

XT660Z Tenere Mod Book



Electrical

Improving Your lights.

HELLA MICRO



You just need to replace the standard 'H3 12V 55W' bulbs with 'H3 12V 35W' ones, because Tenere's battery might have problem with 55W ones.

To mount it he used this thing he made himself:





You also fit a set of these.

http://www.halfords.com/webapp/wcs/stores/servlet/product_storeId_10001_catalogId_10151_productId_158408_langId_-1_categoryId_165688



Ring Luminator 3 Fog Lamp

http://www.halfords.ie/webapp/wcs/stores/servlet/product_storeId_11101_catalogId_15551_productId_214268_langId_-1_categoryId_212516





All these lights need to be wire through a 4 pin relay to the lights.
Using a 30 AMP 4 pin relay, you need to ensure that;

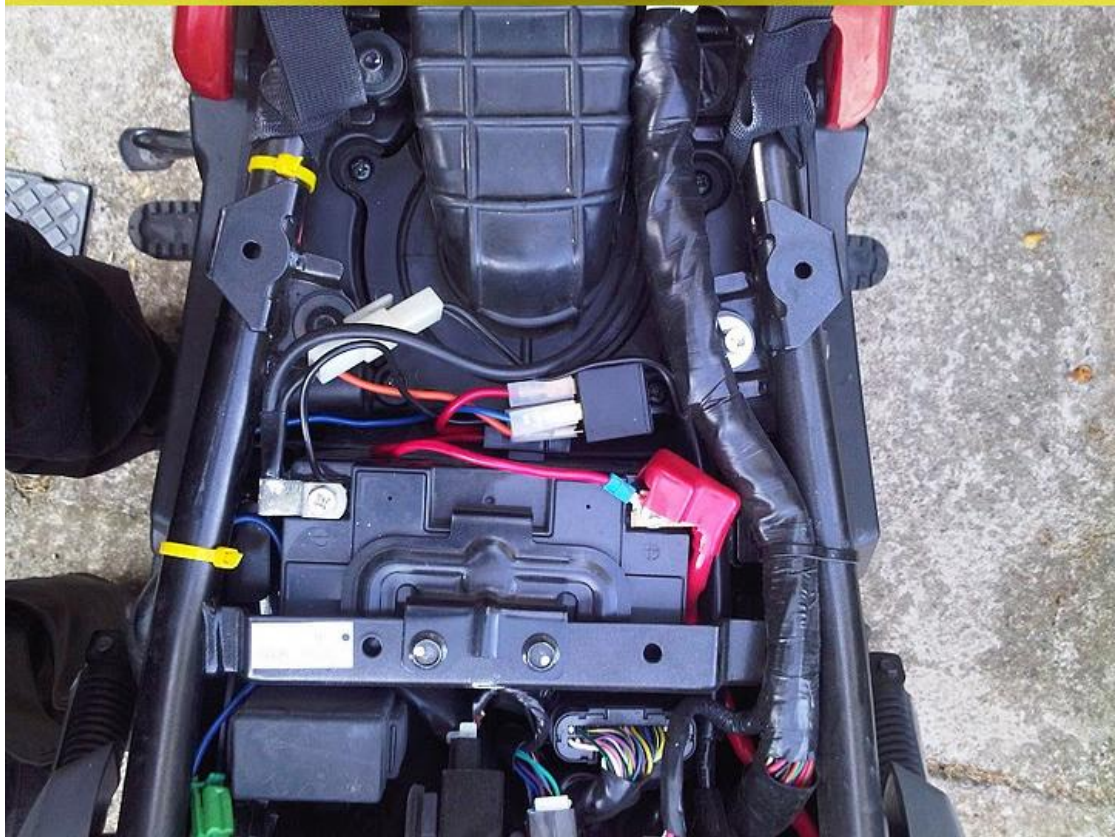
Pin 30 is connected directly to the Battery + This wire must be fused 10 AMPS

Pin 85 is connected to the Battery - Negative side.

Pin 86 is connected to the new ON/OFF switch for the spots, then the feeder + current to the (brake light switch or headlight wire + side, or a ignition + on wire)

Pin 87 is the + load wire to the driving lamps.

Don't forget you will need an earth wire to the lamps, for everything to work.



On/OFF switch



GULGoTech Aux Light Brackets

Here's a mini review of some Aux Light Brackets that (Gas_Up_Lets_Go) asked me to take a look at.

The brackets are a strong and simple design, I'll take a simple design any day over a complex creation. They fix to the lower mounting point for the headlight assembly and extend forward following the line of the headlight assembly. Then out to each side to provide a horizontal mounting point to suspend your lights from at a point of your choice. You just need to drill a hole in each side at the point you want to fix your lights.

