

CHOOSING AND MAINTAINING THE RIGHT BIKE

One of the most often overlooked issues when considering motocross safety is the motorcycle itself. We typically consider our machine to be the same each time we go out, but parts wear and many can and do break due to stress. Each bike should get a basic check before each event. Actually we should inspect our bike before each moto.

Here we'll cover some of the most important things to check before you go on the track each time. Please remember all bikes are different. Some bikes are more prone to certain types of failures. For instance: certain 50cc machines are known for burning up stators while many four-strokes are known for excessive valve wear and failure. Older steel framed full-sized bikes (and some of the newer small ones) are known for frame stress cracking. Know your bike and look for the types of failures that are common to them. This will help you avoid major failures on the track that could result in injury.

Fuel

Does your bike have enough (and the right type) fuel to complete your next moto? Running out of fuel on the take-off of a jump can be disastrous. If you're riding a 2-stroke motorcycle make sure your fuel is mixed properly. If you're riding an oil-injected 2-stroke make sure you have oil in the tank that feeds your oil pump.

Controls

Are your controls comfortable? Be sure you can reach all the controls while sitting and standing. This includes the clutch, front brake, gear shifter, and rear brake pedal. In addition to positioning be sure your controls are in good shape. Levers should not have sharp broken ends that can cause puncture wounds. Your levers shouldn't flop loosely-- they should all be tight and in good working order. Be sure your clutch and throttle cables don't have frayed places near the ends or kinks in the sheaths. If your clutch or brakes do not engage properly, adjust them.

Anytime you do maintenance that involves the throttle or throttle cable, always check the cable routing to make sure it is correct. Consult your owner's manual for correct routing. An incorrectly routed throttle cable can cause the motorcycle to rev unexpectedly when turning. With the bike idling in neutral on a stand turn the handlebars from stop to stop—all the way left, then all the way right, then back again. If the engine speed increases without you touching the throttle, your throttle cable may be incorrectly routed. If you're not sure or need help, ask someone at the track before you go ride. Do not go out with a sticky throttle or poorly performing brakes.

Plastic

Make sure all the plastic on your bike is in good shape. Broken fenders can come loose and lock up a wheel. Jagged edges can cut you or another rider in a crash. If you can't afford to replace a piece of plastic that is broken, trim and grind the sharp edges off.

Bolts, Nuts and Fasteners

Go over your bike from time to time and check to be sure all the bolts are tight. Here are some basics.

- **Plastic Bolts** (shrouds, fenders, seat, number plates) - Seat bolts tend to vibrate out because they are taken in and out so much.
- **Controls/Handlebars** – These items see lots of stress. Check them regularly.
- **Triple Clamps** – Top and bottom triple clamp bolts are very important. Be sure they are torqued to manufacturers' specs before riding your bike. The top nut on the stem will also vibrate loose at times. A regular check up will catch these.
- **Axles** – Front and rear axles are also very important items to check regularly. These can get left loose during wheel changes. While you are there check the pinch bolts on the axle and the condition of your brake pads. If your bike comes from the factory with cotter pins to retain the front or rear axle nut be sure you install new cotteners pins are any wheel maintenance. Without a cotter pin, there is nothing to prevent these "castle" nuts from coming loose.
- **Motor Mounts** – Motor mounts are an integral part of the mechanical integrity of a motorcycle. Loose motor mounts can lead to frame failures, chain drive failures, and engine failures to name a few. Check the motor mounting bolts and the tabs they connect to frequently.
- **Sprockets/Spokes** – Some bikes, especially the big four-strokes, tend to work spokes and rear sprocket bolts loose. Keep a close eye on these items. Once a week, check sprocket bolts and spokes. If you don't know how to tighten spokes, see a qualified mechanic. Improper spoke tightening can lead to warped wheels. If your sprocket bolts tend to come loose regularly replace the locking nuts with new ones. These lock nuts are only good for about three or four uses before they lose their locking ability. New bikes tend to need more attention in these areas until the spokes and sprocket bolts "break-in".
- **Rear Suspension Linkage** – While not common these bolts can also come loose. It's a good idea to grease all your suspension bearings once or twice a year. This will help overall suspension performance while also greatly increasing the life span of these parts. Frequently check your linkage bolts to insure they are properly tightened.

Engine

Is your engine running properly? If your bike is running poorly you should have it repaired before venturing onto a motocross track. Simple things like jetting, air filters, and spark plugs can cause huge crashes if not maintained properly. Follow the manufacturer's recommendations on how often you should rebuild or perform routine maintenance on your engine. There are many factors that influence engine performance and therefore rider safety. Make sure you start each day with a clean air filter. Some dusty days will require an air filter change during the day. Change your engine oil often and use a good quality gear lube. For four-strokes, keep the valves checked and adjusted. For two-strokes, use good quality premix and good fuel. Keep a check on the spark plug condition as two-strokes are a little more particular about their jetting.

Suspension

Today's stock suspension components are excellent on motocross bikes. Be sure your bike is set up for your weight and skill, and adjusted for the track conditions. Poorly set-up suspension components will not only cause you to fatigue quickly, they can also cause you to unexpectedly lose control. Refer to the chassis section above for tips on checking bolts on your front and rear suspension. If you are unsure how to perform adjustments and/or suspension maintenance, seek help from a qualified technician.

Tires

Be sure your tires have good tread, have no visible cracks and are inflated to the proper pressure. Worn or improperly inflated tires can cause loss of traction that can result in loss of control. Check your tire pressure before every race.

Choosing the right bike

Always choose the right machinery for your rider's size, weight, skill level and the intended use of the bike. Riders on small, recreational machinery like the CRF50, 70, 80, 100, TTR125s, and KLX110s should not attempt the larger combination jumps like doubles and tabletops. These types of bikes are not intended for such use and may react in unexpected ways. Landing from large jumps on a bike that lacks in the suspension area could cause a rider to lose control and crash. In a worst-case situation frames and wheels can break. When a rider in these entry-level classes reaches the point where he or she is ready to attempt larger or combination jumps parents should consider moving them up to a suitable motocross specific bike that will function properly under these more demanding conditions.

Conversely, a rider should not be put on machinery that is too big or too powerful for their size and skill level. A rider should be able to pick his/her bike up, start it, and

perform a race start--unassisted. In addition, the rider should be able to exhibit full control on motocross obstacles while riding to his/her potential. This is often a very subjective decision for a rider and/or parent. Riders should spend a reasonable amount of time getting comfortable on any new bike before attempting to race it for the first time.

Owner's manuals have a wealth of information about Do's and Don'ts of racing machinery and how to maintain them for proper function. Another great place to find this information is by interacting with others at the tracks. You or your child's safety is the most important aspect of any day at the track. Use all these resources to their fullest potential and always be aware of your surroundings. Motocross is a very dangerous sport. Do everything you can to limit the risks.

Follow a sound bike maintenance routine, invest in and wearing proper safety gear, and exercise sound judgment while riding. These simple measures can significantly reduce the number of variables that often lead to injuries.

Be safe and have fun!