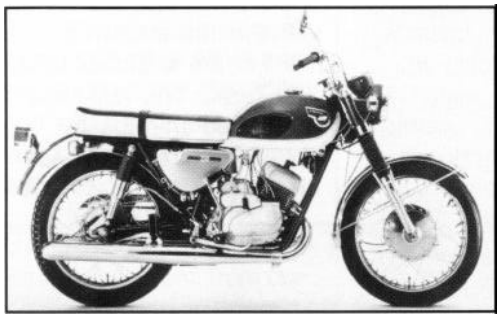
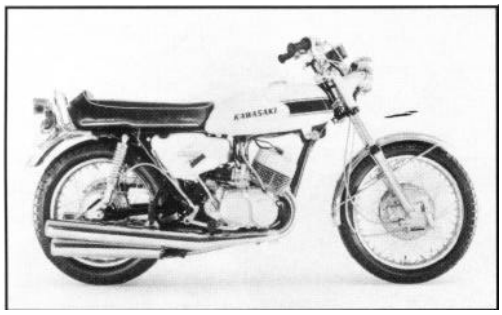
K-TECH NEWS

Fall 1991 The Kawasaki Technical Magazine Vol. 4 No. 3

25 Years of Good Times!





The 750 H-2 triple (TOP) was the culmination of a line of high-performance two-strokes which began with bikes like the Samurai (CENTER) and H-1.

by Patrick Kelly
Instructional Designer/ Instructor

1991 marks 25 years Kawasaki has been selling motorcycles in the United States, 25 years of Good Times! Over this time span Kawasaki has produced many different motorcycles with which people have had those good times.

Three for two

In 1969 the first of many milestone bikes was introduced, the Kawasaki H-l 500cc two-stroke triple. Known as "the rocket with a sprocket" by enthusiasts of the day, the H-l, producing at the time a phenomenal 60 hp and weighing just 383 lbs, set new levels of performance standards for production motorcycles. The H-i was soon joined by other Kawasaki triples such as the S-l 250, the S-2 350, the S-3 400 and the famous H-2 750. These bikes, as well as previous Kawasaki two-strokes such as the Samurai and Avenger twins, helped establish Kawasaki's early reputation as a manufacturer of performance-oriented machines.

Even though two-stroke motorcycles started Kawasaki's performance image, it was a four-stroke that firmly established Kawasaki as "the" performance leader. The year was 1972, when Kawasaki introduced what many people consider to be one ➤

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Inside!
■ *Service tips & more!*

Photos top to bottom: Z-1 900; KZ900 LTD; KZ650; and KZ1000-D (aka Z-1R). At right: The awesome KZ1000R Eddie Lawson replica.

25 Years . . .

CONTINUED ***FROM PAGE*** *1*

of the most famous motorcycles of all time, the legendary 1973 Z-1 900. The Z-1, which produced an incredible 82 hp and featured dual overhead camshafts, was unquestionably the most powerful and sophisticated motorcycle of its time. The Z-1's performance leadership was neither questioned nor challenged for many years.

The four-strokes

The Z-1 was just the beginning of a long line of acclaimed four-stroke street machines. The year 1974 marked the introduction of the economical and affordable KZ400 twin, which came along just in time for the gas crunch of the early '70s. The original 900 was joined by the KZ900 LTD in 1976 which, with its mag wheels, pull-back handlebars and custom seat, started the trend towards cruiser motorcycles. In 1977 came the powerful KZ2650 four, which set numerous speed endurance records upon its introduction and established the performance standards for 750s of the day. The KZ1000-D or Z-1R was introduced in 1978, and was one of the first factory sport bikes. The Z-1 R, boasting such items as low handlebars, quarter fairing and tuned four-into-one exhaust, was the first production motorcycle to enter the 11 -second quarter mile bracket. The KZ1000-G Z-1 Classic came along in 1980 featuring electronic fuel injection, another production first.

By the time Kawasaki entered the '80s, our street motorcycle line had evolved into many segments, from the unique custom LTDs, CSRs and Spectres, to the famous sport machines, such as the outstanding GPz lineup, and the now collectable KZ1000R Eddie Lawson replica. This era of incredible air-cooled street bikes culminated with the introduction in 1984 of the ferocious GPz 750 Turbo. The 750 turbo generated an unbelievable 112hp and was capable of sprinting through the

quarter mile in the 10 second bracket. It was, in almost all respects, the ultimate turbocharged motorcycle.

Enter the Ninja®

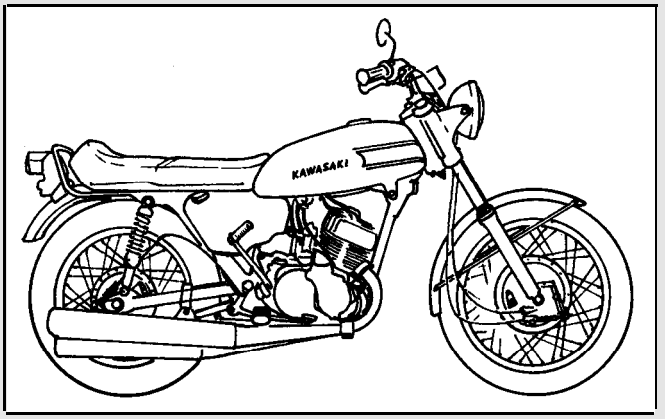
In 1984, as one era was ending, a new era in Kawasaki motorcycle history was about to begin. Kawasaki introduced the Ninja®. The original Ninja displaced 908cc, almost the same as the original Z-i, but this time the horsepower was an incredible 110, thanks to new technology like liquid cooling and four valves per cylinder. The Ninja, like the Z-1 and other Kawasakis before it, set new standards for motorcycle performance. The Ninja also marked the debut of a long line of dependable, four-valve liquid-cooled motorcycles. The original Ninja was followed in 1985 by the Ninja 600, perhaps the most famous middleweight sportbike of all time. The legendary prowess of these and other Ninja models, such as the 750, 250, and 1000, soon made the word Ninja synonymous with performance.