The brackets are very secure and fit easily and neatly, there's no wiring to move etc, just remove the lower fixing bolt, offer up the brackets and fit the longer bolt that's supplied with the brackets.

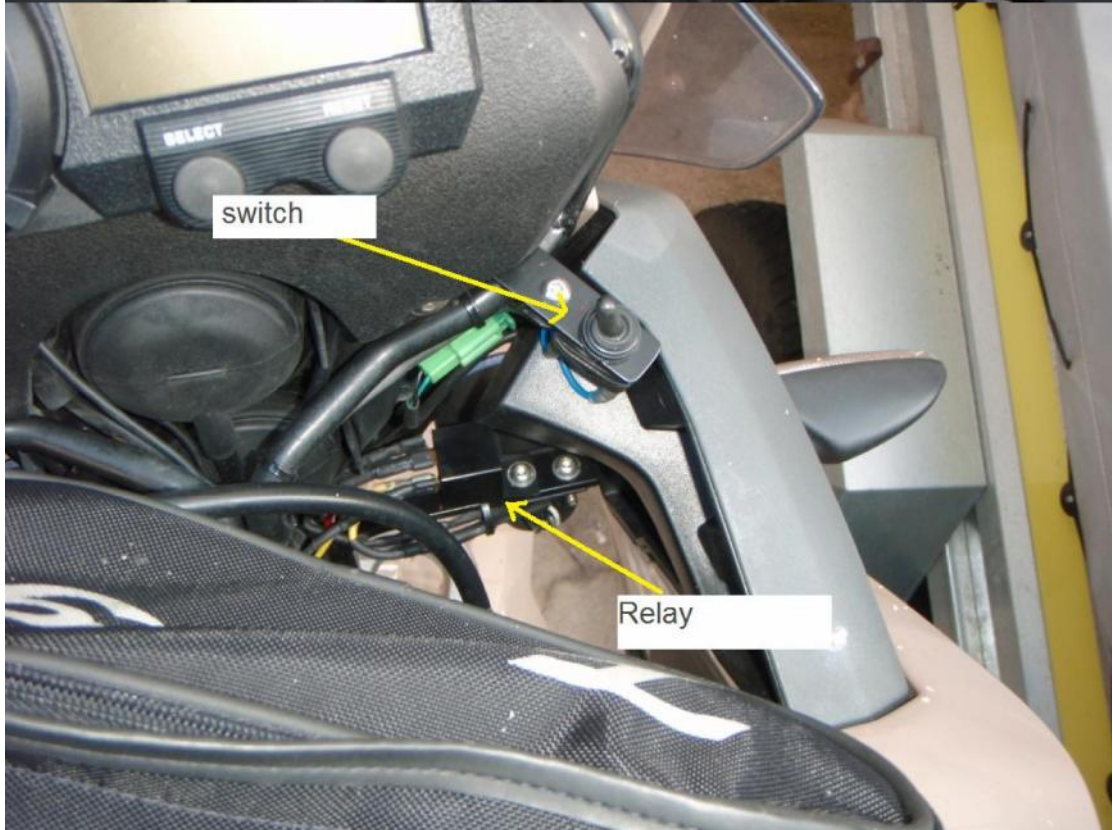
I fitted a set of PIAA 60mm lights to the brackets, these fit neatly into the recess between the headlight assembly and the indicator cowls.

In summary, the brackets are very solid and hold the lights so that they don't vibrate (any more than the rest of the bike that is!!). They position the lights in just the right place and provide a level platform to work from.

