Factory Piranha P-190R-FE Build

Justin Hoyack

It's been a long time that I have kicked this project around in my mind. From color choices, to parts, to even just trying to get motivated enough to start the project at all. Having ridden my piranha 190 for 3 years now in relatively stock condition, the thought of building a real "factory" pit bike had been on my mind from the start.
Having witnessed dozens of bike builds and 100s' more "bike assemblies" over the years, I finally have (almost) finished my Piranha P-190R-FE

Hope you enjoy.

This is what I have ridden the last few years. P-190R (2013 VIN) 190FDX. Elka shock. AKX02 Forks . Aside from the Scalvini pipe, Shock and bars/bar mounts - this is basically a showroom stock bike. I did my part with stainless hardware throughout and a fair amount of grease and lock tight.

I looked at 1000 bikes and changed my mind 20000 times. Finally, after months I had decided I would try and replicate a star racing Yamaha. Sort of an oddball choice for me as there bikes aren't very flashy and I don't own a Yamaha, but I don't see to many blue pit bikes and I haven't yet seen a star racing replica built yet.

It's started with the printing off of the 2 photos here. Basically to get the color way right and decide what I wanted to do for graphics. The "factory" part of all this is a culmination of parts and ideas I've seen throughout the last 12 years working around motorcycles and racing.

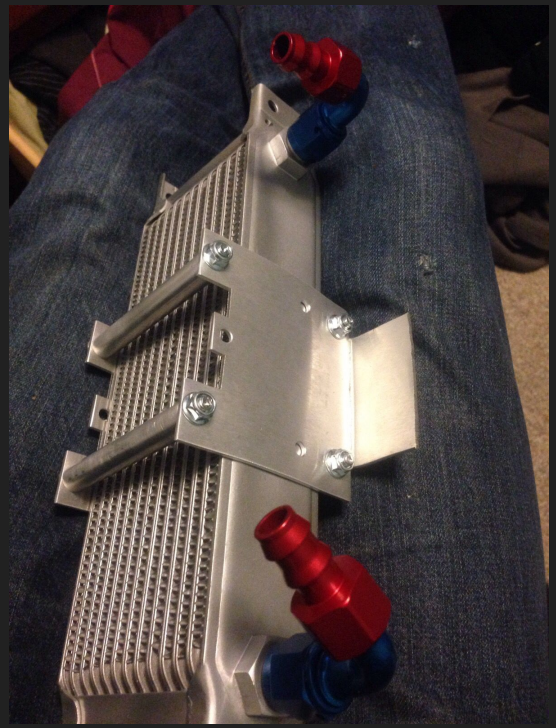
Probably not what you expected to see I'm guessing?? Well as it turned out, the Chinese powder coat was some of the most stubborn I have ever tried to remove. I had 5 hrs into blasting the frame. In the mean time, I got started on my parts. Above, are stainless I-bolts, if you have ever looked closely at JGR yamaha's sub-frame mounts, you will notice a very similar piece.

My last job was working in a CNC machine shop and we made things like this all the time. I’m spoiled to still have keys to the shop and can pop in when I need to make stuff like this.

So if you're still not sure yet, here's the rest of the process. I machined a 3" pin to match the I.D. of the subframe and threaded the inside to match the I-Bolts. 2 stainless jam- nuts later and I'm on my way to an adjustable sub-frame.

Another "factory " element I wanted to add was chassis welding and strengthening. I have never had any problems with cracks or flex before, but I saw an area that I could improve structurally and visually, so with the Help of my good buddy Bill Preston, we smoothed out most of general tao's welds and closed up any tack welds or open gaps. I also polished the bracket off from underneath the tank and reworked some of the sides spar areas as well.

Few more pictures of some of the prep work
I did to the chassis. Along with the first rough draft of the oil cooler mount



This is something I have drooled about since first seeing one on Chase Bechlers /Dan Formans race bike for this year. 13 row oil cooler with a rough draft mount. I also drilled and chamfer a pattern into the neck of the frame. Another note is the genuine crf70 fuel tank. While the China stock one has never once broken or been changed, side by side comparison will show you why one can be bought brand new for $29.99 and the other is $165.99. I got a great deal from Jarrett43 on this one.