Today there are many outstanding Kawasaki models to chose from, from our sophisticated Vulcan™ V-twins and high tech ZX sport bikes, to our traditional air-cooled Zephyr™ models. And as diverse as these models are they all have one thing in common, a heritage rich in Kawasaki tradition and history. And what about the Kawasakis of tomorrow? Only time will tell, but rest assured that they too will be what motorcycling "legends" are made of. q

TECHNICALITIES

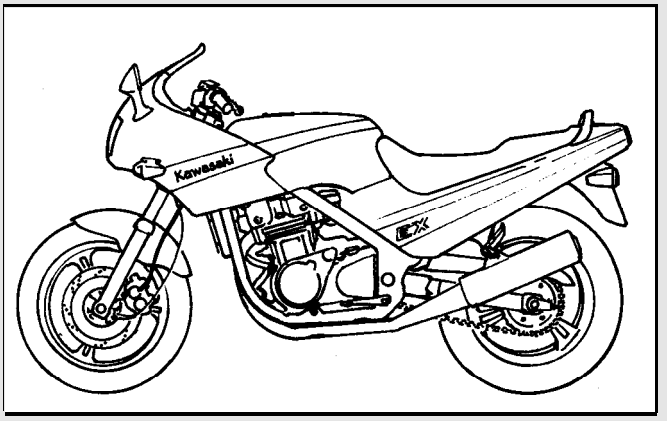
500 vs. 500—Now and Then

Twenty-two years ago Kawasaki produced their first true "superbike", the 500cc MACH-III, also known as the H-l. Today, although "superbikes" have grown considerably, Kawasaki still manufactures a 500cc steed, known as the EX500. So for fun, let's compare the H-l and EX500 to see what's changed in 22 years. There might just be some surprises.



The MACH-III could be purchased in 1969 for a mere $995. Walking out the door with a shiny new EX500 today requires $3529. The MACH lll is a three-cylinder, two-stroke machine. The EX500 is a two-cylinder four-stroke machine. The MACH-III is air cooled. The EX500 is liquid cooled. The MACH-III features a 19" front tire and a 18" rear; the EX500 features 16" tires at each end. As we can see, things have changed quite a bit.

Surprisingly, the two bikes do have a few things in common. The MACH-III weighed 383 lbs dry, while the EX is just 10 lbs lighter at 373 lbs dry. Both machines displace exactly 498cc. Both machines produce 60 hp, although the MACH-III produces that 60 hp at a relatively low 7500 rpm while the EX doesn't reach its horsepower peak until 9800 rpm. The MACH-III produces a peak torque of 42.3 ft-lbs @ 7000 rpm, while the EX produces a peak torque of 34 ft-lbs @ 8500 rpm.



The H-l had more torque than the EX500 at a lower RPM besides! Why then is the EX500 often referred to as "torquey" when no one in their right mind would ever have accused the H-l of that? The difference is the extremely broad power band produced by our modern four-valve, four-stroke engines.

The two bikes are very similar when it comes to straight-line performance. Magazine tests from the period show that the H-l sprinted through the quarter mile around 12.80 seconds, give or take a tenth. Contemporary tests show that the EX does the quarter in about 12.70 seconds. The difference is that most people can come much closer to those 1/4-mile times on an EX500. The average street rider would have a wild time at the drags trying to match those performance figures on an H-l 500.

Of course modern suspension, tire, brake, and frame technology would allow the EX to run away from the H-l when the road gets twisty. And, of course, 22 years of technological advances means the EX is far superior when comparing such items as rider comfort, reliability, fuel mileage, exhaust emissions, and noise levels. But as much as things have changed, one basic thing will always be the same; both motorcycles are legendary performers from Kawasaki!

- Pa trick Kelly

K-TECH NEWS

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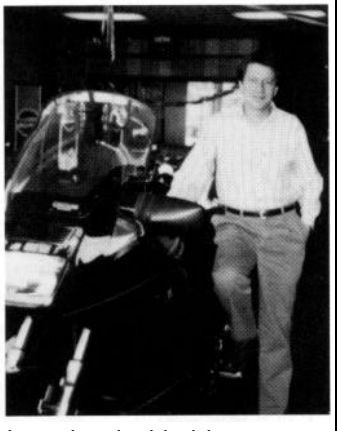
Planning for success means persistance

by Walter Rainwater
Technical Services Instructor

In my "South & Central Regions" column in the Summer issue of *K-Tech News,* I wrote about one new dealer's aggressive plan for success (see *Vol. 4, No. 2, pg. 12 -Ed.).*

This month, I'd like to take a little more space and share with you another plan for success, this one developed before and after the buy-out of an existing dealer.

Richard Shoe is a motorcycle enthusiast. After some time spent working for others in large corporations, he decided he wanted a business of his own. A motorcycle dealership was his preference.



After a lot of looking around, he found just the store-High's Kawasaki/Honda in Roanoke Rapids, North Carolina. Shoe did a lot of homework and came to believe there was a lot of opportunity in this store which had annual gross sales of around $350,000.

In 1990, Shoe bought the place and has since worked wonders with a plan that is hardly new. Nonetheless, his fresh outlook and a positive attitude were key ingredients in making it work.

That's the first ingredient in any recipe for business success: a mix of enthusiasm and desire.

The first item on Shoe's agenda was to give the store a clean, new look. He painted it, repaired all the light fixtures and installed a new air conditioning system.

The second part of the game plan was advertising. According to Shoe, the previous owner believed the store didn't need to advertise "because we've been in the same location since 1971 and everyone knows where we are."

Shoe felt otherwise and launched a significant campaign with a local radio station. Using very little capital up front (and making good use of the co-op credit from Kawasaki), he now spends $600 to $700 a month with the station. And he sees a significant increase in floor traffic whenever his ads are running. . .

The third part of his success plan was to increase stock inventory levels. Shoe learned early that to sell a product, you must have it in stock. A generation raised on McDonald's drive-throughs and ATM "instant teller" banking wants their parts and accessories *now.*

With help from district manager Phil Crichton, Shoe's Kawasaki of Roanoke Rapids has become a five-star Kawasaki dealer, selling and servicing all the product that Kawasaki manufactures. Sales are up dramatically in all departments and Shoe credits simply having the product in stock for a lot of it.

A fourth item in the plan for success is to take good care of the customers. Shoe greets customers as they enter the store, and treats them with respect and friendliness. He makes it clear to all his employees that the old saying, "The customer is always right!" applies in his store.

There is nothing unusual about this plan for success except Shoe's commitment. This plan can work for any business. For Richard Shoe, it is working particularly well: During the first six months of 1991, Richard's gross sales were almost double the previous *full year* total. In August alone, gross sales were up 367 *percent* from a year ago!

Shoe's success is an excellent example of what can happen when customers are treated well and have a satisfying shopping experience. This plan can work for you. □

VIDEO

Auto-video!

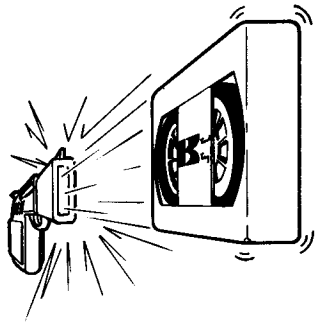
Now you can get the latest information direct from the manufacturer!

The Technical Training Video Club, which we introduced a few years ago, is currently providing nearly 30 percent of our dealer network on a regular basis with the latest video programs developed.

Through the Club, you will be sent a maximum of four new training videos per year, each one offered at a reduced rate of $25. As an added bonus, you can also purchase the videos used in our Technical Training classes at the reduced price of $25 each (normally $35.95). That's a 30 percent savings!

