

Don Rosene, Penton South rep., at the Franklin 75 Hare Scrambles.



It appears that the era of motorcycle suspension has hit the off-road motorcycle rider.

We here at "Penton" find ourselves right in the midst of it. Probably the most gratifying part of all this suspension business and hoky-poky is that we have been working in this field of endeavor for the past several years. I am sure this can be evidenced with our production models where as we are now producing and delivering to the public the latest versions of our rear suspensions which offer the rider many different options or executions and settings.

In this "Keeping Track" we have printed a section on this suspension research work, and there are several comments I would like to emphasize now in reference to our findings...

1. Foremost one should remember, we (The mud runners and motocrossers) have been riding mud for years, and enjoyed every minute of it. Then all at once comes 1974 and all the Girling, Japanese and old time shocks are junk. Humbug, that's a bunch of crap.

The total difference is the younger and faster riders realized they could go faster with a better shock but it didn't make all the original shocks junk. I should remind you that Zundapp is still using standard shocks on their Six-Days machine.

2. Through all of our experience work with suspension we have never found one champion caliber rider using the exact combination as the next one very long. The point that I am trying to bring across is that there is very seldom a suspension combination that is perfect for everyone. Each rider works out his set up, (and God knows we have every combination available). You start from our chart.

3. The next and most important thing about suspension is that once attained the rider is to try and maintain that keen edge of advantage through out a long competitive longevity period. This is the very reason for the Silicone oils, Koni shocks, Silicone Chrome Steel Springs and all the rest of the expensive first class monkey business.

We have found that we can apply all these materials and retain the same handling characteristic after days of riding as we had when we started.

4. Last but not least, remember I'm still riding an old fashion single shock position job and I think it is great (Maybe what I don't know won't hurt me). I will say the new suspension is a hell of an improvement however it is the greatest advantage and improvement for those boys who are moving super fast.

Many times I am asked about which shock is better. I never hesitate to tell you that the Koni is made by the most renown shock company in the world and they have been making them for years and years and years.

Last year in the I.S.D.T. the Czechs were using Konis on their Jawas. It's your guess what our American boys are going to use on their Pentons.

To answer the 64 dollar question why do our bikes have this shock or that shock on them from the factory; it is quite simple. Those are the best shocks available at the time of production and we feel damn lucky we have any shocks at all sometimes.

The last time I knew, we here at "Penton Imports" had all combinations of shocks available.

In any event with all of this 1974 suspension bit with mud runners, I am happy to tell all you Penton riders that we are as far advanced as the best of them and the unique part about the Penton is that this, advanced suspensions are on our production bikes and not just our works moto-crossers.

We have received several complaints that our last year's 175's went faster than the new ones.

Believe us, this is not true. Some of you guys that have complained caused us to get hot on this immediately.

I received a letter from chief engineer at the factory: Referring to your telex concerning 175cc engines, I must tell you that there is no logical reason for the complaints you receive. As you know, each engine that leaves our firm is dyno-tested throughout the hole rev-range; this means up to 8 300 RPM. As a matter of fact we have about 10 per cent more power this year in the 175cc than in last year's engines over the hole range. The only things I can suggest are:

1. Install an expansion-chamber from last year on an engine, which is supposed to have no performance.

01

2. The compression-ratio might be too high. So the engine has a sharp drop in its power-curve at big revolutions.

Please, try to raise the deck-height from a standard 0.7mm to 0.9mm. This might be the only reason I can think of.

Every word of it is true and makes sense. The problem is basically in carburetion for the specific area where the bikes are being run.

We had one dealer that couldn't get his 175's to run, so he used the settings found below and it runs like a bear.

Let us suggest that you go to work on the carburetion but take it kind of easy until you know what you are doing.

But don't tear all the new 175's apart until you have learned to tune them and I make this statement especially for the dealers.

Bing 2/30/102

#2 Slide
#2 Needle, Second Pos. From Top
Needle Jet 280
Atomizer W/Hole
\*Main Jet #155
Pilot Jet #30

\*Could possibly use bigger Main Jet for super hot shoes 160 maybe 165 2.95 - 3.0mm BTDC Timing.

Andenstm Offindenstm

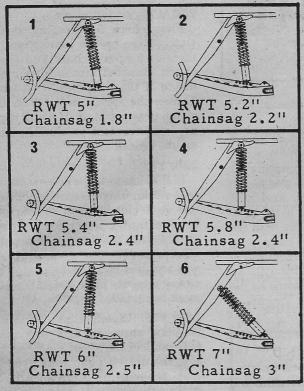
## Shock Springs & Positions for 175-250-400

**Riding Condition** 

Heavy - Rider Weight 185# or over and/or hard riding such as moto-cross.