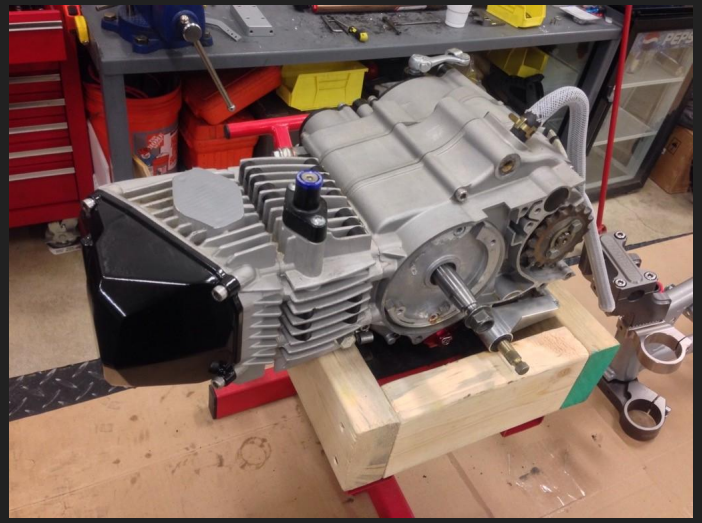
So after finishing most of the fab work and sandblasting and grinding for far longer they I would have imagined, it was finally time for new powder? Simple enough, metallic silver with gloss black.

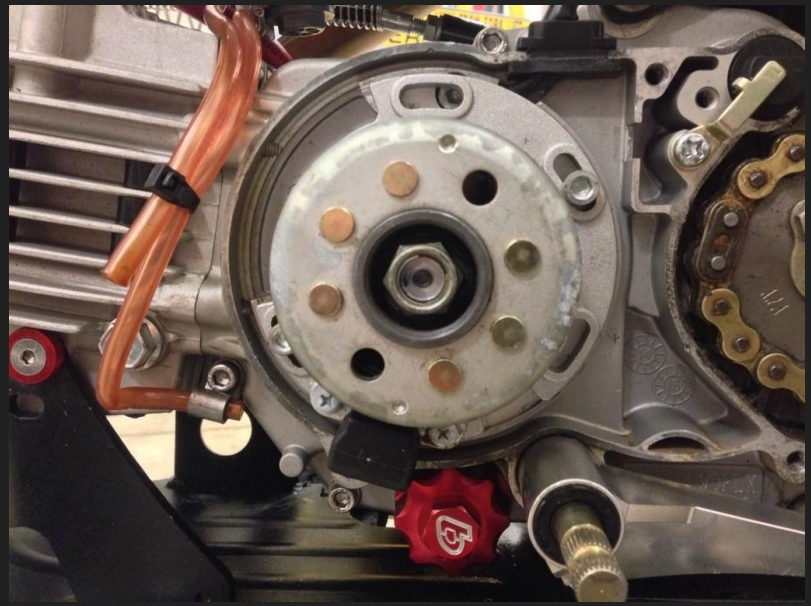
I tried my best to match the pattern used to drill the bottom of the RCH Suzuki skid plates and was pleased with my results (I'm usually the guy that way over does it and it turns to shit.) I also polished the lettering off the front of my valve cover. On the frame you can see that without that bracket, the frame looks cleaner.

Some assembly: if you look at the swingarm you will notice a white thick chain slider. It's a 1/2" piece of cutting board from Walmart. After making a card stock template and jig saw cutting it out. I secured one side to the swingarm and used a heat gun while bending the plastic around. Once getting the shape pretty close, I clamped it in my bench vice and left it overnight. After some trimming and polishing, it will be the last chain slider I will ever buy. And it cost about $10 bucks!

You might also notice the nylon slug on the top rail of the frame. the piranhas, from the factory come with a rubber tank spacer that fits underneath the back of the tank to allow for proper alignment and to Cushion the tank from banging against the frame. Problem is that the tank stap will become slacked or I will wreck and the rubber grommet would be gone. So to resolve that I took a nylon tube and grinded away at the back of it so that the angle would rest flush against the bottom of the tank while contouring to the frame as well. After some ceramic epoxy and a layer of closed density rubber. The tank is rock solid and the nylon piece works perfectly.