Some of the more popular titles are: "Introduction to ZX-6 Engine Service," "Portable Generator Service," "Introduction to the ZX-7/ZX-7R," "Introduction to the JET SKI@ SC," "Watercraft Cooling and Bilge Systems," and 'Watercraft Hull Repair."

For more information, refer to Service Bulletin TR91-01, or call the Kawasaki Service Training and Communications Department, (714) 770-0400, ext.2472.
- Pat Shibata



JET SKI® Watercraft Maintenance and Storage video

by Ray St. John
Supervisor, Technical Writing

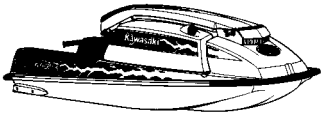
Imagine a video tape that explains what preventative maintenance a new JET SKI@ watercraft needs to keep it in tip-top condition for years of letting the good times splash.

Imagine it tells what to do to store a craft over the winter to prevent it from looking like rusting junk by the time spring rolls around.

Imagine that this tape would show what emergency measures to take when a plastic bag gets sucked into a jet pump; or even what to do if (Heaven Forbid!) someone's shiny new toy should get submerged.

Imagine that you can train your staff with this tape, or use it for a customer-oriented maintenance and storage clinic.

Well, you don't need to imagine it any longer. You can have it for your very own! The tape is called "JET SKI® Watercraft Maintenance and Storage," and it's scheduled for immediate availability through Kawasaki's Service Training and Communications Department. Dial (714) 770-0400, ext. 2472, to order as many copies as you like). We'll charge your parts account $9.95 for each tape (plus shipping/handling and applicable sales tax) and send them off to you (actually we'll send them first and then bill you). The video has a suggested retail price of $19.95—not bad for a 24-minute video packed with time- and money-saving tips. □



TECHNICALITIES

Training your customers can pay dividends!

Let's do some more imagining. What's the quickest way to a dissatisfied customer? Probably having his boat break down when he's finally getting to enjoy the free time he's worked so hard for.

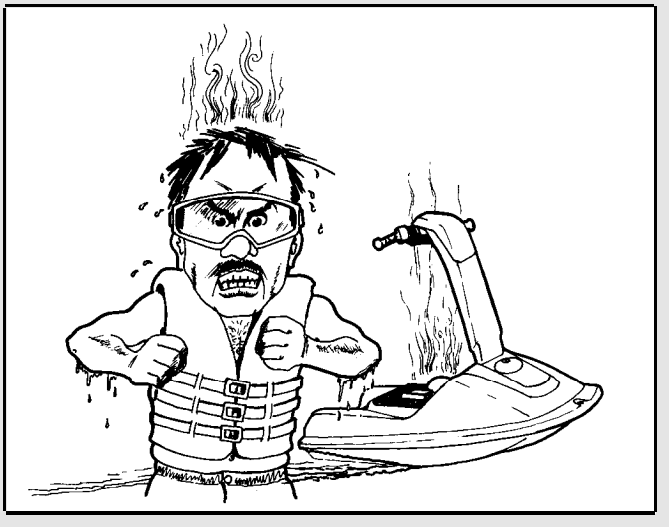
And what's the most likely reason for his boat to let him down? You *know* it's poor maintenance!

Now imagine your dealership putting on an informal evening get-together to talk about watercraft maintenance and storage, to show the new "Maintenance and Storage" video, to answer questions, to show off your new '92 watercraft and accessories, and just generally to have a good time with your customers. Imagine serving coffee and donuts.

Now that you've imagined all this, you can imagine the results: Your customers will know how to take better care of their boats. They'll be happier about owning a Kawasaki and about buying it from you. They'll know you and your store better. They'll be up to date on your new products and services. They'll be more enthusiastic about owning a personal watercraft.

It doesn't take any imagination to know that's good for your store!

So order the new "JET SKI@ Watercraft Maintenance and Storage" video tape. Sell copies to your customers, or use it to help you host a fun and informative evening.
- Ray St. John



Look for damage in shift drum grooves

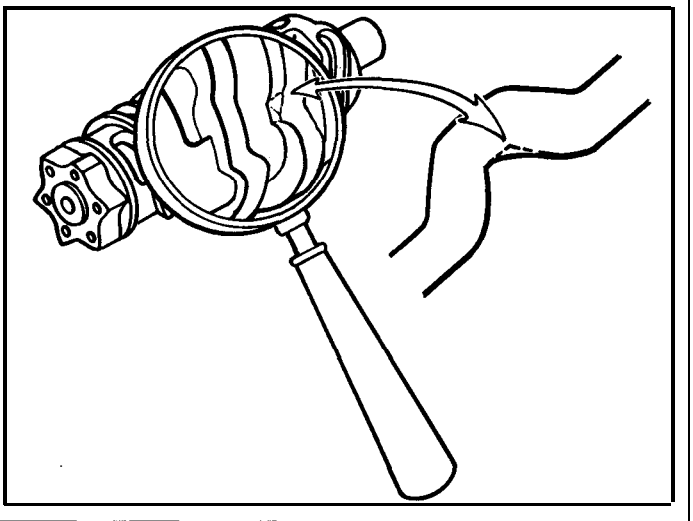
by Tevis Moffett
Product Support Specialist

When repairing a transmission for a "jumping-out-of-gear" problem, the typical damage you can expect to find is bent or burned shift forks and rounded engagement dogs. Most technicians know to look for this kind of damage and how to recognize it.

But something you might miss if you're not looking for it is damage or abnormal wear in the shift drum grooves. When the transmission jumps out of gear, the shift fork must rotate the shift drum backwards, creating tremendous pressure on the side of the groove. This can result in wear and chipping at the corner of the shift ramp for that gear.

The top of each ramp should be flat with a fairly abrupt angle as it drops down each side. A damaged ramp will be rounded at the top edge (or corner)

To inspect a drum for this kind of damage, clean all the oil off it and look at it carefully under a good light. □



SERVICE TIP

Think "exclusive," think "profit"

As you already know, Kawasaki sells a full line of high-quality Kawasaki brand oils. But you may not know that as of this printing, we have the marine engine oil and the four-cycle (20W-50) available in 55-gallon drums for your service department at very competitive prices.

By purchasing oil in drums, you can increase your profits on oil sold through your service department by more than 50 percent!

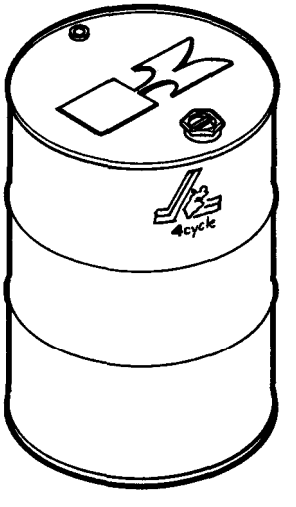
And, using Kawasaki brand oils in your service department will encourage customers to buy Kawasaki brand oils and other chemicals from your accessories department instead of going in search of bargains at the local discount auto parts store.

