, a twelve-year old son, instinctively knew all the right leans, but kept pounding me on the back every time we grounded on the left side. I keep the revs up through the mudflats by Bolinas Lagoon but when Marshall came screaming by I knew the game was up and slowed down to (ahem) adjust my jacket and reclaim my footpegs. Twelve-year olds can have big feet.

Riders had been divided into groups so as not to overload any one restaurant. The food smelled great and the eating machine to my right had two breakfasts with his hot cocoa. Don Damsel was fresh from Daytona and talked about his travels in Florida. He's the new owner of an Ariel which he bought and rode while there.

After breakfast the ride continued up to the Russian River. We parted company at this point as I wanted to head for Sears for the day. The trip across Marin was better than ever, probably owing to the fact that all the church parking lots were full and the roads empty. What this country needs is more religious holidays, not fewer.

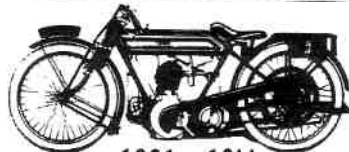
Sears was stuffed with racing machinery (439 entrants as I remember), and we settled in to see how the Norton racers were doing. Currently there are four Norton regulars at Sears: Lee Steinmetz, Mark Weisendanger, Eric Swortsfigure, and Robin. The Formula S & T was run right after lunch and Steinmetz took it with more gutsy riding. He was chased all the way by Swortsfigure who was running a new motor. Weisendanger limped into the pits

with oil flying all over from a cracked crankcase. Make it 1 1/2 years of racing on that engine. I also saw NOCER Dan Phillips who had just completed his first race ever on a BSA. He had attended the New Riders School the previous day and enjoyed it immensely. He's planning to run in more classes to increase his track time.

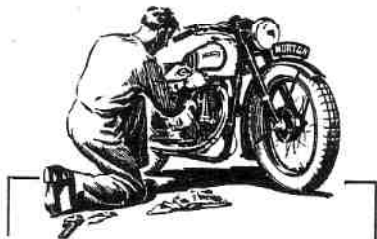
Folks, it was a little chilly on the mountain but ya shoulda been there. By the way, I've heard variously that the NOC and the BSAOC or a loose alliance of Bay Area Brit shops were responsible for making this event happen but frankly, in my opinion at least, the credit has to go to Marshall. He publicized the event, checked to make sure that Mt. Tam would be open, set up the restaurants (with Don's help) and breakfast groups, coordinated the bridge tolls, tried to make sure people didn't get lost, and even stopped on Rt. 1 to have a friendly chat with one of California's finest for our benefit. Now if only we'd had placenames at the tables. Well done, Marshall.



Easter morning fog stop Mt. Tam



1921 16H



TECH TIPS

BOYER BRANSDEN ELECTRONIC IGNITIONS

Over the years, I've found few devices that can improve the performance of your Commando more than the Boyer Bransden electronic ignition. This little gem replaces not only your points, but the auto advance unit as well. Since most Commandos will have by now gonked the auto advance, and since they cost at least \$60 (used), the Boyer presents an economically as well as technically advantageous proposition.

