

Www.AllAboutMiniBikes.Com

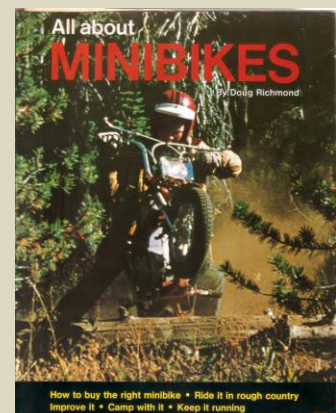


©2019

The first book I ever read on mini bikes back in 1973. I got it at the Library. I bought the kids a mini bike for Christmas several years ago, [Sarah loved riding](#) and I got back into mini bikes. Hence, the name of our FaceBook page and Website... "All About Mini Bikes" thought you might get the connection. Thanks for your patronage in our hobby and feel free to write us anytime at Przyojski@Yahoo.Com

Your Mini Bike Friends,

Dan & Sarah



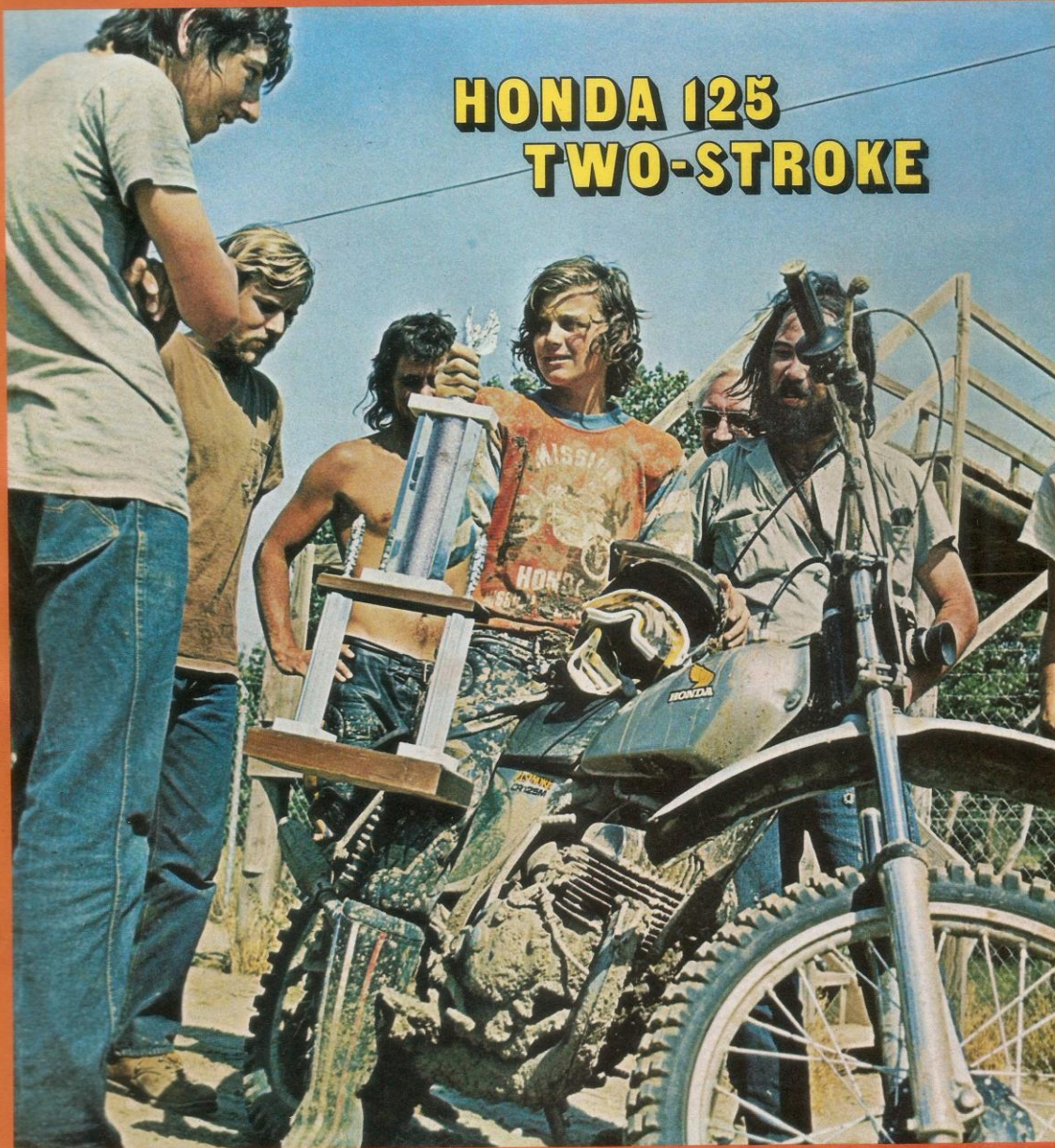
MiniCycle

K47745

SEPTEMBER 1973/75¢

SUITCASE CYCLES • SCHOOLBOY CMC MOTOCROSS
How To: HEATHKIT ENGINE ANALYZER • ALIGNING A CRANK
Tests: SPEEDWAY • RUPP 80/100

HONDA 125 TWO-STROKE



Indian

Makes the 1st and 2nd Best Minicycle



Indian Minicycles contain the same advanced features as the Indian full size motorcycles, such as, floating rear brakes, cushion drive hub, wide tread tires, triple laced rims, convenient controls with finger tip adjustment and quick release throttle cable, horizontal and vertical adjustable foot pegs, full cradle competition frame, and adjustable hydraulic suspension system. Add to this an eight horsepower aluminum engine with a choice of six or four speeds and you know why we are Number One and Number Two.

The Indian Motorcycle Company

1535 West Rosecrans Avenue Gardena, California 90249
(213) 532-7374

GO
with the
WINNING
equipment

FLASH!

J&B RULES CALIFORNIA
SCHOOLBOY MOTOCROSS
CHAMPIONSHIP—80cc Class

- 1**—JEFF WARD
(J&B Racing Team)
- 2**—DON VAN TASSEL
using J&B Racing Equipment
- 3**—BRYAN MYERSCOUGH
using J&B Racing Equipment

also Jeff Ward placed 2nd
in 100cc class on J&B equipped
HONDA XR-75.



Jeff Ward

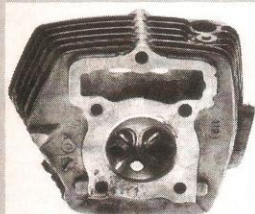
TOUGH and FAST! Race results have proven the performance of **J & B Racing Equipment**. The "gold" gathered by Jeff Ward and Brad Dutoit would put Fort Knox back on its feet. Now **your** machine can have the same winning ways with parts from **J & B Racing Equipment**. Send in your order form today or ship your engine to **J & B** for the full treatment!



RACING CAMS

XR-75 and SL-70
(New grind to J & B specs.)

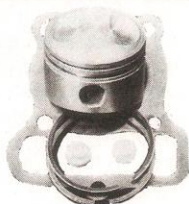
☐ \$26.95 exchange



RACING XR-75 HEAD

Custom Flow Engineered

☐ \$36.95 exchange



RACING PISTONS

80cc racing piston

☐ \$29.95

75cc racing piston

☐ \$24.95

(Teflon buttons with 80cc piston)
Kits include gaskets & rings



UNBREAKABLE LEVERS

(Plastic blades only. Fits Honda
and Yamaha. State which.)

☐ \$3.95 pair



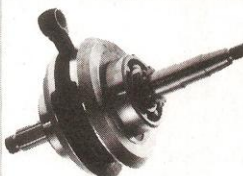
RACING CARB

22mm CARB

☐ \$19.95

Carb Adaptor

☐ \$11.95



RACING CRANK

Lightened and Balanced

☐ \$39.95 exchange



RACING EXHAUST

As used by MISSION HONDA team

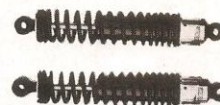
☐ 4.95



RACING VALVES

Lightened and polished

☐ \$14.95 pair



HYDRAULIC SHOCKS

Two spring rates—for riders below 75 lbs. and riders above 75 lbs. State preference.

Fits Honda, Yamaha and Indian mini-cycles. State machine.

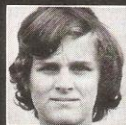
☐ \$37.50 pair

J&B
racing
equipment

P.O. Box 2431 · Laguna Hills, CA 92653



Jeff Ward



Brad Dutoit

Name (please print) _____

Street Address _____

City _____ State _____ Zip _____

Check or Money Order for \$_____ enclosed.
(California residents add 5% sales tax)

Mail to: **J & B RACING EQUIPMENT** Dept. MC8
P.O. Box 2431, Laguna Hills, Calif. 92653

Complete XR-75 race modifications. Prepared to J & B specifications. Go with the winning equipment used by Jeff Ward and Brad Dutoit. Send your engine to the above address or inquire about prices on various stages of modification, from 75cc to 100cc.

Dealer inquiries invited. Your ideas and comments welcomed.

BREATHTAKING WHEELIES
Secret tricks and techniques of the experts. Wheelie any bike from 50cc to 500cc for as long and as far as you want. Over 40 pages of instructions with many photographs and diagrams.

■ \$3.49

MEET THE CHALLENGE
For competition or trail riding. How to stop the front end from coming up, how to use body english, how to ride down steep hills, how to turn around half way up and much more.

■ \$3.49

DON'T BE TAKEN
Learn to spot a lemon, tell true age. How to check out the engine and trans. How to test ride. All about dealer guarantees. A complete blue book guide to used bike prices.

■ \$2.98

TIPS FROM THE DESERT RIDERS
Even small bikes can handle deep sand with the proper techniques. Learn to get up on top and hydro-plane.

■ \$1.00

THE KEY TO HIGH SPEED RIDING
On the dirt or on the track experts depend on the front brake. Ride faster and stop quicker.

■ \$1.00

HOW TO BUY A USED MOTORCYCLE

HOW TO RIDE IN SAND

SPECIAL OFFER

■ ALL 5 BOOKS ONLY \$9.95

■ Both Wheelie Book and Hill Climb Book only \$5.98

Check the boxes next to the books you want and send cash, check or money order to POWER RIDER CO., Dept. 9000, Box 158, Saugus, Calif. 91350. Allow 4 weeks normal delivery or enclose 50¢ extra for each book for rush 1st class mail. (California residents add 5% sales tax.)

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

editorial

Bits N' Pieces FEDERAL MOTORCYCLE BAN

Here we go again! It seems as though every time we beat the federal wolves away from our door they come back with renewed vigor. The latest episode in their attempt to eliminate pollution is to limit the number of motorcycles being registered each year. When they refer to motorcycles it also includes mini-cycles, trail bikes and mini-bikes. The thought behind their scheme is that by controlling the "boom" in cycles that they will also control pollution. In the same proposal they want to eliminate the number of parking spaces and freeways for major cities.

Trying to follow the report and make any sense of it is difficult at best. But let's take it one item at a time and try.

Recent surveys have indicated that more commuters are buying bikes every year. The government sees this as a new source for pollution and an increasing number of vehicles. They also view bikes as potential problems in traffic control and law enforcement. What they don't see is that the commuter is turning to bikes for increased mobility in congested traffic areas. The average rider has found that city parking is either free or costs 75% less for a bike as opposed to a car. Gasoline costs him considerably less as well as maintenance and insurance.

Let's forget for a moment that the guy has any thought at all towards a solution for pollution. Chances are he could care less and his reasons for riding are purely selfish. Despite this he is unwittingly contributing a great deal to helping our environment. The bike he rides takes one-fourth the amount of driving space of a car. Most motorcycles aren't even noticed in congested traffic patterns since they create their own riding lanes.

Most motorcycle engines are an average size of 15 cubic inches. This is nothing compared to a Volkswagen engine of 90 inches or a 'Vette with 454 inches! Granted, an engine 30 times bigger, with a smog device, may not produce 30 times as much pollution but the differences are substantial. The 454 'Vette in question is lucky to get seven to nine miles per gallon. Our 15 ci bike will easily get a hundred miles to a gallon of cheaper gas!

The parking situation is something else altogether. A bike is small and easy to maneuver in a tight space. It's an easy matter to get six bikes into the same space as the average intermediate car. It would be possible, now, to cut down considerably on the problems encountered by cities like Los Angeles by promoting and encouraging bike use. It's hard to imagine that the government wants to add to the situation. We can't help but feel that they don't know what they're doing. Of course they talk about the rapid transit systems of the future and blue sky days. The problem is that these systems can't reach an operative point for at least ten years. Hell, they can't even offer us a decent bus system and they encourage monopolies in the private taxi lines. Have you ever ridden in a taxi in L.A.? Chances are not. You're better off to walk to your destination since the only company allowed to operate in L.A. is Yellow Cab. They know they have you and taxis are practically available by appointment only. I hate New York but at least they have a good transit system. The commuter has his choice of train, plane, bus, taxi (by the thousands), subway, car, motorcycle, helicopter, bicycle or carriage all within a mile radius of Central Park.

If this ludicrous bill is passed we're going to be in deep trouble. A sudden decrease in motorcycle sales, forced or not, can cause some serious problems. The racing-oriented bikes will undoubtedly be among the first to receive the ax if registration is controlled by types. Second will be the trail bike—compliments of the Sierra Club. The last to go will probably be the street bike because it does the least "damage".

Manufacturers will be faced with the problem of gearing down. The number of new machines being introduced each year will decrease as the companies turn to higher production runs on a single model to lower their unit prices and increase profits. Any way you look at it, the outlook is grim. The only thing we can do is to fight it tooth and nail. As it now stands we have already been forced out of many cities to ride in special, restricted areas. If you're old enough then write to your

Continued on page 11

MiniCycle

VOLUME 5, NO. 9 / SEPTEMBER 1973 / AMERICA'S FIRST MINI-CYCLE MAGAZINE

FEATURES

14 HEGAR KIK-START

Young Stuart Smith gives us his speed secrets

24 SCHOOLBOY CMC MX

Motorcycle racing with a plus

27 OIL FUEL RATIOS

Double, double toil and oil

27 WRINKLED WRENCH AWARD

Wherein they try to pull the wool over our eyes

30 SUITCASE CYCLES

Come fly Suzuki to the Pacific

33 TIP BITS

Cause a little friction, Cheapie gadget bag, Western Union

38 TRICK TOOLS

Keep that enging going "HmMMM"

39 HEATHKIT ENGINE ANALYZER

Winkin', Blinkin', and Synchin'

46 MAMA HOTSHOE

Who's minding the kitchen while mom's racing?

46 FATHER'S DAY RACE

For that matter, why are those grown men racing such small bikes?

49 JACK SHAFTO

Is a mini-cycle for dad or grad?

TESTS

19 HONDA 125 MX

Meaner than a junk yard dog

22 HONDA TL-125

Super trials bike—eat your heart out Mick

35 RUPP, RUPP, RUPP (80cc and 100cc)

We flagellate a flagitious brace of bikes

42 SPEEDWAY SUPER SPYDER AND ENDURO

Good-foot and hot-foot

DEPARTMENTS

4 EDITORIAL

12 PUBLISHER'S PAGE

6 LETTERS TO THE EDITOR

52 MISCELLANY

8 TECH TIPS

PUBLISHER/ADVERTISING PATRICK J. MACKIE ☐ EDITOR BRICK PRICE ☐ FEATURES RAY HOY ☐ ASSOCIATE EDITOR JIM GILBERT ☐ ART DIRECTORS EINAR VINJE, JON DAHLSTROM ☐ PHOTOGRAPHERS PAUL LAXINETA, DENNIS McCLINTOCK, GREG WENGER ☐ OFFICE MANAGER MICHELLE MURRAY ☐ PRODUCTION MANAGER LAURA MULVEY ☐ CONTRIBUTORS DONNA KASMER, DAVE LEWIS

MINICYCLE is published monthly by Friday Publications, Inc., P.O. Box 2869, Laguna Hills, California 92653. Telephone number (714) 831-0530 or (714) 831-0531. Reprinting in whole or in part is expressly forbidden except by permission of the publisher. Entire contents copyrighted by Friday Publications, Inc. Second class postage paid at Laguna Hills, California, and Sparta, Illinois. SUBSCRIPTION RATES: \$7.50 for one year in U.S. and U.S. possessions, Canadian and foreign subscribers add \$1.00 per year. Single copy price 75 cents. All subscriptions and subscription correspondence should be addressed to MiniCycle Subscription Service at the above address. Please allow at least three weeks for change of address. When notifying a change of address, state old address as well as new address and enclose, if possible, an address label from a recent issue. EDITORIAL CONTRIBUTIONS are welcome and should be addressed to the Editor, MiniCycle, at the above address, accompanied by a return addressed envelope and postage. All material will be handled with reasonable care. However, the publisher assumes no responsibility for return or safety of editorial material.

TECH TIPS

OVER HILL, OVER DALE . . .

Q Is it possible to ride a scrambles bike, like the Honda SL-70 or Yamaha Mini-Enduro, on trails without damaging the bike? If so can anything be done to make the bike suitable and safe for trail riding? Also if riding the bike on trails will hurt it, then what parts do I change to make it right?

Steve Armstrong
Quebec, Canada

A. No changes are necessary when trail riding on either of these bikes as they come from the factory. Scrambles is usually another word for moto-cross or mx. Mx racing is the toughest form of motorcycle competition in the world. This is not to say that either of these bikes is suited for mx racing because they are not. The factory really designed them for use on trails. Trail riding is actually the tamest thing you can do on a bike unless you ride flat out all of the time.

HUSH, HUSH SWEET PIPE

Q. With the noise problem the way it is many people may wish that they have the money to buy a quiet muffler for their bikes. Not too many people can afford the ten or twelve dollars though. If not then maybe they can do as I did to solve the problem. Find a segment of aluminum or steel pipe about twelve inches long. Take a drill and drill as many holes as possible over a six inch long segment of this pipe. Now take a steel beer can and drill a hole in each end to accept the pipe. Rip-off some fiberglass from your attic insulation and stuff it inside the can. Run the pipe into the can and secure both ends with a hose clamp. Now paint the whole thing flat black and attach to your exhaust with another hose clamp or whatever is needed. It worked great!

Jim Jones
Wilmington, N.C.

A. Congratulations, you've just built a glass-pack muffler! Your idea is great and will work fairly well. The only drawback is that it could cut power down considerably on a two-stroke engine.

On most mini-bikes and trail-ridin' four-strokes your idea is fine. Also be very careful as to where you ride with a set-up like this. You MUST have a spark arrestor on trails in forest and National Park regions. Even a lot with dry brush could become a hazard to you and those around you.

THROAT TRANSPLANT

Q. I would like to know if the Honda XR-75 carb will fit on my SL-70 and what advantage this would give me. Can you please help me?

Richard Meniel
Zion, Ill.

A. Yes the conversion will work well as these are both Kei-Hin carbs with the same type of adjustments and fittings. To realize the most potential you should match the intake ports to the bore of the larger carburetor. The unit you're taking off is 15mm and the new one is nearly 20mm. The result should be improved breathing and a higher top speed. The conversion will require a considerable amount of patience in finding the right jet and needle settings.

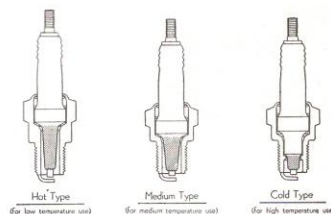
"HOT AND COLD FLASHES"

Q. I have read references in your maga-

zine regarding "hot" and "cold" plugs and am confused as to what this all means. Could you please clear this up for me.

Brice Butler,
Eugene, Oregon

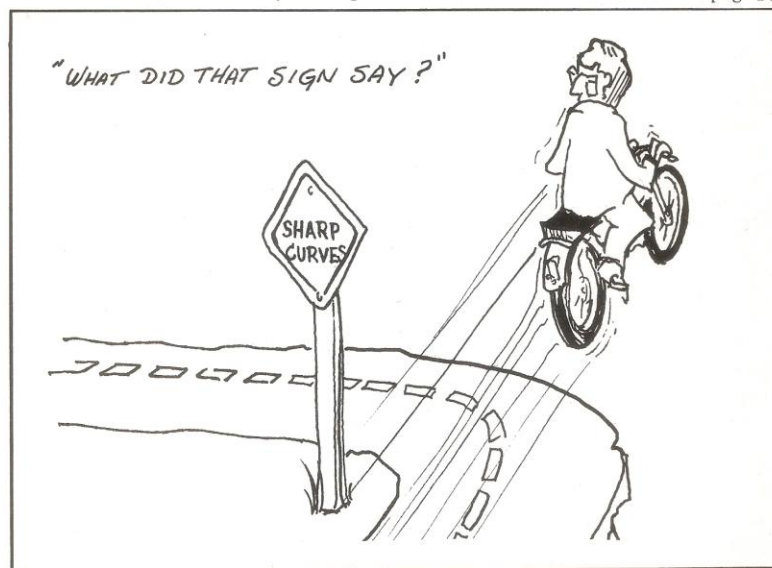
A. There are many types of engines, 2 and 4 stroke, air and water cooled, which operate under a variety of temperature conditions. Also engine design and state



ILLUSTRATIONS COURTESY OF
HONDA MOTOR CO.

of tune of the engine all determine the amount of heat that is retained by the spark plug. Considering that there is such a variety of conditions to be covered it is necessary to have many different types to cover these conditions; plugs that have a wide range of heat dissipation characteristics.

Continued on page 10



PRICE BUSTING CLEANUP SALE



WD-40
16 oz. Spray Can \$1.55 ☐
12 oz. Spray Can \$1.28 ☐



DEGREE WHEEL
Degree Wheel \$.94 ☐



MC HAL HELMETS

3000	Large	\$19.27	☐
3000	Ex. Large	\$19.27	☐
4000	Small	\$18.19	☐
4000	Medium	\$18.19	☐
4000	Large	\$18.19	☐
900	Small	\$21.20	☐
900	Medium	\$21.20	☐
1000	Small	\$27.42	☐
1000	Large	\$27.42	☐
1002	Small	\$32.14	☐
1002	Medium	\$32.14	☐
1002	Large	\$32.14	☐

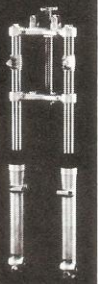
TIE DOWNS
Tie Downs, blk nylon, pr. \$5.40 ☐



Ceriani C-4000 \$69.95 ☐

CERIANI FORKS

Designed for the
100 to 400CC
two-stroke
powered bikes.



FILTRON FILTERS

Carabela 125	K-105	\$2.95	☐
Ducati 100 Trl	K-103	\$2.95	☐
Harley Baja	K-301	\$2.95	☐
Hodaka 100B	K-306	\$2.95	☐
Hdka Spr Rat	K-404	\$2.95	☐
Hnda MinTrl 50	K-117	\$2.95	☐
Honda SL90	K-119	\$2.95	☐
Honda CT90	K-121	\$2.95	☐
Honda SL100	K-122	\$2.95	☐
Honda SL70	K-123	\$2.95	☐
Suzuki TS-50	K-138	\$2.95	☐
Ymha MinEnd	K-125	\$2.95	☐

SILENCERS
Silencers, spark arrestors \$6.43 ☐

TACO T-SHIRTS
Taco T-shirts, boys \$1.85 ☐
Taco T-shirts, men \$2.07 ☐



KRYLON PRODUCTS
Carb Cleaner \$1.45 ☐
Hi Heat Paint \$1.45 ☐
Metal Flake Paint \$1.45 ☐
Cycle Chain Lube \$1.45 ☐
Cycle Control Lube \$1.45 ☐

BELL HELMETS

500TX	Size 6 1/2	\$37.00	☐
500TX	Size 6 5/8	\$37.00	☐
500TX	Size 6 3/8	\$37.00	☐
500TX	Size 7 1/2	\$37.00	☐
Magnum	Size 6 1/2	\$39.00	☐
Magnum	Size 6 5/8	\$39.00	☐
Magnum	Size 7	\$39.00	☐
Star	Size 6 1/2	\$49.00	☐
Star	Size 6 5/8	\$49.00	☐
Star	Size 6 3/4	\$49.00	☐
Star	Size 7 3/8	\$49.00	☐
Star	Size 7 3/4	\$49.00	☐



DREMEL KITS

Dremel port/polish kit, std. \$33.32 ☐
Dremel port/polish kit, h.d. \$39.95 ☐



HOOKER EXHAUST TUNERS

DKW MX	26131	\$29.05	☐
Husky	26137	\$29.05	☐
Husky	26139	\$29.05	☐
Kawasaki	26140	\$29.05	☐
Suzuki	26142	\$29.05	☐
Yamaha	26143	\$29.05	☐
Husky	26147	\$29.05	☐
Husky	26148	\$29.05	☐
Yamaha	26149	\$29.05	☐
Yamaha	26151	\$29.05	☐
Suzuki	26154	\$29.05	☐
Suzuki	26156	\$29.05	☐
Suzuki	26159	\$29.05	☐
Kawasaki	26161	\$29.05	☐
Kawasaki	26162	\$29.05	☐
Kawasaki	26163	\$29.05	☐
Hodaka	26166	\$29.05	☐
Husky	26167	\$29.05	☐
CZ	26169	\$29.05	☐
CZ	26170	\$29.05	☐
Montesa	26171	\$29.05	☐
Montesa	26172	\$29.05	☐
OSSA	26173	\$29.05	☐
Maico	26174	\$29.05	☐
Maico	26175	\$29.05	☐
Bultaco	26177	\$29.05	☐
Husky	26181	\$29.05	☐
CZ	26183	\$29.05	☐
CZ	26184	\$29.05	☐
Yamaha	26185	\$29.05	☐
Kawasaki	26187	\$29.05	☐

SORRY. NO C.O.D.'s. PLEASE ENCLOSE CHECK OR MONEY ORDER PAYABLE TO:
MOTORCYCLE CONSUMERS UNION, 23647 El Toro Rd., El Toro, Ca. 92630

ALL ORDERS SENT
FREIGHT COLLECT

California residents add 5% sales tax.

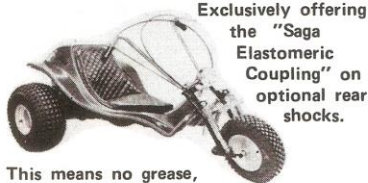
Name

Street address

City State Zip

TRY...TRI-ROD

America's most dependable three-wheeled machine with rugged "A" frame design.



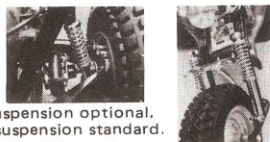
Exclusively offering the "Saga Elastomeric Coupling" on optional rear shocks.

This means no grease, no bearings, no maintenance.

"TRY...TRI-ROD"

the ultimate family fun machine.

Full fiberglass multi-color metalflake bodies.



Rear suspension optional. Front suspension standard.

Think you'd like to be a TRI-ROD dealer? We have a complete line of dependable models for you to sell.

BGW

BOX 3583
MANSFIELD, OHIO 44907
Phone: (419) 522-0665

Please rush full details on how to make money as a BGW dealer or distributor.

Name _____
Address _____
City _____ State _____

TECH TIPS

Continued from page 8

The "heat value of the plug" is the rate at which the heat is dissipated from the plug. This rate is determined by the construction, shape, dimensions, and the material used in making the plug.

For high temperature use you would want to use a plug that would be hard to overheat and that would easily rid itself of any heat. This is known as a "cold" plug. A "hot" plug should retain heat and should be easy to ignite. This would be for low temperature use.

SHOCKER

Q. I have a 72 Honda CT-70 that I have had to replace the battery on twice. The electrical system checks out OK but still the battery keeps going out on me. What now?

**Bill Remington,
Milwaukee, Wisconsin**

A. If there is definitely no problem with the rest of the electrics your problem could be lack of maintenance on the battery.

One thing that will cause the rapid demise of a battery is letting the elec-

trolyte level drop to where the plates are exposed causing rapid discharge to the battery. The electrolyte should always be kept at its proper level with the addition of distilled water. Do not add any sulfuric acid. If the electrolyte level has dropped excessively the discharge rate of the battery may be too high.

Damaged and dirty battery cable connectors should be replaced and/or cleaned and then covered with a light coating of grease or vaseline to prevent corrosion. When reinstalling the battery take care not to crimp the cables and be sure that the vent tube is not pinched.

An excellent indication of the condition of your battery is its specific gravity. To check this it is necessary to take a reading in each cell of the battery using a hydrometer. The battery is fully charged at a specific gravity of 1.28 with the electrolyte temperature at 68° F. If the reading drops below 1.20 then the battery is shot and should be replaced.

Living where you do, you'll likely experience hard starting when the mercury drops. This cold causes the battery capacity to lower. The cure for this is to store your motorcycle in a warm place.

Bicycle MX is here!

D & L Performance Products for the *go fast* Pedal Pusher



D & L Performance Products are quality custom and performance parts for the growing sport of Bicycle MX. Developed by bicycle racers, these are the fore-runners of a full line of components.