All Kawasaki brand oils are formulated specifically for motorcycle, ATV and personal watercraft applications-they are different from automotive and general-purpose products. A good example is our 20W-50 four-stroke oil which is formulated to work better and last longer in our transmissions and wet clutches.

Shear loads created by transmission gears and clutch plates break down the polymers in multigrade oils. Automotive engine oils are not formulated to withstand these loads since, in autos, the engine and transmission are separate components.

In the near future, the Kawasaki Accessories Department plans to increase the number of different oils available in drums. And, to make it easy for you to get the drums in your shop, Kawasaki pays the freight! So start now getting your customers "hooked" on Kawasaki brand oils by ordering it in 55-gallon drums for your shop.

- Gregg Thompson



NUMBERS

VIN help sources

My article on page 11 explains Kawasaki's 17-character Vehicle Identification Number system. Here are some handy support materials which will help you identify any Kawasaki vehicle rolled (or otherwise transported) into your dealership.

The **Motorcycle and ATV Chronology Service Bulletins** show the lineage and provide a brief description of all vehicles produced by Kawasaki since 1965.

The **Parts Catalog Microfiche** provide VIN and engine number ranges, colors, and publication part numbers.

The **Motorcycle Identifier Microfiche** provides VIN and engine number ranges for all Kawasaki motorcycles and ATVs produced since 1965.

Model Recognition Manuals, meanwhile, provide photos, VIN and engine number ranges, colors, publication part numbers, some vital specs, and descriptive remarks. Here are some valuable part numbers:

Model Recognition Manuals	
99930-1001-02	'63-'78 models
99930-1002-01	'79-'81 models
99930-1003-01	'82-'85 models
99930-1004-01	'86-'88 models
99930-1005-01	'89-'91 models

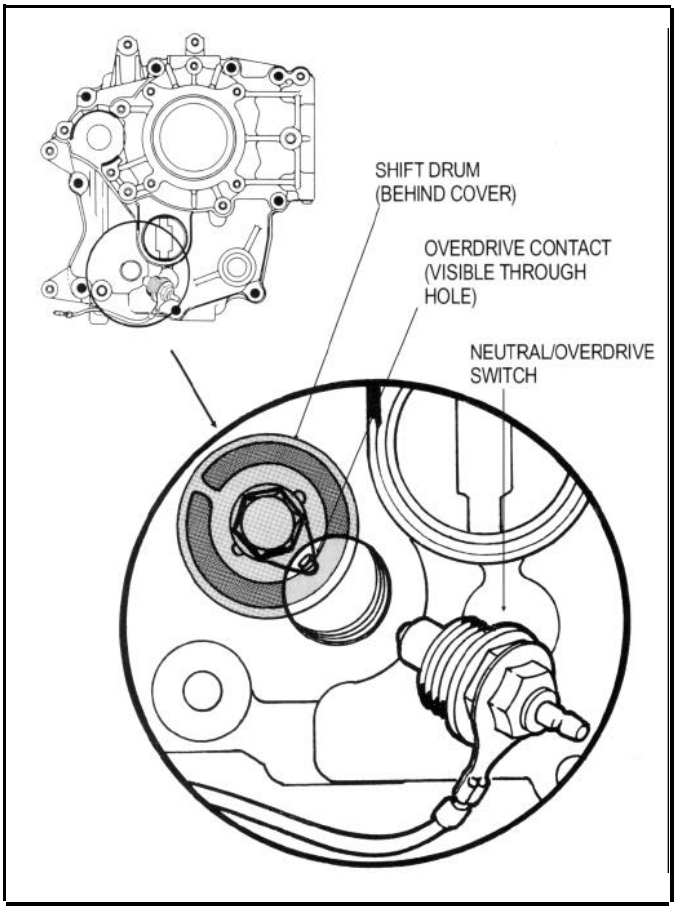
- Dave Corey

Voyager XII cruise control tip

Brian Paternoster, Service Manager at Long Island Kawasaki, told us about a strange Voyager XII Cruise Control problem. The customer complained that his Cruise Control would suddenly cancel when he hit an abrupt bump or chuck role in the road. Brian noticed that when he rode he bike over a chuck hole ı high gear, the overdrive light would flicker. The overdrive light switch is one of the Cruise Control cancel switches so Brian checked it out.

It turned out the wiper ground contact) on the end of the shift drum for the overdrive switch was just barely touching the witch in high gear. A jolt to the bike would cause the wiper to bounce and cancel the Cruise Control. All the dealer did was bend the wiper down very slightly so it would make better contact with the switch.

To do this, you must put the transmission into high gear and remove the neutral/overdrive switch assembly from the bevel gear case. Looking through the switch hole, you will see the wiper on the end of the shift drum. Use a small screwdriver and bend the wiper down slightly. Shift the transmission out of high gear before installing the switch assembly to avoid damaging the wiper. Thanks for the tip, Brian! □



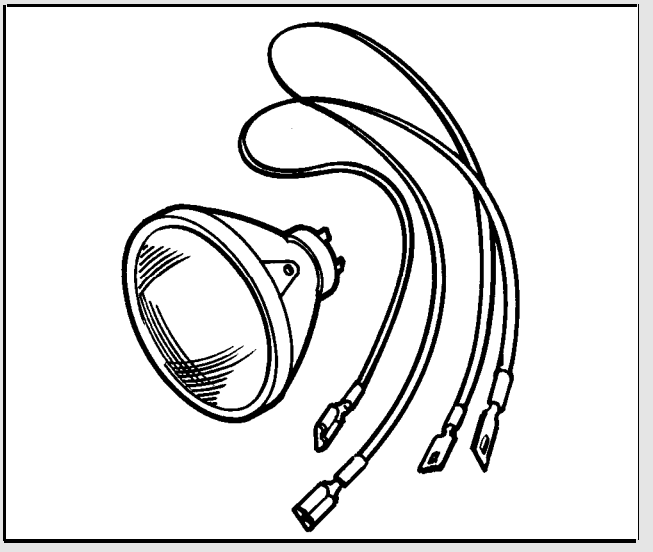
SERVICE TIP CONTEST WINNER!

Wiring short "short-cutter"

Martin Blaise, head wrench at Mid-Cities Kawasaki in Paramount, Calif., has come up with a good idea to help track down elusive wiring shorts. He made a special tool with a couple of wires and an old 12V headlight which replaces the main fuse while he looks for the short. The headlight allows him to turn the ignition switch on without blowing the fuse or burning up any wires, and it gives him a very clear visible indication when he has found the short. With the light plugged into the main fuse holder, any dead short in the system will cause the light to shine brightly. Brian then goes around the bike disconnecting components and systems one at a time until he finds the one that dims the light. Now you know the short is in that component or system.

