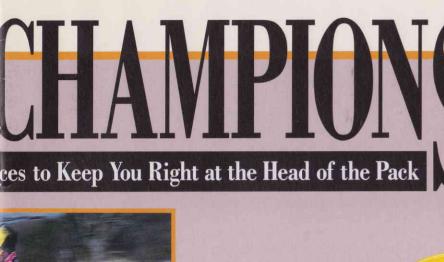




The 1993 RM250 and the RM125-two machines built for champions. The Suzuki RM-WS factory motocrossers were the dominant force in the 1991 Motocross World Championship. In the 125cc class, Stephan Everts was the champion rider on his RM125WS. And Suzuki won the manufacturer's championship in both the 250cc and the 125cc classes. The exciting development work for production motocrossers undertaken along with that for the championship-winning factory machines is now ready for you, embodied in the 1993 RM250 and the 1993 RM125.

The 1993 RM125 features further upgrades on top of the overwhelming performance advant-



Rider: S. Everts

ages the previous model alrearivals. The result is a racing contact the second contact the

ages the previous model already had over its rivals. The result is a racing capability nearly on a par with that of the 1992 RM125WS, the championship machine. The 1993 RM250 features major engine and chassis upgrades that add up to the first full model change in five years and a greatly increased performance advantage. The advantages of the 1993 RM250 and RM125 are Suzuki's experience and knowhow, which have hauled in an unprecedented 24 titles in the Motocross World Championship—advantages fully maintained through rapid feedback from the newest championshipwinning motocross technology. Ride ahead of the pack on the 1993 RM250 or RM125!



THE RIGHT POWER FOR VICTORY



The evolution of the RM250 and RM125 power plants is always pursued with a precise understanding of exactly what combination of power output characteristics provides the advantages in real-world race conditions. That's why both the 1993 RM250 power plant, with a full model change reflecting the factory machine's performance, and the 1993 RM125 power plant, further upgraded to increase its advantage over its rivals, have the right power output characteristics to put you ahead and keep you ahead.

Suzuki's proven crankcase reed-valve induction technology refined for added advantage

Powering the 1993 RM250 and RM125 are the newest versions of Suzuki's proven 2-stroke, water-cooled, singlecylinder, crankcase reed-valve induction-format engines. The greatest advantages of reed-valve induction directly into the crankcase are low intake resistance and ease of achieving optimum use of inertial flow of the intake-advantages the RM power plant design maximizes to deliver what motocross performance demands: higher torque and power throughout the rpm range. The RM power plants also take advantage of the case-reed induction format's absence of intake port and its lower stress on the piston skirt section, which allow precise shaping of the piston for lighter weight and thus still higher performance.

Suzuki's proven AETC system proven exhaust efficiency

Suzuki's innovative AETC (Automatic Exhaust Timing Control) system varies

exhaust timing to match engine rpm by a valve directly behind the exhaust port that blocks the port's top at low rpm to delay the exhaust port timing, thereby heightening the charging efficiency by preventing the intake mixture from flowing out of the cylinder, then receding at higher rpm to keep exhaust efficiency high by maintaining a smooth exhaust flow. The Suzuki AETC system's hallmark is the absence of "dead areas" that can undermine flow in the exhaust passage when the exhaust valve recedes at high rpm, resulting in an utmost smoothness of exhaust flow. The proven efficiency of the AETC system not only contributes to higher power and torque, but also helps produce engine power characteristics that combine sharp-revving, tractable power, instantaneous response to throttle, and superb rear-wheel traction controllability.

1993 RM250 engine. Refinements throughout

The 1993 RM250 engine features extensive redesign—a total upgrade. The exhaust port is reshaped for a smoother fit

with the exhaust valve, providing more efficient exhaust flow at high rpm. The inner wall of the crankcase has a larger radius, which increases primary compression of the intake mixture. That, matched with modified scavenging port



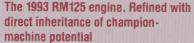




AETC

timing, delivers better throttle response and more mid-range power. Extensive improvements on the intake system, including the airbox, carburetor and reed valve deliver improved power output characteristics with emphasis on tractability while maintaining high power. The reed valve is redesigned with a

sharper, narrower angle for easier swirling of intake mixture. The connecting section between intake pipe and carburetor is shaped more smoothly. The newly chosen carburetor is the Keihin PJ38. The airbox is a newly designed open-air type. The result of such extensive improvements in both intake and exhaust systems: improved controllability of power output, better responsiveness, more power in the midranges, and easier rear-wheel traction control. In other words, the right power output characteristics for achieving the right combination of traction and power on the racetrack surface.



