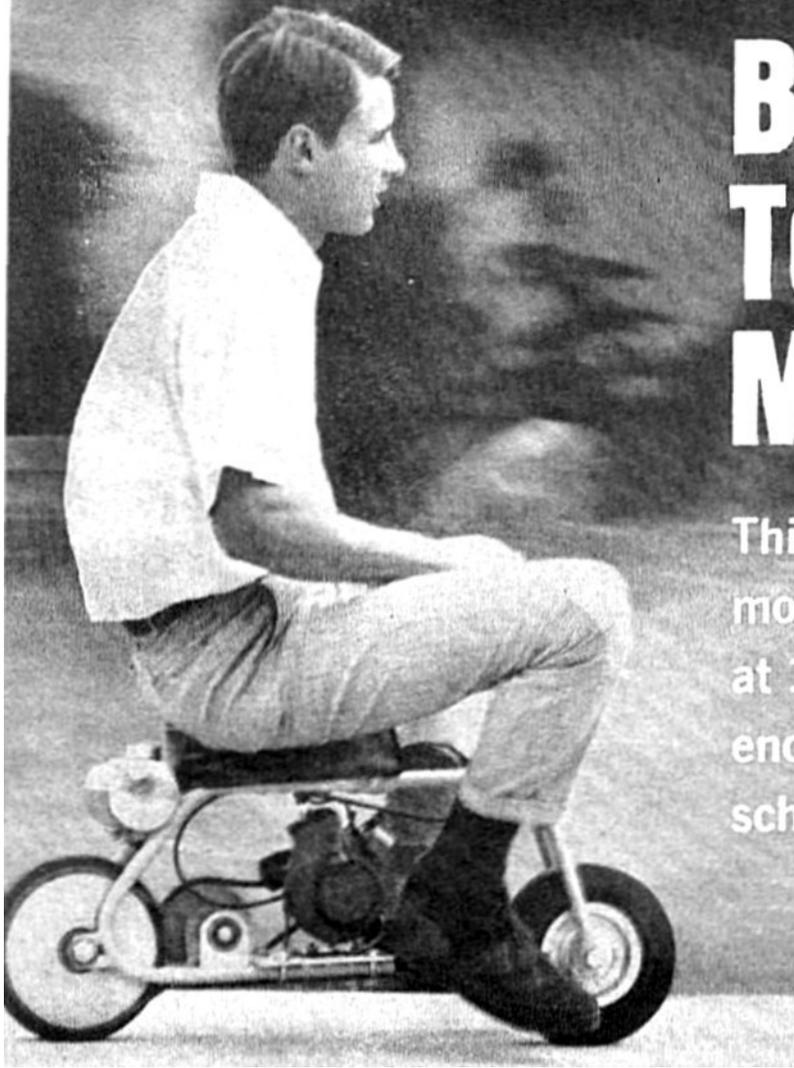


# Build This Tom Thumb Mini-Bike

This vest-pocket, 2-foot motorbike zips along at 11 mph. It's small enough to store in a school locker or a VW.



**THOUGH** It will never challenge its bigger, more powerful commercially produced cousins, this shop-built micromini-bike will get you where you want to go for peanuts. Putting along—powered by its 3/4-hp powerplant—the rig hits a racy 11 mph when flat out—more than enough to get you out on that backwoods jaunt or—with modification for street use—to class, football practice or part-time job with time to spare.

I used a 3/4-hp Olson and Rice engine (now manufactured as O&R) mounted on an 1/8-in. sheet of aluminum. The aluminum sheet in turn is attached to the frame with four 4-1/4" U-bolts. (The bolts permit quick adjustment of the chain tension.) Depending upon the rider's bulk, the little bike may or may not take a steep hill. On occasion I've had to dismount and tote her up a hill under my arm.

The beauty of the bike is the practicality of its size. It gives me comfortable, efficient commutation to and from school, and there's no parking problem. I simply chain it to a parking meter or telephone pole.

To make it, you'll need at least 12 to 15 ft.



**TO ILLUSTRATE SMALL SIZE**, bike-builder Schatzlein is shown parking his mini-bike in school locker

of 5/8-in. thinwall tubing- for the framed Build the frame in two sections and, for strength, join them with 5/8-in. steel pins inserted in the tubing at the joints. Where the pins cannot be used, wrap steel bands around the frame and braze for added strength.