Make your own "short-cut" special tool using any old 12V headlight and wire leads as shown here.

Attach one of the leads to the ground terminal on the light and the other lead to either the high or low beam terminal. If you have some other jumper leads in your tool box (see *the "Test Leads" article on page 7 of the Fall 1990* issue *of* K-Tech News *-Ed.),* they can help you hook up this tool in other places besides the main fuse holder. o



Our thanks to Martin Blaise for telling us about his great special tool. A check for $50 is on its way to him for providing this issue's winning service tip.

Now it's your turn to share a hot tip or tool idea with other K-Tech New! *readers. It's easy: Jot down your idea in a sentence or two on a post card, add your name and daytime phone number, and mail the card to Editor,* K-Tech News, *Technical Services Dept., Kawasaki Motors Corp., U.S.A., 9950 Jeronimo, Irvine, CA 92718.*

Voyager XII final drive seal replacement

by Keith Pestotnik
Rocky Mountain Kawasaki

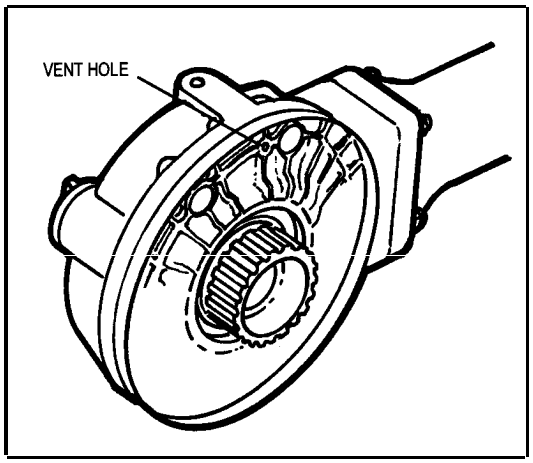
To remove the final drive ring gear seal in a Voyager XII, the service manual tells you to remove the final drive assembly, then remove the ring gear assembly and boil it in oil before "prying" the seal out.

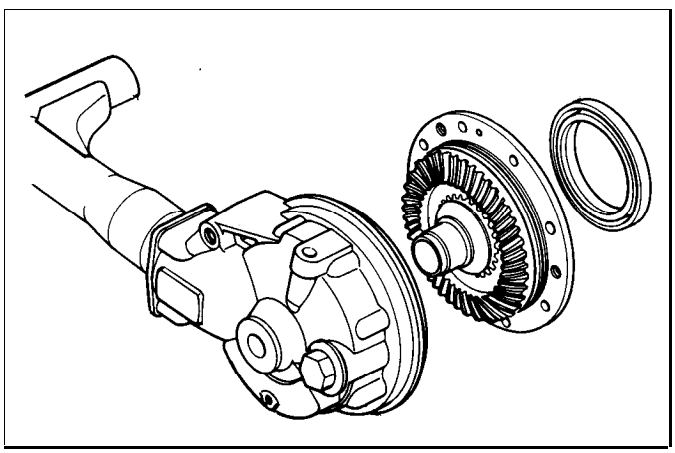
But if you find it necessary to replace this seal on a customer's vehicle, give the following procedure a try. You can save yourself some disassembly work.

With the bike on the centerstand and securely strapped to your lift, remove the rear wheel. Leave the final gear case bolted to the swingarm. Carefully drill into the seal with a very small bit. Use *extreme caution* and a drill stop collar to just puncture the seal surface and its steel body. The ring gear ball bearing is directly behind the seal, so you must *be careful with the drill!*

Now thread a screw-tipped slide hammer into the seal and pull the seal out. Once again, do not touch the bearing.

Clean and inspect the seal lip surface on the ring gear hub. Wrap the stepped area of the gear hub with one layer of fresh electrical tape, tapering the tape end outward where you can grab it later. Oil the taped surface and the new seal lips. This will act as a seal lip protector and ease installation. Coat the OD of the seal with a liquid gasket sealant. While it is still wet, take a deep breath and press it home squarely with your fingers.





Inspect very closely to confirm proper seating. Remove the tape. □

EDITOR'S NOTE: Before you replace one of these seals to solve a final drive oil leak, make sure that it really is where the oil is coming from.

The most common source of oil leaking from the final gear case onto the rear wheel is the vent hole in the ring gear cover. f the vehicle is ridden in temperatures below 50° F at highway speeds, it can pump some oil out of this dent. (This oil will run down and collect around the ring gear seal, creating the appearance of a leaking seal.)

Some aftermarket oils can foam excessively and aggravate the situation, so we recommend you stick to Kawasaki brand final gear oil or a plain EP 80 gear oil.

If you have a customer who rides his Voyager XII in cold weather a lot and has trouble with oil leaking from this vent, call the Hot Line; we can help.

SERVICE TIP

VN1500 water pump seal R&R

Any time one of our liquid-cooled street bikes is brought to you with oil leaking from the water pump drain hole, the most likely cause is the oil seal on the pump shaft. Depending on which model it is, the seal can either be in the pump housing or the crankcases.

In the VN1500, the seal is located in the crankcases. The service manual implies that you must split the cases in order to remove it. The good news is that you can actually remove the pump shaft, bearings, and seal just by removing the water pump and front cylinder. The back side of the pump shaft is accessible through the cylinder hole.

This still requires engine R&R but, by not splitting the cases, you can save a big chunk of time.

- Dave Behlings

AUDIO

"I am the Voyager XXII!"

"I am the Voyager XII" is an "audio tour" of the big touring motorcycle's major sales features. Designed to be used while a prospect sits on the bike, it was produced by Talking Owner's Manuals™ of Costa Mesa, Calif.

This entertaining cassette uses sound effects and original "Good Times" music to create consumer motivation-it's a great showroom demo ride!

Two copies per pack can be ordered by mail with a check for $12 payable to Talking Owner's Manuals, Voyager XII, 1169 Aviemore Terrace, Costa Mesa, CA 92627.