The 1993 RM125 embodies further improvements throughout to maintain its status as an overwhelmingly high-power machine in its class, including refinements in its champion-machine-bred engine. First of all, an aluminum balance weight is added to the crankshaft to increase primary compression. And Suzuki's original side-port design is newly used on both sides of the exhaust port to improve power output characteristics. The two main scavenging ports and the third scavenging port are widened. Together with modified exhaust valve timing, this change provides better mid- and high-rpm performance. Modifications of the piston, including enlarged oil hole, make it both lighterweight and stronger. The intake system features the new, larger-bore Mikuni NTM36 carburetor which, combined with the new open-air type airbox shared with the RM250, contributes to upgraded power output characteristics and more tractable power. These refinements, put

in place after close review of the previous model, are aimed squarely at maintaining the 1993 RM125 in its position as the top model in the 125cc class.

Newly-designed airbox: more efficient, less maintenance

Both the 1993 RM250 and RM125 are equipped with an open air-type airbox instead of the previous closed-box type. The new airbox features greatly increased aircleaner volume and a large-diameter air filter. Compared to the 1992 model, intake resistance is down by 20 percent, and the filter can be used for approximately three times longer before replacing, thus greatly reducing maintenance work at racetracks. The benefits also include better dust resistance, better engine power output, and higher resistance to water and mud.

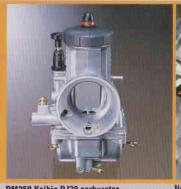
Radiators for more stable power output; cooling water routing that reduces engine vibration

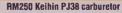
Both the 1993 RM250 and RM125 feature radiators with a new core design, resulting in higher radiating capacity,

better cooling performance and more stable power output. On the 1993 RM250 the water hose connecting the radiators with the cylinder head is a jointless one-piece type containing carbon fiber—the hose already well-proven on the RM125 for reducing maintenance and increasing durability. The RM250 also has a modified cooling-water exit that allows the engine mounting position to be moved to the rearward side of the cylinder, thus reducing engine vibration.

New engine color for upgraded engines; large-capacity clutch for stable action in the heat of battle

The engines on both the 1993 RM250 and RM125 are of a magnesium-gray color like that of the Suzuki factory machines—a visual reminder to racetrack rivals of these engines' heightened potential and factory-racer breeding. The clutches of both the RM250 and RM125 are large-capacity types designed to deliver constantly stable clutching in the heat of battle. Both clutches provide smooth, light activation and clear feedback to the rider.







Newly designed airbox



Radiator

for greater resistance to heat. Piston diameter in the compression damping adjuster section is sized-up from 20 to 25 mm, improving damping characteristics and providing optimum stability of performance against heat. The dam-

per section has modified valve specifications for improved damping characteristics and better resistance to heat. The bump-rubber shape is changed to a stepped form for better shock absorption. Attachment bolts for the lever rear cushion and cushion rod are enlarged from 15 to 16 mm diameter for higher strength and rigidity. The lever rear cushion section shape is modified to make it more compact and lightweight. The chain guide section is fixed at three points for more strength and rigidity. With these refinements and modifications, the 324mm-wheel stroke rear suspension on the 1993 RM250 and RM125 features an overall increase of strength and rigidity, lighter weight and improved damping characteristics. Its high potential nearly matches that of the race-winning Suzuki factory machine.

Brakes upgraded for further advantages in the heat of battle

The brakes are upgraded to match the upgraded 1993 engine, frame and suspensions. The large 250 mm-diameter front disc brake with 2-piston caliper has a revised version of the metallic-type pad that improves braking power, brake feel and feedback, and gives the rider more precise control of brake power. The diameter of the rear 220 mm disc brake's caliper piston is increased

from 27 to 30 mm, which increases the stability of brake power against heat while maintaining a high level of brake controllability and brake power.