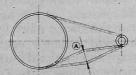
Medium - Rider Weight 135-185# and/or medium riding such as enduro.

Light - Rider weight 135# and under and/or light riding such as trail.



		·	1 34
Rear Wheel Travel	Shock	Riding Condition	Spring Rate
45° Shock Position	Ceriani Gas	Heavy Medium Light	140 125 110
7" Travel	Koni 76 F 1283	Heavy Medium Light	140 125 110
Vertical Position Forward hole			
6" Travel	Ceriani Gas	Heavy Medium Light	125 110 95
	Koni 76 F 1282 SP 30	Heavy Medium Light	110 95 80
Vertical Position Rear hole 5" Travel	Ceriani Gas	Heavy Medium Light	110 95 80
	Koni 76 F 1282 SP 30	Heavy Medium Light	95 80 65

Do not run shocks in 45° positions without the correct spring rate as this will damage shocks.



Chainsag depending on shock position

Spring Lengths and Weights Available

Spring Weight Color Code (Hi-Point 140# Black, 125# Silver, 110# Red, 95# Blue, 80# Grey, 65# White)

#### Koni Adjusting Procedure

KONI damping may be adjusted as follows:

- 1. Remove spring. Extend the rod to full height and push the rubber bumper toward the shock body. If it is necessary to slide the bump rubber away from the nut, hold the top eye and twist the rubber down the rod. Be carefull not to damage the chromed rod.
- 2. Undo the 3/4" lock-nut below the top eye.
- 3. Unscrew the upper eye mount and the nut and remove the bumper. Replace just top eye and lock-nut to give a hand hold.

Dampening Setting for Koni Shocks

 Spring Rate Turns Clockwise
 95#
 1-1½

 125#
 2½
 80#
 ½-1

 110#
 1½-2
 65#
 0

- 4 Fully collapse the shock absorber, at the same time turning the piston rod slowly to the left until it is fell that the teeth of the adjuster nut are engaging the recesses of the footvalve assem-
- 5 Continue to turn gently to the left until the rotation stops. Do not use force or attempt to turn further to the left, once resistance has been felt. At this point you are assured that shock absorber is in the unadjusted or new position.
- 6 Now keeping the shock absorber collapsed, begin turning in the opposite direction, to the right. You will be able to make four half turns of 180° and a

final quarter turn of approximately 90° to full hardness, each one of which is an adjustment compensating for approximately 20,000 miles of riding, depending upon the usage. You will know when you have reached the maximum adjusting position because you will encounter another stop. Do not force.

7 Pull the shock absorber apart vertically without turning for about 1/5" to allow the teeth of the adjuster nut to disengage. The piston rod can now be turned freely. Reassemble in reverse order. Be sure to install the rubber bumper and do not shorten it. The shock absorber will be permanently damaged if the rod is depressed too far when ridden.



### THE KTM CLUTCH STORY

The original KTM engine, a 175, had 5 fiber clutch plates, 6 steel plates and a steel spacer ring that rested on the inner clutch hub. This set up had a pressure plate with a rim thickness of 5/16".

The 250 engine was then built and had 7 copper clutch plates, 8 steel, and 1 spacer ring. To compensate for the extra clutch plates a thinner pressure plate of 7/32" was used.

It was later found that by eliminating the spacer ring and bot-

tom steel clutch plate in both the 175 & 250, the clutch would operate quieter. However, in eliminating the two components, 1.6mm was lost in clutch stack heighth and was compensated by adding to the pressure plate thickness. Thus with the modified set up the 250 has a pressure plate with a rim thickness of 9/32" and the 175 is 3/8".

The 400 clutch is the same as the 250 except for heavier springs of 1.7mm wire diameter.

#### PRESSURE PLATES

51.32.006.030       Old execution 175       .374"       5/16"         51.32.006.130       New execution 175       .433"       3/8"         54.32.006.000       Old execution 250       .245"       7/32"         54.32.006.100       New execution 250/400       .312"       9/32"	Part #	Use	Depth*	Rim Thickness
9/32"	51.32.006.130 54.32.006.000	New execution 175 Old execution 250	.433" .245"	5/16" 3/8" 7/32"
	01.02.000.100	New execution 250/400	.312"	9/32"

\*Distance from the plane of the NOTE: The number stamped on the clutch plate contact surface to the surface in the center that the throwout pressure bolt screws down

pressure plates are casting numbers only, not to be confused with parts numbers. The number is the same on all pressure plates.