MOTO-STEM



MOTO-PLATE

ORDER FORM

- | | | |
|---|--|--|
| ☐ MOTO-PLATE\$1.50
(Front and side mounting. Essential for true bicycle motorcrosser. Fits any Stingray type bicycle.) | ☐ MOTO-TANK\$6.95
(Motocross style gas tank complete with mounting hardware. Fits any Stingray type bicycle.) | ☐ MOTO-STEM\$8.95
(Adapts motorcycle handlebars to any Stingray type bicycle.) |
| ☐ FRONT PLATE MOUNTS\$1.50 | ☐ TANK STICKERS, each\$.75
(Self-adhesive motorcycle stickers. Specify brand names, i.e. Malco, Honda, etc.) | ☐ MX BARS\$9.95
(Black finish with cross-grace. Same quality and feel as motorcycle bars. Fits on Moto-Stem.) |
| ☐ REAR PLATE MOUNTS\$.98 | ☐ COMPLETE CATALOG\$.25 | |

Dealer inquiries invited. Your ideas and comments welcomed.

Name (please print) _____

Street Address _____

City _____ State _____ Zip _____

Check or money order for \$ _____ enclosed. (Add \$1.50 for postage and handling of all products except catalogs and stickers. Calif. residents add 5% sales tax.)

**MAIL TO: D & L Performance Products,
P.O. Box 243, El Toro, California 92630**

EDITORIAL

Continued from page 4

congressman. If not write anyway and have one of your parents do the same. Too many of our freedoms are being taken away. On the surface some of these bills may not look too bad, but we also figured that one more dead buffalo wouldn't matter when they covered every western state.

FREEDOM OF SPEECH

I'm all for the freedom of speech concept except when it is used in a libelous and vengeful manner. Such was the case on June 23 on L.A. radio station KFWB-AM, channel 98. KFWB is noted for 24-hour news broadcasts. For this reason many of the several million people, including myself, listen to the news as they are driving to work. On this day, several Los Angeles communities were experiencing devastating fires and loss of property. In typical sensationalist manner, the woman announcer speculated that one fire might have been started by motorcycles. To put the report in her words, "The fire may have been started by children playing with matches or by motorcycles. Several motorcycles have been seen by residents in the area before. The riders can be seen to be smoking as they ride through and the exhaust pipes smoke." I listened to the report several times because I couldn't believe it. I had thought that public outrage against the cyclists went out with the last "Wild Ones" rerun. Apparently not. The woman announcer's facts were obviously scrambled. When did you last see anyone riding and smoking at the same time? If you are dumb enough to do it once the ashes will prevent it a second time. Besides, smoking and exercise don't go hand-in-hand. As for the smoke coming from the exhaust—congratulations to the eye-witnesses, they've just seen their first two-stroke trail bike in a poor state of tune. The smoke contains no sparks at all. Furthermore, none of the bikes, for nearly a decade, have been sold without spark arrestors.

The final clincher to the report came when a male announcer stated that the fire WAS started by children. Nothing was said to exonerate the poor bikers. The damage and image making had been done in subtle style. Let's hear it for factual news presentation.

Brick Price



THE HOT ONES COME FROM HACIENDA HONDA! HOME OF THE FAMOUS "RED-HEAD" AND XR 75 RACING COMPONENTS

The top riders... performance or pleasure... choose from our complete line of Honda parts and huge inventory of mini-bike, mini-cycle and motor cycle equipment. We pass the savings on to you. Call, write or come in to our show room.

XR-75 CAM — Designed for mid and high RPM running. Used successfully again and again by our race team bikes.



\$19.95
exchge

XR-75 EXHAUST PIPE — Complete with built-in silencer. Bolts on without modification. Performance proven on our own XR-75's.



\$23.95

NOTE: These two special Hacienda Honda "Redhead"

products, the cam and exhaust, with proper tuning, will increase your horsepower up to 40% over stock.

XR-75 MANIFOLD

Allows you to adapt the 22mm carb to your bike to gain total top end performance. Rubber mounted to eliminate breakage.



\$12.95

XR-75 HEADS — Total performance gain. Ports are opened. Guides re-worked and proper polishing is done to allow better engine breathing.



\$25.00
exchge.

OFFICIAL HACIENDA HONDA RACING JERSEY

— All nylon Moto-Cross jersey in bright orange w/long white sleeve, black lettering. A prestige jersey worn by our REDHEAD



RACING TEAM is now available to you. Washable by hand. Specify size. Price low so hurry...

\$6.95

ALL NEW 80 cc HIGH COMPRESSION PISTON KIT

— Includes piston, rings, pins, clips. It's the latest design, engineered for top performance.



\$28.95

COMING SOON... THE ALL NEW SUPER PARTS CATALOG

... SO BIG AND SO FULL OF THE LATEST MINI CYCLE AND MOTORCYCLE GOODIES AND SO INFORMATIVE THAT WE ARE FORCED TO CHARGE ONE BUCK FOR IT!

Just fill out the coupon below... enclose \$1.00 and we'll mail your catalog as soon as it is off the press.

Redhead parts also available for the SL 100, SL 125, XL 250



HACIENDA HONDA, Dept. 9, 507 North Azusa Road, La Puente, California 91744

Phone (213) 968-6461 (Please use zip code.)

Name _____ Age _____

Address _____

City _____ State _____ Zip _____



has everything for Minicycles

From hi-performance pistons and rings to popular accessories and equipment.



STEEL SHOE
CLUTCH
\$16.95



HI-PERFORMANCE
PISTONS \$14.95 & \$15.95



SOFTIE
SHOCKS
\$8.50



BILLET
RACING
RODS
\$24.95



KIK START \$19.95

12" and 19"
DUCKTAIL
SHAPE SEATS
\$7.95 & \$9.95



Send \$2.00 today
for your 170-page
WISECO Hi-Performance
Kart-Minicycle Catalog.

WISECO PISTON INC.
7208 Industrial Park Blvd.
Mentor, Ohio 44060

publisher's page

PHASE 95684½

WASHINGTON, D.C., Sept. 24, 2013: President Nixon VI today issued the guidelines covering Phase 95684½ intended to control the soaring cost of living. In outlining the controls, President Nixon said, "Inflation has been a problem since the days of my great-great-great...er, great-grandfather but this time we're really going to get things under control."

"I know that a lot of radclib elements, long-hairs, hippies and misguided economists, say that our Phases don't work. But, let me make this perfectly clear, Phases are a necessary phase in phasing out more Phases so that we can enter into a new phase of non-inflationary increases in prices. I know that when the great silent majority of Americans understands that, they will recognize their patriotic duty to support their President, me."

"Now, as to specifics. I have consulted with my advisers, Erlichman III, Halderman IV, and Dean XX. They tell me there is nothing to the rumor that Honest John Mitchell, the used minicycle dealer, is making too much profit on sales of 1970 Honda Mini Trails. Honest John has personally assured me that although these machines are now 40-years-old, they have all been ridden by little old ladies from Pasadena and are in excellent shape."

"I am, in fact, today instituting an impartial investigation into the methods that might be used to encourage greater use of mini-cycles on our freeways and super-highways. I have appointed Honest John as the independent investigator. Some of the lunatic fringe may suggest that this is like letting a fox loose in the hen coop but, as all of you know, there aren't any hens left, so what the heck. A Bird ridden by Bush is worth three at hand."

"Some of you may remember that we tried to get people to use mini-cycles on the freeways in Phase 76945, or was it Phase 84967. Anyway, one of the Phases. Or maybe it was one of the Freezes. Despite the fact that a 2,000 per cent tax was levied on every wheel that a vehicle had, and despite the Government-sponsored NASA development of a motorized Unicycle, some people insisted on four-wheeled vehicles."

"Therefore, I am today, freezing the production of tires larger than 16-inches in diameter and with a section of more than 350. A separate division of the Internal Revenue Service is being set up to monitor this development and it will be manned by 253,491 inspectors. Citizens who have knowledge of bootleg tire factories are ordered to report them to the proper authorities. Failure to do so will lead to prosecution under Section 8395874 of the Uniform Vehicle Code. To put some teeth in this Section, I am, today, re-instituting interrogation with the rack and guilty persons will be burned at the stake."

"In addition to the above, we are boldly moving on the engine front. We are lowering the maximum speed limits on freeways from 25 mph to 20 mph. My advisers tell me that this will save 2.45 gallons of gasoline a year."

"Because of this bold move, engines of more than 65cc will no longer be required. Therefore, I am, today, asking Congress to pass a bill that will provide a sliding scale of taxes on engine displacement. For every cubic centimeter above 65cc, the sales tax will be doubled. Thus, the buyer of a 66cc engine will pay \$2 sales tax, a 67cc engine \$4, a 68cc engine \$8, and so on. I am told that anybody who buys a 250cc engine will pay enough to wipe out the national debt which, as loyal Americans, I am sure you will agree would be a good

"The energy crisis is now the worst problem facing the nation, next to inflation; crime on the streets; lack of confidence in government; failure to find a permanent director of the FBI; the sinking value of the dollar; the growing defense budget; and a couple of other things. However, I am optimistic about the future. The Census Bureau has told me they have discovered three pieces of land on the East Coast that could accommodate at least gardening sheds. They also inform me that there are at least two 10-foot stretches of beach on the West Coast that are still open to the public. However, anybody using these beaches should remember that any oil pollution they find there is the property of the U.S. Government. We will not tolerate beach users walking

Continued on page 58

GIANT *Indian* GIVEAWAY

For MiniCycle Subscribers

In conjunction with Indian Motorcycle Co., this issue of MiniCycle starts a six-month "Giant Indian Giveaway". It's very simple. Nothing to do except subscribe to MiniCycle. Each month from now until the December issue, all subscribers will have their address labels automatically entered in the Giveaway. Supervised by MiniCycle staffers, three

names will be drawn from the subscriber list each month. These names will then be posted at Indian dealers across the country. All you have to do is go into your local dealer's shop sometime during the month shown on the cover of the magazine to see if you have won one of the three monthly prizes...

First Mthly Prize



ME-74

Displacement 69.9cc Weight 154 lbs/160 lbs
Horsepower 8 @ 6500 rpm Wheelbase 50"
Transmission 4 speed / 6 speed Tires F 3:00x18" R 3:50x17"

Second Mthly Prize



MX-76

Displacement 69.9cc Weight 129 lbs
Horsepower 8 @ 6500 rpm Wheelbase 47"
Transmission 6 speed Tire Size F 16x2.75" R 15x3.25"

Third Mthly Prize



SR-74

Displacement 69.9cc Weight 129 lbs
Horsepower 8 @ 6500 rpm Wheelbase 45"
Transmission 4 speed Tires F 2:75x16" R 3:25x15"

IF YOU NEEDED AN ADDITIONAL REASON FOR SUBSCRIBING, THIS IS IT. SUBSCRIBE NOW AND HAVE YOUR NAME ENTERED IN THE NEXT MONTHLY "GIANT INDIAN GIVEAWAY."

MINICYCLE
Circulation Department
P.O. Box 2869, Laguna Hills,
California 92653

I enclose \$_____ for _____ year(s).

Rates: one year, \$6; two years \$11; three years, \$15

Name _____

Address _____

City _____ State _____ Zip _____

Please type or print.

Foreign subscriptions add \$1.00 per year.

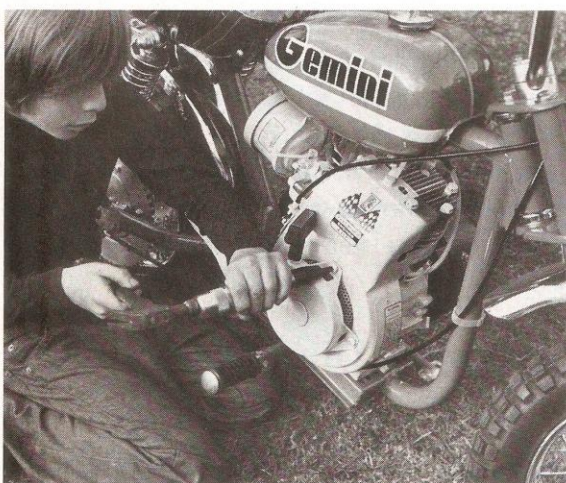
HEGAR KIK-START

Photos and story by Stuart Smith

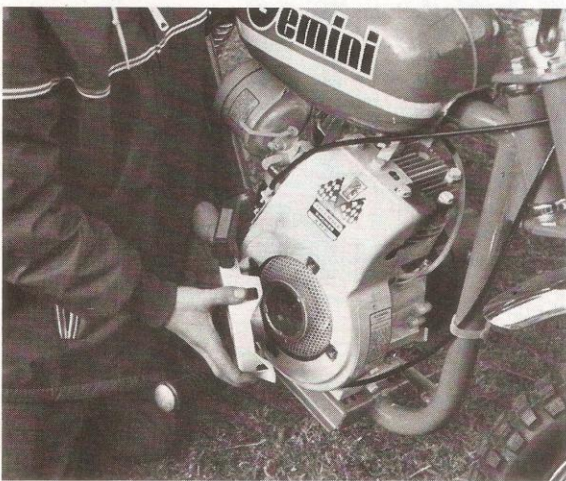
PRODUCT
EVALUATION

In the last issue of MiniCycle we emphatically stated that we were going to make every effort to make this a readers' magazine with articles that you want to see. To accomplish this goal we're even going so far as to include articles submitted to us by anyone, professional or not. We don't care if the grammar is perfect but it must be complete and easy to understand. Any photographs or illustrations must be black and white and five inches by seven inches in size.

This month's author is Stuart Smith who is 13-years-old, an accomplished rider and (obvious by his great pictures) photographer.



1. In order to take the pull starter off, take off the four bolts that hold the starter to the cowling. It would be easier to have an impact wrench because it is a little hard to get the bolts off.



2. After taking the four bolts off, the starter should come off with no trouble.

14 / SEPTEMBER



3. Putting the kick starter on is a little complicated. Put the starter lever on loosely for now. The starter gear is in the way of one of the bolt holes. Just push the lever down and hold it. Put the bolt on loosely. It is tricky to put the bolt in the hole. Put on the other bolts and tighten them up.

My friend Tommy got this new Gemini mini-bike for Christmas. The bike came in a big box, and in pieces. He didn't know anything about putting bikes together, so he asked me to help him. We got everything together, put gas and oil in it, and it started up on the fourth pull. It worked real well, but Tommy had a little trouble pulling the starter rope. He just couldn't pull the rope. We found this ad for the Hegar kick starter for Tecumseh engines. "Our problems are solved" we thought. It wasn't quite the way we thought it was going to be.

The old pull starter was easy to take off, just use an impact driver, to take off the four mounting bolts, or, if you don't have an impact driver, you need some good arms. The kick starter is, in a way, hard to put on the engine. You have to have two pairs of hands, one pair to hold

the starter, and one to insert the two bolts that are hidden by the kick starter assembly. There are two holes that the bolts have to go in but is tricky to put them in because sometimes, when you put them in the hole, they fall out of the socket and on to the ground.

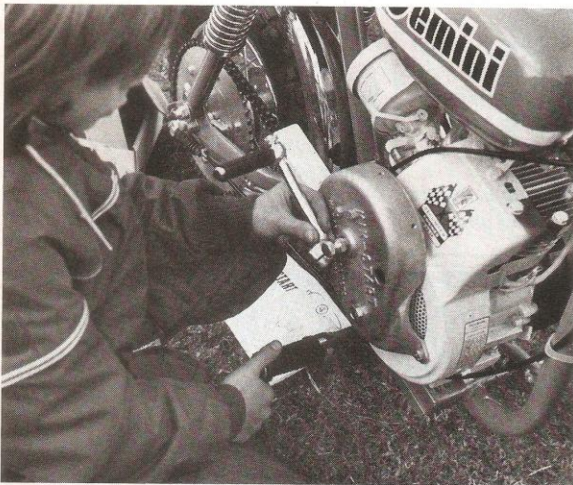
These are the bolts that you should put on first, then attach the other two mounting bolts. You should put Lok-Tite on the four mounting bolts before you bolt them on, because they will eventually vibrate loose.

There are two other bolts that you should put Lok-Tite on. They are the screw that holds the return spring in place on the back side of the kick starter. If you don't do this it, too, will vibrate

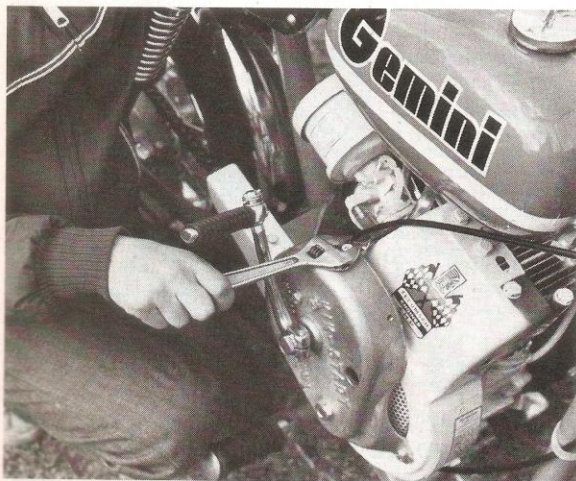
loose, and it will make a sound that's like the engine is going to fall off any minute now. The other nut is the large one that is at the front bottom of the starter, directly below the starter lever.

Next to go on is the starter lever itself. You can put it at any position that is comfortable for you. Next, is the bracket that hooks on to the engine shrouding. After that is completed, you are now ready to try it out. It takes a lot of leg power to give it a good swift kick but it is good exercise.

The starter is kind of bulky, it sticks out of the side of the engine too much. After a while, Tommy was able to start it up, using the kick starter, with no trouble at all. It goes to show you, if you have a problem, modern science will find a way to help you. □



4. Tighten up the starter lever so it does not slip. You can adjust the lever the way you want it. Make sure the lever does not get in the way of your leg when you are on the seat.



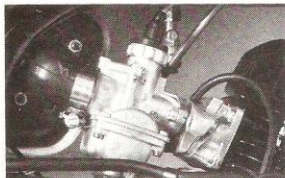
5. Hook the starter brace on to the shroud and bolt the other end to the starter.



6. It should take a little while to get used to it, but it works well if you take care of it. . . .

YAMAHA MINI OWNERS

IF YOU DESIRE MORE POWER FROM YOUR NEW 80CC MINI HERE IT IS!



- 150% MORE REED AREA
- STOCK FILTER & OIL TANK CAN BE USED
- ADAPTS THE MIKUNI 20MM CARB
- ALL HARDWARE NEEDED COMPLETE

less carb G5170 **\$23.95**

SEND 25¢ FOR '73 CATALOG

GEM PRODUCTS

496 East St. Charles Rd. P.O. Box 895 Dept. C
CAROL STREAM, ILL. 60187 • (312) 653-1800

LETTERS

Continued from page 6

The chamber of commerce is eager to help any mail order customers and will help you in making purchases. Boots can be had (custom made at that) by writing to Lee Kee Boots and Shoes, Ltd., Universal Commercial Building, No. 65 Peking Road, Kowloon, Hong Kong, China. The choice of materials is pretty exotic and the cost is less than a good pair of Wellingtons. The choices include lizard, ostrich, ant eater and, of course, leather. Tell them that Mini-Cycle sent you. They won't know what you're talking about.

BOWL BY BOWL DESCRIPTION

What gives? Last month you said that a race would be held in the L.A. Coliseum for mini-cycles and they don't know anything about one. I wanted to attend this race since it really sounded neat. Are you ever going to have this kind of race again?

Mike Mathis

Los Angeles, California

We're REALLY sorry about the whole mess Mike. The Bowl was an on-again,

off-again type of an affair. The real problem was with the AMA. They didn't want to sanction the event and threatened to cancel the SuperBowl for the other promoter. For more details you can read the Publisher's Page.

RACEY MAGAZINE

How come you guys are so hooked on racing? I've been a loyal subscriber for 3½ years, and I've never seen any scoops on trail riding! A couple of issues back you had a series called "Techniques of Riding" and you didn't have anything worthwhile for the serious trail or woods rider. You are hiding something that has been around for a long time. I live in Northern New Jersey, and there are some pretty tough trails even Mick Andrews couldn't handle! So, how about doing some scoops for the serious trail or woods rider?

Tommy Milland
Northern New Jersey

If Mick Andrews couldn't handle those New Jersey woods, he would probably not be a world trails champion. But you have a point. We have covered a lot of racing because it is the most active and organized aspect of the mini-cycle sport. Racing modifications also lead to most

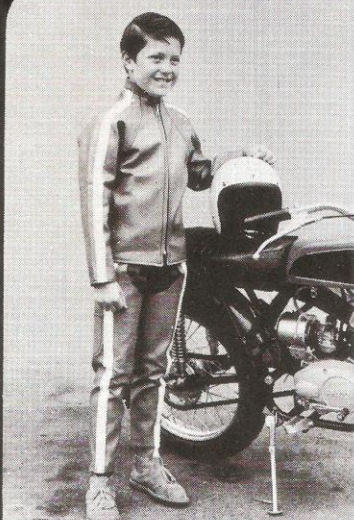
TUFF STUFF SALE!

NAME BRAND VINYL

SUPER TOGS FOR MEN AND BOYS

Tuff stuff. No cheap quick sale item. Made of sturdy naugahyde, yet pliable and comfortable. Will take a lot of abuse and still look great.

Available in white, gold, brown, red, black, yellow, blue, and green. Not all colors available in all sizes so give a second color choice.



MENS JACKET	\$10.20
BOYS JACKET	8.40
MENS CHAPS	10.20
BOYS CHAPS	9.60
MENS PANTS	11.40
BOYS PANTS	10.20

All orders sent freight collect.



SORRY, NO C.O.D.'s. NOT ALL SIZES IN ALL COLORS; GIVE SECOND CHOICE. SEND CHECK OR M.O. TO: MOTORCYCLE CONSUMERS UNION, 23647 EL TORO ROAD, EL TORO, CALIFORNIA 92630

California residents add 5% sales tax

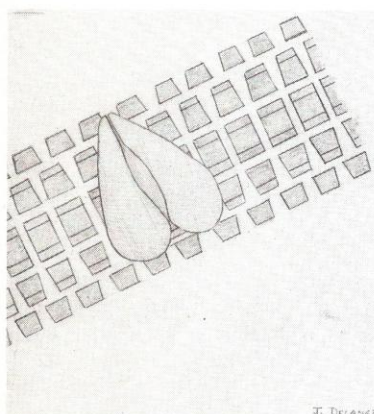
of the improvements in mini-cycle technology. However, we might be able to find an expert woods rider who would be willing to pass along some hints. Keep watching!

DEER TREAD VS MINI-TREAD

This picture I have drawn is an example of the many times I have seen this scene. It is a deer track over a mini-cycle-track. It is probably a Yamaha Mini-Enduro, but I am not sure, and I didn't copy the tread mark exactly.

I mostly did this picture to show that mini-cycles and motorcycles don't really scare away the wildlife, as most of the nature lovers say we do. I just thought you would like to know that here in Connecticut we haven't run down or killed all the animals of the forest.

Jim Delaney
Stratford, Connecticut



J. Delaney

ANIDYNE KUDOS

Lorrain and Manfred Holder, close friends and manufacturers of the Holder mini-cycle, called my attention to your excellent and accurate review of the Anidyne rotary compressor and engine concept in the June issue.

I wish to thank you very much for the article but apologize that details regarding the RC engine configuration and operation were not available for publication at the time. RC engine specifications will be forthcoming very soon.

This was my first occasion to read Mini-Cycle, and I must compliment you for a very attractive, well executed and informative magazine.

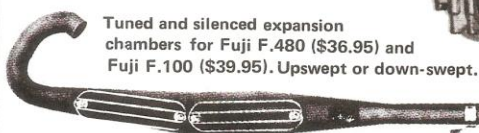
Best regards,
Robert Karol

Continued on 64

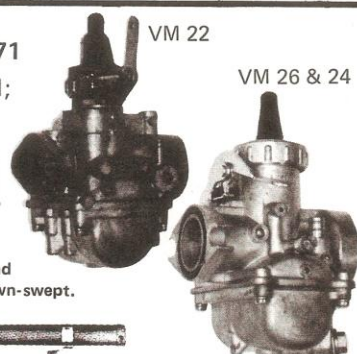
BIG WHEEL DISTRIBUTORS, BOX 1476, LAPORTE, TEXAS 77571

Frame and engine parts for Chaparral;
Gemini SST; and Maverick

Mikuni flange mount carbs.
VM 22-58 \$21.95. VM 24-41 \$22.95.
VM 26-62 \$23.95. Carb adaptor block \$8.95.



Tuned and silenced expansion
chambers for Fuji F.480 (\$36.95) and
Fuji F.100 (\$39.95). Upswept or down-swept.

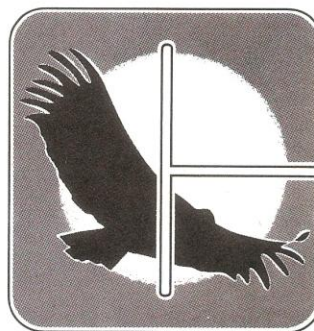


NEW

...yet for being so different,
we're very much the same.

That's because we're an established company, restructured with new management, a new corporate name, and a fresh outlook. You were familiar with us as San Tong Distributing Company, marketing the line of Gemini motorcycles, minibikes and minicycles. We shall be continuing with that product line, up-dating and improving the breed, bettering the systems of supply, sales promotion and dealer relations in this area of activity. Add

to this a host of new and exciting accessories, including some designed by us, and it totals a revitalized image for a soundly based company. Yes, we're much the same, yet new enough to warrant another name for our fresh face. You'll be hearing a lot from us, and seeing a lot of



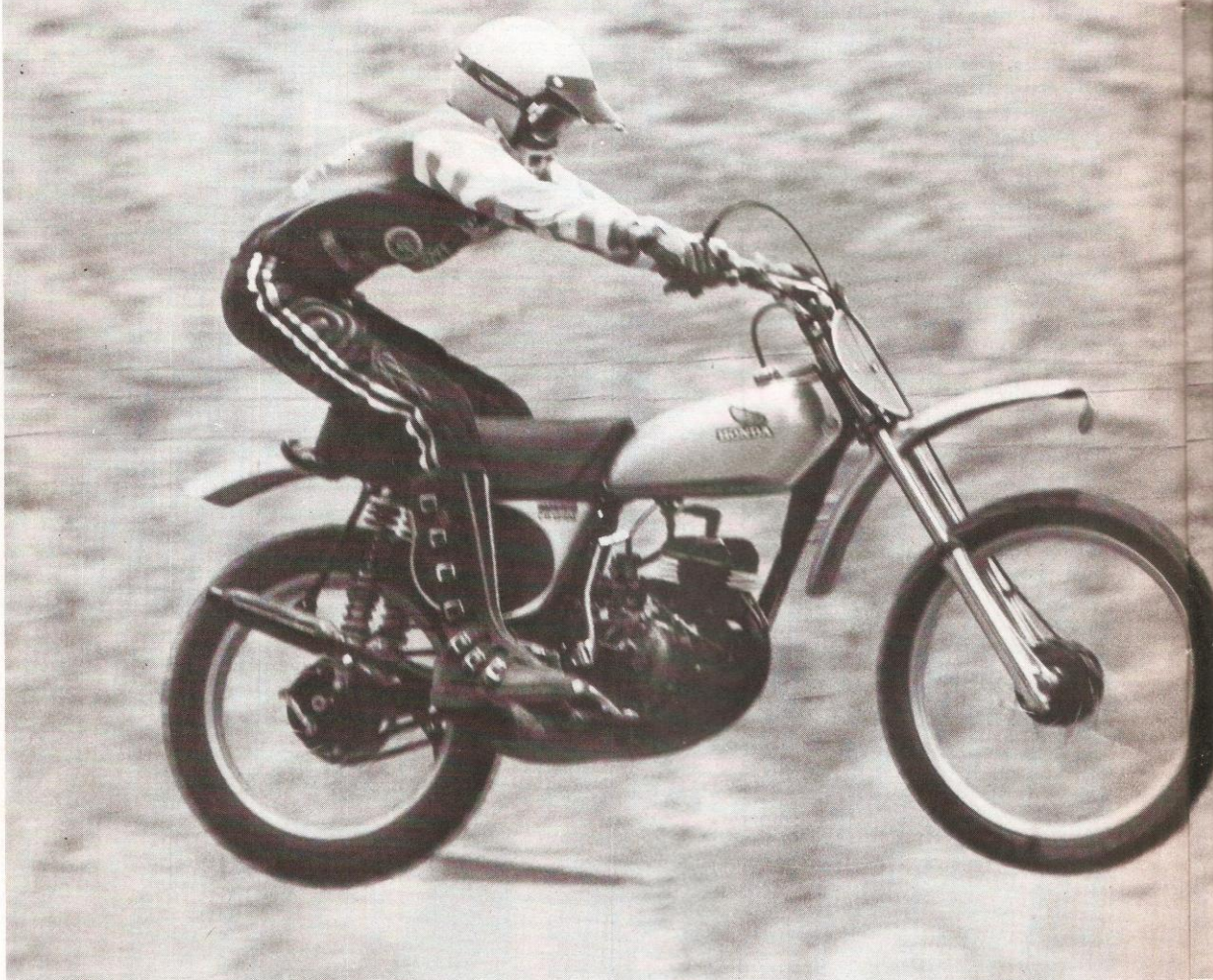
this distinctive emblem which describes us; we're big, and we're soaring! The deadwood has been dropped and we've taken on a staff with extensive experience in the motorcycle and recreational vehicle industry, headed by new VP and manager, Jack Poetker, a noted name in product designing and manufacturing as well as management. K.T. Chai and Paul MacNamara are still much involved in the new organization as Board Chairman

and President. New stockholders on the Board of Directors have active part in furthering our positive policies, thus —did we say?— for being very much the same, we're so different we're sure you'll want to get acquainted, even if it's all over again. Remember our new emblem and name. It's

Condor Sales Corporation

15514 SOUTH FIGUEROA STREET / GARDENA, CALIFORNIA 90249
TELEPHONE AREA CODE (213) 532-1780 / 532-1781

MINICYCLE
TEST



Water crossings can be fun in warm weather. The Honda CDI system prevented any fouling.