SERVICE TIP

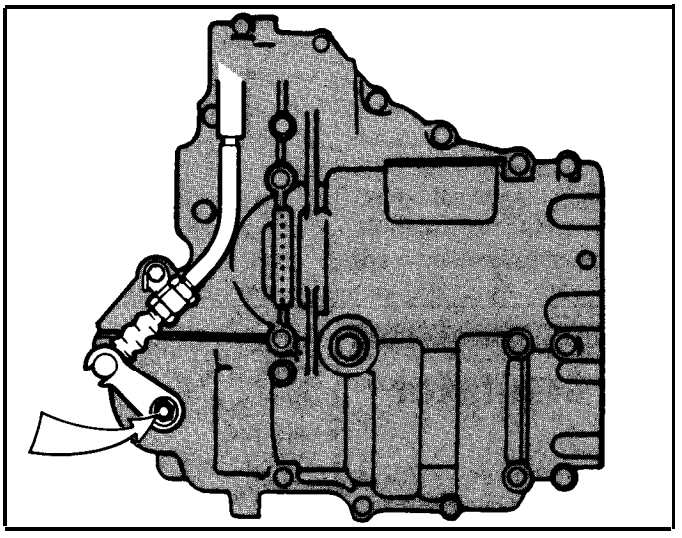
No reverse on KLF300-C

We've had a few calls on the Hot Line from dealers describing an unusual problem on KLF300-C Bayou™ 4x4 models. The customer has brought the vehicle to the dealer complaining that his reverse release doesn't work; it won't shift into reverse. What the dealer finds is that the reverse release lever down on the sub-transmission has fallen off. On closer inspection, it turns out the mounting bolt had loosened and backed out a few millimeters. The bolt was then struck and broken off by the front drive shaft universal joint.

Of course any failure, no matter how minor, is bound to result in a customer who is less than pleased. And to replace that little bolt you'll at least have to remove the front driveshaft.

So, to avoid this problem, we recommend you check the tightness of this bolt during pre-delivery inspection and every time a customer brings his vehicle in for service.

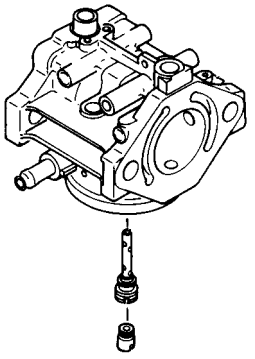
- John Porno



High altitude MULE™ jets

The parts microfiche for the MULE™ 2010 and 2020 show only the standard #122.5 main jet; there are no optional jets listed. However, for those of you in higher altitudes seeking leaner jetting, we have a couple of numbers that will help. For most situations, P/N 92063-141 (a #115 main jet) will do the job. A smaller #112.5 main jet is also available under P/N 92063-2010.

- Gregg Thompson



TCBI igniter test

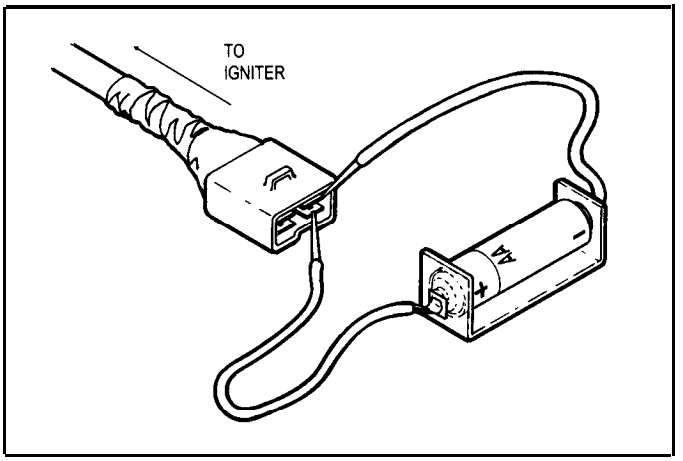
by Jerry Heil
Training Development Coordinator

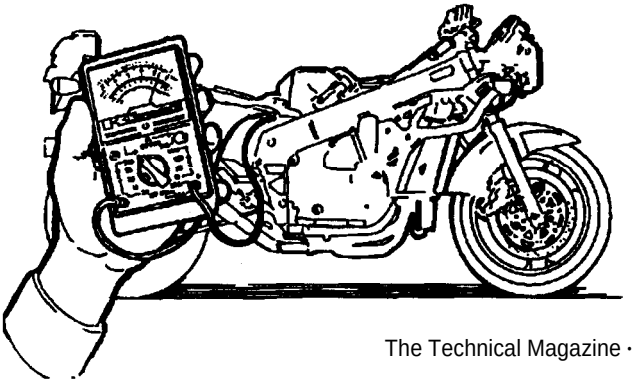
In the never-ending search to find quick, easy troubleshooting tips for Kawasaki electrical systems, your *-Tech News* staff has come up with a sure-fire way to test TCBI igniters. You will need one dry cell 1.5-volt battery (any size AAA through D will work), or use your multi-meter set to the Ohms X 1 scale (check the meter's voltage to be sure it does not exceed 4 volts). Attach a wire to each end of the battery and your tester is complete.

For each coil, remove one spark plug from the engine. Push the plugs back into the caps and ground the plugs to the engine. Unplug only the pulse coil connector at or before the igniter. Turn on the ignition switch and briefly connect and disconnect the pair of wires from the battery to one of the pairs of pulse coil pins *on the igniter.* If the lug does not fire, reverse the wires from the battery and try again.

The battery voltage acts as a substitute pulse coil signal. The igniter and coil are probably OK and the pulse oil at fault if the plug sparks when you perform this test. 'rushing the wires across the pins should yield a nearly continuous spark.

This test works on non-digital TCBI igniters installed on Kawasaki street bikes from 1979, and on these current models: EX500, EN500, ZX600-C, VN750, ZG1000, KZ1000-P. and ZG1200. □



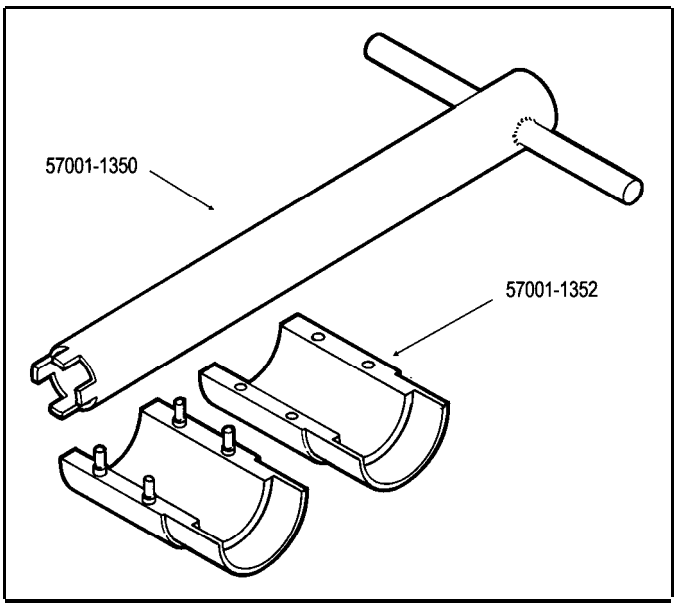


SPECIAL TOOLS

New tools for KX80-T2 forks

In 1992, the "Big Wheel" KX80 has upside-down forks. Well OK, you already know that, but did you know you're going to need some new tools to work on them? The new tools are a fork cylinder holder (P/N 57001-1350) and a seal driver (P/N 57001-1352).