Here are some problems that have arisen:

#### 250: clutch drags

This has been somewhat characteristic with the 250, especially with earlier models. To remedy, first go over the throwout system to insure full clutch disengagement. Then use ATF (automatic transmission fluid).

#### 250/175: clutch slips

First, check for freeplay at the clutch lever on the handlebars. If there is freeplay, check and see if clutch throwout arm is hitting the inside of the mag case. If it isn't, tighten the spring nuts (8) on the clutch pressure plate. If it still slips, new springs and/or clutch plates maybe needed.

#### 250/175

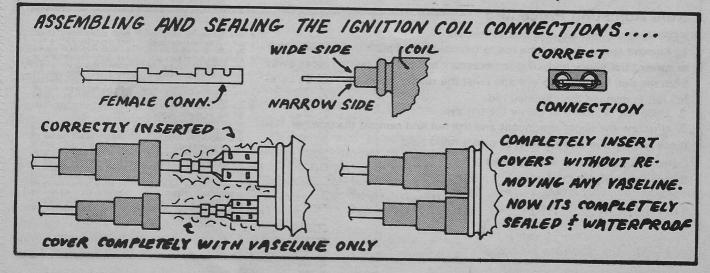
In the change to the new execution with eliminating the spacer ring and one steel clutch plate, the factory inadvertantly assembled a few engines with the older pressure plate #54.32.006.000. The pressure plate was too thin, causing slippage. The newer pressure plate #54.32.006.100 must be installed.

250/175: Clutch slips, no cable freeplay; throwout arm hits mag case; and/or burnt out push rod.

If the clutch push rods are too long, causing the throwout arm to contact the mag case or not allowing any freeplay in the calbe, then there will be constant pressure against the rods and throwout nut.

This will probably cause clutch slippage and eventual burning out or seizure of those parts. To prevent this, shorten a rod by grinding the flat end until the clutch arm is in far enough.

NOTE: It doesn't take much grinding!! Just a few thousandths of an inch moves the throwout arm significantly.





If you have a question or want to know an answer write Tom Penton, "Keeping Track", 3709 West Erie Ave., Lorain, Ohio 44053.

### WATERPROOFING THE ENGINE

When someone asks what he should do to his new Penton to get it ready for riding, there are two things that immediately pop to my mind. They both concern waterproofing the engine.

The modern two stroke is capable of providing up to a year's service of weekly competition riding without any more than perhaps changing the rings. I myself have torn down my ISDT bikes after a thousand miles of trail to find less than .001" wear to the piston. On the other hand, I've gone to a local hare scrambles and in two hours have completely worn out piston, cylinder, rod and main bearings. The problem in this latter case was that I sucked large amounts of dirt and water through the air cleaner. For longevity, it is extremely important to get clean air to the engine at all times.

On our Pentons, two potential problem areas are the air cleaner and the ignition cover. By going to the frame breathing system last year, nearly all our air cleaning problems have been eliminated. However, there are two things a person should do. First and very important, is to improve the seal between the carb boot and the air box. In production of the air boxes, there are usually irregularities where the two fiberglass moldings come together. On the flange where the

carb boot clamps, these molding ridges should be filed smooth. Then apply GE silicone seal between the boot and airbox when assembling. The other thing to do is to take off the seat and with duct tape seal off the frame by covering the rubber plug and airbox mounting bolt hole.

The ignition is an area that at first seems unrelated to keeping clean air to the engine. However, let me relate what happened to Jack Penton at the Mississippi two day trials. At the finish of the event his motorcycle was low on compression and horsepower, and made plenty of rattling noise. On inspecting his well prepared air cleaning system he found it immaculate as expected. Somewhat baffled, he pulled the mag cover and found half the Mississippi swamp in it. On engine tear down it was found that the dirt quickly caused the mag side main seal to wear out, allowing the dirt into the engine. After only about 20 hours of running time the engine needed a new piston and bore job, a new rod and main bearings. You can believe that we now spend more time preparing the ignition cavity if we expect any water at all.

The first thing to do is vent the ignition cover by installing a fitting and connect a hose that runs up under the gas tank to an area inaccessible to water. By venting the mag area pressures are equalized so water can't be pulled in by vacuum, and also condensation is allowed to dry. Next, cut off the rubber grommet on the wires where they go through to the ignition cavity and after cleaning everything well with cleaning solvent seal with silicone seal. Put the cover on using silicone seal for a gasket. And lastly, under the tank where the ignition wires go into the plastic harness, seal with silicone.

