

• It's becoming obvious that current 175s are the high-tech class of the enduro market. All of the manufacturers have put more engineering advances into this size machine than any other displacements. Kawasaki's 175 is the only Uni-Trak KDX currently available from Big Green, and after less than a year, the KDX has established itself as one of the best enduro bikes available. Yamaha has put all their eggs in the 175 basket also, basing this year's IT on the YZ125 motocrosser, while bigger bikes have remained largely unchanged.

Suzuki is also scrambling for a spot at the front of the class with the PE175. Using the chassis design and basic geometry of the RM125, the PE for 1980 is a mere shadow of its former self. An aluminum swingarm, massive engine and transmission improvements, and a nifty new quick-change rear wheel assembly add up to make the PE our choice for the most improved enduro bike for 1980.

#### Engine Examination

All these improvements haven't been made for the fun of it, either. Certain of them add flavor to an already nice machine, and at least a couple of them were badly needed. Take the powerplant, for example. In 1979, the PE suffered from a too-peaky powerband and not a whole lot of basic horsepower. Gearing the bike lower made it a little bit more tractable, but there was no way to gear out the huge jump from third to fourth gear, and that one sore spot in the transmission—on certain types of moderate speed trails—could drive anyone crazy in short order, when they're trying to find the right gear.

Not any more. The T-model eliminates all this heartache with a redesigned cylinder, porting, and considerably larger transfers. Pipe, silencer, and carburetion changes combine with the new cylinder to produce four more horses at top rpm (compared to the N model), with only a small loss at low and midrange rpm.

Hold on a minute! Did we read that right? A small loss at low and mid rpm, you're thinking, is going to be unbearable, considering the peakiness of last year's bike. Well, don't let it worry you. Most of last year's peakiness was the direct result of the faulty gearing and poorly thought-out carburetion, and both of these problems have been taken care of in the T model. Our measuring stick for low-end grunt so far has been the KDX-175, and when we finally got a chance to ride the PE, we were amazed to find that it just about beats the KDX at its own game.

Let's face it, though. No 175 *anything* is going to be a stump puller, and any one of the current crop of 175s is going to feel nearly unrideable compared to an Open class machine. A 175 is made to be light and nimble, and gets all of its down low pulling power from a careful combination of porting and gearing, and all of the external components must be tuned to match. One little screw-up in jetting, or gearing, is going to make the bike more difficult to ride. Our PE175 came to us close to perfect in this respect, and as a result, we have no complaints concerning power output.

Well, we have one little complaint, as long as we're comparing the PE to the KDX. During our second test

session at Texas Canyon, a medium altitude location (approximately 4000 feet), we experienced a slight power loss during an extended hillclimb. Not so much of a loss as to make the bike unrideable, but just enough to make it a struggle to get over the top. It seems that the steel cylinder liner of the PE has a tendency to hold in a little too much heat and causes the same kind of power loss experienced by hot-racing 125s. This is becoming a common occurrence with the latest 175 enduro bikes using steel liners, and only becomes a real problem when every ounce of power is needed.

The KDX's electrofusion cylinder cools much better than a steel liner and therefore suffers not from this problem. *But*, the electrofusion, or chrome bores, cannot be honed out or bored if damaged, so the choice is between always available power, or repairability.

#### Suspension

Incorporating the shock angle and fork rake of the RM, the PE looks and feels a lot like the 125. One of the biggest improvements over last year is the redesigned rear end, which now delivers just under ten inches of travel, in a much more sturdy fashion. That RM swingarm doesn't just look good, it's strong too.

Gas Kayabas, despite the lack of reservoirs or damping adjustments, do a reasonably good job of smoothing out the rough stuff, although the action isn't quite as cushy as the IT or KDX. Rather than just skipping over most obstacles like the other two bikes, the PE has a sometimes uncomfortable habit of jolting the rider quite heavily through rock fields or square-edged holes. A little too much