The brackets which support the rear wheel are bent into a U-shape, slipped into the frame and brazed. The handlebars are two pieces of the thinwall tubing joined in the middle with two pieces of metal 1/8 x 1-1/2" x 5". spaced 3-1/4". apart. The latter are drilled out at center to receive the 5/8 x 4-1/2", bolt which serves as the turning spindle. To receive the front axle, the ends of the forks are flattened and drilled. To complete the front fork, bend the upper portions to form the handlebars. For leg clearance, bend forks slightly forward.

I used a Fairbanks-Morse centrifugal clutch with an inside diameter of 1/2". Thus, I had to use a 5/8". adapter to install the clutch on the engine.

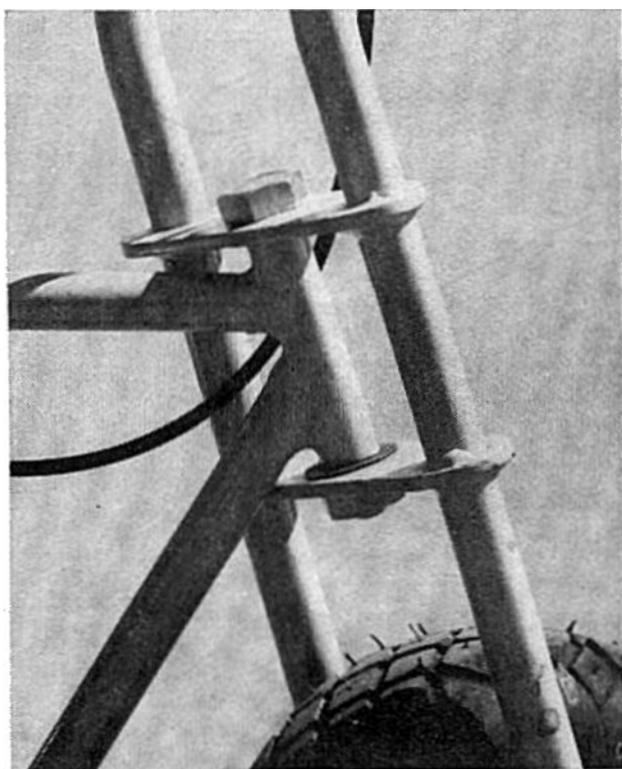
The drive is provided by a No. 35 link chain. The engine sprocket has 11 teeth geared to the large sprocket on the 36-tooth jackshaft. Turning on the other end of the jackshaft is a 10-tooth sprocket geared to the 60-tooth sprocket on the rear wheel. This setup makes up a 20-to-1 gear ratio.

The baby-carriage-size wheels are four-inchers fitted with pneumatic tires and 1/2"

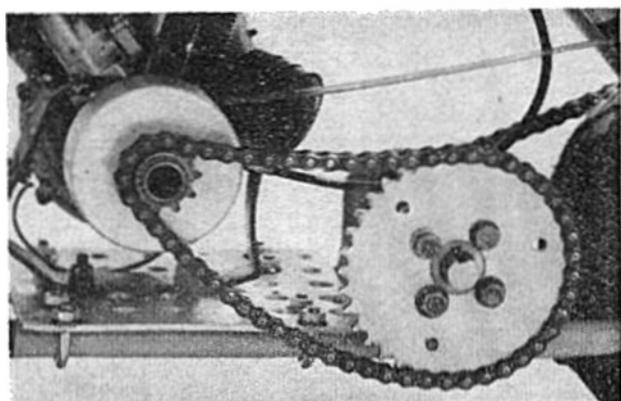
bearings. Mount the gas tank on the frame stiffener—the piece of 1/2". flat-iron across the frame just behind the seat Use two 3-1/2". stainless steel hose clamps to hold it secure. The seat on the bike shown was bought ready-made and fastened to the frame with four screws turned up through the metal bike-frame into its wooden base. The throttle control (and the cable) were fabricated from



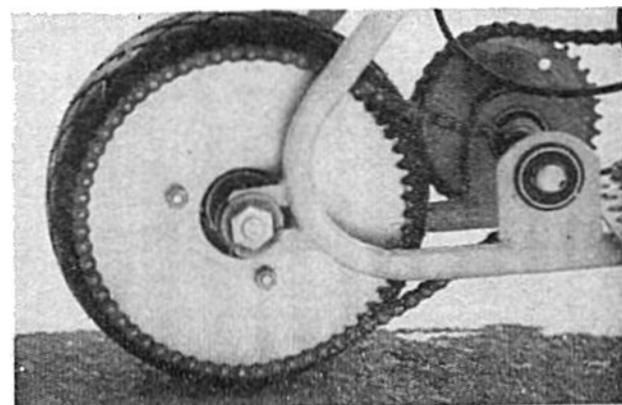
**BIKE IS EASILY HEFTED** into Volkswagen trunk for hauling to Sunday meet of local mini-bike enthusiasts