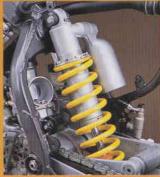
Fresh-look body design brings you in closer touch with the movement of your machine

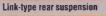
The 1992 RM250 and RM125's dynamic new styling, highlighted by the smooth connection of the radiator cover with the seat, offers both a fresh, purposeful look and higher racetrack efficiency. Flush-surface design is further applied for even easier rider weight shifts. The radiator cover now extends rearward and meets the seat, presenting an unbroken flush surface over the fuel tank. The resin fuel tank, now more compact, holds 7.5 liters. On both the RM250 and the RM125 the rider's hips are moved forward by 30 mm. Sitting more to the front of the bike, the rider can put weight on the front wheel more easily when cornering. The frame cover is reshaped to be flatter where it connects the rider's boots. The rear fender is redesigned by adding a section shaped

to provide a hand grip, making it easier to transport the bike. Purposeful as well as efficient, the striking figure of the new RM250 and RM125, clad in Suzuki's traditional yellow body color, should make their presence felt at racetracks around the world.

Other 1993 upgrades and advantages

- The lightweight front disc cover prevents the disc rotor from directly hitting obstacles and improves the durability of the brake pad.
- An inner-guide type front-fork protector, extending well over the front-fork stanchion tube, is standard equipment on the 1993 RM250 and RM125.
- Copper-type sintered-metal material utilized for the rear brake-pedal support point helps prevent friction of the bushing, thus heightening durability.
- The front wheel spokes have a new shape, featuring a slimmer midsection for lighter weight while maintaining ample strength.
- Improved rear-wheel bead stopper keeps the tire in place even more securely.







Front disc brake



Rear disc brake



Smooth body work

THE RIGHT FRAME AND SUSPENSION FOR WINNING



The 1993 RM250 chassis features
a newly designed frame with larger-size box-section
tubing that's been proven on the championship-winning factory machine,
along with detailed suspension refinements. The 1993 RM125 chassis features
numerous frame and suspension refinements that reflect racetrack
know-how gained from the RM125WS factory machine.
And both the 1993 RM250 and the RM125 feature
a new, trend-setting body design that's
as functional as it is refreshing.

Newly designed box-tubing semidouble cradle frame for the RM250: lightweight and highly rigid

The newly-designed 1993 RM250 frame achieves still higher rigidity and lighter weight. The frame retains the proven semidouble cradle format and is made primarily of chrome molybdenum steel. The main loop section, designed to be as compact as possible, is comprised of large-size frame components made of 1.4 mm-thick box-section tubing that was proven on the RM125. The side tubes are reduced in size for lighter weight. The 1993 RM250 frame is lighter than the 1992 frame, yet its torsional rigidity is increased by an impressive 35 percent. This means less flexing in landings after jumps, and it helps riders maintain their chosen cornering line with more precision. The 1993 RM125 frame is largely unchanged from the 1992 frame, but has the same lighter-weight designs for the rear section—the seat rails and rear side tube as does the 1993 RM250.

Stanchion-tube front fork with

improved damping characteristics and lighter weight

Both the 1993 RM250 and RM125 have a 45 mm-diameter stanchion-tube inverted front fork with 310 mm wheelstroke. The stanchion-tube wall thickness is reduced from 1.7 mm to 1.6 mm to provide a slightly softer, more linear feel to the rider on the racetrack surface. And the thinner wall weighs less. greatly reducing the unsprung weight. Eighteen-stage adjustment for both rebound and compression damping provides a wide-ranging choice of fork settings to suit each rider under diverse conditions. The dampers feature modifications in the oil routing and a revised oil-lock configuration to reduce shock when the fork bottoms out. Each of the new fork's two damper assemblies is lighter than the previous version by 150 grams. With these refinements, the 1993 RM250 and RM125 inverted front forks provide the right kind of fork response under all racetrack conditions. Link-type rear suspension with better damping characteristics, greater resistance to heat, and lighter weight

sion is a well-proven system for delivering optimum progressive response. The 1993 version brings numerous refinements. The cushion unit contains damper oil upgraded with better additives

Suzuki's exclusive link-type rear suspen-







Inverted front forks

THE CHOICE BIKE FOR FUTURE **CHAMPIONS**



The RM80 has high-level race-readiness. benefitting from various engine and chassis designs well-proven on the RM250 and RM125. Starting with the 1993 model, the RM80 shares Suzuki's traditional yellow body color and graphics with its larger-class brothers. Future champs, enter the exciting world of motocross racing on the yellow 1993 RM80!

