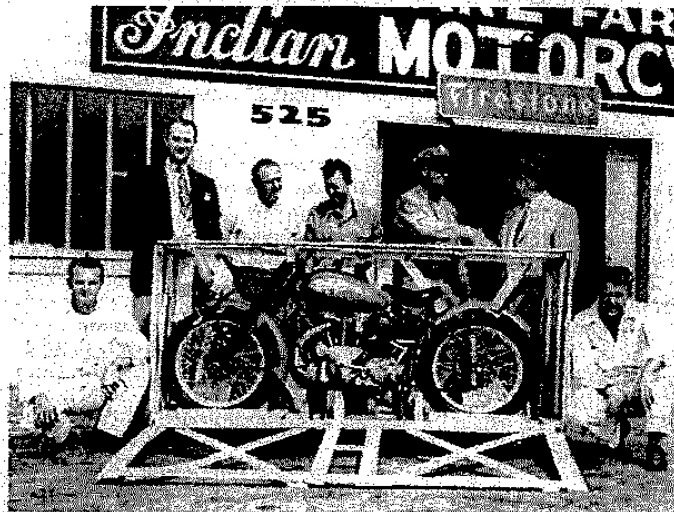


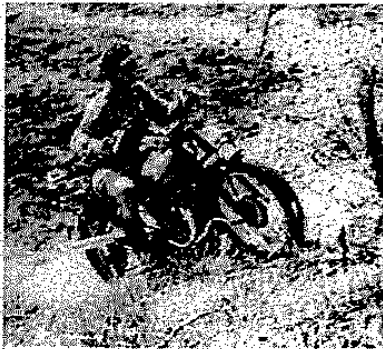
TESTING THE

Indian 30 cu. in. WARRIOR TT

The little Indian selected for this test was a factory owned, 30 1/4 cu. in. Warrior vertical twin (engine number BEJ 1997-T) with 7 1/2 to 1 compression and bore of 2.54 by 3 inches. The test was quite different than any previously done by this rider. Mr. West, from the Indian factory and Mr. Nelson, the local representative, were present when we uncrated the machine at Ed and Earl Farrand's shop in Glendale, California. I was informed that the motor was mine to ride and break in until after the test was finished.



Al West, Indian General Sales Manager, wishes road testing Officer Herman Fiker "a good ride." Livewire Western States representatives "Nels" Nelson, shown standing second from left.

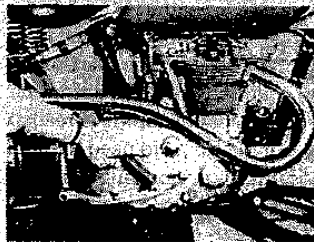


If looks could kill, this hill would drop dead.

The Warrior was ridden over 1500 miles in the two weeks I had the machine. After a few days it was taken on frequent cow-trailing rides and hill climbing parties. The rear chain was tightened after the second hill climbing ride. There was no tuning done at the time of uncrating, only the carburetor

air screw set for idling. After 1400 miles the tappets were checked and the plugs changed a day before the speed tests. The entire test was made with a 160 jet in the carburetor, with gasoline mileage varying from 60 to 70 mpg for the entire ride. A smaller jet for street riding would undoubtedly boost the gasoline mileage.

Four hundred miles of off-the-pavement riding failed to discol-



Minimum oil seepage present after many miles. Note folding pegs front saddle mounting.

or the exhausts, indicating a cool engine properly adjusted and timed. The Indian did not ping or pre-ignite on any hard runs. The bike was not wiped off or cleaned at any time and was very free from oil leaks, there being only the slightest seepage on the engine after the test. No oil spots were left on the driveway after a day's ride in the desert sand nor was there ever any oil in the crankcase undershield. Some very small specks of oil from the chain were thrown on the rear wheel but this is unavoidable on any machine. This rider had trouble starting the motor when cold on the first mornings but the trouble was corrected after finding out the proper way to start a Warrior. No flooding of the Amal nor use of the handlebar air control was

required to start this model on the second or third kick, even when cold. The Warrior is geared low for competition, so as we planned to ride both dirt and pavement, we had the gear ratio raised to 5.22 to 1. This is still under-geared for street riding and a higher ratio would raise the speed in all gears. For the trials, hare and hounds, hill climbing and field meets, it was geared just right. A small engine must be revved fast to perform its best, so if used in deep sand, speeds of over 45 can be attained in low gear before shifting to second, and speed will continue to build up. This light model ran on top of dry river sand at extreme speeds.

The teledraulic forks are longer and the spring frame unit is elevated to give the machine 7 inches of ground clearance with rider on. Action on both ends of the frame gives an extremely secure feeling, with springing well snubbed and very little bouncing. Handlebars are the high type used on the West Coast and are rubber mounted as is the front of the saddle. A rubber block between the frame and nose of the sponge rubber seat stops any vibration from transferring to the rider.

Exhaust pipes are of the crossover type and continue on back in an upswept manner, then into a small and quiet muffler (removable for competition riding). Foot pegs are the folding type that give more clearance in cross country riding. This model can be banked over farther than any yet tested, with handlebar tips only 12 inches from pavement when completely down.

A breather tube from the primary drive connects to the

carburetor air cleaner, giving lubrication to the valve guides and upper end of the cylinder walls.

Neither front nor rear brakes were adjusted for the test and showed no tendency to fade on long hard stops. This is the best front brake Indian has produced. Short fender, and braces that double as lifting handles, are very suitable to this type of a motorcycle. Positioning of the rear lifting handle is just right for lifting the motor onto its two-legged center stand. This stand folds up close to the frame just ahead of the rear wheel and can be easily removed if more ground clearance is desired. A turning circle of 12 feet, 10 inches is possible and fork stops can be altered to turn inside of 10 feet, 10 inches. This is desirable for trials riding, as is the water-sealed Edison-Wico magneto with its vent tube running up beneath the gasoline tank.

A cutout button is fitted on the right handlebar, eliminating the conventional ignition switch. The four speed Indian transmission is foot operated on the left side of the machine. Several thousand miles were required to break in the gearbox for easy shifting. Gear ratios used were ideal, the greatest jump being from second to third. Goodyear tires (19x3.50 diamond tread) were used on both wheels. The lights, generator, battery, wiring, switches and speedometer are extra equipment. The Warrior is one machine that does not need to be stripped before it is ready for competition. No need to buy a lot of parts to hang on the garage wall.

The only part to work loose on the entire run was the bottom

nut on the carburetor bowl. This nut needs a safety wire to prevent losing gasoline.

The Warrior has a brilliant red baked enamel finish on both tank and fenders with contrasting black frame and oil tank. The rims and spokes are cadmium plated but chrome rims with red centers would add much to the machine's beauty and very little to its cost (\$660 at the factory).

PERFORMANCE SUMMARY

Acceleration

- *Standing start to 45 mph
- 4 seconds
- **Standing start to 60 mph
- 8 seconds
- ***Standing start to 78 mph
- 13 seconds

*Low only

**Low and Second

***Three gears used.

Braking

- From 25 to stopped
- rear brake only 36 feet
- From 25 to stopped
- front brake only 24 feet
- From 25 to stopped
- both brakes 21 feet

Slow Running

High gear without
chain jerk 18-20 mph

Speed

- Maximum in low - 48 mph
- Maximum in second - 60 mph
- Maximum in third - 78 mph
- Maximum in high - 91 mph

Weight

Front only 138 lbs.

Rear only 162 lbs.

Total 300 lbs.

With Rider

Front only 190 lbs.

Rear only 290 lbs.

Total 480 lbs.