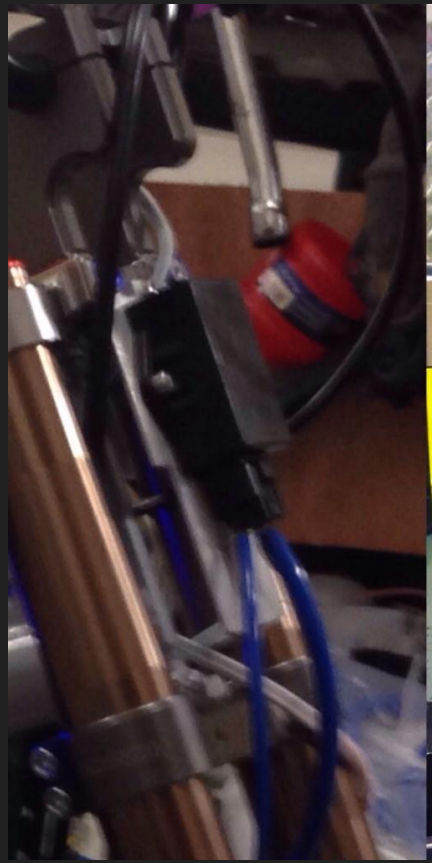
The motor with the covers on. I'm not doing anything to the motor now because it only has about 10 hrs on its last build. When I had the motor apart last I put in an original anima 150 transmission (4 -up version) after tumbling the gears in a vibro-polisher and working over what I could on the gears and shafts on a lathe. Clutch has Honda CRF70 big gear with crf250 cushion drives, HD clutch springs and carbon fiber clutch plates. I run an oil slinger nut on the clutch as well for the increased surface area and I just started using KLX110 kick shaft seals, they are a metal cage built seal vs all rubber. For top end I run a Daytona anima 150 piston (Dome) with KLX110 HD cam chain, Custom manual cam chain tensioner. Aside from the decomp being stripped from my motor the rest is all stock.





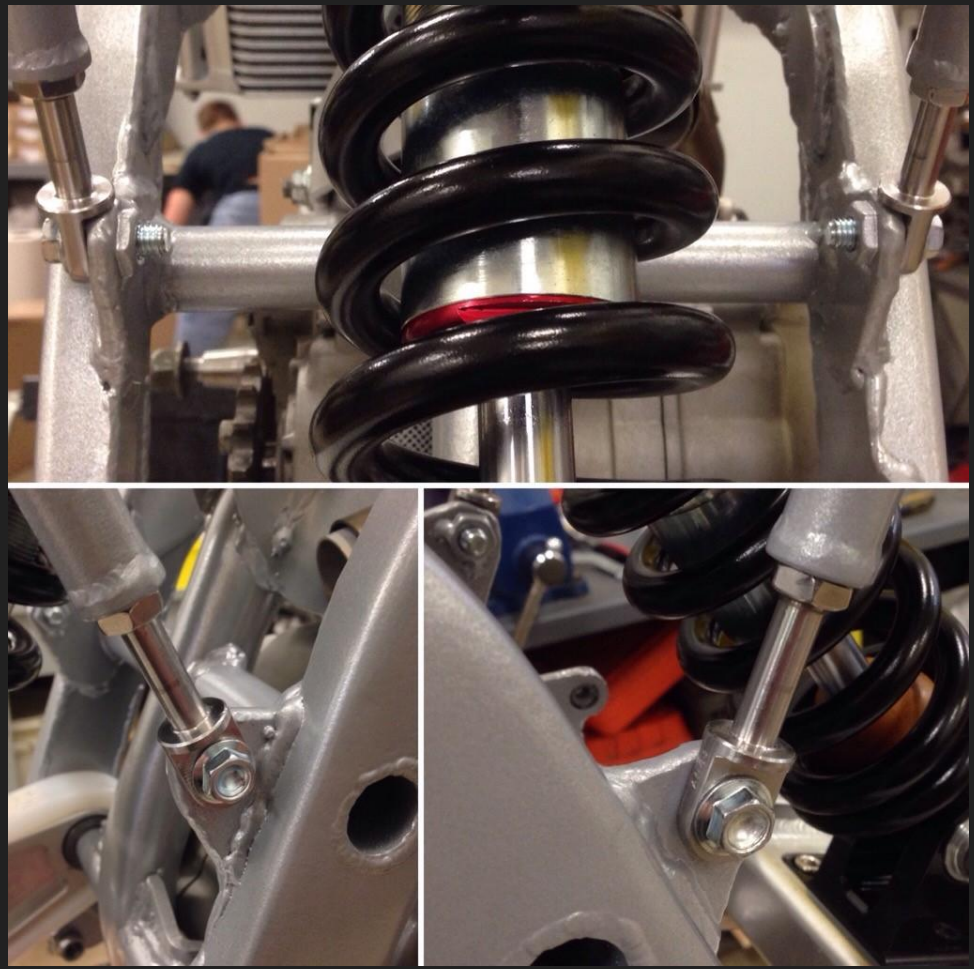
I'm currently running the Lifan Daytona style ignition system. It's very similar to the old style Daytona trex 150 ignition. The smaller flywheel help prevent kickback while starting and it revs super quick.
Also pictured above is a peak at my shift shaft stabilizer from OO racing in Europe (NOT Pitster as others have tried to claim). It bolts to the side of the crankcase and houses a roller bearing behind that rubber seal. Daytona's have a pretty long shift shaft and this help tremendously to help ensure smooth shifting and alignment. And for bling, I run a TB CRF50 tappet cover as an oil strainer cover.

