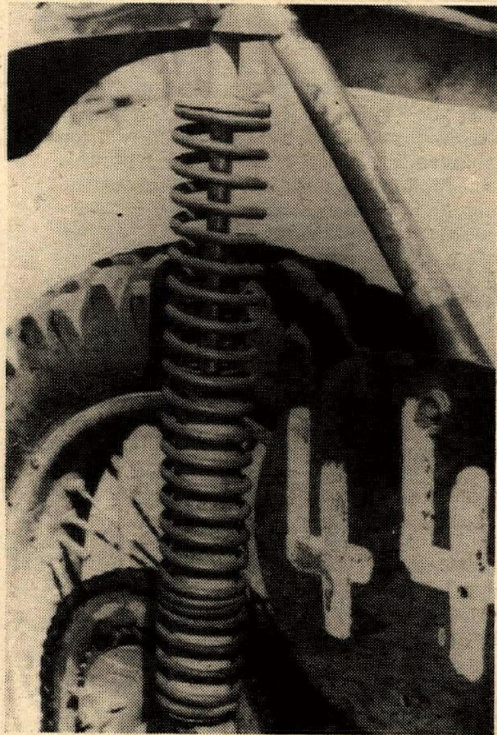


Curnutt Shocks A New Approach To Suspension

By Russ Darnell

In the areas of dirt riding, like desert, scrambles, motocross, and enduros, suspension is the keynote to traveling fast across rough terrain. In the old days of rigid frames, the speeds were necessarily slow compared to our present day swining arm equipped machines. There have been many innovations in suspension in the last 10 to 15 years; better telescopic forks, neater frame geometry, stronger hubs and wheels, and new designs in shock absorbers for the rear. In the last category, there have been few dramatic changes in the design of dampening units for the rear of motorcycles for some time. Shock absorber development has hit a plateau, and that brings us to the subject of this test report: the Curnutt shock.



This pair of experimental 8" travel rear shocks fitted to a 250 Husky gives the rear wheel the ground following ability of the front wheel.

The Curnutt shock is manufactured by Charles Curnutt of Torrance, California, and it is a huge departure from a normal shock absorber. Chuck's unit is different enough in principle and design to have enabled the inventor/manufacture to obtain a patent (pending) on nearly every piece that goes into the assembly.

As you probably already know, after a short time in the desert or on a motocross circuit your shocks will "sack out" or collapse. If your springs are strong enough to take the beating, the dampers themselves will soon fail to function properly. What do you do when a normal shock wears out? Throw it away and buy a new set, right? That is the old way of doing things. The Curnutt shock has a new approach. They "never" wear out. The only parts subject to wear are the three sealing components: that is, one seal at the top, and two O-rings used on the dampening valves. A set of seals last a minimum of six months, and the cost of the three replacement parts is \$1.00. As the units are easy to disassemble (a complete set of inexpensive special tools is offered but not required for repair) all work can be done in your own garage. I can personally attest to the fact that the shocks are nearly unbreakable, as I ran one set in Europe all year long without changing seals, and without any trouble whatsoever.

The European circuit are generally much longer and rougher than our own tracks so suspension gets a tremendous work out. All year long I saw other riders forced out of the competition because of a broken shock or collapsed spring, and when you are riding for money or for World Championship points this can be a real disaster. My wife timed me through many sections on various courses to help me improve my lap times. She also timed some of the top riders to make a comparison through the same given sections. She noted that my times were quicker in some of the very roughest sections. I would love to have been able to attribute the faster times to only my riding ability, but I couldn't. The fact of it was that my Curnutt shocks with their longer travel, better dampening, and extra strength, enabled me to force

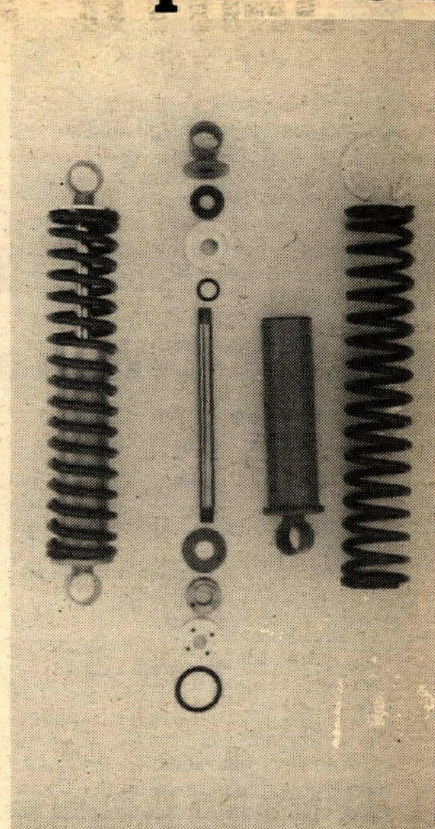
through these horribly rough areas at a higher rate of speed without being pounded to death like the other riders! We proved this to be true in successive races where we again checked my times to those of top riders.