**TURNING SPINDLE** is a 5/8 x 4-1/2-in. machine bolt through frame, on which two-piece handlebars turn

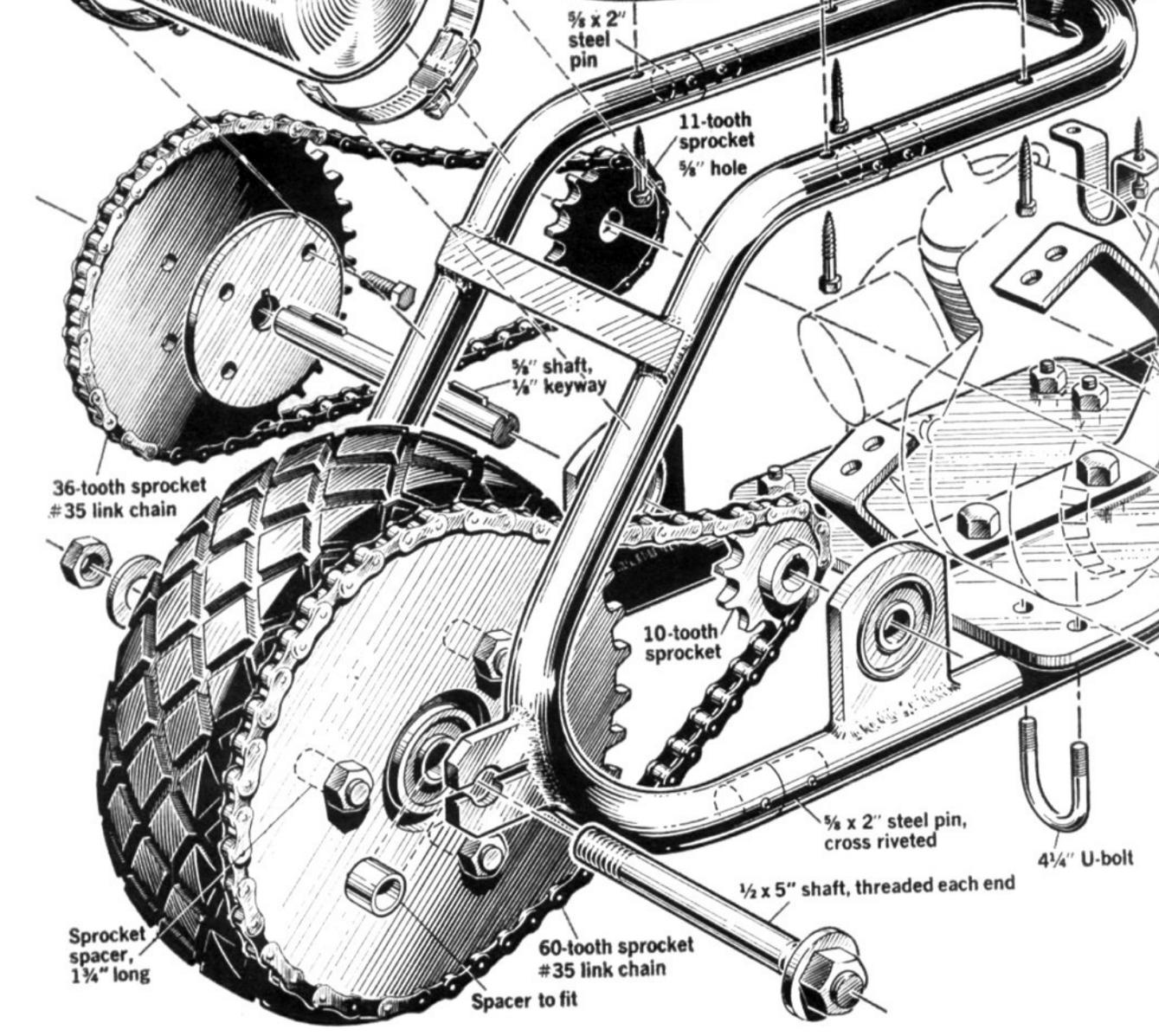
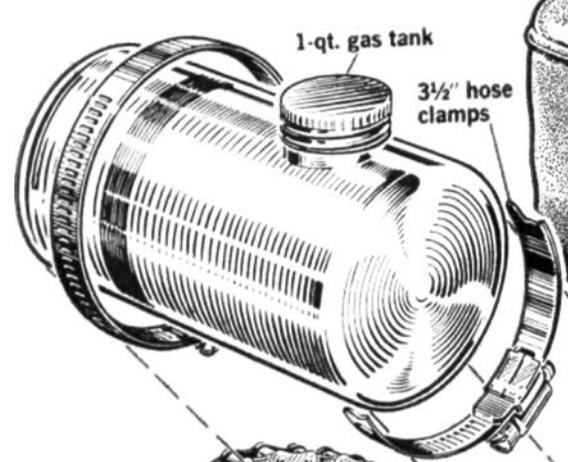
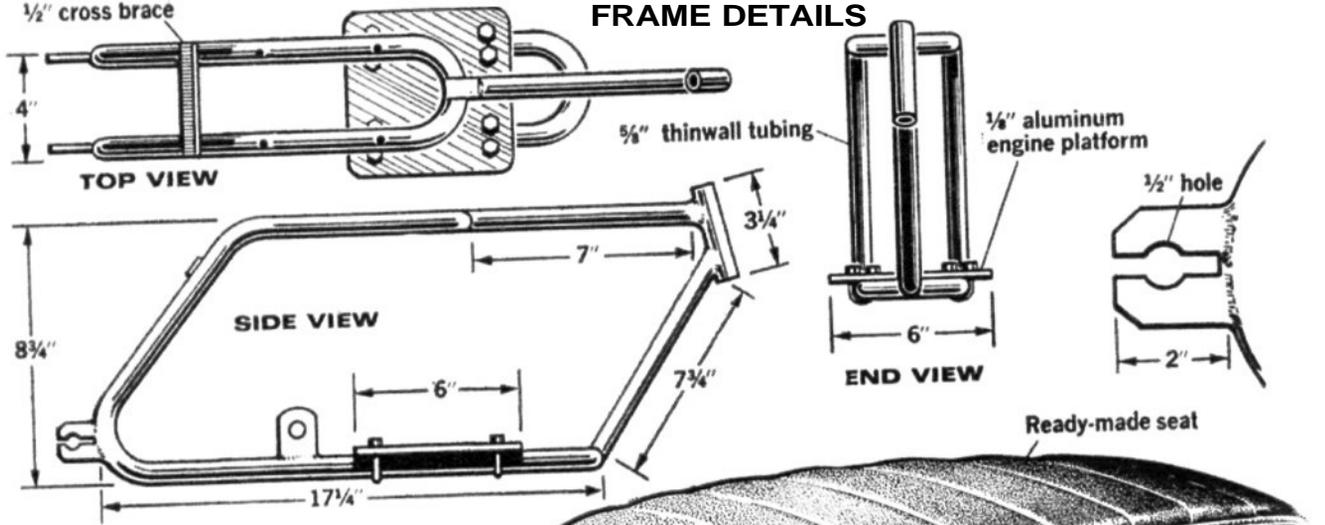