To help match the Yamaha, I wanted to move all the wires to be in behind the front number plate. To help match the Yamaha, I wanted to move all the wires to be in behind the front number plate.



With some slight tweaks a KTM SX65 front axle assembly fits right into the piranha forks/wheel.

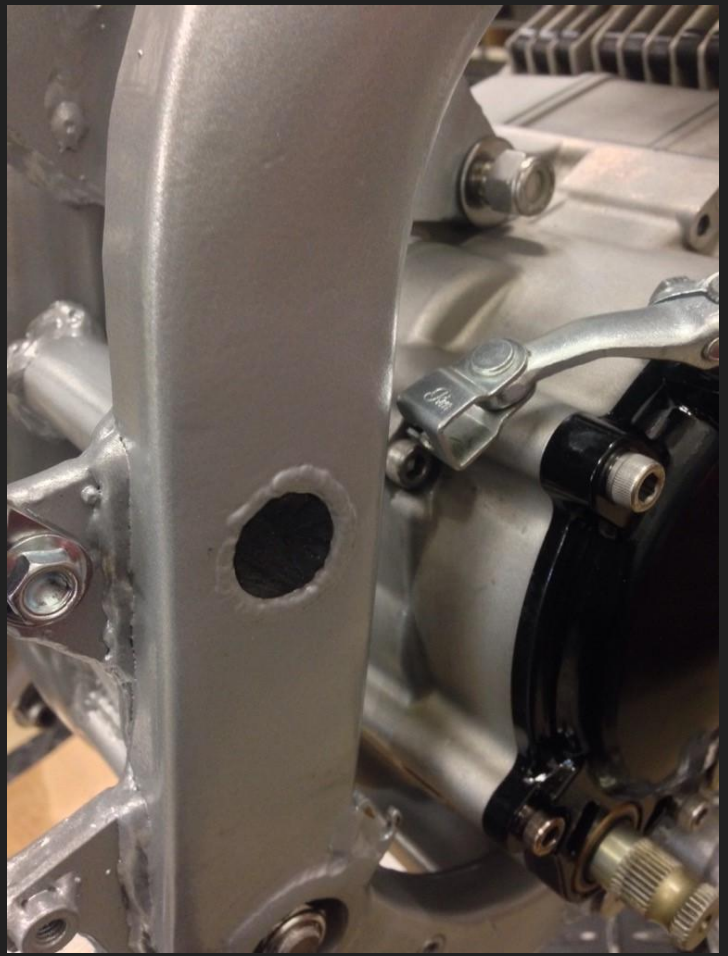
Up on a new set of wheels with KX85 rear axle and billet axle blocks - stainless adjuster hardware.