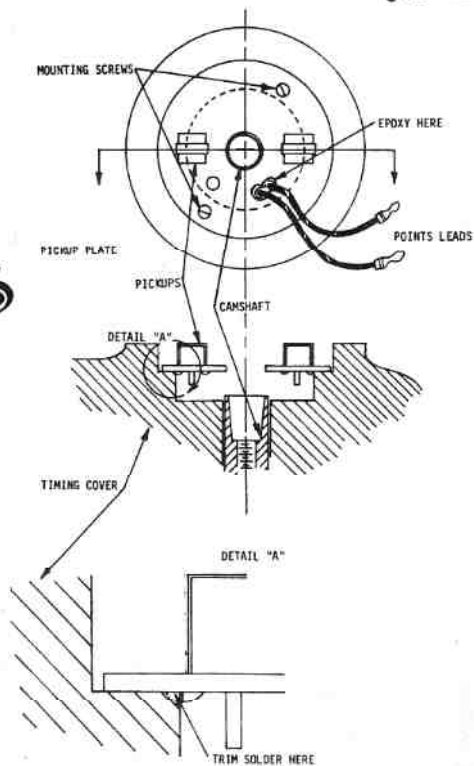
Here's how it works: The auto advance mechanism is replaced by a plate with two magnets on it. The magnet plate spins with the cam. The points plate is replaced by a circuit board with two coils on it. A steel pole extends down through the pickup plate from the center of each coil. When the magnet plate rotates, the magnets passing by the poles cause a pulse of electrical current to flow in the windings of the coil. The current travels up your points lead to the "black box" of the Boyer unit. The pulse tells the black box to fire the ignition coil which in turn fires the spark plug and the cylinder. Since the pulses come closer together as the motor spins faster, the black box can adjust the ignition advance by measuring the time between each pulse. The shorter the time, the more advance. In this way, the Boyer can give an advance curve more precisely fitted to the Commando twin, and can also give more advance.

Like everything else in this world, there are a few things to watch out for when you install one of these on your bike. I've summarized a few of the most important ones below:

1. On the back of the timing plate, you'll find four buttons of solder where the coil brackets come through the pickup plate. These buttons may interfere with the timing cover when you try to mount the pickup plate. Just take a file and recontour the buttons as shown in Figure 1.

2. There's a good chance that the taper on the magnet plate won't match the taper on the end of your cam shaft. Check this by putting some machinist's blue on the magnet plate taper and installing (I used magic marker). When the tapers match, the blue will be worn ~~off~~ evenly all along the length of the magnet plate's taper; then you remove it. (Remove it by screwing a 5/16 NF bolt into it and tapping the bolt at right angles to the axis of the cam.) If not, gently file the magnet plate taper until the blue is worn evenly.

3. The bullet connectors from the points lead to the ignition coils pull out from BOTH ends of the female sleeve.



4. Two methods are used to attach the points lead to the pickup plate: Older units use a terminal block with two screws in it. By modifying the eyelets on your points lead slightly they will fit on the terminal block. Newer units have two wires coming out of the pickup plate that end in bullet connectors. Two globs of epoxy provide strain relief for the wires where they come out of the pickup plate. The first few hundred of the newer units didn't have these globs and the wires would break (often up inside the insulation) and cause the motor to miss at high RPMs. If your Boyer doesn't have these globs, test the condition of the wires by giving them a good stiff pull. If they come off, solder them back on and put a glob of epoxy where the wires join the pickup plate.

5. The screws that attach the magnets to the magnet plate should extend all the way through the plate. The screws should be peened over on the back to keep them from coming out. Early, early Boyers weren't peened. You can guess the result.

6. Using K-Mart style automotive coils without an internal ballast resistor WILL fry your Boyer (they make life tuff for points, too). Make sure that the coils have an internal ballast resistor, or better yet, keep the stock coils on. They are smaller and lighter and provide plenty of spark for your Nort.

(Continued on page 19)



THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH

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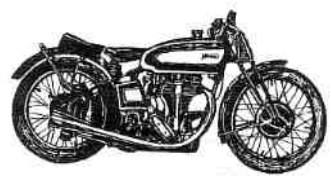
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THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH



(Cont. from page 17)

7. Mark the positions of the pickup plate with respect to the timing cover and the magnet plate with respect to the cam. When marking the cam, make sure that the pistons are at some easy to find position, such as 28 degrees BTDC. If you put the mark on the cam and magnet plate so that it lines up with the mark on the timing cover you made for the pickup plate, you'll be able to get your timing very close should you ever have to remove your timing cover (like the next time you check your cam chain).