18 / SEPTEMBER



High flying Honda is pure racer. Handling is superb and predictable.



HONDA 125 MX

**Meaner than
a junk-yard dog**

The Honda line of motorcycles has been around for many years now and is virtually responsible for the current boom. The original 55cc machines were well made and inexpensive; the base price for the littlest Honda was \$215.00. Most people would lose that much money behind a sofa cushion! Few people cared that the bikes were grossly underpowered and ill-handling beasts. The fact was that the little machine WAS a motorcycle—almost. It did have two wheels and it was unencumbered. Those facts alone were enough to warrant buying one. Eventually the bike prospered and beget a neat looking bike known as the 250 Scrambler, or CL 72 for those in the know. The 250 was an awful handling machine meant to be a “dual-purpose” bike for street use and off-road riding. It was dual-purpose all right. It was just as bad off the road as it was on. A good running 160 Honda could blow one off the road and any mini-bike could leave one tangled in a pucker bush. What a revolting state of affairs for a large company like Honda.

But a chap by the name of Ekins saved the day and set some kind of record in Baja. The public didn't care that Ekins could make any bike look good. The Honda *looked* like a dirt racer ought to and it sold like lemonade in the Sahara. Which brings us up to date and the new Honda Elsinore 125 two-stroke.

The Elsinore is everything that a red blooded racing bike ought to be. In fact, the 125 is just a scaled down version of the 250 Elsinore that has been doing so well in races lately.

Our first impression of the 125 was a visual one. The bike looks meaner than a junk-yard dog with a purposefulness in design not found in too many other bikes. The overall feeling is one of understated power. Most of the current machines resort to Coney Island tactics of wild paint jobs, gobs of chrome and wild advertising claims. The barkers yell,

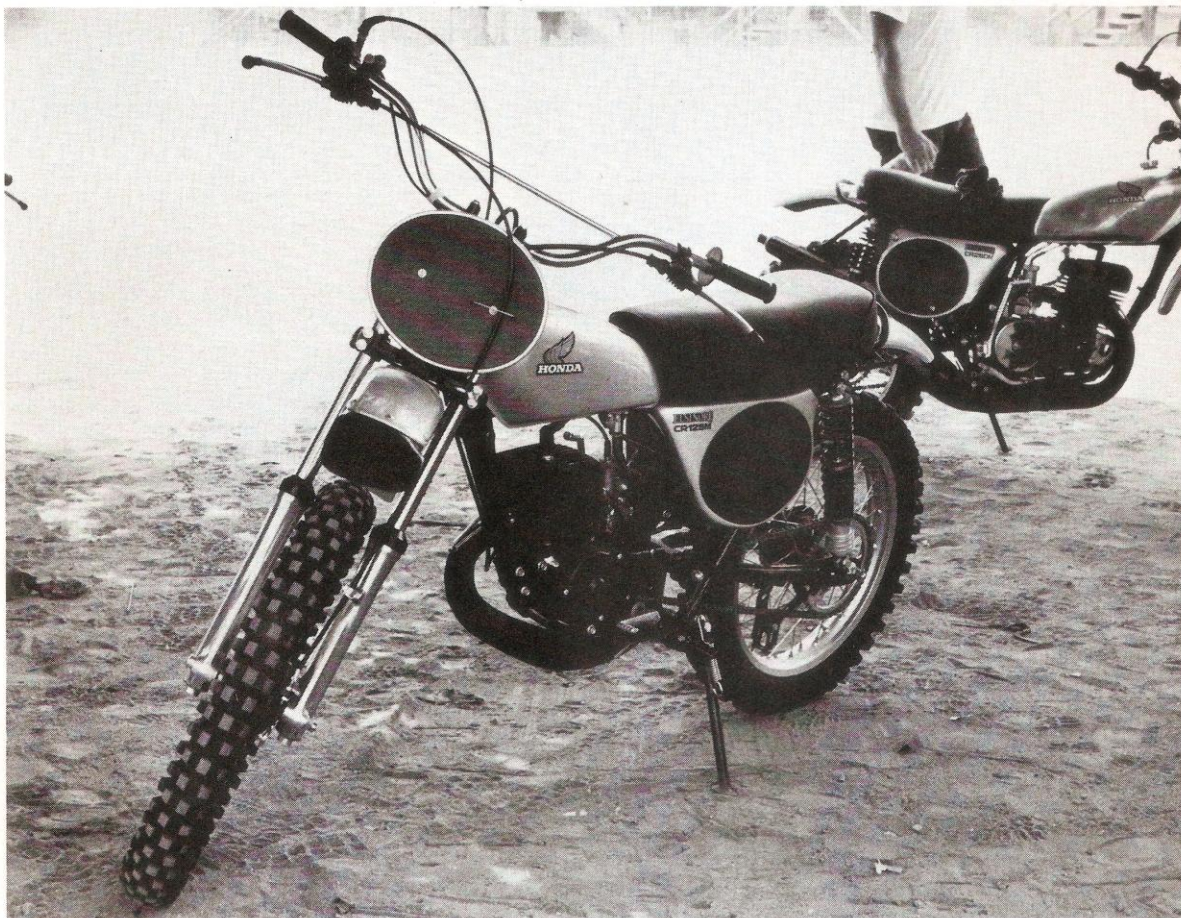
“Step right up folks and gaze upon the sparkling metalflake burgundy paint of our super-fast Black Vampire Screamer 125 MX with 83.5 hp.” Not so with the Honda—they won't even tell us what the real or advertised horsepower might be. They didn't really want to tell us much of anything. They simply delivered the bike and said, “Here, ride and let us know what you think of it.”

As luck would have it the Editor drooled and pulled rank on us all. He went out and rode until all of his moisture had evaporated in the 100 degree heat. We almost couldn't pry him off of the bike. Brad Dutoit finally did the actual testing and kept muttering, “When can I buy one?”, like a broken record. He obviously liked it.

Before we continue we've got to point out that, this, unlike Hondas in the past, is pure racer. Cow-trailing is out of the question unless you like riding flat out *all* of the time. The 6-speed transmission features a very tall low gear. We were bugged by this until we found out that the gearing is necessary for good moto cross starts. A lower ratio would help immediately out of the gate assuming that you could gain traction. The taller gear enables the tires to grab and permits the rider to charge farther



The tall gearing is good for quick starts in soft sand because it minimizes wheelspin.



The new Honda 125 two-stroke has clean and functional lines without any frills.

before he must shift. Most motocross starts are like short drag races to the first turn. Anyone caught at the starting line has a hard row to hoe to get in the lead.

This 6-speed transmission is the best unit we've ever tested on a Honda—or any other bike for that matter. The shifts are so positive and effortless we couldn't believe that we had actually shifted. The close ratio gearing further adds to the illusion. Engine and trans ratios are well suited to one another. The lack of torque, high rpm and high horsepower make shifting a necessity. The power band feels very narrow and the engine can rev quickly in any gear. The lazy, unskilled riders will find themselves in trouble, without power, if they are not careful. The bike needs literally to be rowed around by the gearbox.

Although the bike we rode felt like a hand-made bomb, the factory reps claim that it is far from being the ultimate. How do they know? Because they are currently working on the ultimate. The stock (?) bike comes with 7.6:1 com-

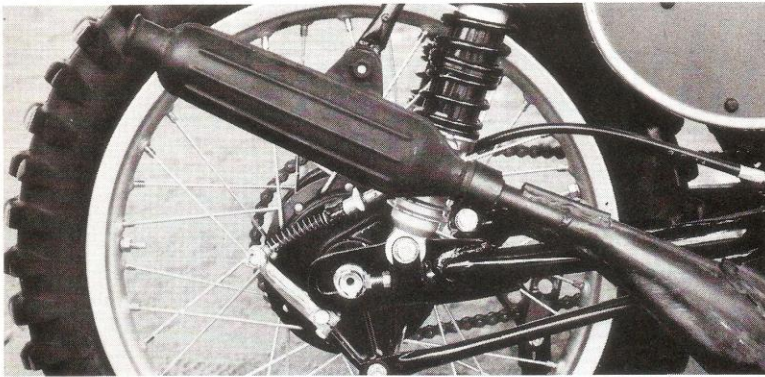
pression and a 28mm Kei Hin carb. Other modified bikes we've seen in the same category, have 9:1 compression and up to a 32mm carb. We can't help but wonder how the power curve will be affected with these changes plus a reed valve and a pumper carb. We have heard that the engine responds with a *broader* power band when it's modified. Usually we're not that lucky.

Although "mum" was the word on the power, the factory gents were quite eager to remind us of the weight of the machine when ready to run. They were

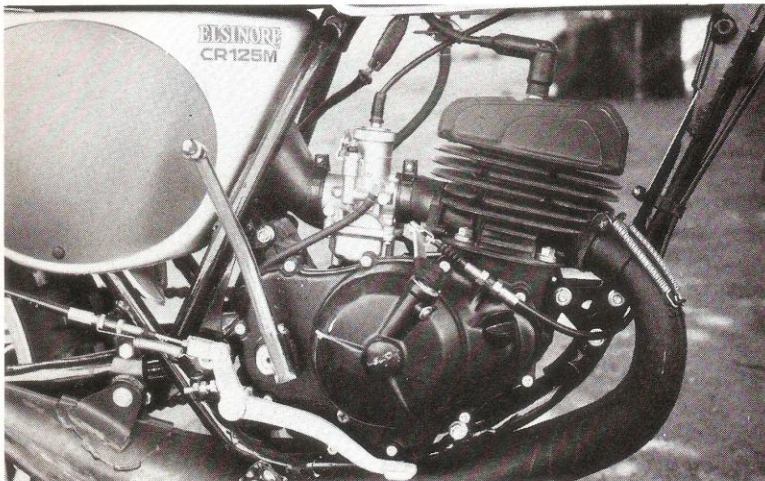
obviously proud, and rightly so. The 125 weighs in at 178 pounds, three pounds over the minimum weight permitted by international motocross rules. This is possible even with the steel tank. Other racers can't make the same claim even though they resort to using a lot of glass components. Previous off road Hondas have been known to be rotund.

The light weight is an obvious asset once you've ridden the bike. It feels comfortable and well balanced. It's obvious from the time you first screw it on that YOU are in control of the bike and

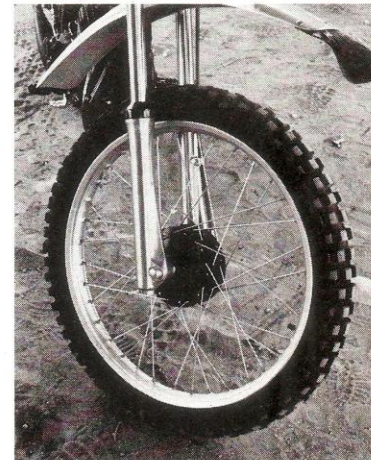




The expansion chamber looks more like a custom item than production. The silencer does double duty as a spark arrestor.



The engine is very compact with large cooling fins.



The new rims in use on the Honda are alloy with a cast crown to prevent mud build-up.

HONDA 125 MX

Manufacturer: Honda Motor Corp., Japan

Dist. by American Honda, P.O. Box 50, Gardena, Calif. 90247

ENGINE

Engine type	two-stroke, single	Carb	28mm Kei-Hin
Bore	56mm	Ignition	CDI
Stroke	50mm	Lubrication	Pre-mix
Displacement	123cc	Fuel Capacity	1.6 gals
Horsepower @ rpm	n.a.	Fuel requirement	91+ octane
Compression ratio	7.6:1		

TRANSMISSION

Transmission type	6-speed constant mesh	Gear ratios,	
Primary drive	square cut gear	1st	2.13:1
Clutch type	wet multiplate	2nd	1.61:1
Final drive	No. 428	3rd	1.30:1
		4th	1.09:1
		5th	.96:1
		6th	.88:1

CHASSIS

Frame type	Single backbone-dble cradle	Tires,	
Wheelbase	53 1/2 inches	Front	2.75 x 21
Overall length	79.9 inches	Rear	3.50 x 18
Suspension,		Brake(s)	13.4 in. swept area
Front	tele-hydraulic	Ground clearance	7.9 inches
Rear	swing arm/shock	Seat Height	32.3 inches
Wheels	21 front, 18 rear	Handlebar height	42.1 inches
		Dry weight	180 lbs.

PRICE AS TESTED

N.A.

not vice versa. Total confidence in the bike and your own ability is part and parcel of riding the Honda. On the short motocross course the 125 is comparable to a 250 without the extra heft.

Recovery from over-exuberance is relatively easy. Precise handling seems to be directly proportional to the amount of power dialed in at the throttle. Turn it on and the wheel will break loose for a controlled slide in a corner. Let up slightly, if the bike starts to slide out, and you've got instant traction for the bike to right itself. A very exciting and predictable machine.

The engine, naturally, runs on pre-mix. The ratio will depend on the type of oil you're using but it will be approximately 25:1. Ignition is via an excellent CDI system. We encountered several spots where we inadvertently loaded up the plug. It was a simple matter to rev the engine and clear it out. Most other machines would go into asthmatic fits and die on the spot.

The engine layout is super and clean

Continued on page 64

HONDA TL-125

Along with all the peculiar things that Honda has done this year, like producing a goin' 125cc two-stroke motocrosser, comes a 125cc four-stroke trials machine. A Honda *trials* machine? What's next?

We won't try to second-guess Honda's marketing strategy. All we can say is the new stuff they have come out with, lately, has been much better than anybody had a right to expect. Especially when they have been venturing out into the unknown (as far as Honda is concerned).

The trials machine (called the TL-125) is no exception. It is a truly loveable, well-balanced, properly-powered, expertly designed machine. The faults of the machine are few, surprisingly few. Going the trials route must be a trial for a new manufacturer because a good "plonker" must be about the most precisely-engineered motorcycle around. A few minor over-sights were to be expected.

At first viewing, the TL-125 seems to be put together just about right. The footpegs are in the right place; the tank is nice and narrow; the exhaust is tucked in, out of harm's way; there is no unnecessary garbage; good universal tire treads and sizes are used; controls are placed right . . . in other words it looks like a good trials machine.

And it is, except for one thing. It's a little on the "squirty" side. Horsepower doesn't count for much on a trials machine. What is needed is bags of torque. Smooth, easy-to-apply, torque. This basic necessity is a result of the very nature of trials riding. It is done slowly, over extremely tough "sections", and the contest is to see who can negotiate without putting their feet on the ground (called "dabbing").

Trials riding is a gentlemanly art and the top people display exquisite skill. For instance, we were talking to Bob Swanson, of American Moto Villa, who witnessed the great Mick Andrews ride his machine up the vertical wall of an eight-foot shed onto the roof, doing the whole thing at a walking pace. Even more difficult was coming down. He didn't just do a "jump" off the roof. He rode slowly to the edge, lofted the front end, and rode the rear wheel all the way down. The next part sounds incredible but Swanson swears he saw it with his



Gib Bintliff gets hung-up even though the TL-125 has ample ground clearance.



Mamma and Cobra DeSoto, who have a very famous son, talk over the TL-125's performance with Bintliff.

If Mick Andrews could only see us now.

MINICYCLE
TEST



Looks like an afterthought but the little spring did a neat job of holding the footpeg up while the kickstarter gets a good swing.



About the best front end found on lightweight trials machines. Note lean gas tank.

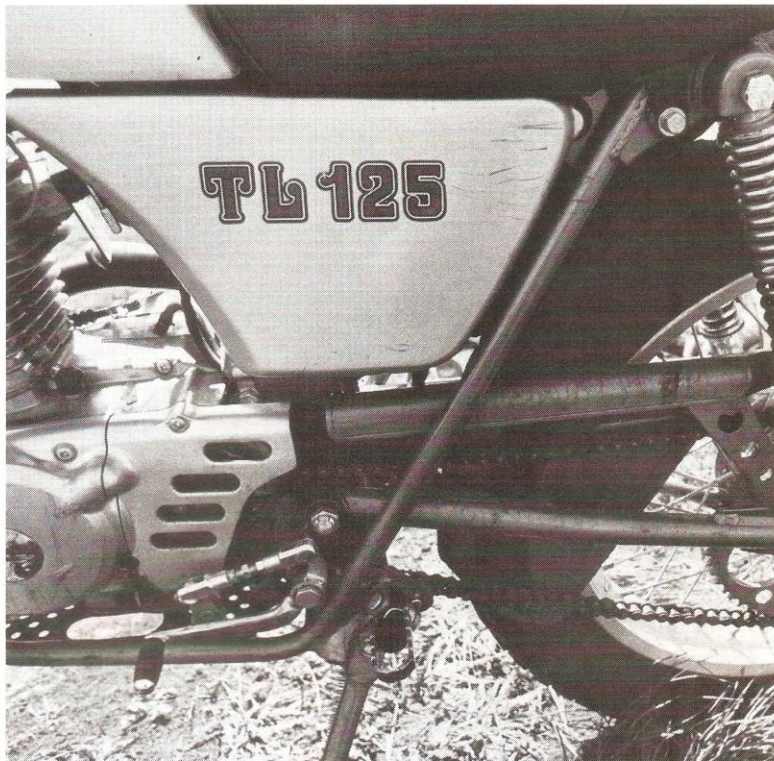


Rear shocks were only average. Machine need more forgiving rear suspension. Note tucked-in muffler.

own eyes. As the rear wheel was skidding down the wall, with the tire marks there to prove it, Andrews let the front end drop until the forks were at right angles to the ground when they landed. And then he stopped the machine there, propped up against the wall, and balanced on it until he was ready to let it go. We wouldn't have believed this tale except that we have seen Andrews ride and if ever the phrase "poetry in motion" had any meaning, Mick Andrews is it.

While you shouldn't expect to find an eight-foot shed on a trials section, it is fairly obvious that super control is necessary for trials riding. In its stock form, the Honda TL-125 is a little too eager to go, at least in first gear. When gently applying the throttle, there is a

Continued on page 62



Rearward-mounted footpegs are new for Honda and the problem of getting the shift lever within toe-distance was solved in this fashion. It resulted in less than super shifting. See story for solution.

HONDA TL-125

Importer: American Honda Motor Co., 100 West Alondra Blvd. Gardena, Calif. 90247

ENGINE

Engine type	Four-stroke, single	Carb	Amal 27 mm
Bore	56mm	Ignition	Flywheel magneto
Stroke	49.5mm	Lubrication	Oil mist
Displacement	122cc	Fuel Capacity	1.8 gallons
Horsepower @ rpm	N/A	Fuel Requirement	24:1 reg. gas/oil
Compression ratio	8:1		

TRANSMISSION

Transmission type	5-speed, const. mesh	Clutch type	Wet, Multi-disc
Primary drive	Helical gears	Final drive	No. 420 chain
		Gear ratios	N/A

CHASSIS

Frame type	Single backbone, double engine loop	Wheels	Frt. 21", rear 18" wire spoked
Wheelbase	50.4 inches	Brakes, Front	Internal expansion
Overall length	78.5 inches	Rear	Internal expansion
Suspension, Front	Telescopic forks	Ground clearance	11 inches
Rear	Swing arm, shocks	Seat height	30.7 inches
Tires, Front	2.75" x 21" x 27" dia.	Handlebar height	42½ inches
Rear	4.00" x 18" x 26" dia.	Curb weight	194 lbs

PRICE AS TESTED \$615



SCHOOLBOY MX

by Dennis McClintock

MiniCycle magazine went to the motorcycle races May 26 and 27. Not because we ran out of mini-cycle events to cover, but because the California Schoolboy Motocross Championship was staged for young riders, our readers.

The California Racing Club put together the event at Carlsbad Raceway in Southern California. Entries were limited to non-professionals, and all classes had an upper age limit. The Mini-cycle (up to 80cc) class was limited to boys 14 and under and girls 15 and under. Riders in the motorcycle classes had to be 17 and under.

Motorcycles were divided into three groups according to engine size: 100cc, 125cc, and 250cc. MiniCycle often tests bikes of the first two sizes, and, to coin a phrase, "Two out of three ain't bad."

Qualifying heats in all classes were held on Saturday to narrow the field of potential champions. Sunday racing consisted of three fifteen minute motos in each class. Points were awarded according to the finishing position in each race, and total points determined the overall winners.

The Carlsbad motocross course was rough enough to challenge the older fellows without overwhelming the little guys. The first half is laid out rather tightly, with side-by-side straightaways and 180 degree switchbacks. Then the track loosens up and wanders through the bushes, eventually heading up a long hill. And of course, "what goes up" must suffer through the rougher and increasingly steeper downhill. After that, the little hill before the finish is a breeze.

While Mother Nature was brewing up a nice hot sunburn, some portions of the track looked like the aftermath of a flood. Somebody watered the course thoroughly before the races (presumably to keep the dust down), and the run-off collected in a few low-lying spots. The mudholes were only one factor of many in the rough terrain, but they may have contributed to the final outcome in at least one important case. The minicycles were affected most, because they are smaller and closer to the muck.

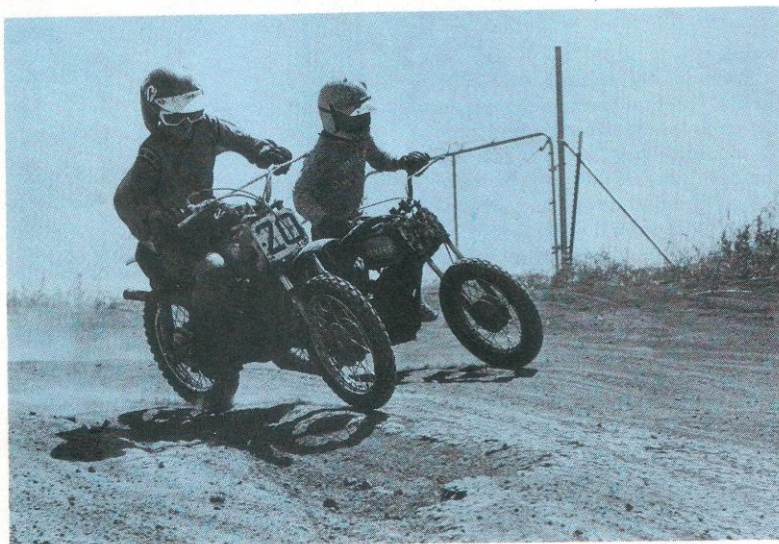
Smart riders established grooves through the water hazards, packing down the mud by repeated crossings. Others barreled through, especially when fighting for position in the early part of the race. Three young spectators took an unintentional mudbath when they stood too close to the first mudhole.

The first Championship moto featured the mini-cycles. During the qualifying races on Saturday, Brian Myerscough walked off with one heat, while Mike Brown and Jeff Ward fought each other in the second qualifier. Most people were convinced that those three would share the top honors, although nobody was ready to predict the order of finish.

When the minis started racing on Sunday, the predicted leaders were running true-to-form. Brian shot out ahead from the start and never eased up. Very soon, Mike and Jeff were following him, at a distance. After five minutes of racing (one third of the moto), all three started lapping slower riders.

A short time later, Mike Brown suddenly left the track. His broken bike





kept him out for the rest of the day.

Brian finished with a comfortable lead, and Jeff took an equally uncontested second. Don Van Tassel and Brad Roberts followed later in third and fourth.

In the second moto, Willie Simons jumped ahead, with Ward, Bill Taylor, and Myerscough following. Out of the starting chute, the bunched-up riders quickly strung out almost single file to bypass the first mudhole through a dry groove along the fence.

By the end of the first lap, Ward had passed Simons, with Taylor still in third. Myerscough came around trailing the whole field. His bike had stalled, probably due to a wet spark plug. Although he did a lot of passing in the remainder of the race, Brian couldn't make it into the top five.

Ward kept increasing his lead and managed an easy win. The competition in this moto was for second place. Simons held it for quite a while, but he had to fight off Van Tassel and Roberts. Both riders eventually got past, and Willie had to settle for fourth place.

The start of the third moto looked like a repeat of the second, with Ward, Van Tassel and Roberts leading. Myerscough got a bad start and had a lot of catching up to do. After three laps, he was up to fifth place and far from giving up. Five minutes later he was in third.

Ward was long gone, taking another easy first. Van Tassel held onto the second spot all the way, with Myerscough nipping at his heels under the flag. Brad Roberts followed soon after. Coincidentally, those four received the class trophies in the same order as the finish of that last race.

The 100cc class caught our special interest because our graduate test rider, Rick Henricksen, had entered on a Noguchi Yamaha. (Proof again that our testing racing bikes on a race course is valid—Ed.) We're happy to say, he didn't disappoint us.

The first time off the line, Rick was running sixth. By the end of the first lap, he was leading.

Bill Franks, riding a 100cc Barnt (see MC July '73), worked his way into second place, then had to drop out when a tire went flat. Young David Oller inherited the number two position, with Jeff Ward (him again?) in third, Henricksen ran away to win. With half a lap to go, Ward snuck by Oller, and they finished in that order.

When the second moto left the starting line, it looked like everyone had

Continued on page 60

OIL FUEL RATIOS

To one quart of gas
add two ozs. of oil — stir until

Your average two-stroke engine does not have an oil reservoir because the oil is added to the fuel. Some machines do have a separate tank used to store oil until it is fed into an injection pump. The end result is still the same—the oil is mixed at a precise ratio to the gas. Most racers remove the injection systems to save weight and resort to mixing gas and oil.

The ratio is very important since this is how the moving parts within the engine are lubricated. Engine designs, speeds and components vary and so must the amount of oil in relation to the fuel.

Most manufacturers and oil companies give the ratio figures, such as 40:1 or 20:1, but they don't tell you how to achieve these figures. Therefore we have carefully figured them out for you in the accompanying chart. Pick first the amount of fuel you'll need and then the ratio as specified by the manufacturer. Move to the intersecting point to find the proper amount of oil.

An old baby bottle or measuring cup are the best items to use for accurately measuring liquids. Don't use them for foods again after this! In all cases it is possible to round off

CONVERSION TABLE

1 Gill = 4 fluid ounces = 7.219 cubic inches = 0.1183 liter
4 Gills = 1 pint = 16 fl. ozs. = 28.875 ci = 0.4732 liter
2 pints = 1 quart = 57.75 ci = 0.9463 liter = ¼ gallon
4 quarts = 1 gallon = 231 ci = 3.7853 liter
1 liter = 1.0567 quarts

RATIO TABLE

Gas	1 qt.	2 qts.	3 qts.	1 gal.	1 gal. 1 qt.	1 gal. 2 qts.	1 gal. 3 qts.	2 gal.	2 gal. 1 qt.
Oil									
1 oz.	32:1	64:1	96:1	128:1	160:1				
2 oz.	16:1	32:1	48:1	64:1	128:1	160:1			
3 oz.	11:1	21:1	32:1	43:1	54:1	64:1	75:1	86:1	96:1
4 oz.		16:1	24:1	32:1	40:1	48:1	56:1	64:1	72:1
5 oz.		13:1	19:1	26:1	32:1	38:1	45:1	51:1	58:1
6 oz.		11:1	16:1	21:1	26:1	32:1	38:1	43:1	48:1
7 oz.			14:1	18:1	23:1	27:1	32:1	37:1	41:1
8 oz.			12:1	16:1	20:1	24:1	28:1	32:1	36:1
9 oz.			11:1	14:1	18:1	21:1	25:1	28:1	32:1
10 oz.			10:1	13:1	16:1	19:1	22:1	26:1	29:1
11 oz.				12:1	15:1	17:1	21:1	24:1	28:1
12 oz.				10:1	13:1	14:1	16:1	19:1	24:1

the figures a little from what we've shown here. For instance you can use a ratio of 19:1 in place of 20:1 without any problems. We've tried to show some of the more common ratios and quan-

ties of fuel. If your requirements vary from this simply divide the number of ounces of fuel by the number of ounces of oil. Use the conversion table above to help. □

MINI-CYCLE'S WRINKLED WRENCH AWARD

Each month we are deluged with a wide assortment of goodies sent to us by manufacturers in the hopes that we'll test them and find them to our liking. For the most part we do, but every so often we are hit with something that is either a blatant joke, a mistake or an outright rip-off.

This month we have the pleasure of presenting "Lockable Motorcycle Tie-downs". Sounds intriguing doesn't it? According to the press release these, "provide maximum security with a minimum of effort", and, "feature a revolutionary locking system to discourage theft".

All well and good on paper but we wonder if the designers or marketing people ever had a bike ripped off by an



expert. Obviously not or they would have seen the error of their ways. In fact we are sure that there are a few budding bandits who instantly recognized the potential for having a little fun whilst copping your machine. It is a simple matter to cut the strap with a good sharp knife but the inspired thief will find yet another way. All he needs to do is place a little pressure on the forks and lift the hook off leaving the lock and strap intact. In fact he may even stick

around to see the look on his victim's face.