The actual construction of the Curnutt shock is excellent as only the best materials are used throughout. The dampening rod is stainless steel, the main body, and mounting eyes are all made of 4130 (chrome moly) steel. The dampening valves and spring clips are light alloy and the springs are constant-rate items that are guaranteed not to sack out or sag. Because of the long travel of the Curnutt shocks, the spring rates are extremely soft at 55 lbs. This is the softest spring used on any shock available that I know of, and it makes for a very comfortable ride. Most shocks on the market now have center rods of 1/4" to 3/8" and are easy to bend in competition. The Curnutt units feature a stainless steel rod that is a full 1/2" in diameter.

The whole principle of the Curnutt shock is different from either types. Other shocks are designed to give a good dampening action to smooth the rough out to a certain extent, and to provide the rider with as much directional control as possible, but they are lacking because they only dampen at one specific rate. The Curnutt's on the other hand, are designed to provide multiple dampening so that ALL types of bumps are compensated for.

The main idea of the shock is to keep the rear wheel on the ground as much of the time as possible, for every second that the wheel is bouncing it is not driving the machine forward. The Curnutt's succeed in this aspect to the tune of a least 40% more rear-wheel-to-ground-time, and this means 40% more traction. This increase is greatly noticeable at the start line, and especially exciting corners where you can get the power on sooner. I have found them to be a great benefit in the mud in Europe also, where traction is severely limited.

Many people look at the price of the Curnutt shock and turn away, but I think



It looks fairly simple when it's knocked down. Chuck Curnutt has patents pending on almost every piece used in the assembly.

it is more logical to buy one set of shocks for \$39.95 and use them for 2 or 3 years, than to buy four sets per year at \$25.00 a pair.

If, in reading this article, you get the idea that I am prejudiced toward Curnutt shocks, you're right. I am. I have tried EVERY make of shock I could, and in my opinion, the Curnutt's outperform all the others by a significant margin. I am leaving shortly to return to Europe for another season of international motocross. I am already packed and ready to go, and one of the very first things the customs officials are going to see when they open one of my suitcase is a pair of bright, dazzling red motorcycle shocks!

Wisconsin Passes Landmark Legislation

For the past year Wisconsin motorcyclists have been working with the State Legislature and Department of Natural Resources for the adoption of a motorcycle outdoor recreation program.

The Department of Natural Resources assisted with the initial writing of the bill. More than 20 Assemblymen co-sponsored the legislation when it was introduced into the lower house of the legislature. After some minor revisions and amendments the bill, known as M.O.R.P. or 139-A passed with little difficulty.

Although a companion bill had been introduced into the upper house of the Legislature it was decided that the Assembly bill would be moved directly to the Senate thus avoiding unnecessary delays.

Probably the most difficult task that faced proponents of M.O.R.P. was pulling the bill out of committee and on to the Senate floor for consideration. Compounding this problem was the myriad of controversial legislation being considered by this session of the Legislature. In

the final week of the scheduled session M.O.R.P. was brought out of committee and when voted on - was passed unanimously.

All that's needed to make M.O.R.P. a reality is the Governor's signature. Basic provisions are as follows.

1. A two dollar increase in license fees (motorcycle).
2. Transfer of this two dollars from the Dept. of Transportation to the Dept. of Natural Resources.
3. The two dollars must be used for the establishment and operation of motorcycle recreation areas.
4. An advisory council composed of a cross section of persons interested in motorcycling will be appointed by the Natural Resources Board. The responsibility of this Council will be to guide the Dept. of Natural Resources in the development of a motorcycle recreation program.

An objection that has been expressed by many road riders is that they, by licensing their bikes, will be providing recreation areas for people who ride

unlicensed machines. This is a misunderstanding that should be corrected immediately:

1. Motorcycle recreation areas can accommodate all cyclists. Picnics, club rallies, group camping, and a host of other activities could potentially be provided on these areas.
2. Most operators of dirt bikes also own road machines or license their dirt bikes.
3. Separate facilities can be developed for both road riders and dirt riders.

It is readily admitted that the off the road rider will probably make greater use of these areas than the road rider. However, it is unfair to claim that the road rider will be cheated or ignored by this new program. After all, the dirt rider who burns a minimum of 12 gallons of gas is paying approximately two dollars in road taxes; for roads he's not using.

With proper guidance and administration this program can result in benefits to the entire universe of motorcyclists; road riders, dirt riders, club members, independents, and anyone else that enjoys motorcycling and being with motorcyclists.

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