It is advisable to remove the ignition cover after every race and/or washing to clean and allow to dry.

A little extra care in the area of the air cleaner and ignition cover will pay a hundred times over in the long run.



In the next issue we will try to give you background on all the Penton riders going to the Six-Days.

# 50% OF THE U. S. SIX-DAY TEAM WILL RIDE PENTONS!

When the final selection list for riders who qualified for the 6-Days, over 50% of those riders were on Pentons!!! 8 out of 10 Pentons were in the top 10!!!!

For the 4th straight year Pentons again will be the U.S. Trophy Team. Riding on the team will be Carl Cranke 250cc, Jack Penton 400cc, Tom Penton 175cc, Dane Leimbach 100cc, Joe Barker 175cc, and Paul Danik 125cc.

The other Penton riders who will be on Club or Manufacturers Teams will be: Erie Jensen 250cc, Dan Young 175cc, Mark Adent 250cc, Ron LaMastus 250cc, Lars Larsson 400cc, Rod Busch 125cc, Don Stover 250cc, Bob Ismailof 250cc, and Tom Shaw 250cc.

At this point the AMA is trying to get 7 more sports so the Rokon can get their Vase B team together. If they are successful 4 more Penton riders would make the trials: Bill Friant 125cc, Steve Hurd 250cc, Mike McGowan 125cc, and Bobby Thomas 125cc.

Dear Keeping Track,

I recently received one of the first 400 Pentons in Northern California. I sold it to a young man named Tony Littman. Prior to purchasing the 400 Tony had just started racing moto-cross on a 400 Maico, his first two races netted him a 3rd and 25th place finish. Not bad for a new novice, but the following is the best part. Tony purchased the Penton on June 25th, on June 29th he raced it for the first time at Sand Hill Ranch and got 1st overall winning one moto by over half a lap. His next race same results. First overall at Sears Point on July 6th. Again on July 13th and July 27th he proved the man to beat by winning first overall at Santa Cruz MX on both dates. In one moto on July 13th a fall put him in last place but he didn't give up, he came from last to first by the end of the moto.

Needless to say Tony Littman is a satisfied customer and an up and coming new rider ... on his Penton 400cc.

Sincerely,

Al Banta, Owner Trails End Penton

J I Q P C N U T O H U S Q V A R N A I H N E T Q X U L E L R A ASTNOISNEPLWYSRLESMTCSNBDFHUDEH WUEROAMUCSRTHNECYBPARKILAGZRYHA ARTIPLOAPEDCABLFCGMHUCVXTUCMFTM J O V G E B N K I Q O R D E I B O I P C O T T O N Q K C S N A NWLORYTOSCNFRNGEOAJUSDGDLBVEOAY QTCBLKESYHOIOEMTRNURMIAXHMOKTPD USKHPASTAJRSNLJTPCFJYPRKQJYIBOE AIBOSSAWHRDZELAEOAKRPGRSAVSCUWI ECUEJEOLDIKOLIGCHTENUYWXESRGAEG RNTFINQTVPDNUETOOEXDGAMCJDLPZRR CHAPARRALWLAZUXLNRBRONCCOAISKDE OGCBRIDGESTONEVEDIQAFTMWSKPLHYE U B F H U Y I Q G E V A J O C V A N R P B K V L U M T S D N V KPYDEATVJRPKGCJNGOALEPDZANNAREE AGCLPSJPQPENTONERIZEJOUBLOMPEAS LORTBMAGRCFDZMIKJPKGASCOATAKWNM N A J S V G F N B H A R O B K C M N A D C S A E N A T D O D R H F V C A P B L G V K M Q N F P A T D U K Y T I O L T S Q I C BILEJEURNLSRCAUYTUTROBIGHPMUIRT KDNWRQBCARABELAXCROAQBZAFDOMPDO FTPMADTRHMASVWOGHJMSLUDEJANJDAG HULKTJAPCANDYVSBIEZCILENAHAHETF NWGABFOBHKNAIDNIEFKONTNASCRJIER OLBWVNZKJNAUYXELSFTTDANCORKIEOW SPMAKEYMEJMECJOLSMANACYINPSGKST P B Z S O J R W A V K W A N D M O E M L W O F R E U C O W P I MGDANPCDNSCREBOYDCHRISTENJNLCRA IRTKJKFLAVIROYALENFIELDMICBQMOC SWAITJHJECRAOWKDHICMESYAOHUEIVZ

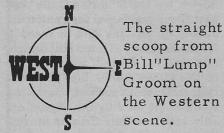
#### NAMES OF MANUFACTURERS OF MOTORCYCLES

Find the following words in the above puzzle. The words can be upside down, crosswise, up and down and crossover.