Sent

A TECH TIP!!!! (my very first)

Blissfully riding down the road the other day I noticed that upon a turn signal caused my engine to sputter. Turn off the headlight and it seems to run fine. OH NO! Charging system problems! This happened once before, halfway between Eureka and Red Bluff, on HWY 36. That trip cost \$165 for a fancy new high output alternator. I visualized myself writing checks for hundreds of dollars for alternators, batteries, Zeners, etc. Fortunately, I have a friend who is an electronics technician, with a multitude of meters, etc. We metered the output of the rectifier, 13.5 volts. When we metered the negative side of the battery the voltage was 12.03, dropping as the lights were turned on, but not increasing as the engine RPM was increased.

The fault was in the in-line fuse holder. I had purchased (at Radio Shack) an inexpensive fuse holder and wired it between the rectifier and battery. Unbeknownst to me, as current flowed through the fuse it heated up, as did the contacts within the fuse holder. The cheap plastic of the fuse holder softened, allowing one contact to be forced deeper into the holder, thus breaking the circuit. I replaced the cheap fuse holder with one of better quality, and now my system is charging its heart out. Object lesson: read the ratings on the parts, or, you get what you pay for.

Must close for now.

Alan Peterson
11950 SE Holgate
Portland, OR 97266

RING COMPRESSOR

How much would you expect to pay for a set of genuine Norton stainless steel piston ring compressors? How does \$1.50 sound? Too good to be true? Well, mosey on down to your local hardware and ask the man for two number 48 hose clamps. He'll probably hand you a pair made by the American company Norton, who are probably more famous for their abrasive papers and stones. Anyway, these little gems are just wide enough to cover all the rings on the top, are easy to apply and remove, and best of all, are narrow enough to slide all the way off the piston rings before they hit the board that the shop manual tells you to place under the piston. Almost as handy as an extra pair of hands, and a whole lot easier to get along with.

Sent

TECH TIP: Spin-on oil filter kit

Warning: Before fitting a spin-on filter kit, part number 064283, to your Norton, check the two pipes in the mounting head, part number 062139, to make certain that they are not blocked. I just came across one which had the pipe marked "out" blocked because the hole was not drilled deep enough to make contact with the central passageway in the mounting head. Oil would have entered the filter but then not been able to return to the oil tank and I suppose my newly-rebuilt engine would have blown up due to oil starvation. So take a moment to blow through these two pipes to make sure they're clean before installing a new mounting head on your machine. Also be sure to check any new overhead oil line in the same manner before installing it.

Art Sirota

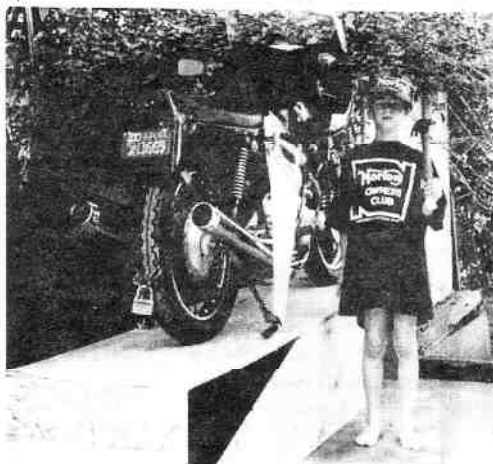
NEW HOPE FOR SORE KNEES

Tired of kneeling on concrete floors or driveways when working on your Nort? The USNOA, in its Winter '85-86 (#57) issue, carries a homemade bike stand designed by Michael Moore. For about \$60.00 I built this stand and can recommend it to anyone who would like to reduce the number of deep-knee bends per repair. If you do not subscribe to the NORTON NEWS and would like a copy of the article send me a SASE and I'll send you a copy.

There are two modifications I have made which I think are necessary. My stand sits outside and, while I did stain it, I am fearful that the weather may warp the wood. So I doubled up the top layer of plywood and hung a brace at the forward end to prevent sag under the front wheel. Also, it's probably a good idea to have a friend help when you are wheeling the bike on and off as the sudden movement of the bike as it passes the balance point could cause you to lose your balance.

Construction takes less than a few hours and I'm really happy with the result.

Leo



Norton carpenter explains construction of bike stand.