Even though we don't have these tools in stock yet, you should order them now and keep them on back-order so you'll get them as soon as they are available.
- Gregg Thompson



New noise is good noise

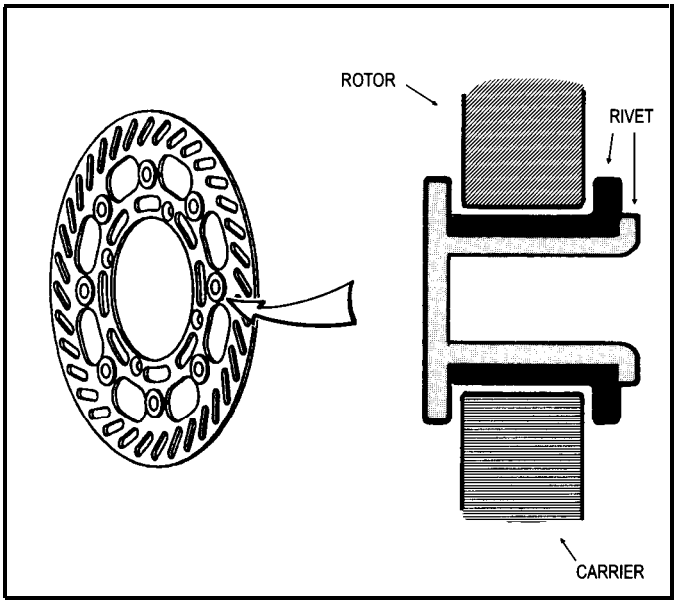
by Gregg Thompson
Sr. Product Support Specialist

The first time you bounce a front wheel from a '92 KX125-J1 or KX250-J1 on the ground, you'll think from the noise it makes that the spokes are loose. At least that's what I thought.

It turned out the spokes were fine, it was the brake rotor that was loose. And, it's *supposed* to be: The rotor is mounted to the carrier with large, loose rivets that allow the rotor lots of axial and radial movement. This clearance allows the rotor to self-align with the caliper when the brake is applied and prevents warpage when it gets hot.

Don't let the loose rotor or the noise it makes bother you because the early reports are that it really works-these rotors are better!

This rotor also fits on last year's full-size KX bikes and the '92 KX500-E4. If you have any customers with these models looking for ways to upgrade their bikes, don't forget to mention this. □

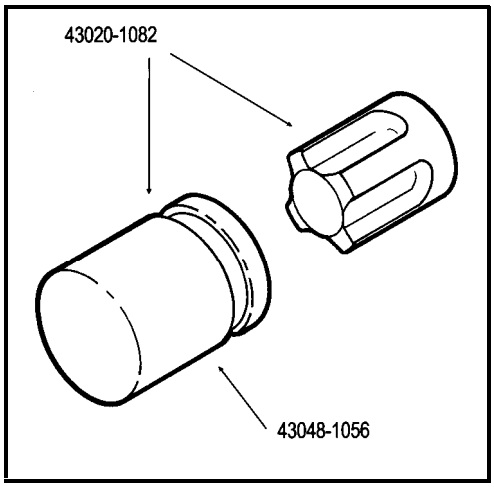


MICROFICHE

KDX200-E3 front brake piston and insulator microfiche confusion

The KDX200-E1/E2/E3 microfiche has a little information missing in the area of the front brake piston and insulator. The 1991 KDX200-E3 has a change which is not shown on the fiche.

The correct part number for the KDX200-E3 piston (P/N 43048-1056) is listed but the insulator is not shown. The insulator for the KDX200-E1/E2 (called "pad-brake" on the fiche) is shown and the part number (43050-1051) is listed as fitting all three years, but the insulator for the "E3" is different. As it is now, to get the insulator for the KDX200-E3, you must order P/N 43020-1082 which is both the piston and the insulator together. (We hope soon to make the insulator available separately.)
- Gregg Thompson



TRAINING

Fall MULE™ class kick-off

Last spring, 46 technicians at Kawasaki training centers around the country got to pump up their expertise in MULE™ service and repair.

Now that there are five MULEs in Kawasaki's lineup, dealers asked us to develop "MULE Tech Week" so their technicians could take all the MULE service classes in one trip to the training center. The result was a great success.

MULE Tech Week kicks off with MULE Dealer Orientation, a management-oriented class focusing on product features and bene-. fits and showing how to do business with Kawasaki.

In the second class of MULE Tech Week (days two and three), technicians practice removing, servicing, and installing MULE 1000 and 2000 engines and transmissions.

The emphasis on hands-on work continues into day four with a MULE 500 Service class. Here, students get to overhaul engines and transmissions on this new exciting product.

All three classes offer plenty of opportunities to ask questions and perform actual repairs on Kawasaki MULEs. This reduces repair times and increases customer satisfaction with your shop's service.

Looking for a way to get your service department into shape for MULE service? Watch your mail for the next Training Schedule Bulletin. - *Jerry Heil*

17 characters worth knowing

by Dave Corey
Technical Writer

Don't throw your Captain Midnight decoder rings away just yet, we're about to unravel Kawasaki's 17-character Vehicle Identification Numbers (VINs). A great deal of information is available to those who know how to read this code.

In 1980, at the direction of the National Highway Traffic Safety Administration (NHTSA), all manufacturers of street-legal motor vehicles sold in the U.S. began using a 17-character Vehicle Identification Number (VIN). This system reduces the number of errors made in recording the VIN. It also makes it easer to collect accurate information on the types of vehicles involved in accidents. Kawasaki uses the 17-character VIN on all the wheeled vehicles it manufactures.

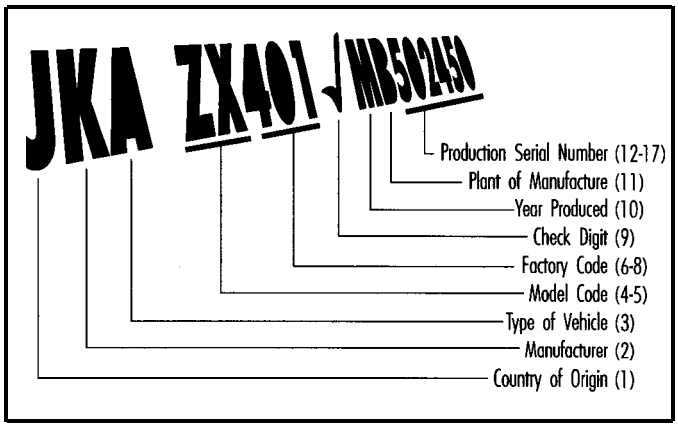
The 17-character VIN can be divided into three sections of characters and one "check digit."

1,2,3 - The first three characters identify the country of origin (J=Japan), the manufacturer (K= Kawasaki), and the type of vehicle. Kawasaki's are coded:

A = Motorcycle, ATV
B = Motorcycle, ATV
1 **= Utility vehicle**

4,5 - Characters four and five comprise a "Model Code", indicating engine type, design and use, i.e. inline four-cylinder, water-cooled, four-stroke, Super Sports motorcycle.