1.	AJS	29.	Kawasaki
2.	American Eagle	30.	Laverda
3.	Ariel	31.	MZ
4.	BMW	32.	Maico
5.	BSA	33.	Matchless
6.	Benelli	34.	Monark
7.	Bridgestone	35.	Montesa
8.	Broncco	36.	Norton
9.	Bultaco	37.	Ossa
10.	CZ	38.	Panther
11.	Can-Am	39.	Penton
12.	Carabela	40.	Power Dyne
13.	Chaparral		Puch
14.	Cooper	42.	Rickman
15.	Cotton	43.	Rokon
16.	DKW	44.	Royal Enfield
17.	Douglas	45.	Rudge
18.	Ducate	46.	Sanglos
19.	Gilera	47.	Simpson
20.	Greeves	48.	Suzuki
21.	Harley-Davidson	49.	SWM
22.	Hodaka	50.	Triumph
23.	Honda	51.	Velocette
24.	Husqvarna	52.	WSK
25.	Indian	53.	Yamaha
26.	JAP	54.	Yankee
27.	Jawa	55.	Zundapp

28. KTM

# THIS IS PENTON



#### S.C.O.R.E. Delco Baja International

Ensenada, B. C. Mexico

July 26, 1974

So. California desert ace and I.S.D.T. qualifier star Mark Adent, who rides out of Horizons Unlimited in Woodland Hills teamed with Bobby Messer, a So. California moto-cross hot shoe riding out of Uncle Donny's Flying Machine Factory in Harbor City, California to almost pull off the 250 class win.

While running 14 minutes ahead of the competition until late in the program, Messer got off hard in a rock pile damaging the motorcycle, injuring his thumb and foot, breaking the latter. Bobby picked up the pieces and continued on to

finish 3 minutes behind the 250 class winners Al Baker/Steve Holladay.

The team of Chris Bartlett/Kelly Bartlett finished a creditable 4th 250, while Desert go fast's John Fackler and Terry Nelsen riding out of D & R Cycles in Westminster, California finished 6th 250, after having tire problems while running near the lead.

Jim Halbert and Bill Halbert on their 125 Penton finished fourth in that class.

Undoubtedly some fine rides by these Penton Riders, and again showing the versatility of the Penton motorcycles, in this the first running of the S.C.O.R.E. Delco Baja International. This event replaces the now defunct "Baja 500."

It also marks the first major off road event to be won by a two wheeler since "1968" in which Larry Berquist and Gary Preston won the "Baja 1000" on a 350 Honda.

You readers might also keep an eye in the result sections for a super district 37 open expert rider soon to switch to the new Penton 400. We're betting he'll be the man to beat. Watch for him.

Ву

Dave Duarte

#### FROM THE LUMP

Hi-Point Accessories are going to add a whole new line of clothing for racing and casual wear. One of the new items will be a new bright yellow wet look jacket. Several new jerseys will be available along with a new T shirt available in blue, red, and yellow. These new items will be available from your Dealer in about 9 weeks.

The response for the new plated M-X and En-

duro boot has overwhelmed us. Boots are arriving every 10 days and we are struggling to keep these in supply. If you have boots on backorder, don't despair, as we ship to your Dealer as soon as possible. If your favorite Dealer does not stock HipPoint boots, tell him to.

For all of you riders who have Hi-Point boots without plates, you can tell your Dealer to order a set, complete with rivets, and you will have your boots looking like new.

Koni shocks are now available for Penton with and without cantilever frames and for Husqvarna. We will have Koni shocks soon for CZ and Maico.

We now have in stock, new M-X gloves featuring high impact padding instead of the rubber strips.

For you riders who have a hard time with **shift** levers, we now have folding shift levers for **Sachs**, KTM and a folding universal lever that will weld **to** any mild steel lever. This will help you keep from breaking levers.

At the Lockhart Six-Hour Marathon held July 7, 1974, the Euless Cycle Center sponsored team of Gayle Bradley and Charlie Pelton ran a total of 35 laps (in excess of 200 miles) for a 1st Overall finish in the 250cc class, three laps (35 minutes) ahead of the second place team.

By Hester Bennett Fort Worth, Tex.