Two-stroke crankcase reed-valve induction engine built for optimum power output characteristics

The RM80's 2-stroke, water-cooled, single-cylinder crankcase reed-valve induction engine is designed to deliver a combination of high power output and plenty of easily accessible torque. Power output is made as linear as possible to throttle activation, to help riders tackle steep inclines and slippery surfaces more smoothly. The piston has a semidome head for efficient combustion and a large cutaway section for lighter weight and quicker revving. A Mikuni TM flat-valve carburetor keeps intake flow smooth and throttle response quick.

- Suzuki's AETC (Automatic Exhaust) Timing Control) system regulates exhaust timing to match engine rpm range, enabling the RM80 engine to maintain optimum low- and mid-range output characteristics, thus keeping power and torque high throughout the effective power band.
- The engine has an O-ring gasket to maintain superb sealing between the cylinder and the cylinder head, helping

provide the RM80 engine with the durability needed for long, tough racing actions with extended use of high rpm.

• The RM80's six-speed transmission operates smoothly and provides precise feedback to the rider.

Highly rigid semidouble cradle frame

The frame, designed with computerassisted FEM (Finite Element Method) analysis and extensive testing, combines strength, high rigidity and light weight to bring out the best in front and rear suspensions.

- The high-rigidity 35 mm stanchiontube front fork with a long 275 mm wheelstroke, together with the rear suspension, provides agile handling and high potential over rougher, tougher racetrack conditions.
- The well-proven link-type rear suspension provides high standards of

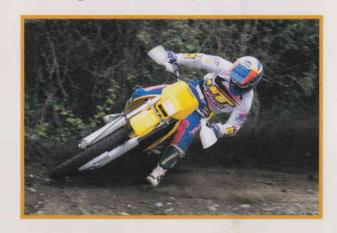
- stability and optimum progressive response to the racetrack surface. Stepless rebound and compression damping adjustment allows riders to fine-suit the suspension for each race's conditions.
- The front brake has a semi-metallic pad for high resistance to heat, along with a disc rotor made of high-quality materials carefully chosen for optimum stopping power. The rear 184mm disc brake is equipped with sinteredmetal pads. The brakes provide strong braking power and feedback wellmatched to racing conditions.

Other appealing features

- The 1993 RM80 is newly adorned with the traditional Suzuki motocrossers' yellow body color-the same yellow color that large-displacement Suzuki motocrossers have made famous at racetracks through the years.
- The chain guide is of strong construction-plastic reinforced with aluminum plate—to match hard runs.



ENDURO-WINNING
POWER AND
POTENTIAL



The 1993 RMX250R features lots of exciting upgrades that provide solid advantages and keep the competition trailing in all enduro events you choose to enter. The power plant is further improved with the latest developments on the RM250 motocrosser and precisely caters to the demands of enduro courses. On the chassis are frame designs proven on championship-winning factory motocross racebikes and further refined suspensions. With such upgrades, topped off with dynamic and functional new styling, the 1993 RMX250R is ready to make you first through the deserts and first through the woods.



ADVANTAGES SHARED WITH THE RM250



The 1993 RMX250R delivers on enduro competition courses the full advantage of exciting developments shared with the new RM250 motocrosser. The new box-sction tubing frame has 30 percent higher rigidity. The fresh new 1993 flush-surface styling has radiator covers that fully cover the fuel tank and extend to the seat. The suspensions feature longer wheelstroke front and rear. The power plant's highly-acclaimed power output is further upgraded with refinements in the cylinder port shape. The Keihin PJ38 carburetor is newly equipped to enhance the engine's superb blend of responsiveness and controllability. In short, the 1993 RMX250R is packed more than ever with enduro contest-winning potential.

Power plant refined for better power output characteristics

The well-proven two-stroke, watercooled, single-cylinder crankcase reedvalve induction engine, highly acclaimed for delivering high power and tractable output, has been further refined on the 1993 RMX250R with modifications of the exhaust port and combustion chamber shapes, and improved reed valve shared with the RM250. Such changes, combined with the newlyinstalled Keihin PJ38 carburetor, enhance the torque, responsiveness, tractability and high overall performance of the 1993 RMX250R, that it now nearly matches that of the RM250, bringing further advantages under all enduro course conditions.