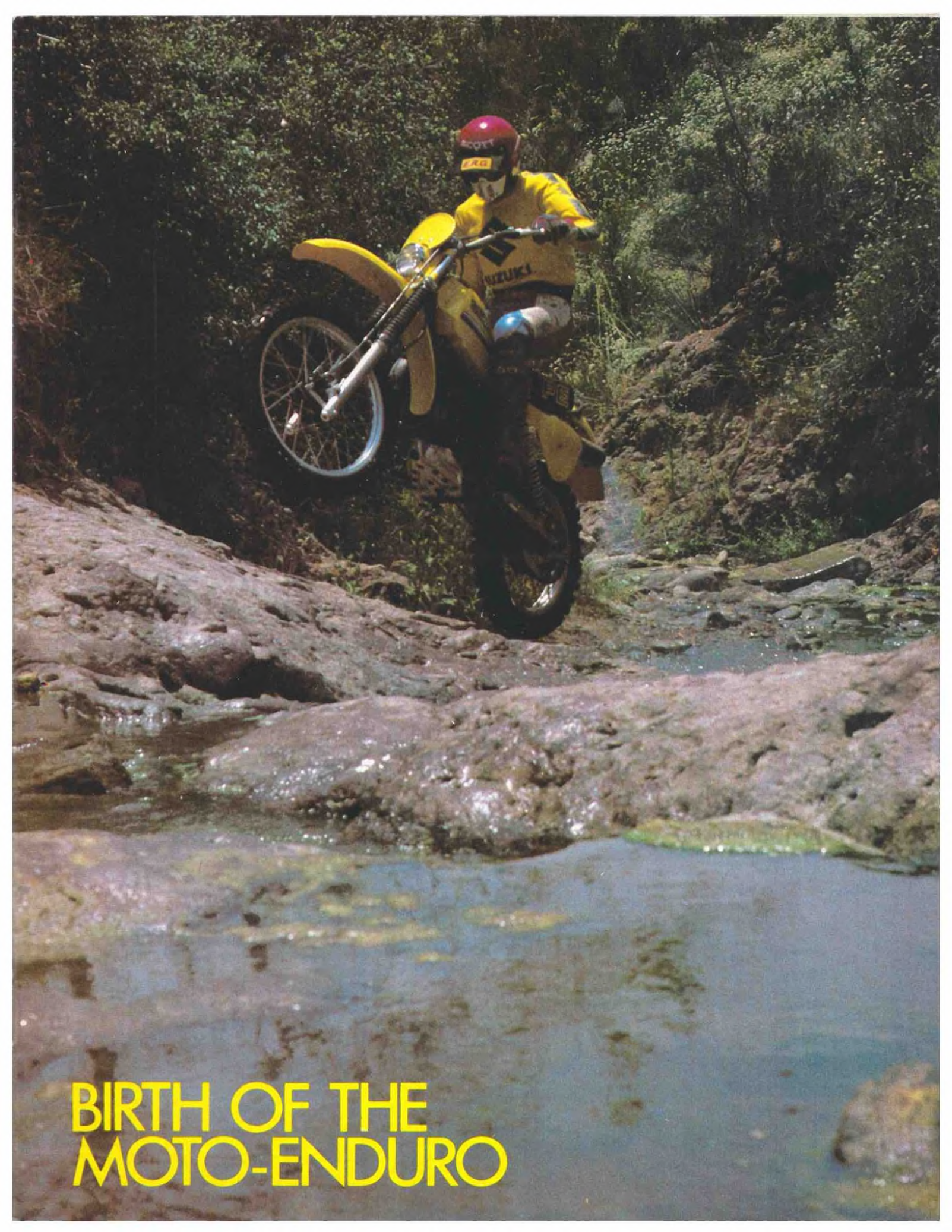


## SUZUKI PE175T

*Suzuki's  
Most Improved  
Model for 1980*

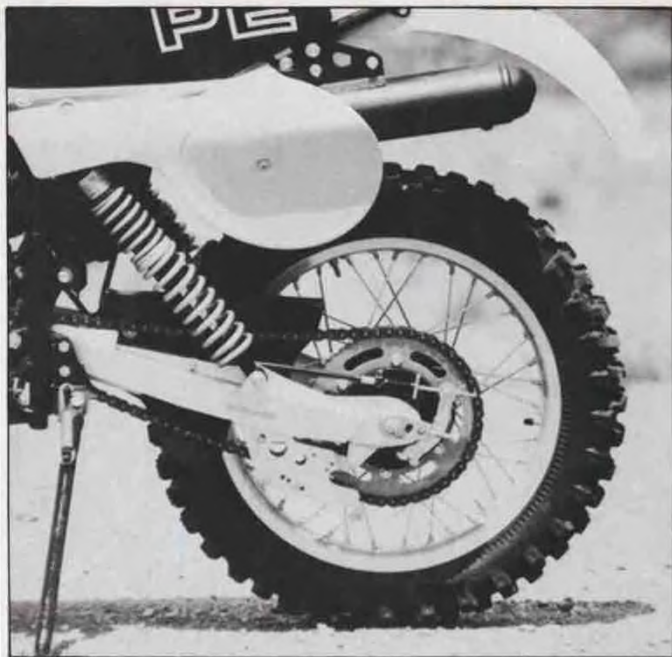
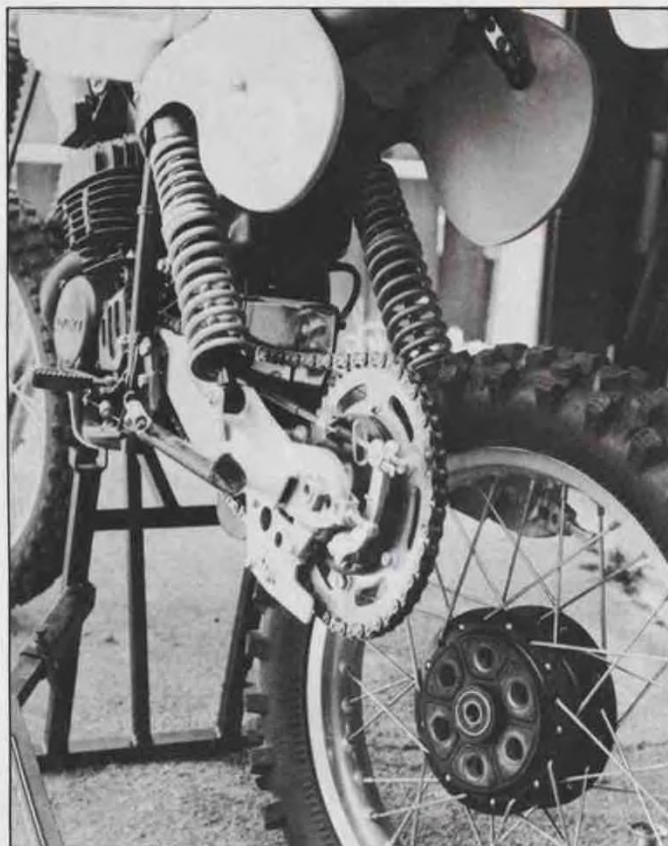
**By the Dirt Bike Staff**





# BIRTH OF THE MOTO-ENDURO





*The entire rear end is new, with a true quick-change wheel, an extruded aluminum swingarm, and over 9 1/2 inches of wheel travel.*

*Pull out the axle and the right side wheel spacer, and this is what happens. The sprocket and the rear brake remain solidly attached to the swingarm, greatly simplifying tire changing.*

## PE175T

compression damping makes the PE's suspension slightly stiff in the early part of the travel, however, if the shocks wear the same as past models, they should smooth-up some after a respectable amount of break-in time.

The forks have been changed, too, and this year offer a few fractions for travel and air adjustability. They also exhibit the same stiffness as the rear end, but once the stock oil is changed, they should snap right into line.

While the front hub and wheel are standard Suzuki fare, the rear end is a brand new adaptation of a good old idea. After removing just the axle from the PE's rear assembly, the wheel drops to the ground, leaving the sprocket, brake drum and backing plate behind. This system allows for the fastest tire changes possible, as nothing more than the wheel itself need be removed. The axle threads into the left side sprocket assembly, making an external nut unnecessary and speeding up the process even more. In a matter of seconds, the bike can be dropped on its left side, the axle pulled, and you're left holding a naked wheel! This design is a little heavier than a standard wheel setup, but much more pleasant to work with