6,7,8 - These three characters are the factory internal code for displacement, model variation, and horsepower.



9 - The check digit. This is computed from the other 16 VIN characters and therefore changes from one machine to another. It is used by authorities to check for accurate transcription of the VIN.

10 - The 10th character represents model year:

A = 1980	G = 1986
B = 1981	H = 1987
C = 1982	J = 1988
D = 1983	K = 1989
E= 1984	L = 1990
F = 1985	**M =** 1991

The letters I, O, Q and Z are not used, so they can't be mistaken for numbers.

11 - The 11th character represents the plant of manufacture:

A = Akashi,Japan
B = Lincoln, Nebraska

(Note that the first digit in the **production** sequence also identifies the plant of manufacturer.)

12-17 The final six characters are the production sequence, the first digit revealing the plant of manufacture:

0 = Akashi, Japan
5 = Lincoln, Nebraska

The remaining numbers are assigned sequentially **within** a model. Not all models begin with 000001.

VIN hunting. . .

The VIN will be found in these locations:

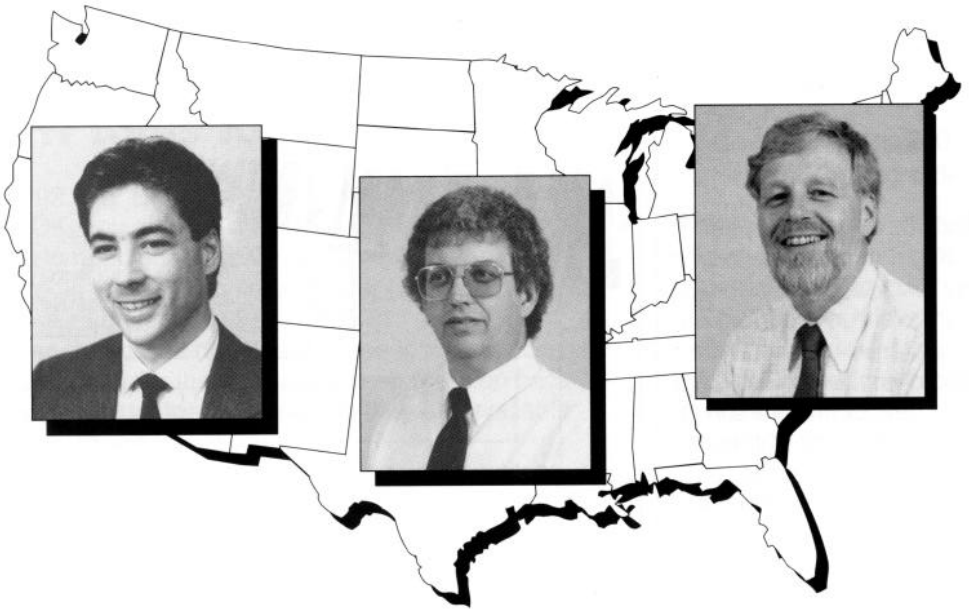
On all **motorcycles** it is stamped on the side of the steering head. On street-legal motorcycles, the VIN also appears on the Safety Certification Label affixed to, or near, the side of the steering head.

On **ATVs** it is stamped on the lower frame tube, to the left of the engine.

On **utility vehicles,** look for a plate welded to the frame at or near the front of the vehicle.

Always use the full 17-character VIN when registering a motorcycle with your state's Department of Motor Vehicles at the time of sale. When submitting a warranty claim to Kawasaki, use the model code and the production serial number (the last six of the 17 characters.)

For additional model identification information, refer to the short "VIN help sources" article which appears on page 6 of this issue of *K-Tech News.* □



WEST

Wow! Where'd summer go?

by Patrick Kelly
9950 Jeronimo Road
Irvine, CA 92718
(714) 770-0400

Wow! That was quick! I can hardly believe that summer is gone and the fall training season is upon us.

Out here in the west, we have been busy with the selling season and preparing for the release of the '92 models. So busy, in fact, that the training season has kind of snuck up on us. But don't worry, we've still got a lot of new things in store for those planning to attend training classes. We've incorporated all of the new-model information into the existing classes, and we have a new Parts Department Operations class in the wings. There'll be some other surprises from the training department, too, so be sure to keep your eyes peeled!

While your eyes are wide open, keep a sharp look out for the latest training class schedule. After you review it, sign up for a few! Meanwhile, I'll be gearing up for classes and looking forward to seeing you again! □

NORTH & EAST

Model designations

by Fred DeHart
201 Circle Drive N., #107
Piscataway, NJ 08854
(201) 469-1221

Having had an opportunity to work on the Hot Line this summer, I found that one of the biggest problems service personnel seem to have is proper model designation identification for each model year.

There are two handy sources for this information: A current Micro-K index of our microfiche lists the correct model designations for all Kawasaki products. Ask your parts manager for a copy and keep it posted by the phone in your service department. Also, a current Retail Price Guide lists model designations for all models produced in the past three years. A copy should be available from your sales department.

When you call and give the Hot Line the wrong model number, it locks the computer screen. Your conversation is delayed until we can determine the correct information. This wastes precious time.

Remember that any model with California emissions equipment has an "L" at the end of the model i.d.

Post one of these model i.d. source lists by your service phone. It will help! □

SOUTH & CENTRAL

Same place, next issue. . .

by Walter Rainwater
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Atlanta, GA 30378
(404) 349-2000

With a new training season just underway, South and Central rep. Walter Rainwater chose to provide K-Tech *News readers with a feature article (see page 4) rather than a round-up of regional information. Walter will be back next time with more regional news.* -Ed.

Training Schedule

East Region

November

19-21 Engines
26-27 Fuel Systems

December

4-6 JET SKI® Watercraft
10-11 Team Green Race Prep.
12 Servicing the MULE 500
13 ATV Service
17 Service Dept. Operations (K-BOSS)
18 Parts Dept. Operations

North Region

November

11-13 JET SKI® Watercraft
14-15 Fuel Systems

Central Region

November

11-13 JET SKI® Watercraft

16 MULE Dealer Orientation
17 Servicing the MULE 500
18-20 Engines

South Region

November

18-20 JET SKI® Watercraft
25-27 ATV Service

December

2 MULE Dealer Orientation
3-4 Servicing the MULE 1000/2000
5 Servicing the MULE 500
9-12 Engines

West Region

November

11-13 JET SKI® Watercraft
25-26 Troubleshooting Electrical System!
27 Generator

December

2-4 JET SKI® Watercraft
5 Service Department Operations (K-BOSS)
9 MULE Dealer Orientation
10-11 Servicing the MULE 1000/2000
12 Servicing the MULE 500
18-19 Engines