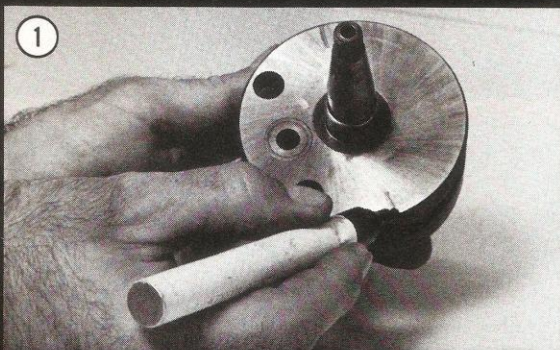
True, this device may slow a thief down who's stuck with a dull blade but why not use a chain and really frustrate him?

For these reasons we wholeheartedly award the Wry Wrinkled Wrench Award to: Tridair for their Lockable Tie-down straps. Sorry guys but this is the only one you'll get because your other products are too good. Use it in good health. □

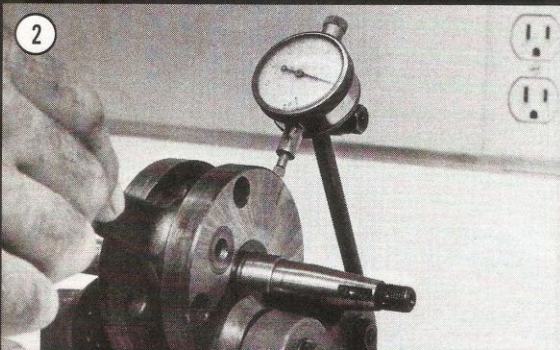
HOW TO ALIGN A CRANK

How to be your cranky old self again

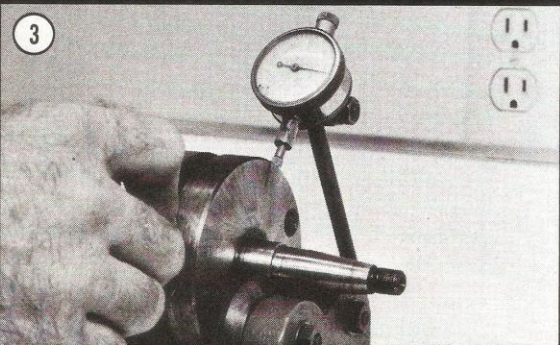
There are some simple truths in physics that are very important and yet we take them for granted. One of them is that a round wheel is more efficient for rolling than any other shape. Sounds crazy doesn't it? But you would be surprised to find out that most wheels, tires or shafts are not really round at all. They should be, but manufacturing tolerances sometimes allow for a little run-out. Run-out being the amount of eccentricity of the shaft off of its axis. Usually this figure is measured in thousandths of an inch—much smaller than you could ever see with the naked



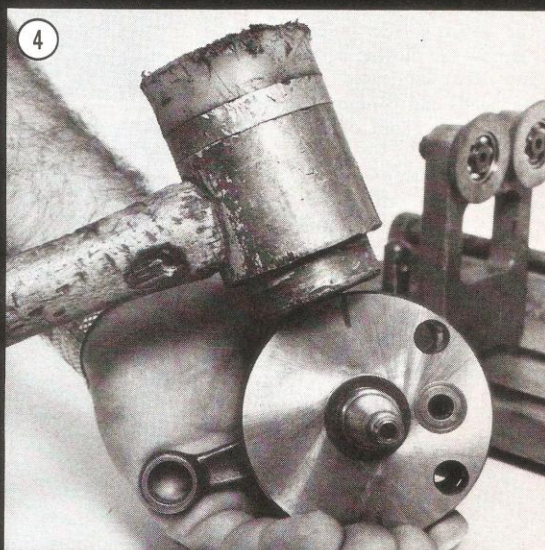
Mark the flywheel 90 degrees to the connecting rod for use as a reference point.



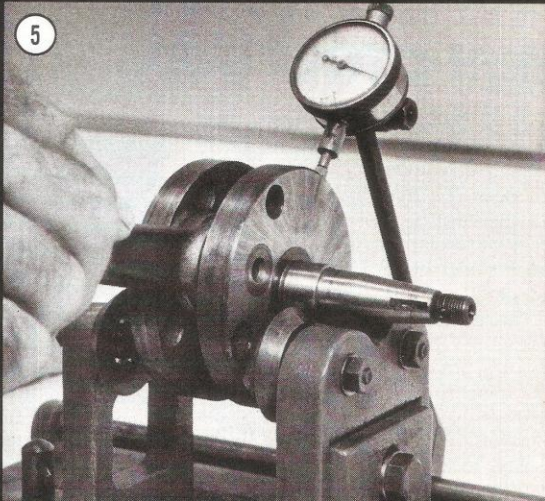
Set up the dial indicator at the first mark and set on zero degrees.



Turn the crank 180 degrees and measure the difference in run-out in thousandths of an inch.



Tap the flywheel on the high spot to bring the difference up.



Reset the zero reference point on the dial indicator. Rotate the crank and check the run-out again. If it is over, then repeat the process until it's right. If the measurement came out less than zero you've overdone it. Start over by setting the indicator on the low side.

eye. But even a few thousandths of an inch out of round can be critical on a racing engine crank that turns up to 12,000 rpm or more. The effect is initially vibration. Vibration can seriously detract from the output of your powerplant and eventually leads to breakdown. If you could shrink yourself down to a height of one inch then all of these things would be immediately obvious. The shaft would wobble like a wheel on a bent axle and the surfaces could be seen to rise and fall like the

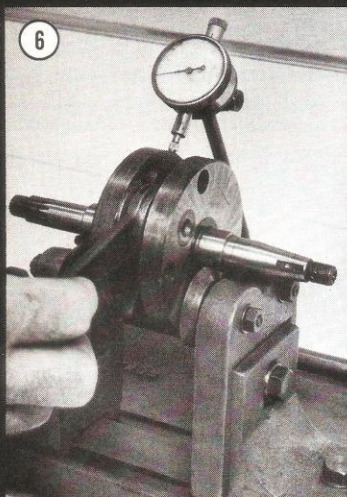
lobe on a camshaft. This is obviously not the trick way to go fast.

Another, more common, cause of eccentricity is when a crank is separated for repair and reassembled. The home mechanic is usually not aware of the problem until the engine is buttoned up and running again. Even then he may not know why it feels cobby and vibrates.

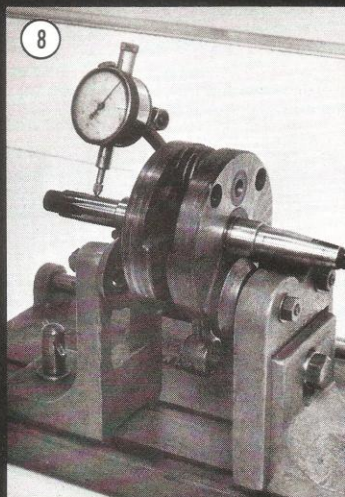
In the past anyone capable of realigning a crank was considered to be something of a magician. Some mechanics use large presses to bring everything in line but this isn't possible at home. Kendick engineering, in

Chatsworth, showed us a neat way of doing it using a minimum of special equipment. All that is required is a dial indicator, a machinists vee-block or roller unit like the one shown and a plastic mallet. Add to that a fair amount of patience and about an hour of your day. We suggest that you check out your crank even if it has never been apart and compare the run-out to the manufacturer's specifications.

We want to give special thanks to Dick Raczuk at Kendick for his assistance on this project. □



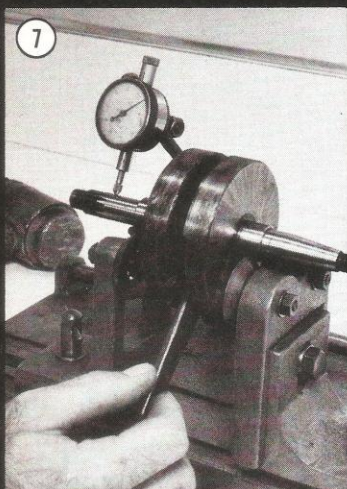
Repeat the process on the opposite flywheel. When these are both complete, check them out against one another.



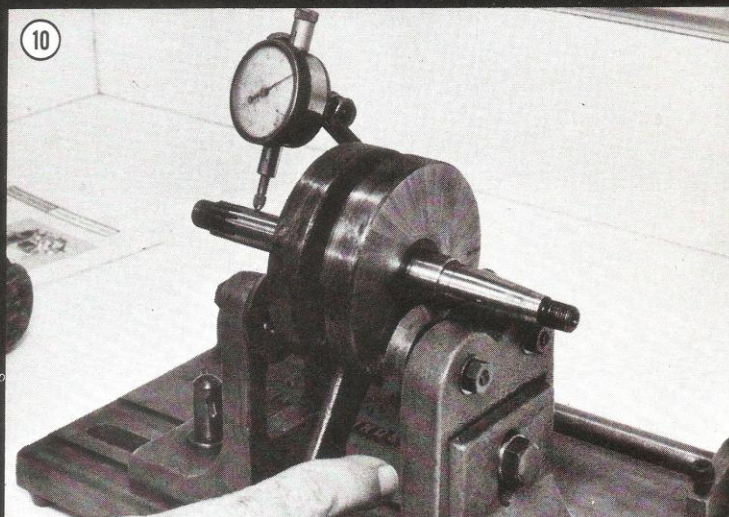
Rotate the crank 180 degrees and measure the run-out.



Tap the flywheel on the side at the point where run-out is greatest.



Place the indicator on the crankshaft and establish a zero reference point on wrist pin side of the shaft.



Recheck after establishing a new zero point. Repeat the process on this and the other side if necessary. After the entire alignment job is done check to see if the end play is within factory tolerances.

suitcase cycles

Now you CAN take it with you

As incredible as it may seem, the truck in this photo is being supported by a Suitcase Cycle. The manufacturer claims a 50,000 pound load capability on the assembly clamp making it 2½ times stronger than the frame.

Human ingenuity never fails to amaze us. If there is something a man wants to further his enjoyment of life he'll either buy it or invent it. Such was the case with a company known as Suitcase Cycle located in the airport at Santa Monica, California.

Larry Shapiro is a pilot and has been for many years. His love for flying took him to places inaccessible by any means other than shank's mare. Naturally there are taxis and rental cars in many areas but these can't compare with the freedom, economy and mobility of a cycle. The cost of exploring even a tiny town, like Ensenada, Mexico, can be high, and frustrating if it happens to be siesta time.

In the past, some pilots took to loading mini-bikes on board in their luggage compartments. The problems with this are too many to overcome easily. First of all, mini-bikes are dangerous on roads or at speeds in excess of 25 mph. The



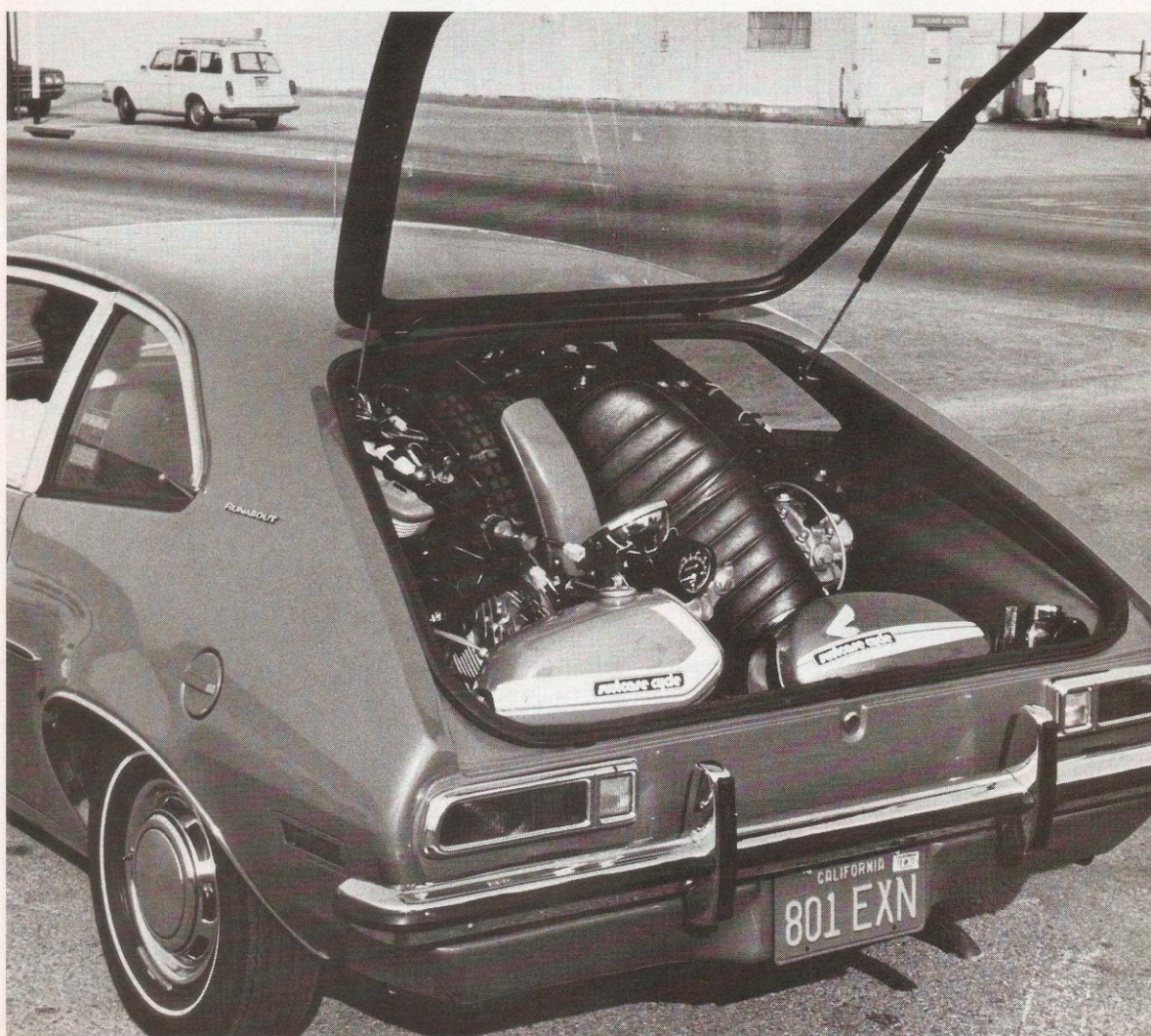


Any bets as to whether or not these two bikes will fit in the back of that Pinto?

Not exactly what you would call an easy fit but once in place there appears to be room left over. Hauling bikes to the track in this manner can be a blessing to the vanless and truckless.

wheels and frames are just too small. A fire hazard exists because the tanks can not be removed on some models nor can they be sealed. Strange things happen to liquids at high altitudes. FAA regulations require that any fuel kept on board must be in a sealed container. In most states mini-bikes are banned from the streets making this whole disertation academic to begin with.

Larry's idea was actually a logical one, felt to be impractical by others who may have wanted to achieve the same goal. He wanted to convert a full-sized mini-cycle, or motorcycle, so that it could be readily assembled or broken down. The design took several months. Many problems had to be overcome for safety and ease of operation. The frame had to be at least as strong as the original bike. All cables, wiring and fuel lines had to be routed correctly and yet had to come apart easily at will and not so



easily when the bike was motoring.

The first bike to come out of Shapiro's shop was a modified Honda 55, because at that time the little step-through was the most popular bike around. It also had the attributes of phenomenal gas mileage (150 plus per gallon), light-weight, good handling and it was street legal. The unique conversion had taken 90 new parts and required modifying 12 existing ones. The result was a motorcycle that could be broken down to four basic groups and would fit in ANY four-seater aircraft. All of the existing Suitcase Cycles are based on the same design but the line has been increased to include other models. The Honda has grown from the 55 into a 90 and now a Suzuki Honcho is offered that produces 57% (11hp compared to 7 hp) more power and weighs 7 pounds less. In the flying game every ounce of weight can make a difference. Besides

that 7 pounds can be used for a lot of fishing gear.

The advantages of using a mini-cycle or motorcycle are obvious. Long trips at high speeds can be done in safety and comfort. Virtually any terrain can be traversed by the bikes offered at Suitcase Cycle. Since the changeover was to larger machines, the company has not been able to sell one mini-bike!

The first thought that entered our minds is that of strength. It seems unlikely that when you cut something apart and put it back together again that it will be as strong as the original. But strong it is. The manufacturer claims that a load of 50,000 pounds can be exerted on the clamp before it will separate. That kind of force would be enough to destroy the rest of the bike (leaving the clamp intact). To verify his claim, Shapiro arranged an impressive demonstration. A cable was attached

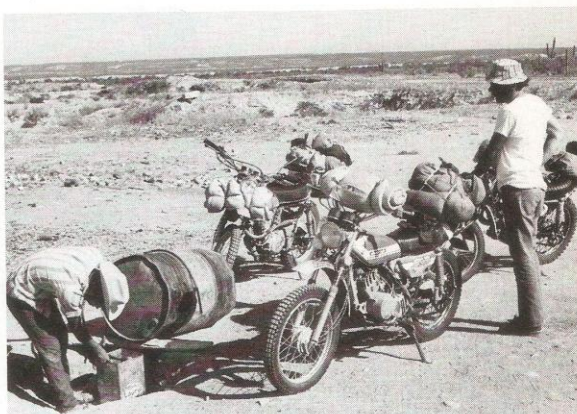
to a helicopter and to the top tube of the frame. Another cable was attached to the bottom frame tube and a pick-up truck. The bike then became the supporting link between the chopper and the truck. To our surprise, and shock of on-lookers, the trick worked. This kind of strength can be useful for the majority of our readers who are actively involved in racing.

For an approximate cost between \$240 and \$300 you can have your racer converted. The advantage in doing this is that it grossly simplifies traveling from race to race. The bike will easily fit in most private planes and can be checked in with luggage on most common carriers. How simple it would be to fly to a race rather than truckin' it across the country. The small size of the packaged bike also enables it to fit into most station wagons and auto trunks. It hard-

Continued on page 61



Bob and Marion Auburn are currently filming a flying film entitled, "Flying the Amazon and the High Andes". They feel that their cycle has enabled them to film areas previously inaccessible.



"Se Habla Polish Senior Gonzalewski?" Now off-road riders and sportsmen can fly to remote areas for hunting, camping or the ultimate in cow-trailing.



The heart of every conversion is this simple, quick-disconnect yoke for the frame. Assembly takes as little as five minutes for the experienced.

Tip-Bits

CAUSE A LITTLE FRICTION

by Paul Laxineta

Ever have a problem with handle bar grips, kick-start and shift lever rubbers working their way off? Simple enough to fix—merely wrap a layer of friction tape over the guilty bar or lever, pour some gasoline inside the grip to help the grip go over the tape and then force the grip or rubber over the bar or peg. If it's still a little loose put another layer of tape down. I think you'll find this does a satisfactory job of keeping them in place. □



CHEAPIE GADGET BAG

by Paul Laxineta

Tip Bits is a fun column for most of us to do. It enables us to use our wits and imagination. For example, the neat little gadget bag shown on this page came from a bicycle store and costs less than a dollar—97 cents to be exact. We couldn't believe our eyes. Similar bags, of like quality, cost nearly five dollars in a motorcycle shop. Someone is getting rich if the bicycle people can show a profit on this item.

The bag is made of sturdy vinyl and naugahyde. We found that the best place to strap it on a dirt bike is the crossbar, assuming that you're not riding flat out. We use ours for carrying a survival kit, film, and extra lens and a few extra tools. Another mounting location, on some trail bikes, would be the rear rack.

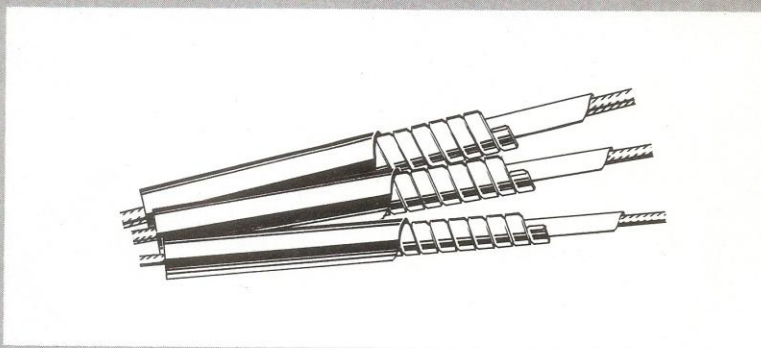
The bag is called the AMF Roadmaster Touring Bag and is available at Toys 'R Us, bicycle shops and discount stores anywhere in the U.S. □

WESTERN UNION? SEND ME A CABLE

by Paul Laxineta

There you are grooving in God's country on your 113cc Kamikaze Goat, when—Spronk! Erk! a broken throttle cable, or clutch cable, and you up that well known creek! Now what?

You could have been prepared and taped extra cables along the ones currently in use. If most of your riding is done in park type areas then you really have nothing to worry about. However, getting stuck in 120-degree heat is no joke. The extra cables are cheap life insurance. Check out your bike and determine what you'll need for spares. Chances are that one cable will work on both throttle and clutch. You could coil the cable up and store it under the seat but this is inconvenient, unwise and takes up valuable storage space. Use heavy waterproof duct tape or friction tape and secure the new cable on the run of the old one. Then all you'll need to do is hook it up. It'll save time and



the need to carry extra tools.

But being only human ("to err is human, to . . . etc.) you didn't prepare for this embarrassing contingency.

So getting yourself out of this mess calls for a little ingenuity and some perspiration. If your clutch cable has broken you can shift sans clutch, which,

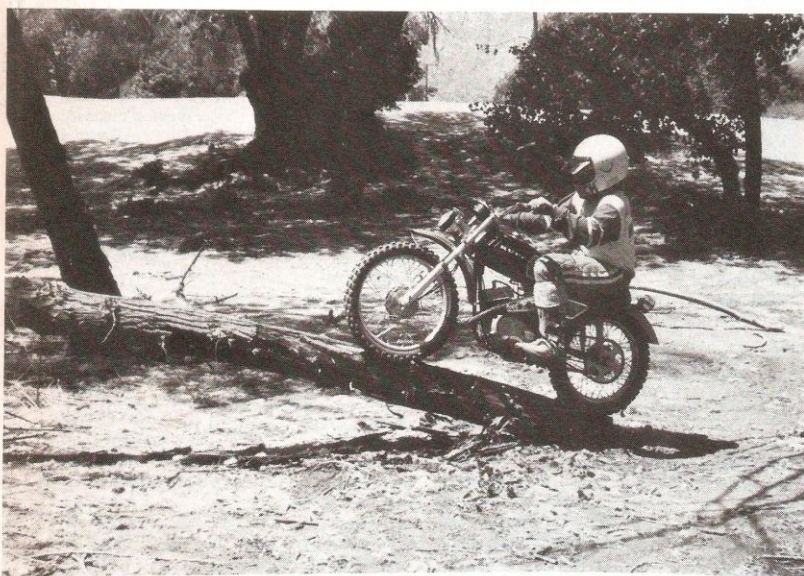
if done carefully, synchronizing the engine speed with the trans speed, will result in no damage to the trans or clutch assembly. Now if your throttle cable has broken it is sometimes possible to utilize the clutch cable in place of the broken throttle cable and shift as mentioned above. □



The Rupp trail bikes have many of the attributes normally given to trials type bikes.



Up and over. Dave Bush demonstrates how easily the Rupp negotiates obstacles.



RUPP, RUPP, RUPP

Sound
of power?

MINICYCLE lost

It's not often that we have the opportunity to test three different machines from one manufacturer in the same month. Rupp has introduced bikes for the rider who wants to buy American and still have one of the best machines around. It wasn't too many years ago that we did have some excellent bikes manufactured here. Unfortunately trade agreements with other countries have cut into our own market. It is not unusual for some people in this world to earn the equivalent of twenty cents a day for manual labor. We just can't compete with wages like that.

Now, however, Rupp has found a way to build the bikes using some available component parts to reduce costs. The engines are the popular Fujis of 100 and 80 cc displacement. The speedometer/odometer is the excellent VDO unit made in Germany. With the exception of these, and normal things like hardware and tires, the Rupp appears to be All American.

The name Rupp may be new to MiniCycle readers but older Mini Bike Guide' readers will remember the fine line of mini-bikes they made. The expertise gained in putting out the mini-bikes has obviously helped them avoid too many teething problems with their new line of mini-cycles. There were only two areas that we felt were far below par and certainly not in character with the quality of the rest of the machine.

The tail light brackets and housings are very thin gauge steel that bends too

TRICK TOOLS

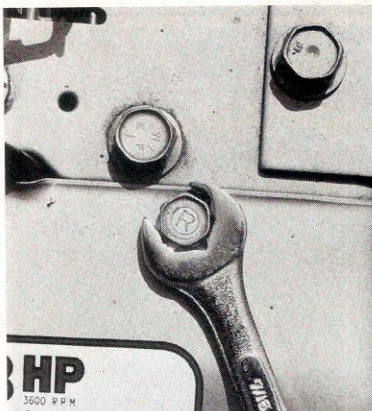
Keep that engine going HMMMMMM

PRODUCT EVALUATION

Recently, we attended a motorcycle show in Los Angeles at the L. A. Sports Arena to see what was happening. There was, of course, the normal fare of custom two-wheelers and racers.

What caught our eye was a new set of tools in the Kevin Krostup booth. On display were a set of so-called "ratcheting" open end wrenches. Now we all know, including Webster (page 614 Col. 2), that a *rach'et* is, "a toothed wheel with a catch, or pawl, that keeps it from turning backward." The use of such a device used in conjunction with a socket is obvious. Simply twist the ratchet lever back and forth and the nut is either tightened or loosened. No monkey motion is wasted in removing the socket each time it is turned, as is the case with a plain bar. Unfortunately ratcheting (real ones) open end wrenches are gosh-awful expensive and bulky. Not so with the Quali-Kraft wrenches. A complete set of these gems are available for approximately twenty bucks.

Now for the trick part! The QK tools have no moving parts! That tops the Wankel engine with three. Snickers and guffaws were exchanged and then we decided to try them out. At first the display reminded us of the Barkers in a county fair who sell wonder drugs and miracle kitchen aids. But the silly things actually work! Twist the wrench in one direction and torque down on a nut or bolt. Twist it the other way and it slips. You're familiar with slipping wrenches though—so what's new. Bloody knuckles and a rounded nut are the usual result. In this case there is NO possibility of the nut being rounded. The wrench has built in curves that allow it to turn this way. When the wrench is twisted



the other way teeth grab onto the nut and secure it as well as a normal box ended wrench would.

To reverse the direction simply flip the wrench over. The distributor claims that the holding power is 2,400 ft. lbs. of torque. He also stated that the wrench won't slip and bloody your knuckles. The design, once it does let go, will cause it to jump clear of the nut.

In several days of use we never had any problems or reason to dispute these claims. The wrenches are a handy addition to any tool box and will allow you to remove nuts that were virtually impossible before.

The second tool offered is an adjust-

able open end wrench with thumb control adjustment. In this instance a thumb slide, similar to stereo volume controls, adjusts the wrench to fit the nut. The operation is much faster than the conventional style. An added advantage is that the wrench has the ability to grip the nut and won't slip off.

The adjuster also senses when enough force has been exerted to do the job. You can place your fingers in the jaws and try to force them closed. The pressure will never be enough to hurt. Here again we didn't have an exact cost but the eight inch adjustable wrench will retail for approximately six dollars. A bargain.