**SPROCKETS ARE SET** up to provide 20 to 1 gear ratio. All parts for the bike shown were purchased locally

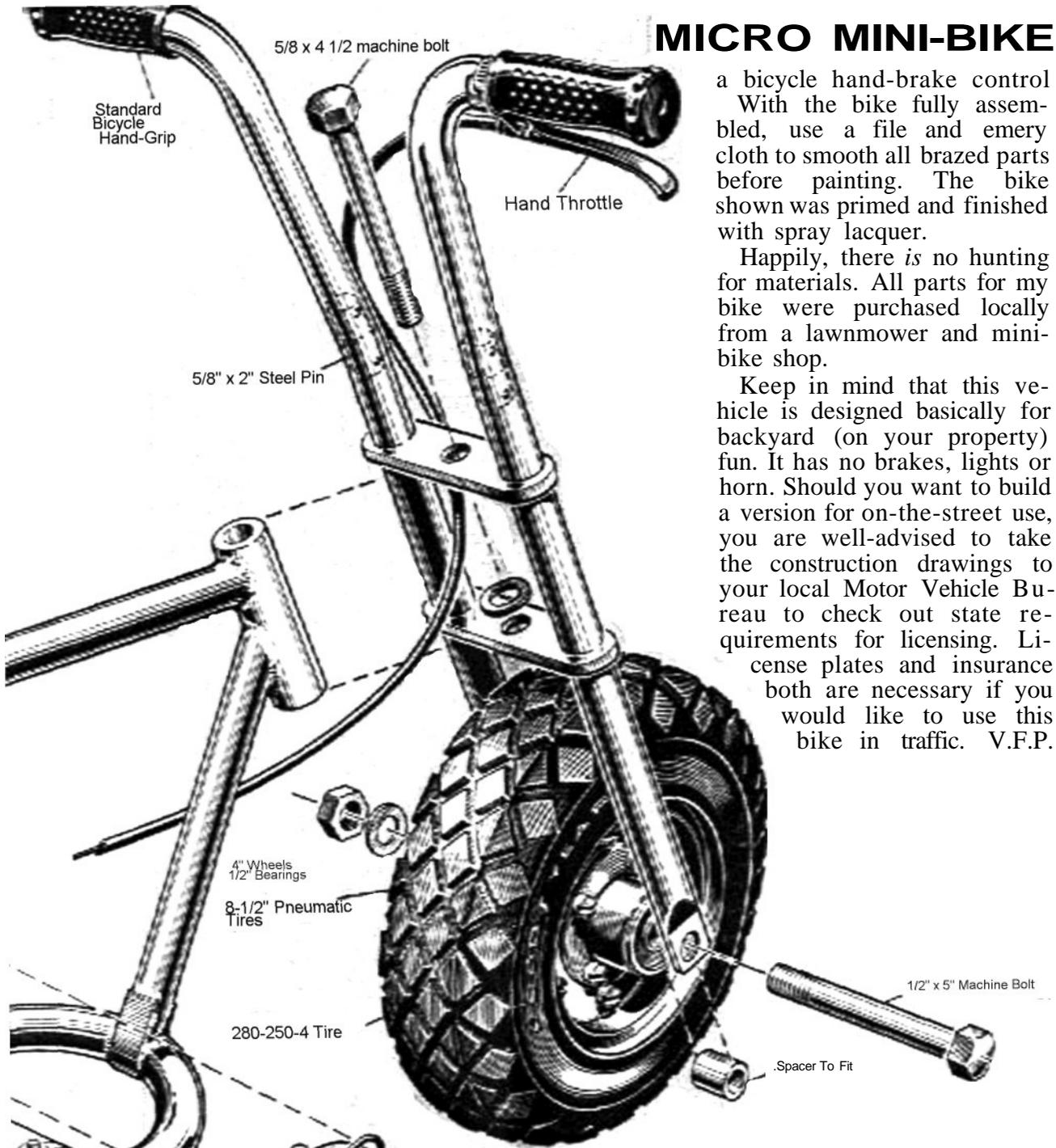


**FITTINGS THAT HOLD REAR AXLE** are bent into U-shape, then brazed onto frame for added strength

# FRAME DETAILS



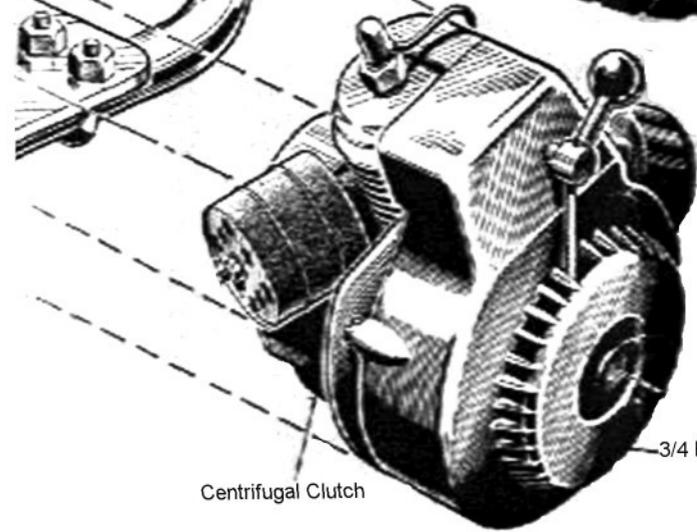
# MICRO MINI-BIKE



a bicycle hand-brake control. With the bike fully assembled, use a file and emery cloth to smooth all brazed parts before painting. The bike shown was primed and finished with spray lacquer.

Happily, there is no hunting for materials. All parts for my bike were purchased locally from a lawnmower and mini-bike shop.

Keep in mind that this vehicle is designed basically for backyard (on your property) fun. It has no brakes, lights or horn. Should you want to build a version for on-the-street use, you are well-advised to take the construction drawings to your local Motor Vehicle Bureau to check out state requirements for licensing. License plates and insurance both are necessary if you would like to use this bike in traffic. V.F.P.



## FRONT FORK DETAILS

