

# Norton Notice

THE NEWSLETTER OF THE NORTHERN CALIFORNIA BRANCH



1916 3 1/2 H.P.



NO. 83 MARCH 1985

# Norton Notice

The Newsletter of The Northern California Branch



is published monthly 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.

Deadline for items to be submitted for publication is the 21st of each month.

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94114

MEMBERSHIP IN THE NORTHERN CALIFORNIA BRANCH OF THE NORTON OWNERS CLUB IS AVAILABLE FOR \$25.00 PER YEAR.

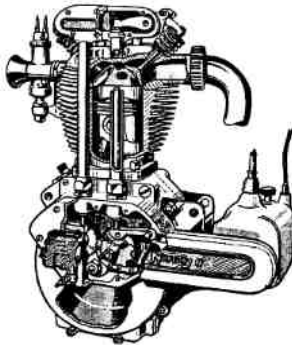
MEMBERSHIP DUES ARE PAYABLE TO THE BRANCH SECRETARY/TREASURER, WHOSE NAME IS SHOWN ABOVE.

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 NUMBER 745 WITH DUES EXPIRING ON THE 1st OF FEBRUARY.

ALL CHANGES OF ADDRESS SHOULD GO TO THE BRANCH SECRETARY/TREASURER, NOT THE NORTON 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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## VIBRATIONS

Welcome to the club the new members,

Welcome to the club the following new members,

John Pederson      San Anselmo, Calif.  
Pete Kelleher      San Francisco, Calif.  
Eugene Jens        Livermore, Calif.  
Frank La Chaplle    Bell Canyon, Calif.  
William Henneberg   El Segundo, Calif.  
Mike Carmody       San Francisco, Calif.

In last months column I mentioned the subject of head bolt torquing down. I may have given the impression that the cylinder head should be re-torqued immediately after the engine has been switched off, I.E. whilst still hot. This is not the case. When the head is Aluminum, as on the Norton Commando, this operation should only be carried out on a cold engine, then check valve clearances. The following is an article, taken from the Ariel Owners Club newsletter Cheval D Alliage on the subject of cylinder head torquing. Permission to reprint this was kindly given by Don Danmeier, thier editor.

If any of our newer members out there would be interested in obtaining any back issues of Norton Notice let me know. For about \$ 20 I can supply Practically all back issues of our newsletter, except the early ones. This amounts to around 50 copies. Could be fun reading and I know theres a wealth of Tech-Tips in them.

Regarding the controversy on when to tighten cylinder heads, readers Komives and Gold are both half right and half wrong. Retorque cast iron cylinder heads with the engine hot. With aluminum heads, warm the engine up, let it cool back down and then retorque. I have never seen an explanation for this, but being an engineer I think I can figure out why. I believe it relates to relative thermal expansion with temperature. With cast iron heads, the heads will not expand quite as much as the steel head bolts or studs with an increase in temperature. This means that, as the engine warms up, the bolts will lengthen at a slightly greater rate than the head will grow in thickness. This reduces the stretch or load in the bolts put in at the initial torquing, and reduces the pressure on the head gasket, which increases the likelihood of gasket blowout. Retorque an engine with cast iron heads when it is hot. The opposite is true of an engine with aluminum heads. The heads expand twice as fast as the steel head bolts or studs with an increase in temperature. This means that, as the engine warms up, the head thickness will try to grow much faster than the bolts will lengthen. This increases the stretch or load in the bolts put in at the initial torquing, resulting in increased pressure on the head gasket. The likelihood of gasket blowout with aluminum heads is therefore greatest when the engine is cold and bolt load is least. You therefore tighten these bolts with a cold engine. In this case I believe the reason for warming the engine first, then letting it cool, is to get all of the set out of the bolts, studs, nuts and cylinder head gasket while they are all heavily loaded under hot conditions. This is probably better than relying merely on the initial cold torquing.      Robert Normington, Ontario, Canada.