HEATHKIT ENGINE ANALYZER

Winkin', Blinkin',
and Synchin'

PRODUCT
EVALUATION

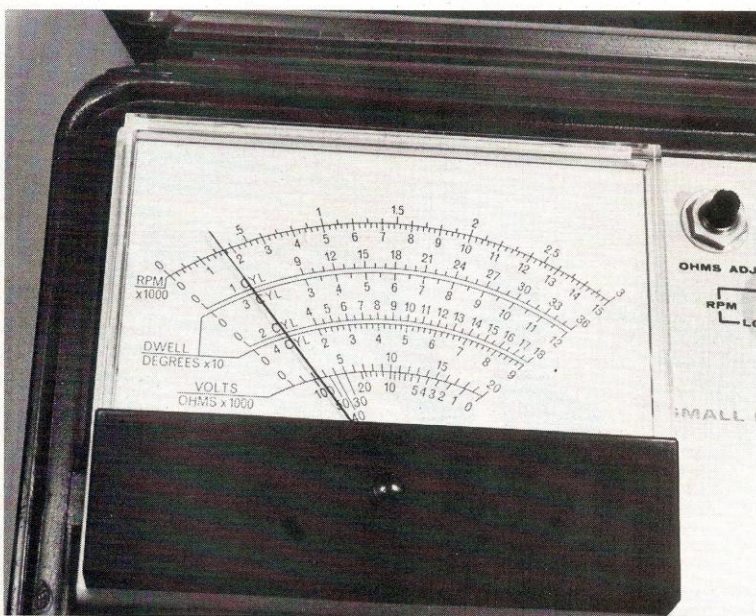
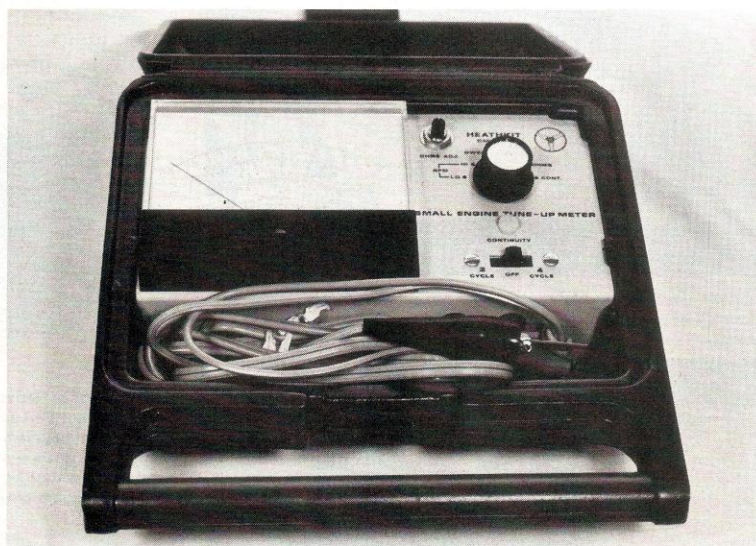
Heathkit has come to the rescue of small engine owners everywhere with the introduction of their fantastic, plastic tuning meter. Units of this type have been available for cars but they were ill-suited for our use and the cost was prohibitive. The Heathkit sells for a reasonable \$49.95 at Heathkit dealers throughout the U.S.

We recently acquired model number CM-1045 to build and test. When the unit arrived we were immediately taken aback at what appeared to be an impossible task. The kit consists of a multitude of parts and a 44-page instruction book. An overwhelming package for the novice in electronics? Not really. We dove head first into the instruction booklet armed with a few simple tools, the soldering article from June '73 MiniCycle and gobs of curious enthusiasm.

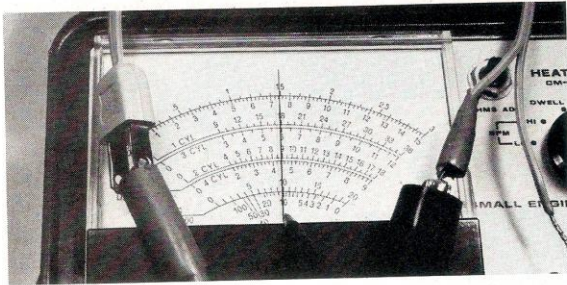
The tools you'll need include a soldering pencil, cross-cut dykes, needle-nosed pliers, a small screwdriver, wire strippers and/or a small knife. Solder is supplied with the kit. Clear your work area of anything other than the kit and use a good work light to avoid eye fatigue.

The instruction book is superb and easy to follow even if you know nothing about soldering or electronics. Each step is spelled out in minute detail and includes a box for you to check off as the step is completed.

Each phase of construction has its own bag of components to simplify the work. We left everything in the respective bags until we actually started working in that area. The instructions call for a "pre-flight" check on all components prior to doing anything. We'll go along with this reasoning since we know that nothing is more frustrating



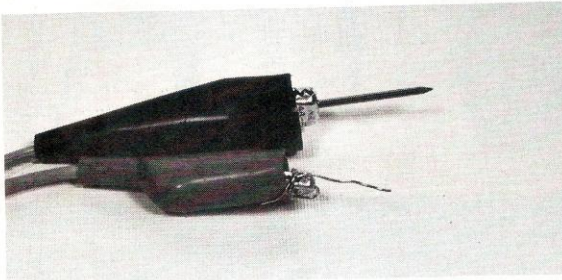
The tachometer scales are calibrated for different engines up to four cylinders, four-stroke. In this instance the scale reads 1,700 rpm.



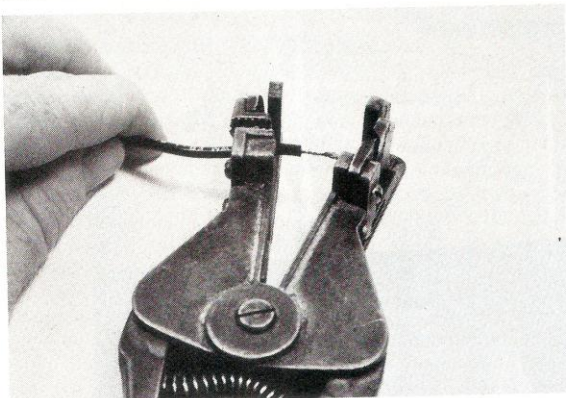
A simple check for the ohmmeter scale is to compare it against the 10K ohm resistor on the calibration cord. As you can see, the meter is dead accurate.



Any conductive material can be tested for continuity. The light will glow if the metal is conductive. Test for shorts by touching one lead against the suspected wire and one lead against the frame.

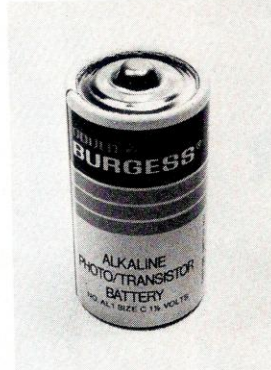


Some areas are difficult to reach using the alligator clips provided. We made a couple of simple probes out of a nail and a piece of stiff copper wire.

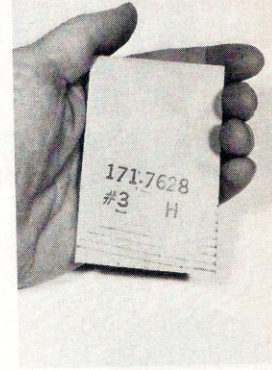


Professional wire strippers are the easiest to use but they can cost a bunch. You can get by using a sharp knife but don't nick the wire. Even a small nick can increase the wires resistance and cause erroneous readings or burn-outs.

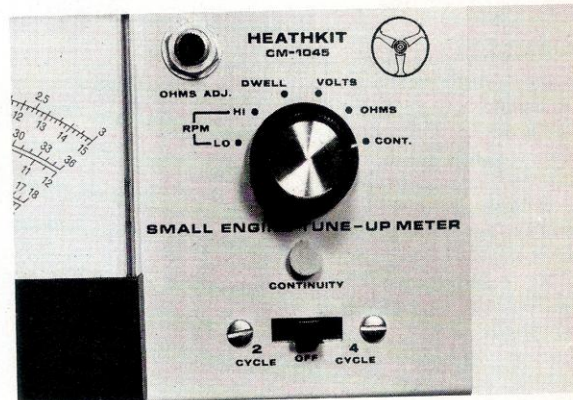
40 / SEPTEMBER



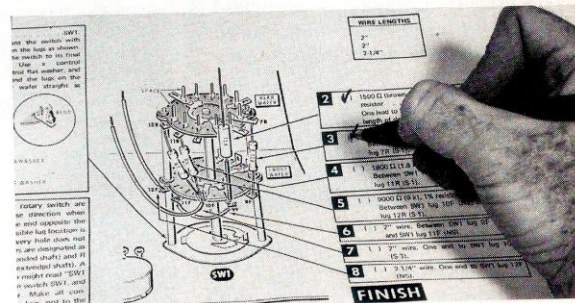
The type of batteries you choose can make a difference over a period of time. We have found that the long-life types are best and cost less than batteries which require frequent changing.



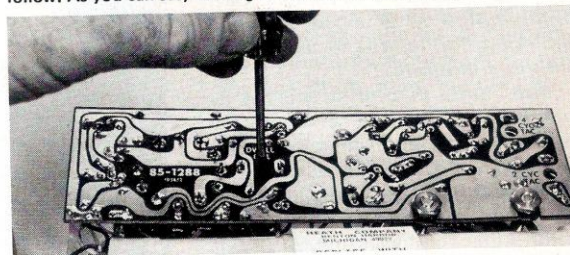
All the components of the kit are neatly packaged for a given area. We were very surprised that none of the pieces were missing. Heathkit quality control must be excellent.



All of the positions are neatly marked and are explained in the comprehensive book.



All of the instructions are explicit and easy enough for a novice to follow. As you can see, nothing is left to the imagination.

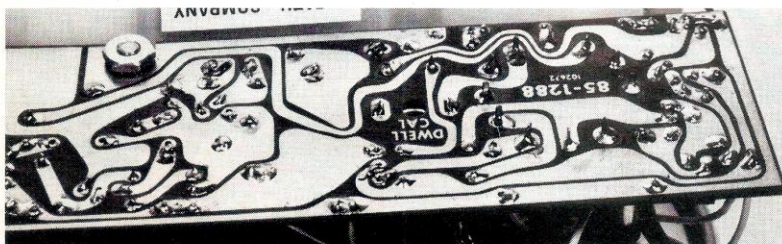


Be extremely careful during the calibration stage. The entire board has house current running through it and a severe shock could result.

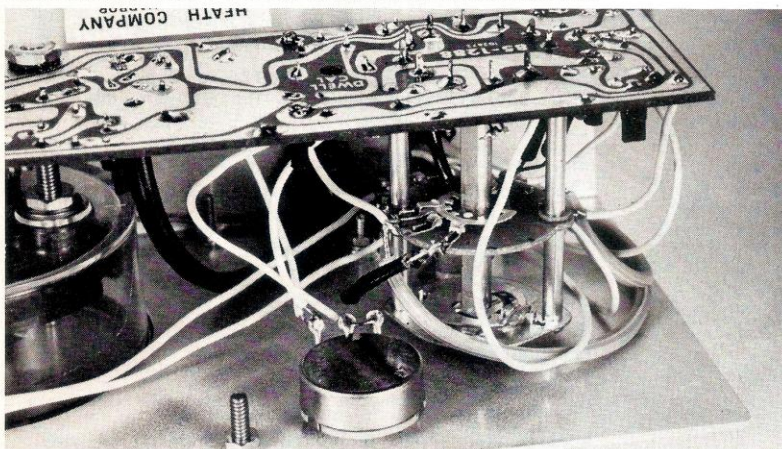
ENGINE REFERENCE CHART					
ENGINE	DWELL ANGLE	POINT GAP	PLUG GAP	RPM	NOTES



Hook-up to the engine is simple. Place the black box over the spark lead and be sure that the jaws are closed.



The circuit board is clearly marked as to the location of each component.



than to start a project and have to finish it while you hunt for missing parts. The exact quantity of material was included in our kit down to the last lockwasher and strand of wire.

Once we started work we found it to be addictive and a heck-of-a-lot-of-fun. The project from start to finish took three, rather long, evenings while simultaneously watching T.V.

During construction remember to clean the soldering iron tip frequently or the joints won't be as good as they could be. Use as hot an iron as you can up to a maximum of 250 watts. This will allow you to solder a fragile component quickly, such as a transistor, without cooking it. Too much heat can also cause the printed circuit board to curl and peel. This happened to us once and it was only because we forgot to clean the tip.

The instructions are explicit enough but we want to over-emphasize the fact that you should take your time and follow each step religiously. Working ahead or trying to second guess the instructions will surely put you in a bind as the job nears completion. Each component and wire has a specific location and function. To build the unit any other way would be like trying to add a brick to the bottom row of a complete wall.

The moment of reckoning, calibration, came a lot sooner than we had expected. Be careful when making the final adjustments at this stage because there is enough juice in the unit to give you a severe shock. Our unit was way off at first so we went through the simple procedure a second time to

Continued on page 59.

easily. An off-road bike is subjected to a lot of punishment and spills are the order of the day. One of our test machines had a light lens break and the frame bend early in the testing. Granted these things should be removed for some serious riding but not for trailing.

From here on out we are going to refer to the two Rupps (80/100) as one bike. Except for a few minor variations they are identical.

Handling is superb for something intended solely for fire trailing. It was almost too much of a temptation to our test riders to keep the speed down. When referencing any problems it invariably was aimed at modifications for racing. Once we got things in perspective we realized what a bargain these machines are.

The tires and suspension are best suited for off road use. The tires adhere well on dry pavement but become unduly squirrely on wet pavement. This isn't unusual at all for dual purpose tires. One of the two modes must suffer in favor of the other. True knobbies would be murder on the street plus they wear out more quickly. The Rupp trials type Carlises are knobbier than most universal tires.

Both of our machines lacked adequate chain tensioners. The quality of the bolts were very little better than what you'd expect to find on cheap gardening equipment. It is a minor point, to be sure, but since little else was found to fault we must resort to nit-picking. On one of the bikes, the adjuster bent as if it had never attempted any resistance. The result was that we were forced to make do and ride slowly back to civilization.

It has become an accepted practice to furnish racing bikes with plastic fenders these days but few manufacturers do so on so called dual-purpose models. We were pleased to find both fenders



RUPP 80

Manufacturer: Rupp Industries, Inc., 1776 Airport Road, Mansfield, Ohio 44903

ENGINE

Engine type	Sg. Two-stroke	Carb	18 Mikuni
Bore	48mm	Ignition	Flywheel magneto
Stroke	44mm	Lubrication	Pre-mix
Displacement	79.6cc	Fuel capacity	1.6 gals.
Horsepower @ rpm	6.6 @ 7,000	Fuel requirement	20:1 reg. gas: oil
Compression ratio	7:1		

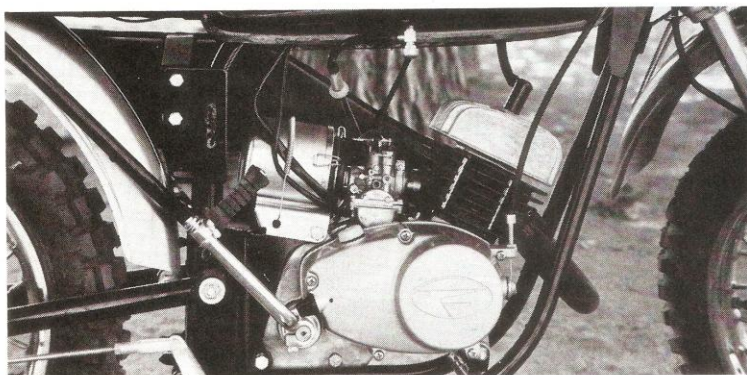
TRANSMISSION

Transmission type	4-speed constant mesh	Gear ratios	
Primary drive	Helical gears	1st	3.8:1
Clutch type	Wet, Multi-disc	2nd	2.43:1
Final drive	No. 420 chain	3rd	1.63:1
		4th	1.22:1
		5th	None

CHASSIS

Frame type	Sg. backbone, dbl. loop cradle	Tires	
Wheelbase	44 inches	Front	2.50 x 17 inches dia.
Overall length	69 inches	Rear	3.00 x 16 inches dia.
Suspension		Brake(s)	4 1/8 inches frt./rear
Front	Tele. fork, oil dampened	Ground clearance	7 inches
Rear	Swing arm, shock	Seat height	27.3 inches
Wheels	Frt. 17", rear 16"	Handlebar height	37 inches
		Dry weight	129 lbs.

Price as tested n/a

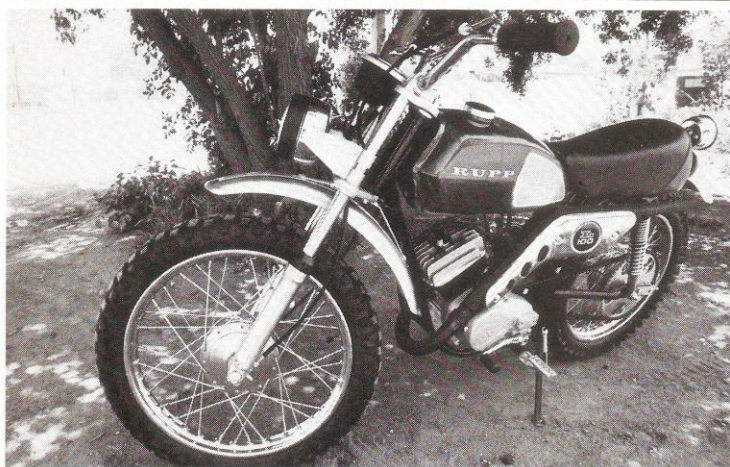


The Fuji engine is flawless for a machine of this type. There is plenty of torque on tap and water crossings are a breeze.

36 / SEPTEMBER



Plastic fenders, rubber headlight protector and quick disconnect brackets are typical of the thought given to making these bikes.



RUPP 100

Manufacturer: Rupp Industries, Inc., 1776 Airport Road, Mansfield, Ohio 44903

ENGINE

Engine type	Sg. Two-stroke	Carb	.20mm Mikuni
Bore	53mm	Ignition	Flywheel magneto
Stroke	54mm	Lubrication	Pre-mix
Displacement	97cc	Fuel capacity	1.6 gals.
Horsepower @ rpm	8.3 @ 7,500	Fuel requirement	20:1 reg. gas: oil
Compression ratio	7.0:1		

TRANSMISSION

Transmission type	5 speed	Gear ratios	
Primary drive	Helical gears	1st	8:71 (int.)
Clutch type	Wet, Multi-disc	2nd	5:89 (int.)
Final drive	No. 420 chain	3rd	4:07 (int.)
		4th	3:17 (int.)
		5th	2:69 (int.)

CHASSIS

Frame type	Sg. backbone, dbl. loop cradle	Tires	
Wheelbase	44 inches	Front	2.50 x 17 inches dia.
Overall length	69 inches	Rear	3.00 x 16 inches dia.
Suspension		Brake(s)	4 5/8 inches frt./rear
Front	Tele. fork, oil dampened	Ground clearance	7 inches
Rear	Swing arm, shock	Seat height	27.3 inches
Wheels	Frt. 17", rear 16"	Handlebar height	37 inches
		Dry weight	129 lbs.

Price as tested n/a

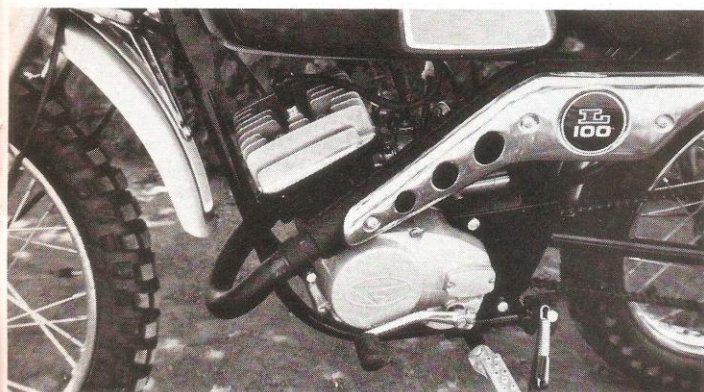
made of this sturdy material to match the color scheme. Striping on the fenders is done with pressure sensitive tape as is the side panel on the tank. It almost seems like cheating instead of using paint but we have found them to be more durable. Speaking of side panels—what ever became of rubber pads? Most serious riders can best be recognized by the bumps on the side of their knees. Can anyone tell us why they were dropped?

The gas tank is made of metal and holds 1.6 gallons of gas. Recently we've turned sour on fiberglass tanks because of problems with leaks. It is difficult to produce a glass tank in any kind of quantity and still make them leak proof. Virtually all of our recent test bikes with glass tanks have had leakage problems. The Rupp tank is tight and void of any seam or cap leaks.

The seat is well padded and comfortable for the rider who spends several hours in the saddle. Excellent handlebar location for most riders helps in the comfort department. The manufacturer describes them as moto-cross style, which they are. However, they do obscure the short rider's view of the speedo.

Most of us had a crack at the two bikes during testing for general flogging and riding. Even the larger adults were pleased with the handling and power on tap. It hardly seems possible to have a bike that can do so much for so many. Climbing ability is unreal for such small displacement, mildly tuned engines. We were able to climb hills not possible with any other machine. Were it not for the overall size and layout we would be sorely tempted to recommend it for trials use. Much of the tractability can be attributed to the gearing. The primary ratios are 3.16 for the 80 and 2.29 for the 100. The 80 has a four-speed box

Continued on page 58



Good exhaust system! Everything ran quiet and smooth to make trailing even more enjoyable.



Chain adjusters are not up to snuff even for a small engine. Ours bent leaving us stranded.

HODAKA'S NEW Dirt Squirt™

One hundirt
cubic clams!
You can dig it.



The tough new Dirt Squirt really separates the boys from the toys! "Mini" in price only, this small motorcycle is a real performer. The Dirt Squirt has a proven heritage of dependability and performance built right into its 100cc 5 speed engine. With a 51 inch wheelbase; a low engine height, 9 inches of ground clearance; a 2.75 x 19 knobby in front and a 3.25 x 17 knobby in the rear; adjustable, folding self-cleaning pegs; large micronic foam air cleaner plus many, many other features that make it a real motorcycle, the Dirt Squirt is an inexpensive bike you won't have to make excuses for.

Built like a big bike for Sons, Daughters, Wives, Short Friends, Beginners and People that just want a super-handling fun motorcycle—The Dirt Squirt is the "fun hundred".

HODAKA HANDLES

For the address of your nearest dealer, use the coupon at right. Canadian readers should write to Gemini Ind., Ltd., 2525 Stephens St., Vancouver, B. C. Australian inquiries can be sent to Minilya Pty., Ltd., P. O. Box 209, S. Melbourne, Australia 3205.

the sign
that means
business!



Get the "Hodaka Story" and the address of your nearest dealer. Send 25c to HODAKA MOTORCYCLES, Suite K, 973 Sherman Road, Athena, Oregon 97813.

Name.....
Address.....
City.....
State..... Zip.....

Let Azusa give your ideas direction!



MINI BIKE SEATS

Dress up your "Mini" with a sparkling new saddle from AZUSA. These seats are expertly cut and tailored from three types of top quality Vinyl fabric: "Channeled", "Metalflake" and "Plush". A fourth style is fashioned from red-and-white striped Metalflake with blue slide-walls, called the az"USA". These covers are fitted over extra firm rebounded foam and mounted on a rugged plywood base. Threaded inserts are pre-installed for a convenient attachment. A choice of colors and sizes in tapered duck tail shape. See them all in our catalog.



MINI BIKE GAS TANKS

The Mini-Bike Tank is a smooth wedge shape to match the tapered mini-bike frame. These copper-brazed steel beauties available in two sizes: a two-quart model, with a notched skirt that straddles the bars, and a three-quart model that sits on the frame. Unique mounting hardware eliminates welding or drilling. Order either size in sparkling chromed finish or unplated ready for your custom paint job.

MINICYCLE TANKS

The Minicycle Tanks are 12" teardrop design with a deep center channel. The channel allows the tank to fit snugly over the frame bar and also serves to baffle the 4 1/2 quart capacity. The deep skirt allows ample mounting facilities and a vented cap tops off this handsome unit. Make your choice from three available finishes... the one just right for you.

- 1716 Unplated..... \$24.95
- 1717 Chromed..... \$15.95
- 1719 Black Enamel..... \$19.95

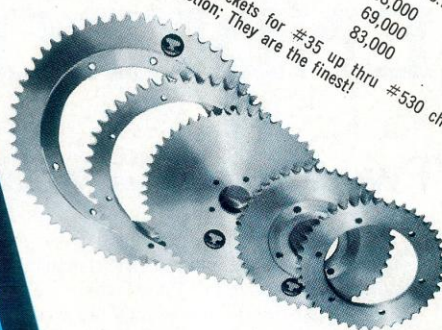
- Three-quart Tank.
- #2246 unplated..... \$ 8.95
- #2247 chromed..... \$13.95

SPROCKETS

All Aluminum Sprockets are not created equal... If you're disappointed with the performance of your aluminum sprocket — If chain and sand eat 'em up, then it's time you tried our Tabloc Division Aluminum Sprocket. We use 7075-T651 Aircraft Aluminum Alloy, a tough, lightweight high tensile alloy that stands up to the most rugged abuse your bike can deliver. Experience shows that our aluminum alloy actually outwears steel sprockets. One look at our chart tells the story.

MATERIAL NOW USED IN SPROCKET MANUFACTURING			
Alloy	Temper	Tensile P.S.I.	Yield Strength
2024	T-4	68,000	47,000
2024	T-6	69,000	57,000
7075	T-651	83,000	73,000

A wide range of sprockets for #35 up thru #530 chain are available for your selection. They are the finest!



MINI CHAIN BREAKER



A must for every Karter, Mini-biker and Motorcyclist. Less than 1" square, it's small enough to fit in your tool box or pocket. This quality tool features hardened steel points for simple, efficient operation every time. Two sizes cover all popular chains. Black Oxide finish.

- #1998 Mini-Chainbreaker for #35, 40 & 41 Chain..... \$1.95
- #1999 Mini-Chainbreaker for #428 thru #530 Chain..... \$1.95

For more goodies to "perk up" your Mini-Bike, see our latest catalog. Send \$1.00 to Dept. MC-39, Azusa Engineering Inc., 1542 Industrial Park St., Covina, CA 91722

SPEEDWAY

SUPER SPYDER ENDURO

Two hot mini-cycles

The new rider is blessed with many things that we didn't have when we first started riding—namely, a wide variety of machines to choose from. The rider can choose from a sod-bustin', race-ready motocrosser or a docile trail bike. In an attempt to garner as much of this market as possible, Speedway offers both of these extremes and some others as well. Our tests include the hot Sachs 125 powered Spyder and the "Q-Ship" Enduro with the popular 100cc Fuji.

Many times we've heard new riders state that they really don't want to buy a bike as sophisticated or as powerful as the various Sachs powered machines. The reason? Because they don't ride "that fast." Well, they might if they had the right bike to start with. The best riders in the world would be nothing if not for their good handling machines. The thought that these bikes are fast is well justified but the expense part is not. The Sachs engine is the end product of a giant industry dating back to 1895 when Fichtel and Sachs Co. first opened their doors in Schweinfurt, West Germany. The full-scale production of motorcycle engines came in 1930. Since that time many companies have chosen to use the venerable engine in their own creations. Therein lies the reason for the myth behind the cost. The engine is virtually bug and bullet proof after several years of development. A few of the companies winning races as Sachs hybrids are Speedway, Penton, Sachs and Saracen. But, as powerful and fast as these machines are, none of them are extremely high-priced. In fact, the Speedway is a paltry \$569.00. At that



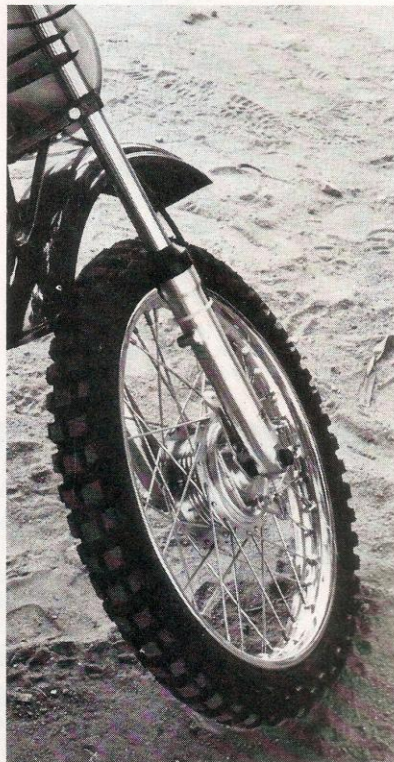
Mike decided to drop off of one of the steepest slopes near shadow glen. The bike handles situations like this with ease and instills a feeling of confidence in the rider.



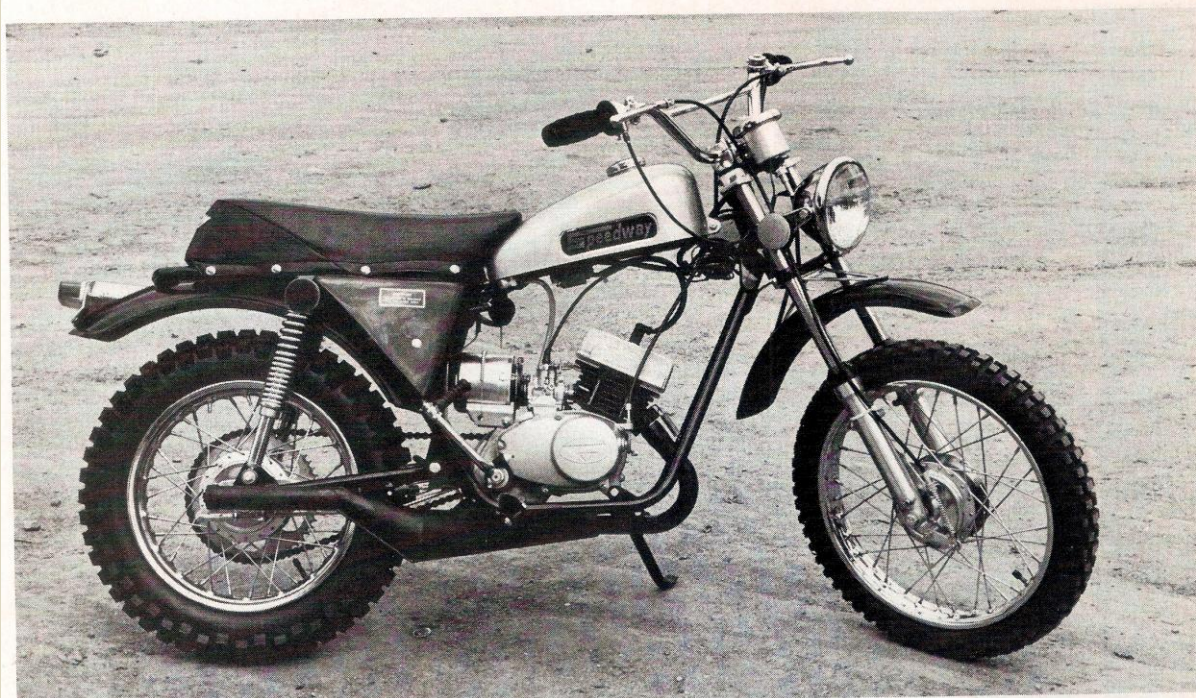
Low gearing and a fair amount of torque enable the Enduro to loft the wheel when necessary.