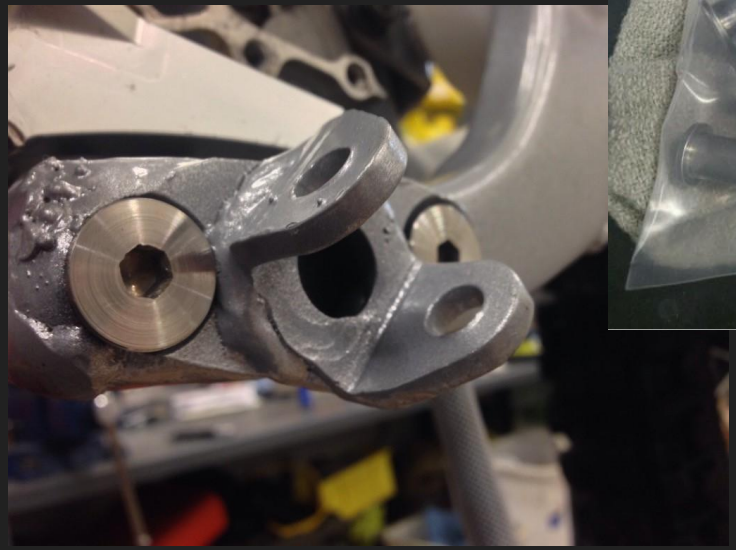
Sub-frame with new adjusters all snugged up.

Few things here. First note the KLX110 kick shaft seal. Also I put together a stainless allen head bolt kit for the entire anima engine. The plug in the frame is actually filled with a 3/8 tapered rubber plug that sits just inside the hole with no signs of falling out and barely visible.

The last thing is the top engine mount bolt. I used a reamer to take the hole through the motor out to match the 3/8" holes in the frame tabs I think used a 4.5" stainless 3/8 bolt with nylon locking collar. It does not remove much material at all and provides superior alignment, figment and strength in comparison to the 10mm stock bolt.



I did a re-design of my oil cooler mount and it turned out perfect. The lines proved to be a huge pain to get routed and out of the way and still sealing tight. And yes it is still a scalvini pipe, I just put graphics of the silencer. I have also been testing the piranha X-Coil on my anima as well as seen pictured



Turning the faces of your stainless steel hardware down a little gives them a nice fancy look.

Made myself some 304 harden stainless foot peg pins

Then came my link up with Jesse Godfrey from Diamond Decals in West Virginia. He worked with me and designed a custom one off set of graphics for me. We smoother out the details and in the mail they went.

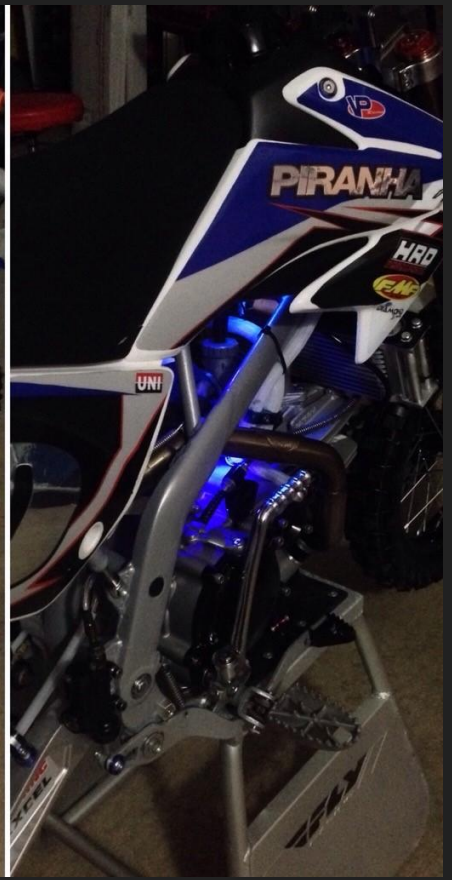
Unfortunately, race day came before the graphics did so I slapped a set of graphics on and took it down to summit indoors. I had offered a ride to a local A rider, Clint Schaffer and he was excited to give it a go. With limited testing Clint went from 4th to1st Saturday night to take home almost $500 in prize money!

Then this week after shipping complications were sorted I finally had them in my hand and eventually on plastic. Using a trimmed YZ85 front fender and number plate. Jesse did an incredible job and the chrome inlay came out better they I could image. I unfortunately botched the front number plate but already have another on the way here.