Phil Radford

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## UPCOMING EVENTS

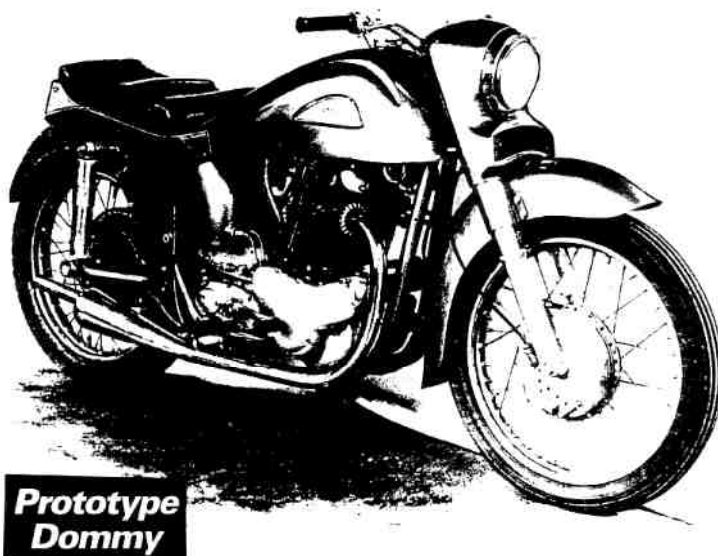
March 14 8:00 P.M. Ricks Swiss Chalet 4085 El Camino Way Palo Alto, Feb. meeting  
 March 17 10:00 A.M. Alices Restaurant Skylonda, ride to Santa Cruz

schedule for club meetings for 1985

April 11 Edinburgh Castle S.F.  
 May 9 Ricks in Palo Alto  
 June 13 Ricks in Palo Alto  
 July 11 Edinburgh Castle S.F.  
 August 8 Ricks in Palo Alto  
 Sept. 12 Ricks in Palo Alto  
 Oct. 10 Edinburgh Castle S.F.  
 Nov. 14 Ricks in Palo Alto  
 Dec. 15 Christmas party / dinner at Ricks in Palo Alto

This schedule is subject to change if we find a suitable east bay location.  
 The ride schedule is still being discussed.  
 I will publish the dates and times as I receive them.

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 should be taken care of. In other words....  
 FULL TANKS AND EMPTY BLADDERS!



**Prototype  
Dommy**

OLD

Due to the large response to the appeal by the club secretary for input from the membership, I will have to put the material in as I receive it, I.E. first received, first printed. I will get to all the letters eventually so please be patient. The newsletter is limited to 12 pages maximum because of weight restrictions in mailing. More pages equal greater postage rates. I know, Everyone is waiting for 12 pages. I will get all the ads in immediately. I am still waiting for the flood of Norton pictures. I haven't received Scots column yet, so, maybe next month. The classic bike show is scheduled for April 20. at the fairgrounds in Visalia. Rabers Cycle Works have a flier with details. Mike Howard, where the hell are you? Art, your N/N definitions will be in next months issue for sure, just in time for the spring sales. Incidentally Art swears that they are all true and do work.

I have received a letter from N/N club member Mac McCarthy in Colorado. He is hoping to make it to a club meeting or ride some day. I am hoping that he does and I promise I will buy Mac a beer or ten when he does. Now he has to come.

see you on the mountain,

*Bean*



42  
motorcycles

MC 1142

SERVICE RELEASE

CATEGORY OF RELEASE:

(as overleaf)

4

No. N79

NATURE OF RELEASE

Cylinder head tightening sequence

MODELS AFFECTED

Commando - all models and editions

DISTRIBUTION

Worldwide (General Distribution)

PARTS AFFECTED

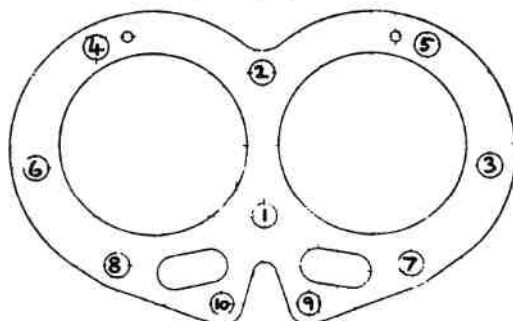
Cylinder head bolts and nuts

EXPLANATION

An improved cylinder head tightening sequence is used on our production lines. This varies from the sequence illustrated on page 15 of the Workshop Manual and we recommend the revised sequence being adopted by all trade outlets and private owners.