The rear suspension on both bikes leave a lot to be desired. The identical seats are quite comfortable.



The front forks are adequate for most uses but not for all-out racing. The Carlisle tires are pretty good with good sliding characteristics.



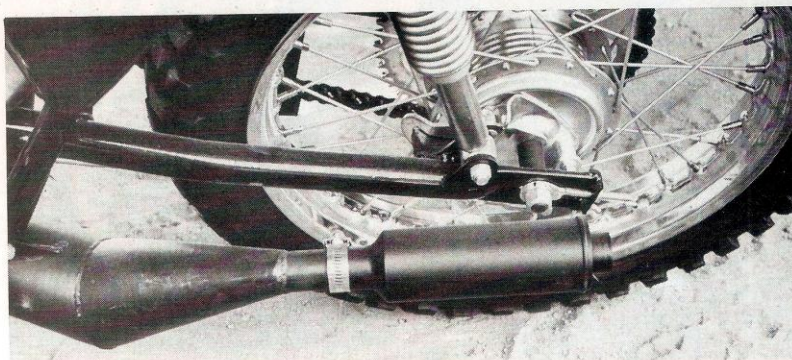
The Speedway bikes are lithe and well designed. Most components are identical with the exception of engines, tire and street type equipment.



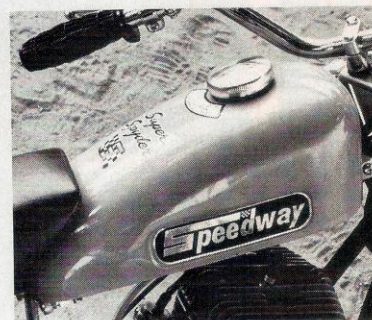
All of us HATED THE left hand kick starter on the SS. We feel that our grip is legit since it left two of us crippled with bent feet and wracked shins.



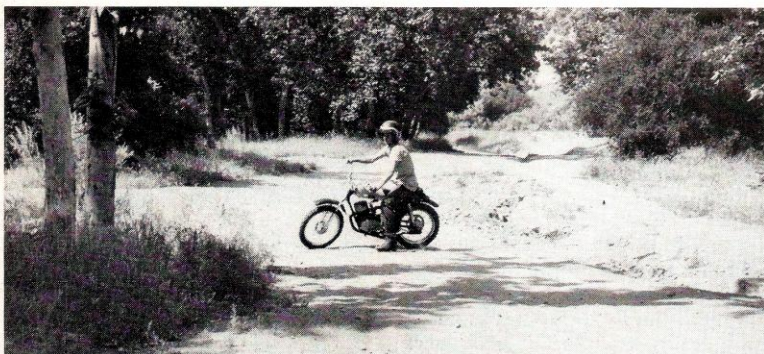
The 125 Sachs engine with 5-speed has been around for years in the winning bikes.



The Speedway bikes excel in the noise department. Neither bike is obtrusive and we never noticed the exhaust note. Other bikes won't let you forget!



Both bikes feature steel tanks and plastic fenders. What appears to be a compression release lever is actually for the choke on the Bing carb.



SUPER SPYDER 125

Manufacturer: Speedway Products, Inc., 160 Longview Ave., Mansfield, Ohio 44905

ENGINE

Engine type	Sachs two-stroke, single	Carb	26mm Bing
Bore	54mm	Ignition	Magneto, flywheel
Stroke	54mm	Lubrication	Pre-mix
Displacement	123cc	Fuel capacity	1.5 gal.
Horsepower @ rpm	15.5 hp @ 7,800	Fuel requirement	20:1 prem.
Compression ratio	10.8:1		

TRANSMISSION

Transmission type	5-speed constant mesh	Gear ratios,	
Primary drive	Helical gear	1st	4.6:1
Clutch type	Wet, multi-disc	2nd	2.73:1
Final drive	No. 40 HD	3rd	1.95:1
		4th	1.50:1
		5th	1.24:1

CHASSIS

Frame type	wishbone	Tires,	
Wheelbase	45.0 inches	Front	2.50 x 17
Overall length	68.0 inches	Rear	3.00 x 16
Suspension,		Brake(s)	4 in. dia. internal expansion
Front	tele-hydraulic fork	Ground clearance	9 inches
Rear	swing arm and shock	Seat Height	29.0 inches
Wheels	17 in. frt, 16 in. rear	Handlebar height	37.0 inches
		Dry weight	150 lbs.

PRICE AS TESTED \$569.00 F.O.B. Mansfield

Manufacturer: Speedway Products, Inc., 160 Longview Ave., Mansfield, Ohio 44905

ENGINE

Engine type	Fuji two-stroke, single	Carb	20mm Mikuni VM20
Bore	53mm	Ignition	Magneto, flywheel
Stroke	44mm	Lubrication	Pre-mix
Displacement	97cc	Fuel capacity	1.5 gal.
Horsepower @ rpm	8.3 @ 7,500	Fuel requirement	20:1 prem.
Compression ratio	7:1		

TRANSMISSION

Transmission type	5-speed, constant mesh	Gear ratios,	
Primary drive	Helical gear	1st	8.71:1
Clutch type	Wet, multi-disc	2nd	5.89:1
Final drive	No. 420	3rd	4.07:1
		4th	3.17:1
		5th	2.69:1

CHASSIS

Frame type	Wishbone	Tires,	
Wheelbase	44.3 inches	Front	2.50 x 16
Overall length	66.5 inches	Rear	swing arm and shock
Suspension,		Brake(s)	4 in. dia. internal expansion
Front	tele-hydraulic fork	Ground clearance	8.5 inches
Rear	swing arm and shock	Seat Height	28.5 inches
Wheels	16 in. Frt., 14 in. Rear	Handlebar height	36.0 inches
		Dry weight	145 lbs.

PRICE AS TESTED \$479.00 F.O.B. Mansfield

The Super Snyder is one of the few bikes we've tested that can take double duty as a trail bike and racer.

price it is one of the best bargains going.

Last year, Speedway had a dynamite mini-bike with the same Sachs engine. At the time we rode this machine we were a little leery of it. The entire machine displayed a weird combination of brilliant engineering with some unforgiveable errors in design. One thing that comes to mind instantly was the brake that insisted on activating by itself. But rather than belabor a dead issue we'll talk about the two great machines we tested this month.

Our first impression of the Super Spyder was the total purposefulness of the design. Nothing has been wasted in an effort to produce a simple and fast machine. The frame is lithe with a minimum of frills or poundage. A refreshing change from the norm is that all welds are neat and minimal. In welding the best welds are NOT "the biggest with the mostest." Too many of the mass-produced bikes have enormous, ugly welds that are potentially weak.

The Sachs 125cc looks extra large in the mini-cycle sized frame—great for psyching out the opposition! But psyching really isn't needed. The engine is conservatively rated at 15.5 DIN horsepower at 7,800 rpm. Coupled with this is a smooth 5-speed, constant mesh gear box with a very low (4.6:1) low and second gears. Fast starts are easy but shifting is required early. The difference between second gear is not as drastic as first is to second. Third through fifth gears are spaced close and are useful in keeping the engine up "on-the-pipe." Clutchless shifts are as good as any we've encountered.

Don't get the false idea that we are trying to pass this bike off as a racer because we're not. As the saying goes, "It's too little, too late." It might have been a super box-stock racer last year but now it's thrown into the arena with the likes of other 125cc jets such as the Barnt, Honda and Rupp. The biggest thing going for it is that it offers exceptional quality at an affordable price. The non-racing members of our staff really liked the machine. We prefer to think of it as the trail bike with the heart of a racer.

Our first attempt at starting the machine ended in frustration. Several kicks and a couple of spark plugs didn't even evoke a whimper out of the normally easy to start engine that we've known before. After further checks of the ignition system we were about ready

Continued on page 65

MINICYCLE / 47

Mama Hot-Shoe

by Dennis McClintock

The National Mini-cycle Association organizes so many races at southern California tracks, you would think that Ron Henricksen would be too busy to think up special races. But May 13 was Mother's Day, and Ron couldn't resist a chance to get the ladies on the track.

The regular mini races at Saddleback Park proceeded as scheduled, with the mothers cheering for their sons and daughters. But Ron, who was announcing the races, kept reminding the ladies that their children would soon be watching them.

Instead of holding the Mom's Race at intermission, as half-time entertainment, it was left to the end of the day. The very practical reason was to save the bikes. The ladies were going to use their sons' bikes, and the boys didn't want to take a chance on Mom breaking a machine before the regular races were over. The long wait also gave Ron a chance to needle the mothers with outrageous suggestions for adjustments in the track.

"We've changed our minds, ladies. We aren't going to send you around the water tower. Instead you'll go up over



Norma Summey twists the throttle wide open on an uncompaining Honda XR-75.

FATHER'S DAY RACE

by Dennis McClintock

They must have been out of their minds. These guys could have been at home, taking it easy, collecting their Father's Day loot. Instead, they went out to Indian Dunes, spent a long day in the heat and the dust, and finished up with a six or seven lap ordeal (they called it a Father's Day race) around the mini-cycle track.

Who? Over 30 fathers whose sons and daughters regularly race in National Mini-cycle Association events. The dads supposedly volunteered, but some of



The fathers took a few laps of practice to adjust to the track.

Kasey Rogers leads coming out of the first turn, followed closely by Gloria Simmons and Betty Eversole.

this hill to the north, and the first one to reach Los Angeles will get the trophy."

Apparently undisturbed, twenty-four mothers volunteered. Soon after the last regular race, the moms were sent out on the track for a few laps of practice.

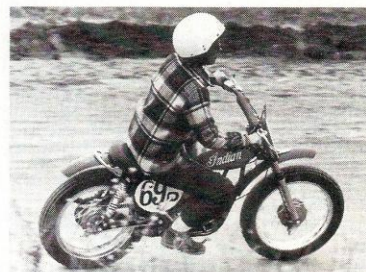
Because of the substantial number of entries, two semi-final heats were run after practice. Of the twelve racers in each heat, the top five were transferred to the final, ten bike race.

The most colorful rider in the race had to be Beanie Moran. Her green and white outfit, with a big shamrock on the back, was an imitation of the leathers worn by her stepsons, Kelly and Shawn Moran. Beanie rode the "Lawnmower," a Powell mini-bike which was Kelly and Shawn's first racing bike. It is a very dependable machine, except when it runs out of gas, which it did.

Kasey Rogers, otherwise known as "Mike Lewis' mom," took an early lead from the starting flag. She looked like a runaway winner, but apparently the mini-cycle wasn't as easy to handle as



The winning form of Allied Cycle's most recent racing discovery, Linda Brown.



Yvonne Garner holds a steady, unruffled pace around the Saddleback track.



Eide, Foster, and Holley take the jump, shortly before Holley took the lead.

them were trying awfully hard to find an excuse not to race.

The "old men" were allowed a few laps of practice before the real thing. A few of the riders even looked like they knew what they were doing. The rest just looked a little funny, hulking over small-scale handlebars.

After practice, one of the fathers suggested that they water the track to keep the dust down. "Okay," said the announcer. "Anything for a stall."

The thirty-three brave souls were split into three six lap preliminary heats, with the top four in each heat transferring to the seven lap final.

Koemans was listed in the first heat, but he didn't want to ride because he couldn't possibly fit on his son's Pee Wee class bike. Someone found Dad a slightly larger mount, and the reluctant rider led his race for three laps. Al Holley kept up a steady second place, and when Koemans used up his energy, Al moved into first and kept it.

Crashes almost lost qualifying positions for Hughes and Hess, who had been leading the second heat. However, both recovered in time to qualify behind the



Ron Henricksen presents the first place Mother's Day Race trophy to Linda Brown, mother of MC test rider Mike Brown.

the big bikes she usually rides. Kasey crashed and didn't have enough time to work back up to a top position.

After that, Linda Brown took the lead and kept it. The back of her Allied Cycle jersey flashed a big zero, just like the zero on the number plate of her speedy son, Mike Brown.

The rest of the racers were spread out around the track, making scorekeeping difficult. Even Ron got a little confused. But, he had kept his star scorekeeper, Carol Whiting, out of the race (even though she's a mother, too), and she recorded the seven trophy winners. Linda Brown grabbed the first place gold, and the next six took home smaller trophies.

Everyone seemed to be having a good time, despite a few minor crashes. Ron suggested that they cancel all the regular races and let the mothers have the track every Sunday. Sure! If you don't mind arguing with a hundred angry boys and girls. And the fathers deserve a chance . . . □



Heavy traffic avoids a fallen father.

winner, Eide, and second place Clark.

Foster took over the third heat lead when Glenn King got off. The rest of the riders were so spread out, only heaven and the scorekeeper knew who was in second place.

The heat winners—Holley, Eide, and Foster—were the only serious contenders

in the final race. Eide led for about four laps, then the lead changed several times. When Eide and Foster finally wore out, steady Al Holley was waiting to take the lead. Lively spectators cheered the close final laps, and Holley's win.

All the hard-breathing finalists collected trophies, with the top three pick-

ing up the fanciest hardware. Maybe that is the best Father's Day gift of all. Those awards are positive proof that these dads take a strong interest in the activities of their sons and daughters. As one finalist said: "I was good for about five laps, then I just got tired. Now I know what my son has to go through." □

JACK SHAFTO

HANK MILLER-

-AN' A THREE HP ENGINE WITH A 3-SPEED TRANNY...

STOP HUSTLING YOUR OL' MAN - YOU'RE TOO YOUNG TO RIDE ONE ANYWAY.



GOL-LEE... 'SPECT A GUY TA TOOL A TRIKE ALLATIME?!

FAIR ENUFF - LET'S CHECK ONE OUT ON A 'TRIAL BASIS' AND SEE...

NO, I JUST WANT YOU RIDING SOMETHING **SAFE.**

OKAY, YOU'VE CORNERED ME AGAIN.



MINI CYCLES
SALES • PARTS



NEXT DAY -

I THOT YOUR DAD BOUGHT THAT MINI CYCLE FOR **YOU!**

UH-HUH, SO'D I. WHAT BUGS ME IS HE BLEW MY NEXT THREE MONTHS ALLOWANCE ON THEM RACIN' LEATHERS AN' HELMET HE'S WEARIN'!

I CAN'T WAIT TO WIPE A **CHOPPER!**



me·chan'i·cal

ter·mi·nol·o·gy

Every activity has its own specialized jargon including the mechanical and descriptive phrases pertaining to motorcycle engines. Many of the phrases are the same as for automobiles but they differ enough in their application to air-cooled engines to confuse all but the experts. In an attempt to correct this situation, we've drawn on our collective knowledge and compiled this glossary of the more common terms in use today.

Acceleration

An increase in speed of an engine or bike.

Adaptor

A device used to mate two components that are not normally suited to one another; i.e., a large carburetor in place of the stock unit.

Adhesion

The force that holds two unlike substances together; i.e., oil adheres to the wall of a cylinder.

Alky

Alcohol as used in high performance engines on speedway or drag racing engines.

Alternator

An electrical device used to produce electricity for charging a battery or powering lights.

Ampere

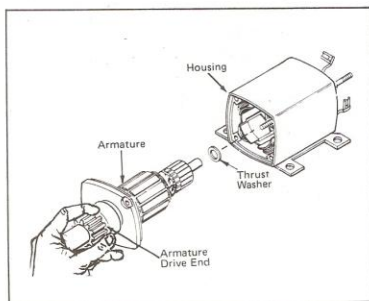
A unit of measurement to measure the flow of electrical current.

Arm

The crankshaft throw.

Armature

A portion of a generator that contains wire



wound on an iron core which is essential to creating current.

Atomize

The transformation of a liquid into a vapor. A carb atomizes gas to make the gas more volatile.

Backfire

An explosion in the exhaust or intake tracts caused by improper timing.

Backlash

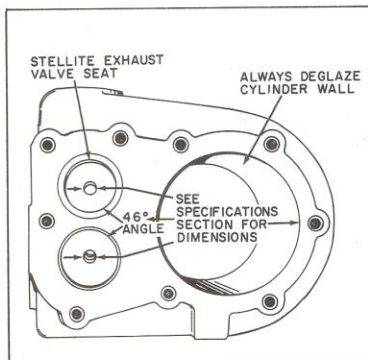
The amount of free play between mating gear teeth as measured between one stationary and one free gear.

Ballast

Any weight used that is not necessary for operation. Generally used on the bike itself to keep it within racing weight limits.

Barrel

1. A cylinder containing the piston.



2. The bore of a carburetor.

Beef

To make something stronger, usually through gusseting.

Before-top-dead-center (BTDC)

The time, in degrees, before the piston reaches the top of its travel.

Bimetal element

Two metals of dissimilar expansion and contraction that are bound together at one end. The unit opens and closes with the temperature changes and is used to control electrical flow.

Binders

Brakes

Blow-by

A combustion leak past faulty piston rings or valves that causes a loss of power.

Blueprint

To hop up an engine without breaking out of a racing class.

Bore

1. The diameter of a cylinder in inches.
2. To increase the cylinder size for more displacement.

Breaker points

See Contact points.

Breathing

The capability of an engine to pass a volume of air/fuel mixture. This is usually limited by porting or valve sizes.

Bore and stroke

To increase engine displacement by increas-

ing cylinder size and by increasing the crank throw.

Brush

A small plate of conductive material which wipes against a commutator in a generator to collect and transmit electricity.

Burr

A piece of metal left over after a machining operation.

By-pass

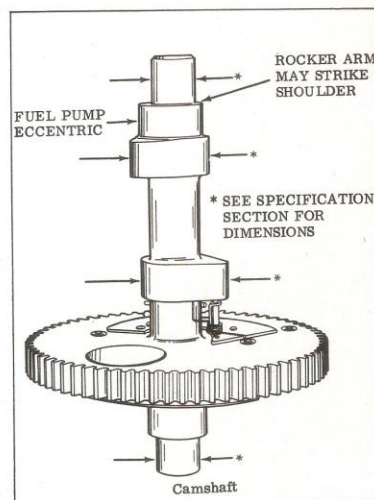
An alternate route for liquids or vapor.

BTDC

See Before-top-dead-center.

Cam

A shaft with eccentric lobes that rotates



with the engine and actuates valves in a four-cycle engine.

Camshaft

See Cam.

Carb

A device attached to the cylinder that atomizes gas for efficient combustion.

Capacitor

An electrical device that can store bursts of electrical energy.

Centrifugal force

A force that causes rotating masses to tend to move away from their orbits because of inertia.

Charging

A replenishment of electricity in a storage battery.

CI-CID

Cubic inches of displacement found by multiplying 3.1416 x 1/2 bore diameter x stroke.

Clearance

The dimension between two objects. Piston-

to-cylinder-wall clearances are a critical example.

Close ratio

A transmission with the gears arranged so that their ratios are close to keep the engine operating within its power band during racing.

Cog

A gear.

Coil

Wire wrapped around an iron core and used to step up ignition voltage.

Combustion

The burning of gases in the combustion chamber.

Combustion chamber

The relieved area in the cylinder head that contains a spark plug (and valves in an overhead valve four-stroke).

Compression

Occurs as the piston reaches the top of its stroke. The gas vapor is compressed which creates more power when it is ignited.

Compression ratio

The ratio of the volume of the combustion chamber to the total volume of the cylinder.

Condenser

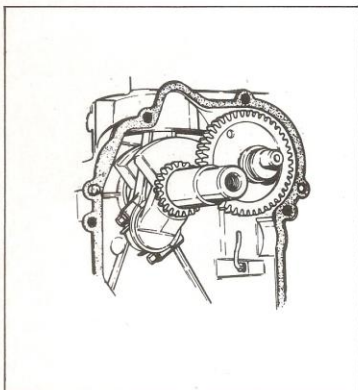
See Capacitor.

Contact points

An electrical switching device, mechanically linked to engine rotation, which times the build-up of voltage (and, in single cylinder engines, the delivery of spark for combustion).

Counterweight

Weight placed on the crankshaft to offset the



vibration of the piston as it moves.

Cycle

Used in reference to an engine type and is interchangeable with "stroke". A two-cycle engine fires with every revolution of the crankshaft. A four-cycle has four distinct phases and fires on every second crankshaft revolution.

Diaphragm carb

A carburetor that has a membrane which flexes in time with engine pulses to draw fuel into its chambers.

Diode

An electronic device that will permit current to flow in only one direction. It is used to change alternating current to direct current.

Direct current (DC)

The flow of electrical current in one direction from a power source to a ground.

Displacement

See CID.

Dry sump

An engine design where oil is carried in a separate container rather than in the crankcase, as in a wet sump engine.

Dwell

The length of time that the contact breaker points are kept open.

Eccentric

Off center — pertains to a lobe such as that on a cam.

Efficiency

The amount of power produced by an engine compared to the amount wasted in producing it.

Elasticity

The ability for a material to return to its original shape without taking a set. Rubber is elastic.

End-play

The movement of a shaft along its axis.

Energy

A force that produces work in power.

Eyeball

To rely on your senses rather than measuring.

Fin

A series of metal plates on a cylinder head used to promote cooling.

Expansion chamber

A specially designed exhaust pipe that can cause an increase in power by aiding in the evacuation of gases from the engine.

Force

The energy required to overcome inertia.

Forks

The two long tubes on the front of the bike holding the front wheel and used to absorb bumps.

Fracture

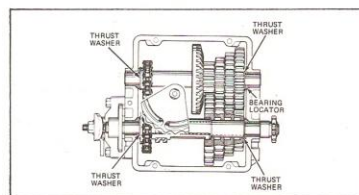
A crack or break in a part.

Gear ratio

The numerical relation between one gear and another. This expresses the output of one in relation to the input of another.

Gear

A wheel-shaped part with teeth cut in its



perimeter. Used to transmit power from one shaft to another.

Hemi

The design of a combustion chamber in some four-stroke engines.

High tension

High voltage. Usually refers to the output or secondary lead of the coil.

Horsepower

A unit of measurement equal to the moving of 33,000 pounds a distance of one foot in one minute.

Idle

The slow turning of a running engine not under load.

Ignition

The firing of gases in the combustion chamber.

Inertia

The tendency for an object to remain in motion or at rest unless acted upon by an outside force.

Jet

A tube-like device used to control the flow of gases through a carb.

Journal

A shaft machined to accept a bearing.

Knock

Pre-ignition caused by the heat from carbon build-up or use of fuels with a low octane rating.

Knockers

The overhead camshafts found on many hi-performance four-stroke engines.

Lands

The ridges of metal between piston ring grooves.

Lap

To polish two metal surfaces in contact with one another, using a fine abrasive. Applies to valves and their seats.

Load

The total work an engine must perform.

Low-end

The torque and pulling power that an engine possesses at low rpm.

Low tension

Low voltage. Opposite to high tension, but usually referred to as the *primary* circuit in the coil — including the input wires leading to the coil. □

MISCELLANY

MIRACLE WORKER?

According to the manufacturer, dgf 123 provides pre-assembly lubrication of engines and machinery parts . . . prevents metal to metal contact, and protects against corrosion before assembly.

It should be sprayed on clean, dry surfaces of engine and machinery parts to protect against scuffing, scoring, seizing and overheating . . . rust or corrosion during storage. dgf 123 is a dispersion of micronically fine, pure colloidal synthetic graphite in Fluron^R an exclusive compounded volatile carrier. It evaporates quickly to leave a non-abrasive, non-attracting dry graphite film surface with high lubricating qualities.

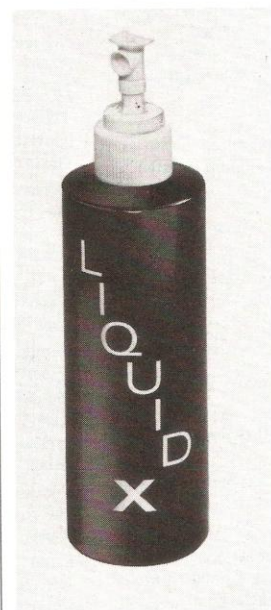


The manufacturer also states that dgf 123 is used by leading professional engine builders, automotive and machinery manufacturers, to assure positive initial lubrication . . . has been specified since 1950 by aviation, industry, and government agencies.

Write to Miracle Power Products Corp., Dept. MC, 1101 Belt Line St., Cleveland, Ohio 44109.

BRAND X

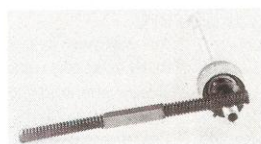
Liquid-X—a polymer that actually penetrates beneath the surface to become a part of the material—restores, preserves and protects. Briggs Cunningham's Automotive Museum uses it on cars that date back to 1914. Non-toxic, non-flammable, harmless to upholstery, chrome or wood. 8-oz. bottle will treat two entire cars for a whole year. Has 100's of uses! Applies quickly, easily. Only \$2.79 plus 80¢ handling, from J. C. Whitney & Co., 1917 Archer Ave., Dept. MC, P. O. Box 8410, Chicago, Ill. 60616. State Stock No. 12-1454. Send for FREE Catalog.



The new products section is intended as a service to our advertisers and readers for announcing items of interest. The copy and claims contained here-in were obtained from each manufacturer and in no way represent an endorsement by MiniCycle Magazine. Time and space permitting, we will test any new products submitted to our Product Evaluation department. Manufacturers are invited to send samples to this section each month.

THREAD FIXING FILE

The metric thread file is excellent for restoring damaged external threads of axles, crankshafts, transmission shafts, spindles, etc.



Available in pitches 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.50 & 3.00 mm.

Cuts right or left hand, any diameter.

Hardened steel for long life and fast cutting.

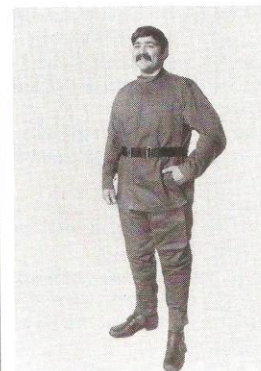
Price \$4.50 each.

Pierlot Automotive Tools, 716 Vesta Street, Dept. MC, Inglewood, California 90302.

WEATHER OR NOT . . .

This, European styled, lightweight 2-piece riding suit features a jacket with Mandarin collar, "Velcro" closed zipper front, 4 concealed zipper pockets, and adjustable belt. The pants are windproof "bib" style with adjustable shoulder straps, snap bottom-over the shoe fit, zippers down both legs, and left leg deluxe cargo pocket. Mustache optional.

Available in brown only, in S, M, L, and XL sizes, and priced at \$54.95 from: Suzuki Fun Center, 515 N. Victory Blvd., Burbank, Ca. 91502.



BRONC BOONIE BASHER

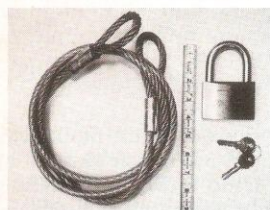
Heald, Inc., Benton Harbor, Michigan announces the availability of a new 8 h.p. Trail Bike. The new bike is called "Super Bronc" and there are two big models to choose from. Model VT-8 has an 18" x 8.5" wide tire on the front and Model VT-812 has a 21" x 12" wide front tire. Both models have a large air cushion 21" x 12" x 8" chevron tread rear tire with knob tread option. The "Super Bronc" is powered by a new 8 h.p., 306cc Tecumseh Engine. Power is transmitted thru an automatic torque converter and #40 roller chain. Optional features include electric start, lights, quiet spark arrester muffler, speedometer, and front ski for snow. "Super Bronc" comes in an easy-to-build, semi-kit form. Base kit price Model VT-8 \$279.95. This big Trail Bike is ideal for farm or recreational use in any terrain.

For further information write Heald, Inc., Dept. MC, Box 1148, Benton Harbor, Michigan 49022.



SAVAGE SAVER

Big Brute Kables, multi-purpose 14,400 pound break strength security cables, are now offered in both 4 foot and 6 foot lengths, and with optional Monster Padlocks.



Write to Weil Service Products Corporation, Dept. MC, 2434 West Fletcher Street, Chicago, Illinois.

Like all smaller sized Weil Cables, Big Brutes are much lighter than comparable lengths of chain, vinyl coated to prevent damage to painted surfaces and have stainless steel eyelet ends that are fused for ultimate strength.

FACE SAVER

Trackstar Helmets full face model 3000 helmet is now available for distribution. This fully approved helmet carries the 1971 Z90.1 certification as well as the new California Highway Patrol endorsement.