Engine designs specifically tailored to enduro runs

The RMX250R engine is designed to match enduro demands closely. Compared to the RM250 power plant, the RMX250R engine, with its increased crankshaft inertia, emphasizes tractability in the low ranges. The 5-speed

transmission carries over the wide-gear ratio setting on the 1992 model, which was proven as best-suited on enduro runs. The RMX250R is fitted with Suzuki's exclusive Automatic Exhaust Timing Control (AETC) II, which adjusts exhaust timing in three stages (High. Mid and Low). The higher "High" and lower "Low" setting of AETC II combine with the "Mid" setting for a stronger middle rpm range. The settings are tailored for advantage on enduro courses. The radiator is a large 12,600-Kcal/h type for added cooling capacity over long enduro events. The clutch has a separate cover which can be more easily removed for maintenance. Such refinement and modifications down to details heighten the enduro-readiness of the RMX250R power plant.

Newly designed box-section tubing frame heightens handling stability

The 1993 RMX250R frame, shared with the full-model-changed 1993 RM250, provides greatly heightened strength and rigidity. Utilizing box-section tubing of large cross section for the main frame sections and body tube, the new frame is 30 % more rigid than the 1992 model, without increased weight. The semidouble cradle format was chosen as optimally suited for off-road runs. The main loop section is made of chrome molybdenum steel. The frame has high rigidity and the right amount of firmness and is lightweight, enhancing quick-paced rides over high-speed





RMX250A engine

Keihin PJ38 carburetor

course sections, rough spots, and jumplandings.

Enduro-proven front and rear suspensions designed for the right amount of firmness



The RMX250R's front and rear suspensions are products of extensive feedback from many successful enduro runs. On the front is a 45 mm-stanchion-tube diameter inverted fork with a 310 mm

wheelstroke. And on the rear. Suzuki's exclusive link-type suspension with a 324 mm wheelstroke. The suspensions benefit from extensive feedback from enduro riders in delivering the right amount of firmness, optimum initial response to track-surface impact and positive reaction under conditions in which the suspension bottom out. The suspensions benefit greatly from the new frame's higher rigidity. Runs over rougher spots and jump-landings can be executed with higher precision to the rider's intended line of travel-an advantage that will be welcomed by all riders. The front fork provides 18 compression and 18 rebound damping adjustment settings, while the rear suspension has 21 compression and 21 rebound damping adjustment settings together providing a wide range of adjustments to suit each riding course. The aluminum swingarm has a snail cam chain adjustment system with improved rear axle plate screw for greater smoothness in tire replacement—an example of enduro feedback down to details to maintain high standards of

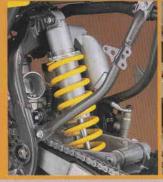
maintenance ease and durability for the 1993 RMX250R.

Functional new styling shared with the 1993 RMs

The 1993 RMX250R's fresh new body design, featuring radiator covers extending to the seat, provides greatly enhanced flush-surface effect enabling easier rider weight shifts. The resin fuel tank has a large 11-liter capacity, suitable for long enduro events. The seat design, sharing that of the 1993 RM250, is shaped to enable smooth rider weight shifts, especially when shifting weight on the front wheel. The RMX250R seat. however, has a softer seat cushion material, more suitable for the longer distances to be run on an enduro bike. For 1993 the shapes of side covers and rear fender have also been modified, enhancing the RMX250R's purposeful styling. Standard equipment includes knuckle guards to help protect the rider's hands, front and rear brake disc covers and front-fork protector to help protect those components from damage when hitting obstacles.

Other enduro-matched designs

- The waterpump impeller is driven through a coupler off the crankshaft instead of being part of the crankshaft, reducing waterpump seal wear.
- The sidestand is bolted to the swingarm so that there is less chance of it hitting the ground—an advantage on the rougher courses.
- Large 55W headlight illuminates your way at night and also functions as a powerful spotlight.
- The rear wheels are 18-inch, chosen as an optimum match for enduro runs since it reduces the chance to rear-tire damage.
- The standard-equipment frame-mounted engine guard helps protect the crankcase from damage caused by rocks and obstacles.
- O-ring-sealed chain delivers greater durability and requires less frequent chain adjustments.
- The sleek, functional new body design is highlighted by fresh new graphics and vellow body color—the traditional Suzuki off-roaders' color.