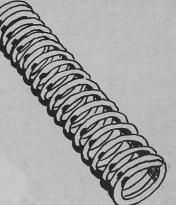
# NEW HI-POINT CHROME SILICON SHOCK SPRINGS

Now available from your Penton Hi-Point Dealers are the new Hi-Point Chrome Silicon shock springs.

Specially made by Hi-Point to match any shock position or load requirement you may need.

Check with your dealer for the proper weight springs for your needs.

Available in the following weights: 65 lb. (white) - 80 lb. (grey) - 95 lb. (blue) - 110 lb. (red) - 125 lb. (silver) - 140 lb. (black).



## 2 BRAND NEW HI-POINT LUBRICANTS

## HI-POINT AIR-FILTER FLUID

Formulated specifically for the new foam air filters used in most new competition machines. Hi-Point air-filter fluid is a special blend of light weight oils with special tacky type agents to trap particles.

Comes in 8 oz. plastic squeeze bottles.



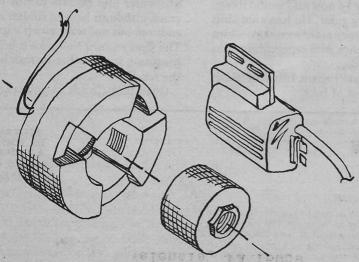
## HI-POINT SILICONE SHOCK FLUID

Specially developed by Hi-Point for shock absorbers used in competition. This new Silicone will maintain constant viscosity under the highest temperature extremes. Special Hi-Lubricity additives also keep the shock working smoothly and flawlessly.

8 fl. oz. bottles.



## INTERNAL "RACING" MOTOPLATS FOR PENTON



Your Penton dealer now has the internal racing Motoplat for all the Penton Cycles. Many riders are now using the internal on Hi-Speed Moto-Cross and Scrambles tracks with very good results. The internal rotor allows for faster acceleration and quicker revving. Easy to install with no alterations. Does not have lighting coil. Also available for Husky's, Bul's, CZ's, etc.

## Donnie Westfall



No one ever told Donnie Westfall of Amarillo, Texas, that eight year old boys just don't ride their father's 175cc motorcycle. After his parents decided that it would be better for him to start on something a little smaller, he got a 50cc Benelli. The only problem with this was that his feet couldn't touch the ground.

Donnie's 1st race was at Canadian River in a mini bike motocross. After receiving first place in front of the other nine riders, Donnie's only thought from then on was motorcycle racing. He soon outgrew the mini bike class and entered the mini-man class, which is for boys thirteen and under on 100cc and 125cc bikes.

One day when his Hodoka wasn't running, he rode a friend's Penton 125cc and discovered the handling quality in the bike. Soon after, Donnie got a 100cc Penton and rode it every weekend without any problems.

Donnie is riding for the Doran Britico Co. which is a relatively young racing team, out of Amarillo. Here are some of Donnie's impressive victories: 1st in the 100cc class at Texas vs New Mexico, 1st at Clovis, N. M., High point man at Bovina, and Amarillo Speed Bowl.

In order to keep his physique in the best of condition, he rides a unicycle around the town.

Donnie is 14 now and would like to be a factory rider. He has said that being a factory rider would give him the experience and recognition that a rider needs.

We here at "Penton Imports" wish him the best of luck!

## **Chuck Cooper**



CHUCK COOPER of Stillwater, Oklahoma, became interested in Pentons when he met J. R. Horne from our Central Office. J. R.'s enthusiasm for Pentons impressed him so much that he talked his father into bringing in the Penton line for his shop "Cooper's Cycle Center".

Chuck started riding when he was ten but didn't start competition riding until he was fifteen. In that time he has ridden Honda, Kawasaki, and Bultaco, although he has ridden the other bikes, he likes the handling and reliability of Penton the best.

He enjoys working as a mechanic rather than working in sales. Chuck has owned two 125cc and one 250cc Pentons, which he praised highly.

In order to keep himself in the best of condition, he jogs, jumps rope, rides a bicycle and a unicycle.

He rides for his father's shop in Stillwater and prefers to ride motocross although he has ridden a few enduros but not with much suggest. The first enduro he broke a bone in his hand, in the other he finished in the top 25.

Good luck Chuck in your racing.



#### PENTON IMPORTS

3709 West Erie Avenue Lorain, Ohio 44053

BULK RATE
U.S. POSTAGE
4.8¢ PAID
Lorain, O. 44055
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Valencia, PA 16059 Paul Joseph Danik