Suggested list price \$39.95. It's light weight of only 3 pounds makes it ideal for the racer or road rider. The helmet comes complete with a flip-up sun visor and shield from which the shield may be detached. Available in white, yellow, orange and black and in sizes small through extra-large.

Model 3000 available exclusively from Trackstar Helmets Inc. P.O. Box 314, Floral Park, New York, 11002.



UPTITE W'LOCTITE

Featured in the new line is "SuperBonder"™, the revolutionary new adhesive that instantly bonds most smooth materials for a variety of quick building and repair jobs. The other two products, "Lock N' Seal" (Regular) and "Lock N' Seal" (Super Strength), are used to secure all kinds of threaded parts against accidental vibration-loosening, leakage and corrosion.

Both Lock N' Seal products belong to a family of "anaerobic" adhesives. The unique compounds remain liquid as long as exposed to air, then harden after being confined between close-fitting threaded parts. Once the "liquid lock-washers" have hardened, parts are reliably protected against leakage and vibration shake-loose.

Because of their speed, strength and simplicity, Loctite adhesives have long been recognized by top race mechanics and by maintenance men throughout industry as an ideal method for repair and preventive maintenance.

For more information contact the Consumer Products Division, Dept. MC Loctite Corporation, North Mountain Road, Newington, Connecticut 06111.



ZOUNDS! NEW ZINC

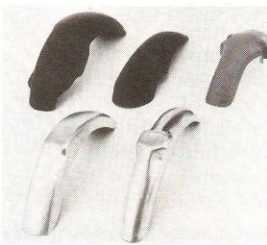
Cold galvanizing compound—equal to hot dip or better. Stops rust and heals scratches.



Fuses itself to iron, steel, aluminum and lasts for years. Just spray on. Blends well with hot-dip coating. Only \$2.49 plus 80¢ postage from J. C. Whitney & Co., Dept. MC 1917 Archer Ave., P. O. Box 8410, Chicago, Ill. 60616. State Stock No. 12-1667. Send for FREE Catalog.

BENDER FENDERS

Super 2 "Replica" Lightweight Racing Fenders to fit popular trail-type motorcycles are now available from PACIFICO Incorporated. Six sizes and four colors of Silver, Black, Yellow and Red, Super tough, Super light Replicas will not crack, ding, or break. Priced from \$9.95, the new Fenders are available for Yamaha 250 rear, and two Metisse style front Fenders for both large and small Ceriani-style forks. PACIFICO Super 2 Replica Fenders and all PACIFICO products are distributed nationally and available through local dealers, or by contacting PACIFICO Incorporated, Dept. MC, P. O. Box 348, Gresham, Oregon 97030.



HOT ITEM

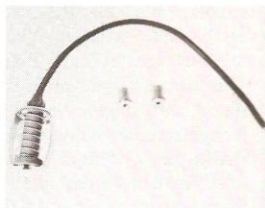
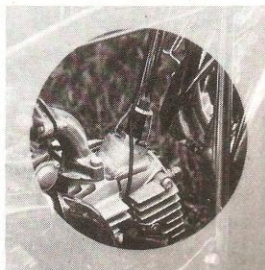
A new invention automatically slows down or stops most kinds of internal combustion engines *before* overheating damage can occur to the engine.

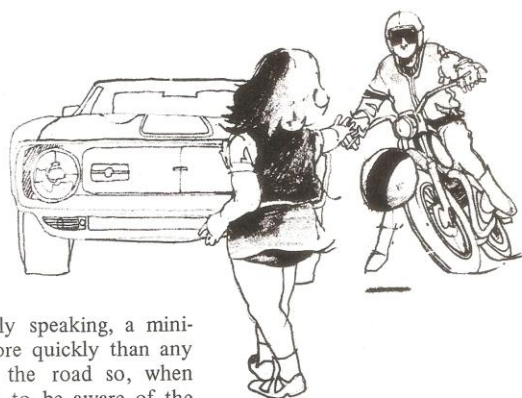
The new "Moto Fuze" is attached easily to the engine head-bolt and spark plug. The device's fuse contains a spring which is held in place by low-temperature metal. When excess temperatures are reached, the low-temperature metal in the fuse releases the spring. The spring grounds the spark plug, stopping the cylinder from firing. This slows or stops the motor.

The stoppage is gradual (i.e. coasting or decelerating to a stop). After stoppage has occurred, an internal fuse must be replaced (similar to replacing a light fuse).

The "Moto Fuze" retails for \$4.95.

Free information may be obtained by writing Havar Manufacturing Company, Dept. MC, 930 Duluth Street, St. Paul, Minnesota 55106 (Area 612 774-8757).





Stopping: Generally speaking, a mini-cycle will stop more quickly than any other vehicle on the road so, when braking, you have to be aware of the vehicle behind as well as the one in front. This is true except in certain conditions such as on oil-slicked pavement or in wet conditions when a two-wheeler is more unstable in braking than a four-wheeler. It is generally safer

to ride to one side of the traffic lanes because the center is more likely to be oil covered and because, if something goes wrong, the driver behind will have a better chance of avoiding you.



Signals: Ride always with your lights on. You want to be as visible as possible. For the same reasons, always give hand signals and don't rely on your turn indicators (if you have them) and brake light. And give the signals in plenty of time.

ROAD RIDING TIPS

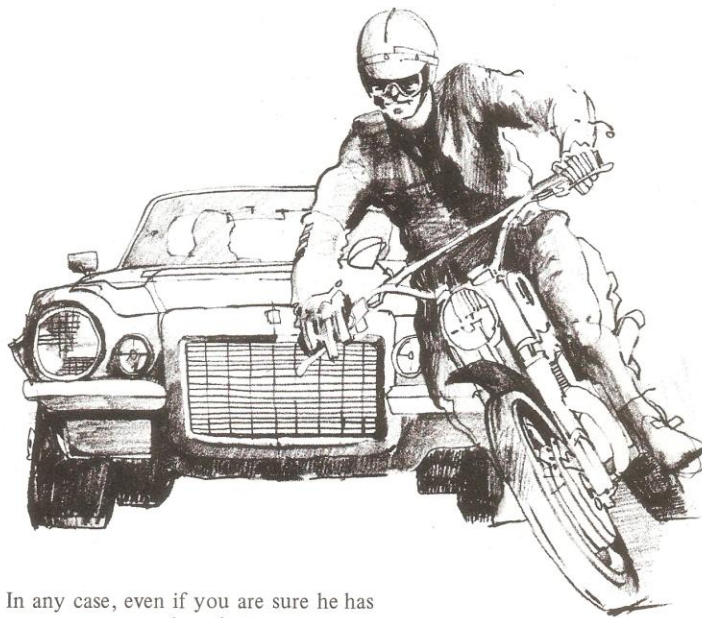
Although we do not generally recommend street riding with mini-cycles, more and more they are being legally-equipped so the problems of road riding must be faced. You will find no rocks, ruts, tricky hills, mud nor sand on the streets, and all the vehicles follow established patterns. Yet road riding requires greater care than dirt riding. The reason is, you must share the same space with bigger vehicles. You must recognize, especially with mini-cycles, that a two-wheeler is likely to be "invisible" to other road users. In point of fact, you must often do the driving for others, almost be a mind-reader, to venture safely out on the streets with a mini-cycle.



Intersections: At intersections, even if you have the right of way, watch the other traffic like a hawk. Sometimes the driver of a car will seem to be looking right at you and still pull out as though you were not there. Look the driver of another vehicle right in the eye and if he doesn't look right back at you, watch out. Watch out especially for the guy who comes to a "rolling stop." He has only a second to decide whether to hit the brake or the accelerator and it's just as likely to be one or the other.



Following: Leave a respectable distance between your machine and the car in front. If there is something in the road he may let it slide between his wheels and if you don't see it soon enough, to avoid it, you could unload. Again, riding to one side should help. And you shouldn't rely on his brake lights to tell you when he is stopping. They just may not be working. Although you might be able to stop quickly enough, you don't want to be the center of a sandwich, with the car in front and the car behind forming the outsides.



Defensive Riding: Do not ride close to parked cars. If you do, one day somebody is going to open a door in your face. Look for somebody in the driver's seat inside parked cars and watch for front wheels pointing out. This may be early warning of the car pulling out in front of you. Also, look for pedestrian's feet below parked cars as they could walk right out. Driveways are another danger spot and you shouldn't ride too close to them. A driver backing out often has his vision obstructed.

Overtaking a car is the most dangerous maneuver. Before doing so, place yourself behind the car so that you can see the driver's face in the rearview mirror. Wait for him to look up and see you. If he doesn't, you can be pretty sure he is not aware that you are around and you should treat the situation accordingly.

In any case, even if you are sure he has seen you, remember that as you pass into his "blind spot," preparing to go around, he has lost sight of you and may not know what you are up to. If there is traffic coming in the opposite direction and you have any doubt at all about the accelerating capacity of your machine, it's better to wait for a more opportune moment.

When street riding, make a mental note at all times of possible "escape routes." Remember that almost anything is better than a head-on collision

with another vehicle. If you are wearing a good helmet and protective clothing, the final escape route may be laying the machine down, and rolling out of the line of traffic. If this is necessary, do it so that you roll after your machine and not in front of it.

All this sounds ominous but, like the Boy Scouts say, it is better to be prepared.



TRACKSTAR HELMETS

DEALERS/DIST's
write for details
of complete safety
equipment line

TEL. (516) 437-7877

Box 314, FLORAL PARK, N.Y. 11002

THE TRAIL BIKE FOR ALL SEASONS



Base
Kit
Price
\$279.95

HEALD'S NEW "SUPER BRONC"

Model VT-8 has a new 8 HP 306 cc Tecumseh engine. Torque Converter drive, big air cushion tires, front and rear shocks, large padded seat, chrome fenders, #40 chain and chain tightener. Optional features include 21" x 12" wide, knob tires both front and rear, electric start, lights, aux. 5 qt. gas tank, front ski and quiet spark arrester muffler. Super Bronc comes in money saving easy-to-build semi-kit form. Kit price Model VT-8—\$279.95. Ideal for farm or recreational use. Send coupon for more information.

SATISFACTION GUARANTEED

HEALD, Inc. Dept. MC-9, P.O. Box 1148,
Benton Harbor, Mich. 49022

Rush FREE Super Bronc Folder and Prices:

Name _____
Address _____
City _____ State _____ Zip _____

FREE CATALOG

PUBLISHER'S PAGE

Continued from page 12

away with tar on their feet.

"Which brings us back to the fuel shortage. I am, today, under Executive Privilege, ordering all gas tanks to be made to hold not more than .152 gallons of gasoline. Special hypodermic syringes will be issued for filling these gas tanks. The vocal minority in opposition to this Administration are going to complain about running out of gasoline between the 26 gas stations that are still in business, nationally. However, truly patriotic Americans will not mind walking a bit to get their syringes filled.

"The American people are like children, as Nixon the First pointed out, and must be trained properly. I intend to carry out this duty imposed on me by the landslide victory at the last election, 20 years ago. We are going to make mini-cycles the only method of transportation, preferably on the Mini-Nix.

"With reference to that election, the rumors persist that it was won unfairly. We have a group at the White House, known as the plumbers, who are doing their best to stamp out these rumors and the rumor-mongers. However, I can say, at this time, and to make things perfectly clear, that the organization by the Committee to Re-elect the President was absolutely fair. Everybody in the United States had their phone bugged and their premises burgled at least once.

"And, so, my fellow Americans, we look forward into the future with confidence, confident that Phase 95684½ will work and, if not, there is always Phase 95685 to look forward to. Good night and God bless us."

RUPP

Continued from page 37

while the 100 has a five-speed. The extra gear on a small bike can help a lot in tough situations when you run out of power and for higher top speed without sacrificing torque.

We were able to slow the bikes to a crawl without either engine bogging down or loading up. This can be a real joy when you're used to temperamental, pipey engines that won't run at anything less than 8,000 rpm. The family restricted to one machine for everyone should look into buying either one of these. Dad can go hunting, mom can ride the back roads and jr. can get it on at the races. (Well, almost.)

Lights are standard equipment but they are marginal at best. We doubt that they would be legal in too many states for street use. We are positive they aren't in California because they are magneto instead of battery powered. The biggest problem with mag powered lights is that they dim when engine rpm drop. The horn is also weak and barely audible in the city. We rode briefly on the streets but only out of necessity. If you really must ride the streets then get yourself another mount.

Some of the nicest Rupp features are the ones you'd never notice unless you were paid to. For instance, the exhaust note is the least obtrusive of any recent bike we've tested. The recorded 82 DB is below the stringent ruling set for all vehicles to meet by 1978. Renold chain is used to prevent frustrating breakdowns and frequent adjustment. This stuff don't come cheap. The foot pegs are small, neat and metal with holes in them so they won't load up with mud. Bronze swing arm bushings provide durability and smoother action without the need for greasing. The frame is made out of 4130 chrome moly tubing. Chrome moly is the stuff dragsters use to keep weight down while retaining strength and safety. This is the only intermediate sized bike we know of with this material in use.

We feel that either of these bikes is ideal for someone interested in some simple, honest riding. The biggest features are dependability, ruggedness, simplicity and honest value. It's hard to find these qualities in anything anymore. If we were to buy a bike for our personal use it would probably be a Rupp. If you're interested in racing you had better look elsewhere. But don't look too far—Rupp also has one of the meanest moto-cross bikes we've ever seen.

MINI-BIKERS

Get Your Hop-Up Equipment Now!

Special low prices direct
from factory thru November 30, 1973



A. Kick Starter.... \$14⁹⁵

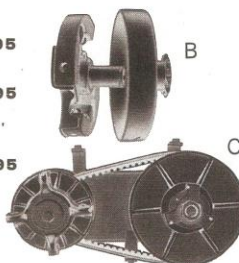
Send engine make and model

B. Clutch..... \$11⁹⁵

Send bore and chain size

C. Torque Converter..... \$28⁹⁵

Send chain size



Order today!

Send money order or check
payable to Colt Industries,
Engine Accessories Operation.



Colt Industries

ENGINE ACCESSORIES OPERATION
Beloit, Wisconsin 53511

HEATHKIT

Continued from page 41.

make sure that it would be accurate.

After the calibration was done we checked it out against some known factors to guarantee the accuracy. What a joy? You can't imagine the feeling of accomplishment that you'll have when the unit is working. Our check included comparing the tach readings against a car tach known to be accurate. We also compared the ohm scale against the 10,000 ohm resistor on the test lead. The voltage scale was tested against a 1½ volt flashlight battery and a 9 volt transistor radio battery. In each case the measurements were dead on.

While checking out the tach scale on our Mazda test truck a curious thing happened. At first we thought something had gone wrong with the meter because we were getting erratic readings. To our surprise we had inadvertently found an ignition problem on a brand-new truck that we weren't aware of. In checking out the problem we traced down to a loose ignition wire. The wire was quickly repaired and the truck ran better than ever.

The tach readings are also an important asset to the backyard tuner with a mini-cycle, mini-bike or any machine that is not factory equipped with a tach unit. The rpm can help the tuner determine proper idle settings and carb adjustments. If the bike is equipped with a torque converter you can determine the point at which it will engage for optimum performance. On mini-bikes you can adjust the governor so that the engine can't be inadvertently over-revved.

The voltmeter is handy in checking out the condition of your battery and charging system. It is acceptable for a battery to be off by half a volt from the normal rating without suspecting any problems. The charging rate should be 13.2 to 15.2 volts on a 12 volt battery and 6.6 to 7.6 on a 6 volt battery. Any higher than these figures and the battery will burn out prematurely. Any less and the battery will eventually go flat.

The continuity checker is useful in checking out wiring harnesses for broken wires and short circuits. The continuity light will come on if there is a short when you touch one lead against the wire in question and one against the frame. When making any kind of check such as this, make sure that you have a good connection. Remove any rust of paint that could alter your readings.

We found our unit to be extremely

handy for the many odd jobs found around the house other than the bike testing for which it was intended. The continuity tester can be used for any line from faulty lamp cords to an antenna lead. The ohmmeter is good for checking out motors in appliances or power tools. We were even able to tune up an aging power mower engine, using the meter and an E.S.A. engine manual. The unit is great as is for testing engines up to four cylinders. However, you can test other engines by halving the figure shown on the meter. For instance, if your car has a six cylinder engine you can use the three cylinder scale. If the rpm is shown to be 6,000, then it is

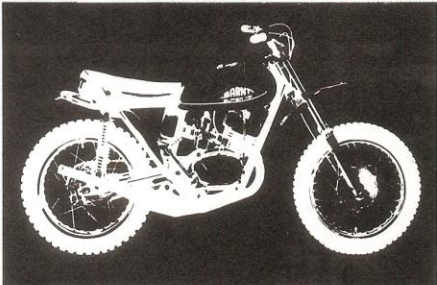
actually 3,000.

Our impression of the Heathkit is fantastic. Everything went as planned and promised. How can you go wrong on a deal like this? You get a great unit at a tremendous savings, over a complete unit, you'll save money on tune-ups and you've had the fun of having built something that works this well. Heathkit's experience in this field really shows in this kit.

Armed with this information you should be able to con the rest of the family into going along with the purchase scheme. After all, how could they refuse when something is as versatile as this?

TIRED OF PLAYING?

*...then get
the (mini) cycle built for
the serious rider.*



You've looked them all over, and short of a full-sized motorcycle, there's not one worth buying without putting as much *more* into it to make it *right*. Until now. We got tired, too. So we're building a (mini) cycle for the guy who knows what he wants; proper geometry, top materials, the world's *best* suspension, flawless construction. It's a limited production machine, competition-ready (we've got the trophies and track records to prove its worth) for you — the *serious* rider. We'll even sell our chassis ready for you to install your Fuji or Hodaka engine — or a rompin', stompin' race-job tuned to WIN. Find out *all* about it in our big color brochure B286 — yours for 50¢, along with our decal . . . if you're really *serious*, and tired of playing.

BARNETT
SUPER NX

DIVISION OF
HI-PERFORMANCE
METAL FABRICATORS
412 AGOSTINO ROAD
SAN GABRIEL, CA. 91776
TELEPHONE
(213) 287-7847

SCHOOLBOY MX

Continued from page 26

agreed to give Jeff Ward a head start. His powerful little XR-75 left all the 100's behind with Henricksen as the closest follower. Jeff held his lead for one lap, then Rick took over.

Third place Mike Thompson set his sights on Ward. Mike fought hard and got by Jeff, but he spun out and dropped back to third. Bill Franks, who was fifth after one lap, started reeling in the Barnt. He moved up steadily, eventually passing Thompson on the steep uphill. Half a lap later, he almost wiped out a pair of overenthusiastic supporters when he used the berm they were standing on for traction.

Henricksen had first sewed up, but Franks was gunning for Ward. It looked like a hopeless cause, but Franks poured everything into the rough, hairy downhill, and traveling about 60mph, he pulled alongside the smaller racer. The pair disappeared behind some trees, and Franks came out ahead. Ward followed the speedy Barnt rider by two bike lengths at the finish.

It took Henricksen two and one half laps to take the lead in the third moto. Franks led at the start, but spun out in a turn, and the second place rider,

Richie Collins, also went down. Henricksen slowed down enough to be sure the fallen riders were all right, then took over first place, with plenty of room behind him. David Oller moved into second and kept it all the way.

Franks totalled his bike after another fall, so he couldn't repeat his second moto performance. Third place was a seesaw battle between Jeff Ward and Jeff Wilson. Wilson finally sewed it up after throwing off some ballast (namely his motorcycle seat). Ward's fourth place finish still gave him enough points for second place overall, behind Henricksen's clean sweep win. David Oller was one point behind Ward, taking third place.

Due to the larger number of entries in the 125cc class, a "Support Moto" or consolation race was set up for those riders who just missed the qualifying cut for the Championship race.

The results of the three Support motos were somewhat inconsistent. Three races produced three different winners. Kent Parkinson won the first moto, then dropped to fourth in the second and even worse in the third. Overall points gave him the fifth place trophy.

Michael Perry won the second moto after a mediocre first race. Then he came

back with a second in the final, and sewed up the top trophy on total points.

Mike Dannelly won the third race after two third place finishes. His points added up to a second overall. Third place went to Brad Dutoit, who took two seconds, then finished farther back in the third moto.

The 125cc Championship class looked, for a while, like a runaway victory for Marc Jones. He won the first two motos without much trouble, and led the final moto for several laps. Then he got in trouble and dropped back to around tenth place, where he stayed for the rest of the race. His overall points still earned him second place.

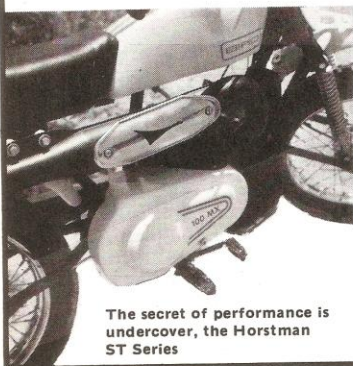
Randy Batsell got better as the day wore on. He took a fourth place, a third, and a second, and wound up with enough points to walk off with the first place trophy.

The success stories of the day belonged to Jeff Ward, who entered two classes and took home two, big trophies; Rick Henricksen, whose 100cc sweep was the most consistent performance of the Championship; and Randy Batsell, who won his class without winning a Championship race. For the rest of the "schoolboys," there will always be another weekend, and another chance to race—and win. □

THE BEST THERE IS...

in the torque converter field comes from Horstman Manufacturing. Being first in any field doesn't happen by chance. The Horstman torque converters are a result of custom engineering by Gil Horstman. His practical engineering is a legend and every product produced by his company has to receive his personal stamp of approval

before being marketed. He has traveled all over the nation trouble-shooting transmission problems for manufacturers of all types of recreational vehicles. The result is an unmatched range of experience. This experience is available to everybody who uses his torque converters but, remember, his knowledge . . .



The secret of performance is undercover, the Horstman ST Series

DIDN'T JUST HAPPEN

Horstman torque converters for all engines from five to 25 horsepower

- o Fully Automatic
- o Torque and Speed Sensitive
- o Smooth Shifting
- o Infinitely Variable Gear Ratios
- o Range from 1:1 to More than 3:1
- o Super Reliable, Super Tuff
- o Best Materials Available
- o Fully Guaranteed

For your torque converter needs, write:

HORSTMAN MANUFACTURING CO., INC.

730 EAST HUNTINGTON DRIVE MONROVIA, CALIFORNIA 91016

(213) 359-2578

SUITCASE

Continued from page 32

ly seems possible, and yet, the minicycle takes up less space than a mini-bike. The reason for this is that the rear wheel on a mini-bike is not easily removed making the overall package larger. Shipping by air is not as expensive as we had originally thought it might be. A typical fare from the mainland to Hawaii is only \$18.00 one way (anyone interested in traveling to the second annual Kami Klassic?).

Disassembly is deceptively simple. The directions we received in one of the Suitcase Cycle brochures reads as follows: "Roll cycle onto built-in kickstand . . . unlatch seat and lay it aside . . . disconnect electrical fittings . . . unlatch tail fender and lay it aside . . . disconnect fuel line by pulling rubber tube . . . twist wing nut to remove fuel tank . . . twist large knob to remove handle bar . . . twist frame wrench loose and with it loosen two bolts . . . separate front section of cycle from rear section by simply pulling it away . . . twist built-in handle on rear axle and remove . . . lift out rear wheel."

The main body of the cycle, including engine, is placed in a thermoplastic tray and secured with bungee cords. Wheels are provided to roll this package around easily. The tray weighs a hefty 102 pounds so you may need the help of a friend in loading it on board. The remaining segments are considerably lighter for a total shipping weight of 193 pounds for a typical Suzuki Honcho.

Assembly is the reverse of the tear-down sequence. The first assembly session usually takes about twenty minutes. With little practice this can be cut down to ten minutes and even five, if you are really handy.

As mentioned earlier, virtually any cycle can be made to disassemble in this manner. The owners are presently looking into the cost of shipping large machines, like the Honda 750, to Europe. By offering a compact package they are cutting down on shipping costs and increasing the number of carriers willing to accept them.

As of this writing, Suitcase Cycle is the only company offering collapsible cycles. For further information write to Suitcase Cycles, Dept. MC, 3013 Airport Ave., Santa Monica Municipal Airport, Santa Monica, Calif. 90405. Meanwhile we'll pack our bags and go. "Hey Honey. Did you pack my cycle and an extra pair of pants?" □



**HARD TO FIND . . .
EXPANSION CHAMBERS FOR
THE FUJI ENGINES**
Special racing season price: \$36.95



Custom designed for the following machines:
CHAPARRAL 80 & 100; KAMI 80; GEMINI 80
Also available for INDIAN SE-74

Custom frame and engine work, guaranteed winning machines
AMERICAN MINICYCLE 6170 Sepulveda Blvd., Van Nuys, Calif. 91401
Send 50¢ for brochure on American Minicycle high performance products
Dealer inquiries invited

SPEEDWAY designs'em to move!



**SPEEDWAY
ENDURO**

Performance? You'll get plenty of it when you open the throttle on Speedway's Enduro. This Minicycle is designed like the big ones. Comes complete with a double dampened hydraulic suspension system front and rear, 100 cc Fuji 2-cycle power plant, 5-speed gear box, Moto-Cross handle bars and fenders, competition seat, 14" tire in rear, 16" tire in front. A real movin' machine!

The Enduro is just one model in a full line of Minicycles and other wheeled vehicles manufactured by Speedway Products. Send for the free 1973 catalog today!

SPEEDWAY PRODUCTS INC.
160 E. LONGVIEW AVE.
MANSFIELD, OHIO 44905



Please send me your full line catalog and
the name of my nearest Speedway Dealer.

Name _____

Address _____

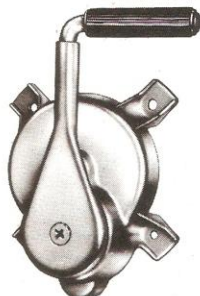
City _____

State _____ Zip _____

Telephone _____

The Kick Starter

DESIGNED AND BUILT BY TECUMSEH
FOR TECUMSEH MINI-BIKE ENGINES



BUILT IN CLUTCH PROTECTS ENGINE
AND RIDER FROM ENGINE KICK BACK

INSTALLS IN MINUTES WITH NO STARTER CUP OR
BLOWER HOUSING CHANGES. ALL ADJUSTMENTS ARE
EXTERNAL FOR INSTALLATION IN ALL POSITIONS.
FULL INSTALLATION INSTRUCTIONS INCLUDED FOR
ANY 2½ THRU 5 HORSEPOWER TECUMSEH ENGINE.
(NOT RECOMMENDED FOR HIGHER H.P. ENGINES.)
90 DAY FACTORY WARRANTY

Ask for part no. 590489 ... **22.95** suggested
list price

AVAILABLE AT ANY AUTHORIZED
TECUMSEH SERVICE DEALER



LISTED IN THE YELLOW PAGES
UNDER "ENGINES, GASOLINE"

Spark Arrester Mufflers

UNITED STATES FOREST SERVICE APPROVED



MODEL 300

- GLEAMING NICKEL PLATED
HEAT SHIELD, MUFFLER,
BRACKET & FLEX TUBE
- EASILY INSTALLED
- LONG LEAN LOOK
- SMOOTH MELLOW SOUND

13.95 Suggested list price



MODEL
100

- CHROME PLATED
- EASY INSTALLATION IN MINUTES
- FOR 2½ to 7 HORSE POWER

4.95 Suggested list price

Replacement
Screens
\$1.75 each
Sugg. List Price

AVAILABLE AT ANY AUTHORIZED
TECUMSEH SERVICE DEALER



LISTED IN THE YELLOW PAGES
UNDER "ENGINES, GASOLINE"

WRAP YOUR TECUMSEH MINI-BIKE ENGINE IN Gleaming Chrome

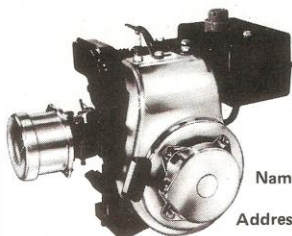
FILL OUT ORDER BLANK BELOW—MAIL DIRECT TO
LAUSON—POWER PRODUCTS PARTS DEPOT, GRAFTON, WIS. 53024

Part No.	Item	For Engine H.P.	Price	Quan.	Total
730156	AIR CLEANER COVER	2.5 thru 7 H.P.	\$ 2.75		
730157	HEAD BOLT & WASHER SET	2.5 thru 4 H.P.	3.15		
730161	HEAD BOLT & WASHER SET	5 thru 7 H.P.	3.15		
730158	RECOIL STARTER COVER & Hdwe	2.5 thru 7 H.P.	5.25		
730159	BLOWER HOUSING & Hdwe	2.5 thru 4 H.P.	11.25		
730160	BLOWER HOUSING & Hdwe	5 thru 7 H.P.	15.00		

Wisconsin Resident Add 4% Sales Tax

MAKE CHECK OR MONEY
ORDER FOR TOTAL OF

ALL SHIPMENTS PREPAID --
Mounting Instructions Included
SEND CHECK OR MONEY ORDER (No C.O.D.'s)



Name _____

Address _____

City _____

State _____

Zip _____

HONDA TRIALS

Continued from page 23

slight hesitation and then, as the throttle is applied more, it overcomes the hesitation and comes on strong. A motocross racer wouldn't even notice it but the trials rider requires velvet smooth acceleration.