out in the field. Also, because of the extra bearing in the sprocket housing, it is much stronger than a standard wheel. Altogether a good idea.

### Handling

Considering the changes in chassis design and suspension, we had no firm idea of how the new PE would work, but remembering the earlier model's annoying front-end washout made for a very wary first ride.

Not too fast down a smooth stretch and then a turn to the left. It felt pretty good. Next time, we tried it a little faster and, wonder of wonders, the front end stuck! No problem. In and out of trees and rocks is where the PE is going to feel best—the front tire will bite on anything, thanks to the new geometry, and the rear follows merrily behind, without a whole lot of hopping or skipping to hinder forward progress. This is, by far, the best handling PE to date. In stock form, it's not quite as good as a KDX, but with the forks dialed in, and a good pair of shocks, the PE will be capable of giving Big Green a run for the money, for sure.

With the longer travel suspension, and a slightly longer wheelbase from the N-model, the '80 PE works quite a bit better at high speeds in a straight line. The only type of riding which will call for a major retune will be flat-out desert-type riding; but

nothing short of a Husky OR will do an acceptable job in the desert in stock form.

### Bits and Pieces

The steering head of the PE rides on tapered roller bearings. Yaay! Tapered rollers are the way to go, and we suspect that by the end of 1981, all bikes will be wearing them.

Down from 3.2 gallons last year, the T-model PE uses a 2.8-gallon fuel tank. Our best mileage last year was just under 80 miles on a tank of mix, so expect to get about 10 miles less.