ACTION

Follow the tightening sequence shown below:



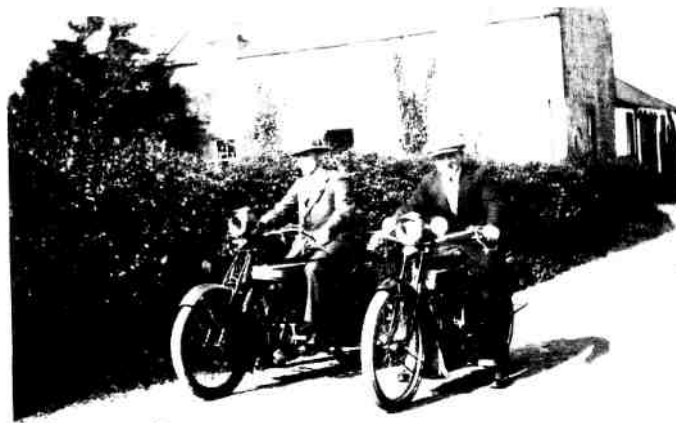
The correct torque settings are:

Cylinder head bolts and nuts  $\frac{1}{2}$ in. 30lb/ft(3.68kg/m)

Cylinder head bolts  $\frac{5}{16}$ in. 20lb/ft(2.75kg/m)

It's time to renew my membership as well as contribute my two cents worth of nostalgia. I met an old lad here in Vancouver who use to have a Norton back in 1916 on his farm in England. I was stopped at a traffic light and he came up and poked me in the side with his lawn rake. I was startled by this action and momentarily baffled by his introducing line "Why did you buy the Norton?". My reply was "Because its the best motorcycle I've ever driven". He invited me into his house to show me some pictures of his old Nort., leaving to the wayside all his lawn maintenance equipment including a running hose and in we went. I found it a little strange that this eightys approaching nintey's old gentleman was so enthused to dig out a couple of old pictures but I guess the minute he saw the Norton logo on my bike it triggered a lot of good old memories. He showed me pictures of he and his brother each on their bikes. Jimmy Harkness on his 3 1/2 H.P. Norton and Johnny Harkness on his 4 H.P. Triumph. He trusted me with the original prints so as to copy and share with you people of the club a little history. Apparently in 1916 two hundred Nortons were being sent up to Russia on the high seas to help the British Battallions that were fighting with the Russians to quash the Bolshovics. The motorcycle orders were cancelled due to the success of the Bolshovic revolution and the bikes headed for home untouched. Mr. Harkness acquired his 1916 Norton with the help of some tight connections in the government supplies office and remained the owner of the bike right up until a few years ago when a young fellow in Scotland demolished it in an accident. After a few more stories of the features of the 1916 Norton like, drive chain, oil bath enclosure, and some sort of chemical reaction gizmo for a headlamp up front. We proceeded into his basement for a quick display of his sole remaining original piece of equipment that was supplied with the purchase of every Norton in the tool kit. It looked much like a modern day plumbers pipe wrench only the threaded part that adjusts the height was incorporated within the full length center of the handle. It must have weighed five kilos and had stamped on it GIRDER JUNIOR # 93, JOSEPH LUCAS LTD. MADE IN ENGLAND. I thought it was really a smartly engineered piece of equipment and hinted that it would go nicely with my Nort. but he said it was already assigned to a nephew in his will. The visit was quite an event and although it lasted around three hours and included everything from bikes to gardening, to a 1920 crystallized sample of award winning GOLD MEDAL honey from his home town Killmarnock, Scotland. I will treasure the memories shared on this occassion and preserve the details of this visit for a long time to come.