We did our test of the TL-125 in Hawaii when MiniCycle staffers were there to cover the Kami Mini-Cycle Classic. It seemed like a natural in those beautiful surroundings. Our test rider was 13-year-old Gib Bintliff, winner of the open class in the trials portion of the Kami Klassic. Gib was assisted by "Cobra" De Soto, father of John De Soto, who was the top American in the recent U.S. Grand Prix of Motocross. Cobra and Momma De Soto were helping run the mini-cycle races so, naturally, found themselves roped in for the TL-125 test. The elder DeSoto is still a great rider and, in his day, was one of the best competitors around, including trials riding.

We were concerned about this "squirtness" of the test machine as both Gib and Cobra experienced it. We tried adjusting the carb but it didn't seem to make any improvement. Later, back on the mainland, we found a simple cure. You just cut off the stock muffler system (thus cutting off about six pounds of surplus weight) and install an Xduser spark arrestor/muffler. This helps the engine breathe more freely and gets rid of the "stumble" when the throttle is gently cracked. It is a little noisier but still acceptable.

There are a couple of other simple changes that can help the machine. The gear shift lever is attached to the frame and operates the gear box through a linkage consisting of levers and connecting turnbuckles. It appears that it is set up this way to get the gear shift lever close to the foot pegs which are, of course, far to the rear. This means the rider doesn't have to go searching for the gear shift lever. That's fine for the cow-trailer but the competitive trials rider will probably want the shift lever further removed from the possibility of accidental shifting. Snappy gear changes are not as important as other factors in trials riding because the whole thing is done at a snail's pace and the engine should produce bags of torque.

The answer is simple. Strip off all the linkage (more weight savings) and stick

on a shift lever from the Honda 750. The TL-125 can do with all the weight reduction it can get because it is a little on the heavy side for a small-displacement plonker.

We know Honda can build a super set of shocks because we found them on the Elsinore 125 but the rear cushions on the TL-125 are too hard and do not have enough dampening. Since everybody who tests Japanese bikes has been complaining about this for years, it's a wonder something hasn't been done about it before now. The above complaint is not based solely on Gib Bintliff's remarks but on the remarks of much heavier riders, also.

Front suspension, on the other hand, was as near perfect as it's possible to expect. Better, in fact, for trials riding than the longer-established European lightweights. Travel was more than ample and even the lightweight rider was able to get the most from the forks.

The only other suggestion we can make to improve the TL-125 would be to go to the Dunlop two-ply trials tires. The set on the stock machine have the right kind of tread but the Dunlop tires use softer rubber and give better traction. Even when we had dangerously low air pressure in the tires, the sidewalls were not flexible enough.

Does all this sound as though we were unhappy with the TL-125? If so, we have given the wrong impression. It is a fantastic trials machine for novice and amateur riders and for those who are just thinking about getting into trials riding. At \$615 it is \$200 under the price of it's nearest competitor and at least as good. Unlike other trials machines we have ridden, it has a seat that is more than a postage stamp. In fact it can be used by the cow-trailer for quite some time without discomfort—that's more than you can say for most trials machines which are intended to be ridden with the rider always up on the pegs. As a cow-trailer it has a very respectable turn of speed up there in fifth gear (useless for trials but great for clearing the cob-webs).

In trials riding, 250cc and 125cc machines, in fact, all machines compete together. The theory is that the bigger displacement machines carry a weight penalty. However, the Master riders are given such tough sections that they need more twist and use of the TL-125 will probably be in the Novice and Amateur divisions. With a few minor changes, the TL-125 will carry such a rider until he is knocking on the doors of the Masters division. Here's to you, Honda. Keep it up. □

MINIBIKE & GO KART HEADQUARTERS

LARGEST SELECTION OF PARTS & ACCESSORIES IN THE U.S.

FLEXO 'ESTATE' KART

Completely assembled with 3 hp Briggs & Stratton	\$199.95
Welded kit, unassembled (hand tools only) as above	\$179.95
Completely assembled less engine and engine accessories	\$149.95
Welded kit, unassembled, less engine & engine accessories	\$129.95



FLEXO is quality and safety in kart manufacturing since 1956. Features internal expansion brakes, split-rim aluminum wheels with 13" nobby tires & tubes. Precision steering and much more.



A BIG BEAR SCRAMBLER	
Ready to run, B&S 3 HP	\$169.95
Ready to run, B&S 5 HP	\$189.95
Kit less engine & eng. acc.	99.50



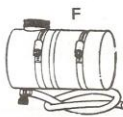
B MINIBIKE FRAME & FORK ASSEMBLY	
Rugged, jig-welded tubular frame ... superbly engineered and spring suspension.	\$28.00



C CLUTCH SPECIALISTS! LARGEST STOCK CLUTCHES	
Super, long lasting steel shoes. Replacement for every engine—5/8 or 3/4 bore. No. 35 or No. 41 chain. Smooth engagement—no fade—Flexo discount prices prevail.	\$13.95



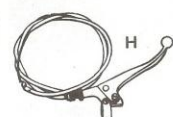
D NAUGAHYDE SEAT	
Fits all mini-bikes. Finest material over firm rebonded latex. 14 x 7" contoured for safety and comfort.	\$7.95



E JACK SHAFT ASSEMBLY	
Keyed entire length. Bearing holders, sealed prec. bearings, keys, 10 & 15T sprockets, complete with locking collar.	\$9.50



F CHROME TANK	
2 Qt. (1/2 gal.) Complete with shutoff valve, cap, mtg. straps, fuel line.	\$7.95
Unchromed, \$5.95.	



G REAR WHEEL ASSEMBLY	
Finest components. Motorcycle brake, sealed bearings, aluminium wheel, 60T spr., axle, 13" tire & tube, spacers etc.	\$29.95
Matching front wheel	14.50



H BRAKE CONTROL	
Cycle quality. 6" Lever, ball end. Length adjuster. Finest in & out cables and cable stop. 4', 5', or 6' lengths.	\$4.95

I THROTTLE CONTROL	
Cycle quality steel, with smooth acting in & out cables; 4 1/2', 5', or 6' lengths. Soft waffle grip.	\$4.95
Add \$.50 for matching grip.	

FLEXO OF CALIFORNIA

5180 Venice Boulevard / Department MC-4 Los Angeles, California 90019 / WE 1-1471

Please send item(s) checked. Quantities indicated.

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Enclose check or money order. Send 50% with order, balance C.O.D., fob L.A., California residents add 5% sales tax. Send 25¢ today for catalog.

LETTERS

Continued from page 17

NATIONAL MINI-CYCLE CHAMPIONSHIP

The American Motorcycle Association announced the inauguration of a major series of competitive events designed for mini-cycle riders.

The Mini-Cycle Nationals will be open to any AMA Youth Division member, and will feature competition according to both ability level and machine size. AMA Youth Division membership is open to any mini-cyclist fifteen years of age and under.

The Mini-Nationals will be patterned after the AMA Grand National Championship Series, a million dollar campaign for the nation's top professional racers.

Outland says of the new series, "Mini-cycling is here to stay, and our concern is two-fold; to provide safe,

supervised events for the riders, and to develop safe riding habits and techniques."

NATIONAL MINI-CYCLE CHAMPIONSHIP SCHEDULE

Aug. 11-12 (short track, moto-cross)
Decatur, Alabama.
Aug. 25-26 (moto-cross) Mid-Ohio Moto-Cross Park—Mansfield, Ohio
Sept. 1-3 (moto-cross) Cycleback Park—Jacksonville, Florida
Nov. 23-24 (moto-cross) Arizona Desert Raceway—Phoenix, Arizona



HONDA MX

Continued from page 21

looking. The cylinder sports large finning for cooling. Everything is finished in basic black adding to the functional good looks and cooling. The only thing we can really fault is that it would be neater for appearance and maintenance if the screws were Allen heads instead of Phillips. Nothing is more frustrating to work on than an engine of this type if you're in a hurry or are lacking an impact driver.

Some of us had problems in locating the shift lever and rear brake while riding. These units are tucked in so close that the engine cases get in the way. It isn't much of a problem for the people with small feet but it sure was for us average folk.

The frame is light, strong and airy looking. We were impressed with the welding on this bike. Everything is held together in an efficient manner.

The suspension is perfect for most riders with enough adjustments built in to suit all. The rear shocks are progressively wound for better control. They also feature cooling fins to keep the oil viscosity and handling constant.

The tire sizes and wheels are pretty standard for racing bikes. However, a close look at the wheels reveals a radical departure. Most machines either have Akront alloy wheels or wish they did. The Honda has a wheel apparently of their own design. What makes this wheel unique, and possibly better, is that the center section is crowned. The problem with the Akronts has been that they can load up with mud increasing their weight by several pounds. This doesn't appear to be possible on these wheels.

Detail touches abound on the bike. The sort of things you might want to do yourself are included as standard equipment. The levers have dust covers over the hinge areas. All cables are held in position by nylon straps. The fenders are unbreakable plastic with a rubber mud flap on the front. It even comes with a number plate. All in all a very impressive machine and an obvious winner. Honda is following this up with an Enduro model. When they do we'll be among the first in line for it. The Enduro will have the same equipment and attributes with a milder, more tractable engine. In our minds that bike will be the ultimate for our purposes. In its field the Elsinore is almost the ultimate with one exception—it's supposed to be raceworthy, right? Well it's not. They forgot to supply the numbers for the number plates. TSK TSK!



WORLD'S FINEST, BIGGEST FUN-BUGGIES CATALOG

featuring complete info on all Mini-bikes, 3 and 4 wheel ATV's, Karts 'n parts! Bargain prices on all parts, engines, etc.! Largest stock of fun-uggies and parts in the east!

BROWN'S MOTORSPORTS
19 M Central St. Worcester, Mass. 01608
Everything shipped promptly. 58 years of friendly service.

DO YOU LIKE RACING?



HAS A CLUB JUST FOR YOU!
(OVER 1000 MEMBERS NOW)

CHECK THE ONES THAT INTEREST YOU

☐ "BUILD YOUR OWN" PLANS	☐ 1/4 MIDGETS
☐ "BUILD YOUR OWN" KITS	☐ 1/2 MIDGETS
☐ READY TO RUN VEHICLES	☐ 3/4 MIDGETS
☐ PARTS & ACCESSORIES	☐ MICRO-MIDGETS
☐ TRACK PLANNING	☐ 3 WHEEL ATV'S
☐ CLUB ORGANIZATION	☐ 4 WHEEL ATV'S
☐ RULES	☐ GO-KARTS
☐ TECHNICAL INFORMATION	☐ MINI-CYCLES

ACCESSORIES

TIRES
WHEELS
AXLES
BRAKES
SPROCKETS
FENDERS
SEATS
ROLL BARS
ROLL CAGES
JACKETS
TOOLS
ENGINES, ETC.

SPECIAL DISCOUNTS TO MEMBERS - JOIN NOW & SAVE

SEND \$1.00 FOR BIG PARTS CATALOG AND ALL INFORMATION ON JOINING THE FAST MOVING, FAST/TRACK RACERS CLUB. (You don't have to race to join, just clip out this ad and send it in)

☐ Please send Blue & Orange Embroidered FAST/TRACK patches. (Enclose \$1.00 for each patch ordered).

PHONE: 714/626-2086 WRITE: 163 MARYWOOD, CLAREMONT, CALIF. 91711

SPEEDWAY

Continued from page 47

to give up the battle and send the machine back from whence it came. In one last desperate attempt, Brick (drawing upon his vast knowledge of mechanics) tore the wire out of the kill switch. *Voilà*, instant power! Somehow there was a short in the switch. After that episode we were always able to bring the engine to life with one dainty prod of the lever.

The SS is the perfect trail bike. Handling is excellent, there is plenty of power on tap, it's light and dependable. Traversing dips, bumps and various obstacles is made easier by lofting the front wheel. The forks feel well suited to their task but we really wanted to spend more time working on different weight oils and positioning. Steering is relatively quick and precise. The fly in the ointment is the choice of Showa shocks on the rear. The shocks are poor and a hindrance to the overall handling. We've said the same thing about other machines in the past and we still can't figure out why something isn't being done about it. We realize that the best shocks are expensive but they should at least be acceptable. Yamaha had the worst handling bikes made at one time. Now, after repeated nagging from the magazines and public, they are among the best. If you are serious about your riding then trade the Shawas in on a set of Arnacos, Boges, or Konis. You'll be pleasantly surprised.

Both fenders and the side panels are made of unbreakable plastic. The number plate is steel(?). Usually, it's the other way 'round. The gas tank is also made of steel and is totally free of any leaks. Capacity is 1.5 gallons of premium gas mixed at a ratio of 20:1. Fuel is mixed in a 26 mm Bing carb.

It's interesting to note that many of the equipment designed for the Rupp RMX will work on this bike as well. These items include an expansion chamber, 30 mm Bing, different proting and, if you want, you can even swap for the entire 6-speed engine. What a mind blowing sleeper that would be!

The seat is comfortable with a great deal of padding and enough room to move around. The position of the cross-braced bars and steel pegs also contribute to rider comfort and his ease of control. The expansion chamber is fitted with an excellent silencer. We were never even aware of the exhaust until we sat down to do the test. We were especially pleased that, barring the kill-switch

incident, we encountered no problems at all. In fact, the two Speedways were the only bikes out of six we had, on this day, that we could count on to run.

The Enduro model is, for all practical purposes, the same bike as the SS. The only differences are in the addition of street-type equipment, different tires and a 100cc Fuji engine. Needless to say the Enduro is a little pokey when compared to the 125 since it has nearly half the power with the same weight.

The Fuji is another of those engines that find a home in several top-notch machines. We couldn't even begin to list the many bikes now using it as their main source of power. We must compliment Speedway for being so thoughtful. They could have resorted to any of the many powerplants available to save money, instead, they chose to go with two proven winners.

When using a common engine, such as the Fuji, a manufacturer must work hard to produce a unique package. Otherwise he'll lose his customers to another bike with the same engine. In this case they have built the better mouse trap. The Enduro is the perfect mount. The frame is identical to the SS with the same good qualities. If anything this model handles better because the engine sits lower in the frame. The rear tire gives up two inches in diameter but makes up for it with a beefier tire. Consequently, we found handling in soft stuff was a little better. The smaller front tire wanted to dig in but at least the rear pushed us out.

The Fuji engine is the latest model with 100cc and a 5-speed constant mesh gear box. Low gear is a stump pulling 8.71:1 more than adequate for climbing telephone poles. The bike definitely is low on power but this is not altogether bad. It is designed for trail use with little thought for racing. Our road testers, Jerry Shore and Brad Dutoit, both liked the machine in a general sense but were down on the lack of power, shocks and the small front tire.

The supposedly street legal equipment is marginal at best. We certainly wouldn't want to ride the bike on the streets as it is and we doubt if the law would want us to either. The bike is large enough to ride on the street in relative safety otherwise.

We think that Speedway has a pair of winners in the Enduro and Super Spyder. At a cost of \$569 and \$479, respectively, you really can't go wrong. Both bikes handle well and have ample power for their intended uses. Their sizes make them well suited for adults or younger riders.

MINI HONDA & YAMAHA ACCESSORIES












HIGH PERFORMANCE AIR FILTERS

Yamaha

- ☐ 71 & 72 extra capacity complete replacement air filter unit w/bracket—9.95
- ☐ Aluminum covered air filter w/bracket—12.95
- ☐ 72 (only) original replacement—4.95
- ☐ Honda SL70 mini replacement for original air filter—4.95

HANDLEBARS

- ☐ Mini MX bar (black)—7.95
- ☐ Mini swept back "T" bars—7.95
- ☐ Jr. size enduro chest protector Spec. colors—gold, orange, tan, red, green, blue, black—12.95
- ☐ 8" mini handle bar cross bar pad—fit stock bars—3.45

YAMAHA JT1 & JT2

- ☐ Magnetic drain plug Yamaha JT1-JT2—1.95
- ☐ High compression cylinder head 9.5:1 ratio—large fin area—tapped for compression release—19.95
- ☐ Compression release kit (American Red Top)—14.95
- ☐ Heavy duty fork kit for competition—19.95
- ☐ Rotary valve (cutaway aluminum) upswept (lo end torque)—7.95
- ☐ Silenced expansion chambers (upswept)—42.95
- ☐ Downswept (high rpm) Yamaha JT1 & JT2—42.95
- ☐ Super light flex fenders—front & rear—5.95 each

HONDA SL 70

- ☐ Honda SL70 super light fenders front—6.95; rear—8.95
- ☐ Spark plug carrier & wrench—4.95
- ☐ Magneto flywheel puller fits both Yamaha & Honda—3.95
- ☐ Fuel filter inline—.95

BOLT ON ALUMINUM SPROCKETS

Yamaha

- ☐ 37 thru 60 tooth—specify size—11.95

Send \$1

FOR "THE 1973 CATALOG"

Name _____

Address _____

City _____ State _____ Zip _____

K&N

K&N Engineering

P.O. Box 1329, Dept. MB

Riverside, Calif. 92501

READERS' CLASSIFIED

This section reserved for one time individual ads only. No commercial ads will be accepted. Rate; \$10.00 for 25 words; \$20.00 for 25 words plus one black & white photo; 25 cents for each additional word. Name, address and phone number are free.

No ads will be accepted unless accompanied with a check or money order. No phone orders. Deadline for ad copy is the 10th. of the month three months prior to the cover date. This means that an ad sent in by March 10 would appear on the newsstands in May, in the April issue. Send all copy to MiniCycle Magazine, Classified, P.O. Box 2869, Laguna Hills, Calif. 92653.

WANTED: Relatively new Honda SL 70, SL100, ATC 90, CT 70 in any condition. But must be cheap! Bike could even be a wreck. Also need Yamaha in poor condition. Laura Price, 21331 Bellini Dr., Topanga, Calif. 90290

WANTED: Good used mini-truck-prefer Dat-sun or Toyota. Nothing over 3 years unless cherry. Cyril Mulvey, 1069 S. Norton, L.A., Ca. 90019

WANTED: Used Steen's X-100 Chaparral 100, Bonanza 100, or comparable machine in good condition. Nothing over 2 years old unless in excellent condition. Phillip Pelletier, 26 Village Hill Drive, Dix Hills, N.Y. 11746, 864-8154.

MINI-BIKES & CYCLES SEND FOR FREE INFORMATION



- LICENSABLE
- SUSPENSION
- BRAKES
- LIGHTS

HILLS — TRAILS — SAND — SNOW

- ALL TERRAIN
- WIDE TIRES
- ALL SEASONS
- ALL USES



TERRA-PRODUCTS, INC.
Lebanon Rd. Crawfordville, Indiana 47933

**BUY YOUR OWN
KART OR MINI BIKE
FRAME \$15!**
for less than

SAVE UP TO \$50 IN COSTS...

NOW YOU CAN BUILD, BUY OR MODIFY your own recreational vehicle... Go Kart, Mini Bike or ATV at NEW LOW PRICES! Giant new catalog includes hundreds of FINEST QUALITY U.S. made parts, kits and accessories. All welded Kart or Mini Bike Frames only \$14.95 (plus ship.). Catalog complete with plans, illustrations, pictures, diagrams & specifications only \$1.00 post-paid. Rush coupon today! (Calif. res. add 5% sales tax)

send only \$1.00 for Catalog & Plans

Send check, cash or money order to: → **KIT KAR, INC.** Dept. MC-9
2521 W. Burbank Blvd./Burbank, Calif. 91505

MONEY BACK GUARANTEE

Print Name _____
Street _____
City _____ State _____ Zip _____

ADVERTISER'S INDEX

Alsport, Inc.	Cover 4
American Minicycle Dealers	61
Azusa Engineering	43
BGW	10
Barnt.	59
Big Wheel Distributors	15
Bird Engineering	7
Brown's Motorsports	64
California Speed & Sport	66
Colt Industries.	58
Comet Industries	Cover 3
D & L Performance Products	10
Del Var	66
Fast Track	64
Flexo.	63
GEM Products.	16
Gemini (Condor Sales Inc.)	17
Hacienda Honda	11
Hales Sport Center	66
Heald Inc.	58
Hodaka (Pabatco).	42
Horstman Manufacturing	60
Indian Motorcycle Co.	Cover 2
J & B Racing Equipment	3
Kit Kar	66
Motorcycle Consumers Union.	9 & 16
Speedway	61
Tecumseh	62
Trackstar	58
Vin's	66
Wiseco Pistons.	12

LEE'S CYCLE CITY OF CANADA

746 S.W. Marine Dr., Vancouver 14, B.C.

HAS LOWERED PRICES!

HEAVY DUTY CLUTCHES \$5.95 + \$.50
REAR SHOCKS — SET \$2.95 + \$.50
CHAIN GUARD \$.50 + \$.50

Send \$.50 for Catalog & "Specials" list.

VIN'S SPEED SHOP

CUSTOM BUILT TECUMSCH'S

THE WAY YOU WANT 'EM

SEND 10¢ FOR PRICE LIST

70 Lindsley Avenue
West Orange, New Jersey
07052

Rupp Cycle Parts

Send \$1 for Rupp Cycle Parts
Catalog & Decal

HALE'S SPORT CENTER

1400 Airport Road, Mansfield, Ohio 44903
Phone: 419-522-8602

IDEAL CANADA KARTS & MINI-BIKES

1017 Princess Ave., London, Ont.
NEW CATALOG FOR 1973-50¢
(Sent in Canada Only)

MAIL ORDERS COAST TO COAST
Les & Jerry Bowman

GO KART & MINI-BIKE CATALOG

A COMPLETE GUIDE OF STOCK AND
HI-PERFORMANCE PARTS
SEND \$1.00 FOR CATALOG AND FREE DECAL

CALIFORNIA SPEED & SPORT SHOP Dept. A
298 Jersey Ave. New Brunswick, N. J. 08902



**Here's the only way we could make
the original Torq-A-Verter better**



ZAP

**now, the price
is only \$44.95**

You get a genuine, original, Torq-A-Verter at this new, low price; not a cheap copy. You get the easy, 30 to 45 minute, bolt on installation and increased performance that made the Torq-A-Verter famous. If you're considering a high performance torque converter system, check these specs; the Comet Torq-A-Verter has a wheely-poppin 3.2:1 low end ratio and a top end ratio of 0.83:1 . . . and that, baby, is 17% overdrive which is like discovering a few more horses in your bike's engine. So see your Comet dealer for complete information, or write today: Comet Industries, 25 Washington Ave., Dept. 13-11, Richmond, Indiana 47374.



DIVISION OF HOFFCO, INC.



**Great
New
Summertime
Sport**

Tri-Sport



Hey! Summertime's got time on Tri-Sport. Hit the trails, play in the sun. Tri-Sport's convertible, too. Goes from front wheel to front ski in minutes for four-season outdoor fun. You can run your Tri-Sport all summer and all winter, too. With skeedaddlin' engines ranging from a 3 hp Mini, for youngsters, up to 15 hustling horses for more adventuresome riders. Hey! Tri-Sport's the one. For summertime fun. Send coupon today for the Tri-Sport year-round fun story.

Alsport, Inc. 84 Whittlesey, Norwalk, Ohio 44857

Please send me full particulars on the newest, greatest summertime sport, Tri-Sport.

Name _____

Address _____

City _____

State _____

Zip _____

**Great
New
Wintertime
Sport**

Tri-Sport



Hey! Wintertime's go time on Tri-Sport. Hit the trails, play in the snow. Tri-Sport's convertible, too. Goes from front ski to front wheel in minutes for four-season outdoor fun. You can run your Tri-Sport all winter and all summer, too. With skeedaddlin' engines ranging from a 3 hp Mini, for youngsters, up to 15 hustling horses for more adventuresome riders. Hey! Tri-Sport's the one. For wintertime fun. Send coupon today for the Tri-Sport year-round fun story.

Alsport, Inc. 84 Whittlesey, Norwalk, Ohio 44857

Please send me full particulars on the newest, greatest wintertime sport, Tri-Sport.

Name _____

Address _____

City _____

State _____

Zip _____



Sign Up For Our “FREE”

MINIBIKE ACTION NEWSLETTER

AND KEEP UP ON WHAT'S HAPPENING IN THE WORLD
OF MINI BIKES!



<http://www.allaboutminibikes.com/mini-bike-action-newsletter-sign-up-page.html>



Show everyone that you love Mini Bikes!

[Order your Mini Bike Rider T-Shirt TODAY!!](#)



Check Out Our YouTube Channel for some great mini bike videos!

https://www.youtube.com/channel/UCSfQbGyWgUKm9OTIUyzYvKQ?view_as=subscriber

Sarah's first ride on a mini bike (Honda QA50) with a transmission

<https://www.youtube.com/watch?v=RiHh-Obvtg>

Build Your Own Mini Bike Video...

<https://www.youtube.com/watch?v=lr9M3GCQF-U&t=225s>



COMPLETE VINTAGE PLANS HOW TO BUILD A MINI BIKE PLUS.. "RUTTMAN MINI BIKE STYLE PLANS"

<http://www.allaboutminibikes.com/vintage-mini-bike-plans.html>

Original Plans from "Boy's Life Magazine" 40 years ago.

You might have to explain to a young person what this is. But if you grew up in the 1950s, '60s, or 70s – you saw this exact Mini Bike all over America. It was frequently constructed by kids working with their Dad. It usually had a lawnmower motor on the Mini Bike and made a lot of noise as it screamed down the block. But it was COOL!

I did some research back in the 1990s and actually found the guy who created these plans. These exact plans were the ones sold in Boy's Life Magazine for 40 years. Yes, THIS is the Mini Bike you remember seeing and loving as a kid.

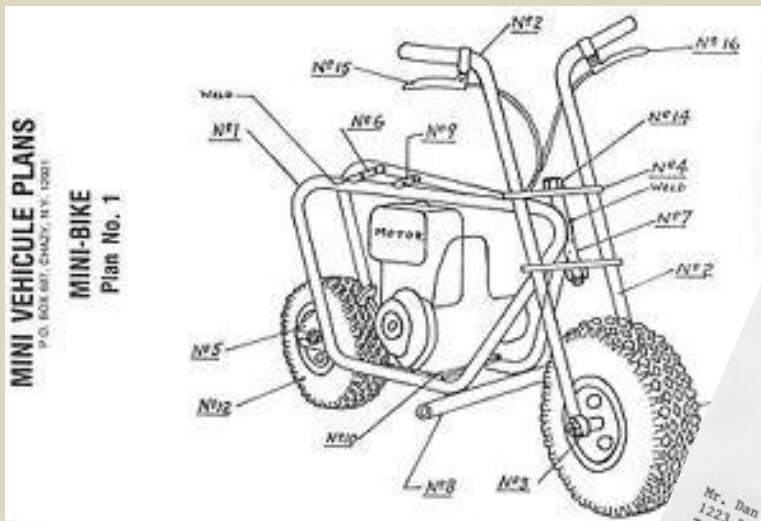
Please take a moment to look at the image up close. You can get a good idea of how this is built. It wouldn't be much work to make one of your own, especially when you have the FULL ORIGINAL PLANS.

You can modify the plans to the size you want just like we did on the pictured MiniBike!

Take a trip back in time. Or simply share an important part of Americana with your kids or grand kids. Back when having a Mini Bike was the most fun a kid could have.

ORDER YOURS NOW!

PDF Download **PLANS ONLY - NO PARTS INCLUDED!**



VINTAGE JB RACING AD FROM 1974

Popular 1970's Ad From MiniCycle Magazine

This is a clean copy of the JB Racers ad that was in the Aug/September 1974 MiniCycle magazine, NOT the original, ad copy. It was an ad that was two pages when you opened up the magazine. I had the center crease photo shopped color filled in because the original ad is on two pages. Suitable for framing. Would look great in your den or garage. Ad will be shipped in a tube so there will NOT be a fold. P.S. THE WATERMARK IS NOT ON THE COPY YOU WILL RECEIVE. Thank you, Dan. <http://www.allaboutminibikes.com/jb-racer-ad.html>

INTRODUCING THE

RACE READY, TRACK & DYNO PROVEN
J&B Racers are based on three of Honda's best...the CR-125; the XR-75; and the MR-50. But, aside from their excellent handling characteristics, the J&B Racers have little in common with the stock machines.
In the J&B Racer line-up there are two versions of the CR...a 125cc and a 100cc. The XR comes in four versions...a 60cc, a 75cc, an 80cc and a 100cc. Our Junior Mini-cycle, the MR, is a 50cc screamer.
The J&B Racers are not toys. They are full-house racing machines, track-developed by the J&B racing team (Brad Dutoit, Jeff Ward, Dave Carlson and Brian Myerscough) and dyno-refined by the J&B tech crew. With the right rider, J&B Racers are winning machines. The record proves it.

JB racers

FROM J&B RACING EQUIP, 5041 West Vermont Ave., Glendale, Arizona 85301. (602) 931-9235
Dealer Inquiries Invited

All About Mini Bikes

J&B ELSINORE 100cc & 125cc

J&B XR 60cc, 75cc, 80cc & 100cc

J&B MR 50cc JUNIOR MINI-CYCLE