





ENGINE UPGRADES

The 2021 TM 300 fuel-injected twostroke is a great foundation to start out with when going extreme enduro racing. These units have been developed with huge amounts of input from the European extreme enduro scene and could probably do fairly well right off the assembly line. Very little was done in the way of internal modifications to the engine. The injector on the pipe side was relocated using a kit from ERP Racing but had nothing to do with engine performance. In extreme-enduro-type terrain, it's not *if* you're going to hit/smash the pipe but *when*. In the stock position the injector is vulnerable to damage if the pipe is impacted. The relocation kit from ERP moves it out of harm's way.

An ERP Racing head was installed, and a thinner base gasket was used to provide a little more snap right off the bottom. Mapping was not changed, but the Racing wiring

harness was installed, which allows on-the-fly switching between two preset maps. This is one of the many options available from TM Racing USA, just like the radiator fan kit that is on this machine.

CHASSIS UPGRADES

Most of the upgrades on this build are on the chassis, and either come in the way of bolt-on protection or bolton performance items. Protection for both rider and machine for extreme-





enduro-type events is almost more important than bike performance, because if either can't finish, then what is the point? The long list of protection items include multiple parts from SAM Racing and, Bzerk, as well as includes Fastway handguards and an injection-molded plastic skid plate from AXP that provides full-frame and engine-case protection up front with additional linkage protection in the rear.

Internal suspension modifications were performed by Dave at Get Dirty Motorcycle. Most of the time extreme enduros are not competed at high speed, so the suspension valving was designed to have a very soft initial feel and then ramp up stiffness the farther into the stroke it goes in hopes of giving the rider a progressive feel all around.

This build features an upgrade available from TM Racing USA with an Ohlins rear shock. A performance link was also used in the rear. The frontfork setup remained Kayaba, just like the standard production model.

Tires and wheels always take huge amounts of abuse, but are a bigger part of the performance side of an extreme enduro build. The IRC JX8 Gekkota rear tire and Volcanduro in the front are designed specifically

for EnduroCross/extreme enduro use featuring a softer rubber compound and carcass to provide traction on just about any type of terrain. Extremely soft foam inserts eliminate the chance of getting flats while letting the softer tire contort even more for traction purposes. The wheels were also upgraded using Kite billet-aluminum hubs with aluminum spoke nipples anodized blue, steel spokes powdercoated black and Excel Takasago black rims.

TRAIL TIME

We get to ride a lot of purpose-built machines, and each one has its own quirks, and we can say this TM 300 project is indeed a very unique build. You almost have to throw out everything that you know about riding motorcycles and retrain your mind how to react. Take traction, for instance. You come to a water crossing with rocks, and the first thing that crosses your mind is no traction, so tread lightly. Not so with the soft foam insert, IRC Gekkota tire and Get Dirty Motorcycles suspension setup; you have traction just like it was perfectly dry. Then, when it's dry, you still have insane amounts of traction; it just has a slight second or two delay where you have to be careful of too much

gas or else the bike launches out from underneath you. On dry ground, the suspension and tire combination provides so much positive traction that the delay created is from it flexing and working together in getting power to the ground. It takes some adjustment in riding style, but once you are comfortable with it, the confidence is next-level.

With the head and exhaust being the only major changes to engine performance, it reacts a lot like the stock unit we tested with slightly more bottom-end grunt and maybe a little more rev on the top end, but we didn't come across many situations to use the increased top end. All the bolt-on protection items from Bzerk, SAM Racing, Fastway and especially the skid plate with linkage protection from AXP, we highly recommend all of these mods if you are building one of these machines.

As with most two-stroke project builds, we are sad to see them leave us, but with this one, we know it's headed for paradise (aka the Hawaiian islands) and into the very capable hands of Ryan Gouveia, so we are happy to see it go. But, don't think we didn't have thoughts of stowing away with it in the crate!