Keith Garrow, Vancouver



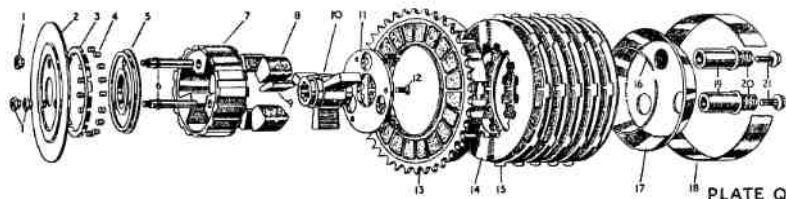
This tech tip is actually a record of my attempts to improve the ignition circuit on my 1973 850 Roadster. After observing the faint flicker that my 6 volt Lucas ( better bring a flashlight ) coils produced across a .028" gap and reading a Cycle article on coil transplants, I decided that a hotter spark might make the bike run better. A trip to the K- Mart netted a pair of 12 volt car coils, \$ 6.66 ea. and a no-name ballast resistor. Wiring these in place of my Lucas components produced a fat blue spark across .036" gap, but the new coils ran the bike into electrical starvation at night and slowly discharged the battery during daytime running, due to excessive dwell time. You see, the weak Lucas coils need all the dwell they could get, while car coils need much less to produce much more spark. note: dwell refers to the amount of time that the points are closed and thereby charging the coils up. So, I removed the points breaker cam and puddled some brazing-rod on the closing ramp. Then I spun it in a lathe, skimming off a few thou to make it round again. Touching up the closing ramp with a flat file finished the mod, the result being to cut the dwell in half. Now I could ride at night again without fear of draining my battery at a stoplight, with the headlamp on. However, installing a H-4 quartz lamp in place of the Lucas sealed beam and a set of Hella air-horns put me right back where I was before- couldn't run the motor and run any accessories without slowly sinking into electrical starvation. The solution was clear, I needed less dwell and maybe a high-output alternator. So I ordered and installed a Boyer from Fair-Spares. In summary, the car coils were a good move as they made the bike start and run better, at the expense of cam alteration. The Boyer was the best move, as I got better sparks, starts and way more accurate timing to boot. the car coils don't do a thing for timing accuracy. One last note: if you're going to go points cam brazing, always do it on the closing ramp. There, now I've written a Tech Tip too. This one may or may not help anyone, but it shows that you don't have to be a club mover and shaker to contribute to the newsletter. I hereby challenge all you members of the Federation of Backyard Hacks and Shade Tree Mechanics to write in with your experiences/trials/tribulations/humiliations.

Ken Ward

#### Another Tech-Tip

The lucas horn fitted to the Commando range of Nortons has to be the most awkward part to get at on the whole bike. The working conditions for the poor thing hardly encourage a long life. Under attack from oil,dirt and water, its a wonder it works at all.I was about to throw yet another dead horn in the garbage when curiosity got the better of me. I asked myself, What exactly does the inside of one these Lucas wonders look like? So I drilled out the aluminum rivets that holdit together and pried it apart. The electrical wizardry Joseph dreamed up for our benefit consisted of a diaphragm, solenoid and a set of points. So why didn't it work? The answer- dirty points. They are very much like the ignition contact breaker points found elsewhere on your Norton. Five minutes work with a points file and emery cloth soon had the beeper working again. Some 8-32 bolts& lock nuts replaced the old rivets. a dosing of wd 40 inside and a touch of silicon seal on the joint completed the job. It may not be the answer to your horns ailments, but before you chuck it, have a look inside, if only for curiositys sake.

Phil Radford



	S	M	LG	XLG	
T-SHIRTS	*	*	*	*	T-SHIRTS***T-SHIRTS***T-SHIRTS***
BASEBALL		*	*	*	
JERSEY					NOC BIG N LOGO

All branch logo t-shirts are white, baseball jerseys are white with blue sleeves.

All t-shirts are Hanes Beefy T's  
Prices : T-shirts (all) \$8.00  
: Baseball Jerseys \$9.50

Pay by check made payable to the "Norton Owners Club"

	S	M	LG	XLG
BLACK	*	*	*	*
NAVY	*	*	*	*
YELLOW/BLACK	*	*	*	*
WHITE/BLACK	*	*	*	*

## BRANCH LOGO

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 bike. A refundable deposit equal to the replacement value of the tool is required at the time you pick it up.