PIRANHA
HRD
Haynes
10
YAMAHA
YAMALUBE
1


KENDA
PIRANHA
Hoyack
10
UNI
HRO
EMG
EXCEL


KENDA
PIRANHA
10
HRO


PIRANHA
HRO
EMG
UNI
EXCEL


KENDA
PIRANHA
Hoyack
10
UNI
HRO
EMG
EXCEL


KENDA
PIRANHA
HRD


KENDA
PIRANHA
HRD
FLY

I really couldn't be happier, aside from a few small thing; seat cover, fork stickers, stem nut and things like that, she's about done. I love how absolutely solid the bike feels when you ride it. It's really does feel like a mini big-bike. The lights are my favorite part, they are floral decorating LED that are secured under the tank and I reach under with a small screw driver and kick them on. Thanks for checking it out, stop by and see it at any local races if you'd like or it's always in the showroom at Wholesale-Cycle.


KENDA
PIRANHA
RENTHAL
KYB
PIRANHA
BRAKING
EXCEL
KENDA WASHOUGAL


TASK FORCE
CENTRAL
PIRANHA
KENDA
HRD
FMF
KYB
BRAKING
EXCEL
PIRANHA

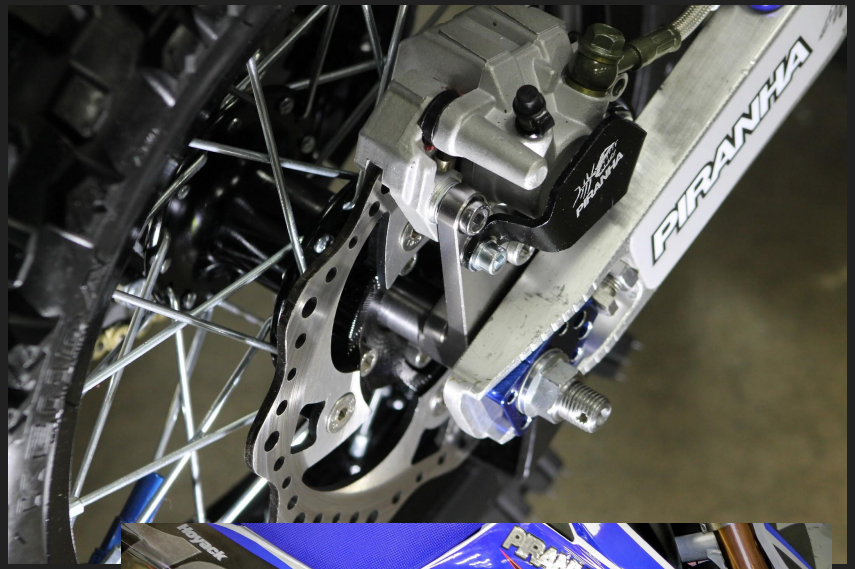

KENDA
PIRANHA
HRD
RENTHAL
PIRANHA
EXCEL

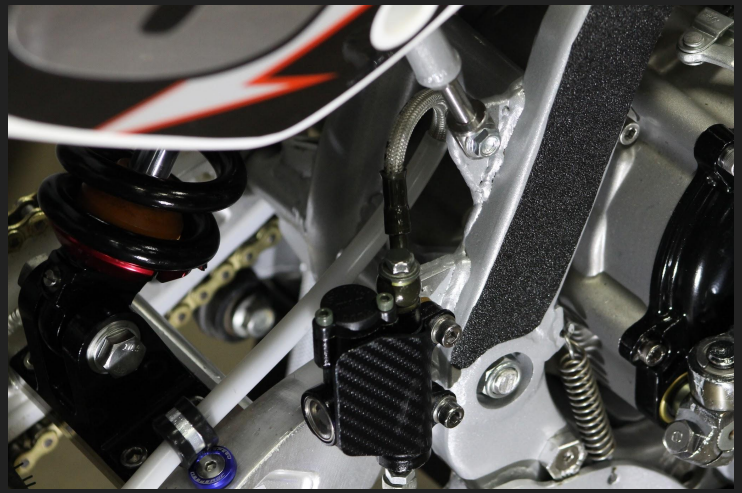

PIRANHA
HRD
10


HRD
PIRANHA


KENDA
PIRANHA
HRD
EXCEL


PIRANHA
HRD


PIRANHA



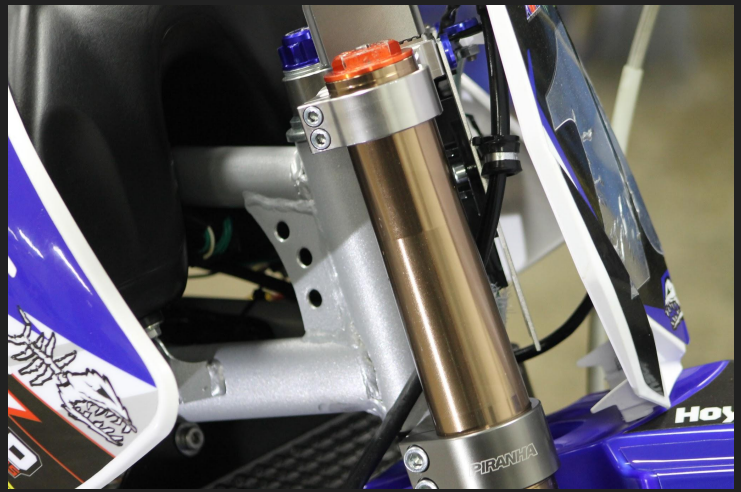

PIRANHA
HRD
BRAKING
EXCEL

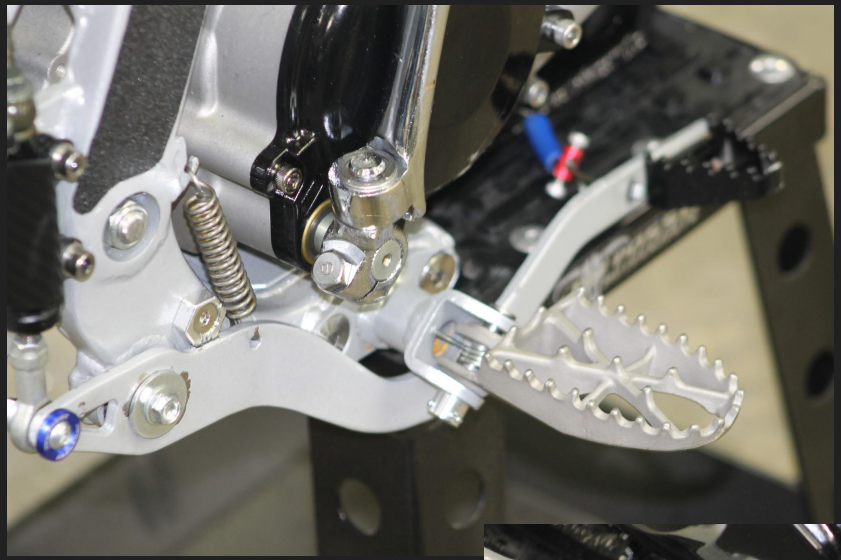

BRAKING
EXCEL

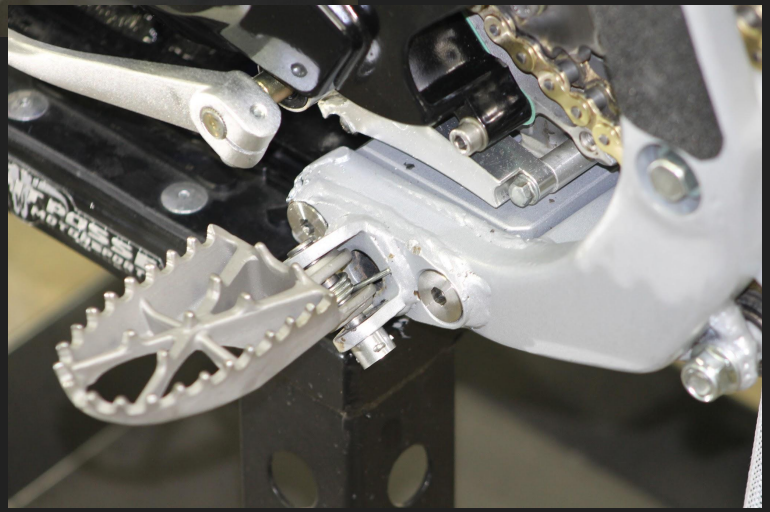

RENTHAL


PIRANHA
PIRANHA


HRP
PIRANHA


PIRANHA






10
MONSTER
FMF
KENDA


PIRANHA
HRD
MOTOSPORTS
FMF
DIAMOND


KENDA
DIAMOND


F4.1


10


PIRANHA


KENDA
PIRANHA
KYB
RENTHAL
PIRANHA
BRAKING
EXCEL


KENDA
PIRANHA
HRD
KENDA
HRD
PIRANHA
BRAKING
EXCEL
PIRANHA