The headlight/number plate is the same as last year's, but the fenders are slightly different. This is no problem normally, but the new rear fender doesn't allow using the rear frame loop for a grab handle. Ah well. Just don't get stuck.

FIM-style side number plates don't really have much use on an enduro bike, but on the PE, they at least look good.

The swingarm rides on needle bearings. Needle bearings die if they aren't greased regularly. Suzuki has provided all of us with a zerk fitting in the swingarm to make the process much, much easier. Thank you, Suzuki.

Neither the brake nor shift pedal have folding tips on them, so expect to lose your first good fight with a rock or stump. Just remember, every







# PE175T

time you bend one, you're helping to keep accessory manufacturers in business.

The now-famous PE all-in-one tool is now two pieces, and, consequently, much more useful. It'd still be nice if Suzuki provided a tool bag for all the other things you'll want to carry with you.

Stock Bridgestone rubber does a pretty good job on the PE. The brakes are good too. Even though the rear end is a completely new design, the rear brake works just as well as last year's bike.

All of the controls are normal Suzuki items, with the exception of the new throttle assembly. It is a straight-pull item with a quick-change cable feature, like the Magura throttle. Even though we have heard rumors of flimsiness, we've had no trouble to date.

## Now What?

Suzuki has really done their homework this year. They've managed to move the PE175 up in status from "A nice little bike" to what must now be described as "a damn fine machine." It's not completely faultless, yet; but with a little more refinement it may soon bump the KDX out of the top spot of the 175 class. But, it may have to lose one of its shocks to get there. □



*This year's forks provide a few more inches of wheel travel and are air-adjustable.*



*By the spec sheet, the 1980 motor looks almost identical to the '79; but the new motor seems to pull better down low.*



## SUZUKI PE175T Specifications

NAME AND MODEL	Suzuki PE175T
ENGINE TYPE	Two-stroke
BORE AND STROKE	62mm x 57mm
DISPLACEMENT	172cc
HORSEPOWER (CLAIMED)	22.5
CARBURETOR	Mikuni VM34SS
FACTORY RECOMMENDED JETTING:	
MAIN JET	250
NEEDLE JET	R-4
JET NEEDLE	.6DP17-3
PILOT JET	27.5
SLIDE NUMBER	2.0
RECOMMENDED GASOLINE	Premium
FUEL TANK CAPACITY	10.6 liters (2.8 gallons)
FUEL TANK MATERIAL	Plastic
LUBRICATION	Pre-mix
RECOMMENDED OIL	Suzuki CCI
OIL CAPACITY, GEARBOX	900cc (0.95 quart)
AIR FILTRATION	Oiled foam
CLUTCH TYPE	Wet, multi-plate
TRANSMISSION	Six-speed
GEARBOX RATIOS:	
1	3.090
2	2.214
3	1.674
4	1.300
5	1.045
6	0.875
GEARING, FRONT/REAR	12/48
IGNITION	Suzuki PEI
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	NGK B10GV
SILENCER/SPARK ARRESTOR/QUALITY	Yes/Good
EXHAUST SYSTEM	Up-pipe, through frame
FRAME, TYPE	Single downtube, cradle

WHEELBASE	1430mm (56.3 inches)
GROUND CLEARANCE	320mm (12.6 inches)
SEAT HEIGHT	35.5 inches
STEERING HEAD ANGLE (RAKE)	29.5 degrees
TRAIL	128mm (5.04 inches)
WEIGHT WITH ONE GALLON GAS	227 pounds
RIM MATERIAL	Aluminum
TIRE SIZE AND TYPE:	
FRONT	3.00x21 Bridgestone
REAR	4.00x18 Bridgestone
SUSPENSION, TYPE AND TRAVEL:	
FRONT	Air/oil forks, 250mm (9.84 inches)
REAR	Cantilever, gas shocks, 247mm (9.7 inches)
INTENDED USE	Enduro, cross-country
COUNTRY OF ORIGIN	Japan
PRICE, APPROX.	\$1379
DISTRIBUTOR:	
U.S. Suzuki Motor Corp.	
13767 Freeway Drive	
Santa Fe Springs, California 90670	
PARTS PRICES, HIGH-WEAR ITEMS:	
PISTON ASSEMBLY, COMPLETE	\$45.86
RINGS ONLY	\$13.68
CYLINDER	\$119.35
SHIFT LEVER	\$10.96
BRAKE PEDAL	\$12.10
FRONT SPROCKET	\$8.94
OVERALL RATING, 0 TO 100, VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:	
HANDLING	95
SUSPENSION	94
POWER	96
COST	94
ATTENTION TO DETAIL	92
EFFECTIVENESS, STONE STOCK	95