TOOL	DEPOSIT
timing cover oil seal guide.....	\$ 5.00
rocker spindle puller.....	\$25.00
crankshaft sprocket puller.....	\$12.00
clutch spring tool.....	\$12.00
clutch locking tool.....	\$18.00
valve spring compressor.....	\$22.00
exhaust nut "C" spanner.....	\$10.00
timing pinion extractor.....	\$20.00

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

## PARAPHERNALIA

4 1/2" sticker	N.O.C.	\$1.00
2" sticker	N.O.C.	\$ .50
2 1/2" x 3 1/2" N.O.C. sticker		\$ .75
( red, white, and blue )		
N.O.C. keyfob		\$1.50
4 1/2" embroidered patch		\$2.50
Lapel pin, branch logo		\$1.25
T-shirts - N.O.C. and branch		
various sizes and colours call or		
write for details.	Tom Borman	
	4278 25th. St.	
	San Francisco, Ca	
	94114	
	415-282-9304	

## NEW PARAPHERNALIA

Black T-shirts, MY SUCCESS IS DUE TO MY UNAPPROACHABLE NORTON.  
Size XL ( US large ) only. \$8. plus shipping, \$ 1.50.

Norton Owners Club Commando Service Notes.

45 pages of technical information produced by the N.O.C. England. Invaluable information to any Commando owner. \$ 5. plus .75¢ postage.

## FOR SALE

1972 Norton Hi-Rider headlight v.g.c. \$ 55.  
speedometer drive. \$ 35.  
1 pr. 1972 B.S.A. Lucas handlebar switch assemblies with levers and wiring g.c. will also fit 1971 Norton and 1971-74 Triumph. \$ 30.  
1972 B.S.A. B-50ss frame, swingarm & papers. g.c. \$ 50.  
1972 B.S.A. B-50ss gas tank. g.c. \$45.  
front & rear fenders. g.c. \$13 ea., sidecovers \$7 ea.  
1972 B.S.A. B-50ss engine, transmission & clutch, rebuilt carb., still in bike and running, good compression. g.c. \$170.  
Norton MK-3 master cylinders, front, just rebuilt chrome plated by Browns Plating. e.c. \$50. rear g.c. \$35.  
1973 Triumph T-140 gas tank, 2 small dents otherwise g.c. no paint. \$40.  
1973 750 Norton front fork upper yoke, straight & g.c. \$10.

plus lots of other small parts

Charlie Kuss  
1671 Electric Ave.  
Lackawanna, N.Y. 14218  
716-824-7887



FREE FREE FREE FREE FREE from Art Sirota, 68-70 Commando sidestand.  
( 415 ) 327-3167

NORTON RACE MANUAL

I've been racing at Willow Springs race track and winning a few. Anyway, I've compiled and written a Norton race manual covering crank lightening and rebalancing, valve train lightening, porting, cam timing, altering compression ratios, bullet-proofing, etc., etc. Twenty-three typed pages and eight pages of illustrations. The manual was a lot of work and should be very helpful to those hopping up their Nortons. The cost is \$ 10.00.

Jim Schmidt  
582 N. Golflinks Rd.  
Fresno, Ca. 93727

FOR SALE

Norton Atlas slimline frame, straight with swingarm. \$ 125.  
750 cc Atlas engine, number matches frame above. \$ 100.  
650 cc Dominator engine, no pistons. \$ 75.  
Dominator bolt-on 5/8 x 1/4 brake drum. \$ 15.  
set Atlas engine plates. \$ 15.  
Atlas gas tank, bare, few small dents. \$ 15.  
Atlas oil tank, with oil line fittings. \$ 25.  
Pair high level, left-side exhaust pipes ala S type but longer. \$ 25.  
Commando footrests pr. with brake pedal, good chrome. \$35.  
850 Commando MK3 Roadster seat, perfect. \$ 45.  
Late 60s Triumph dual seat, recovered. \$ 45.  
Chrome sissy bar luggage rack, will fit Commando. \$ 15.  
1951 BSA B33 hardtail frame, forks, wheels, trans., oil tank. \$ 95.  
Phil Radford  
( 408 ) 293-4548  
( morns. or wkends )