Link-type rear suspension



Front disc brake



Rear disc brake



Smooth body work



					SPECIF	CATIONS				
MODEL		RM250	RM125	RM80 (RM80X)	RMX250R	MODEL	RM250	RM125	RM80 (RM80X)	RMX250R
ENGINE						Overall width	835mm (32.9 in.)	835 mm (32.9 in.)	735 mm (28.9 in.)	885 mm (34.8 in.)
Engine type		2-stroke, water-cooled with AETC			2-stroke, water-cooled with AETC II	Overall height	1,250 mm (49.2 in.)	1,250 mm (49.2 in.)	1,100 mm (43.3 in.)	1,245 mm (49.0 in.)
						Wheelbase	1,465 mm (57.7 in.)	1,435 mm (56.5 in.)	1,240 mm (48.8 in.)	1,485 mm (58.5 in.)
Intake system		Crankcase reed valve				Ground clearance	360 mm (14.2 in.)	350 mm (13.8 in.)	325 mm (12.8 in.)	350 mm (13.8 in.)
Number of cylinder		1	10 7 10 10 10 10 10		1	Seat height	960 mm (37.8 in.)	960 mm (37.8 in.)	840 mm (33.1 in.)	945 mm (37.2 in.)
Bore		67.0 mm	54.0 mm	47.5mm (46.5mm)	67 mm	Dry mass	98.0 kg (216 lbs.)	94.0 kg (207 lbs.)	64_0 kg (141 lbs.)	105 kg (231.5 lbs.)
Stroke		70.8 mm	54.5 mm	46.8 mm	70.8mm	CHASSIS			1872 11 11 11 11 11	
Piston displacement		249 cc	124 cc	82 cc (79 cc)	249 cc	Front suspension	E			Inverted telescopic, pneumatic/coil spring, compression and rebound damping 18-way adjustable
Maximum power		53.5 ps/8,500 rpm	39.5 ps/11,000 rpm	27.5 ps/12,250 rpm (27.0 ps/12,000 rpm)	51.0 ps/8,000 rpm		Inverted telescopic, pneumatic/coil spring, compression and rebound damping 18-way adjustable		djustable spring, oil damped	
Maximum torque		4.74kg • m/7,500 rpm	2.7 kg • m/10,000 rpm	1.70 kg • m/10,500 rpm (1.65 kg • m/10,500 rpm)	4 81 kg • m/7,000 rpm	Rear suspension		A CONTRACTOR		
Corrected compression ratio	Low	10.4-1	11.0:1	10.83:1 (10.85:1)	9.7:1	near suspension	Link-type, spring preload fully adjustable, compression and rebound damping 21-way adjustable		Link-type, spring preload fully adjustable, rebound e damping fully and compression damping force adjustable	Link-type, spring preload fully adjustable, compression and rebound damping 21-way adjustable
	Mid	10.77.1		- (-)	9.1:1	Street Williams				
	High	8.7.1	8.8:1	9.35:1 (9.38:1)	8.0:1	Take I				
Carburetor		KEIHIN PJ38	MIKUNI NTM 36SS	MIKUNI TM28SS	KEIHIN PJ38	Front brake	Disc. hydrauli		lically operated	TV III VIII
Starter system		Primary kick			Rear brake	Disc, hydraulically operated				
Lubrication system		Fuel/oil pren	nixture of 32:1	Fuel/oil premixture of 20:1	Fuel/oil premixture of 32:1	Front tire	80/100-21 51M	80/100-21 51M	70/100-17 40M	80/100-21 51M
TRANSMISSION		The state of the state of				Rear tire	110/90-19 62M	100/90-19 57M	90/100-14 49M	110/100-18 64M
Clutch		Wet multi-plate type				ELECTRICAL				
Transmission		5-speed constant mesh	ed constant mesh 6-speed constant mesh		5-speed constant mesh	Ignition type	SUZUKI P.E.I.			
DIMENSIONS AND DE	RY MASS					CAPACITIES			WWW.	Visi III
Overall length		2,165 mm (85.2 in)	2,130 mm (83,9 in.)	1,805 mm (71.1 in.) -	2,180 mm (85.8 in.)	Fuel tank	7.5L (2.0 gal.)	7.5L (2.0 gal)	4.5L (1.2 gal)	11L (3.0 gal.)

[•] All action photography shows professional rider on designated closed circuit.

*SUZUKI MOTOR CORPORATION reserves the right to change, without notice, equipment, specifications, colors, materials and other items to apply to local conditions, Each model might be discontinued without notice. Please inquire at your local dealer for details of any such changes. Actual body colors might differ slightly from the colors in this brochure,

- Always wear a helmet, eye protection, and protective clothing
- Read your owner's manual carefully Enjoy riding safely