Handmade Leather Commando Saddlebags



Get that extra carrying space without a rack. Designed for the upswept Commando pipes. Available in black, tan, cordovan, with chrome buckles. Handsewn with waxed linen thread and stress reinforced with rivets. Waterproof and guaranteed. \$ 80 per set.  
Hans Winberg  
501 Collings Ave., W. Collingswood, N.J. 08107, ( 609 ) 854-4764

WANTED

1975 Norton Commando Roadster factory workshop manual, original type.  
Vincent Black Shadow, in good shape.  
Keith Garrow  
4521 Langara Ave.  
Vancouver, British Columbia, Canada, VER 1 GQ

FOR SALE

850 Commando parts  
Rear wheel with rim & tire. \$ 50.  
850 cylinders. \$ 60.  
850 head. \$ 75.  
Biff Erickson  
( 415 ) 681-9131

<p style="text-align: center;"><i>Hall-Burdette</i> MOTORCYCLES</p> <p style="text-align: center;"><b>Norton</b></p> <p style="text-align: center;"> <b>MOTO GUZZI</b> <b>DUCATI</b></p> <p>We have been selling and servicing Nortons since 1948 and have a good supply of parts and accessories, both new and used. Our mechanic, Bob Bennett, has been repairing Nortons for over 20 years and is a recognized expert. Thor Berke, our parts manager, has a thorough familiarity with all Norton parts and accessories.</p> <p style="text-align: center;">2010 DEL PABO BLVD. SACRAMENTO, CALIFORNIA 95815 PHONE (916) 925-1787</p>	<p style="text-align: center;">RABER'S EUROPEAN CYCLE WORKS, INC. "Your source for parts and service" BSA <small>for the original</small> TRIUMPH</p> <p style="text-align: center;"><b>Norton</b></p> <p style="text-align: center;">DUCATI MOTO GUZZI</p> <p style="text-align: center;">the same old guys at the same old place...</p> <p>Over 60 years combined M/C knowledge... ( Bill must be older than I thought)</p> <p>*****PARTS: Bob Raber SERVICE: Bill Mankins*****</p> <p style="text-align: center;">1615c ALMADEN ROAD (rear building) SAN JOSE, CALIFORNIA. 95125 (408) 998-4495</p>
<p style="text-align: center;"><b>Norton</b> <b>Triumph</b> <b>LAMARCA</b> <b>DUCATI</b> <b>MOTO MORINI</b></p> <p style="text-align: center;"><b>T.T.</b> <b>MOTORS</b></p> <p>Norton Owners - T.T. specializes in European motorcycles and offers complete parts, service, and machine shop for all the wonderful bikes we sell.</p> <p>Stop by and visit and check us out!</p> <ul style="list-style-type: none"> <li>* Complete line of British tools</li> <li>* Manuals and spares for your Norton</li> <li>* Speed Equipment:</li> </ul> <p style="margin-left: 20px;">Megacycle and webcam camshafts Single Mikuni kits Exhaust port repair \$45 each Valve jobs and port work Cycliner boring and surfacing</p> <p>* 10% discount on all parts (except Lucas) to N.O.C. members</p> <p style="text-align: center;">2800 Adeline Street Berkeley, CA 94703 9 a.m. - 6 p.m. Tues. - Sat. 845-8235</p>	<p style="text-align: center;"><b>Triumph</b> <b>Norton</b> MOTO GUZZI <b>DUCATI</b></p> <p style="text-align: center;"><b>MUNROE MOTORS, INC.</b></p> <p style="text-align: center;">MOTORCYCLES SALES - SERVICE - PARTS</p> <p>Munroe has three mechanics that are familiar with Nortons and have been for a number of years. We can replace exhaust ports with the head on the bike and don't know of anyone else who can. The job looks like original factory! Call for a quote on shop prices. We also have a good Norton parts supply.</p> <p style="text-align: center;"> <b>MUNROE MOTORS</b> INC.</p> <p style="text-align: center;">412 VALENCIA ST. SAN FRANCISCO 94103 PHONE 626-3496</p>