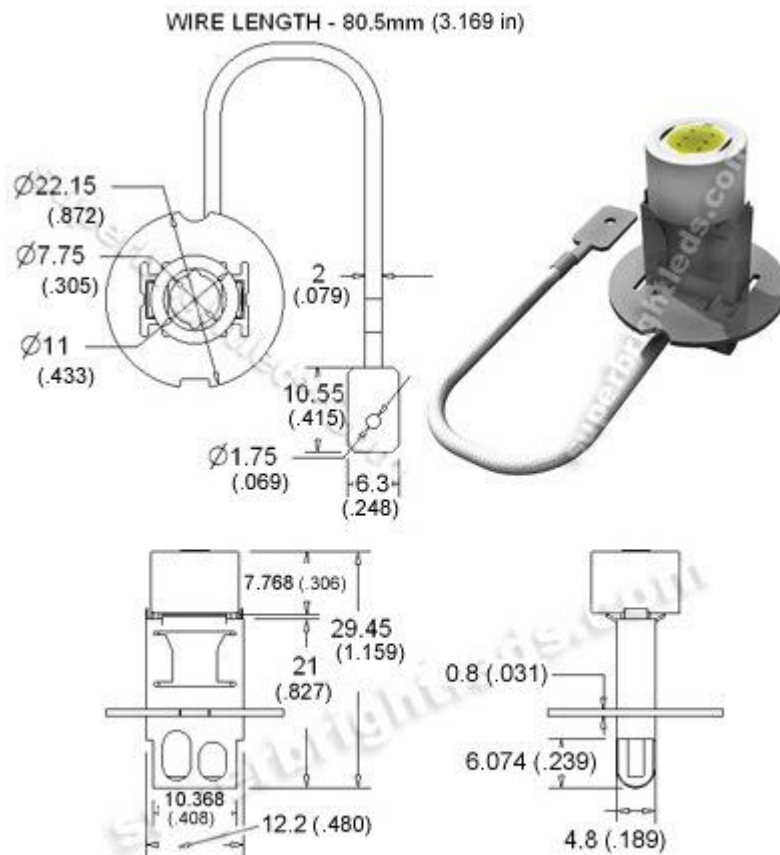
Here's a few photo's:







Some low wattage daytime running light bulbs.



Dimensions in millimeters (inches)

http://www.superbrightleds.com/cgi-bin/store/index.cgi?action=DispPage&Page2Disp=%2Fspecs%2FH3_11-WHP.htm

LED driving lights

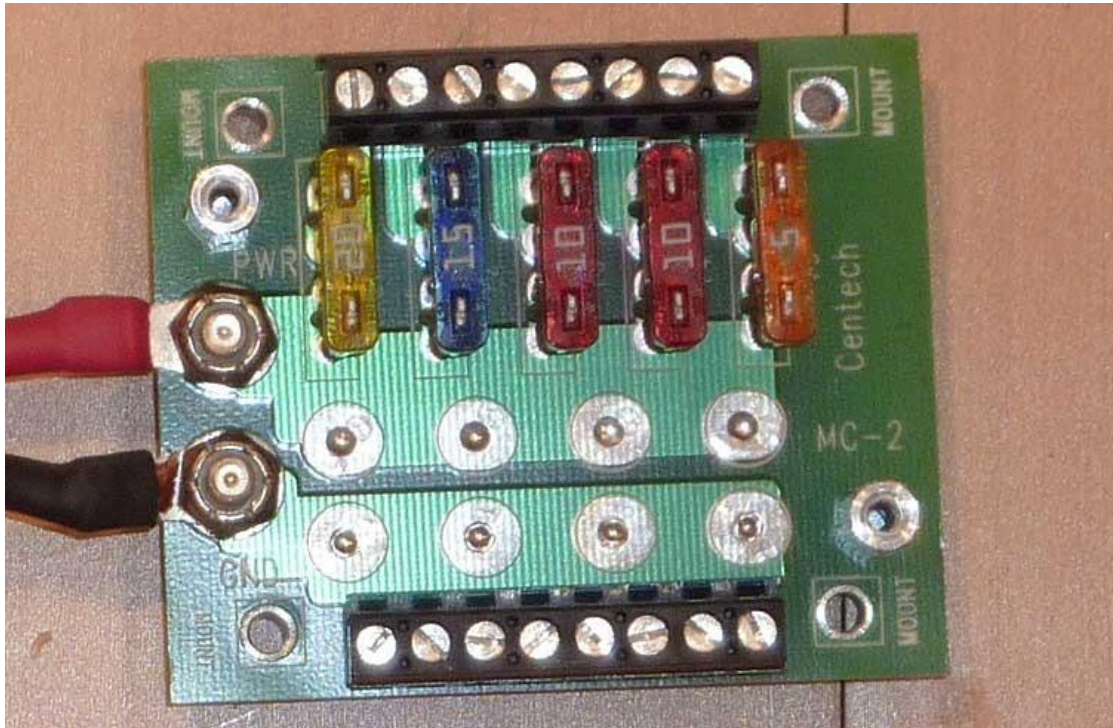


Adding an additional fuse box for Auxiliary Power Supply (GPS, LAP TOP, DRIVING LIGHT, ETC)

want to run quite a few additional electrical devices on my Tenere

- heated grips
- Gerbing heated jacket
- Auxiliary spotlights
- Garmin Zumo GPS
- DIN socket to run power into a tank bag

All of these need fuses and the easy way to provide fused power is to connect a Centech fuse box to the battery terminals, then run the wires from there to the devices. You can buy the Centech fuse box at £40 from [Nippy Norman](#).

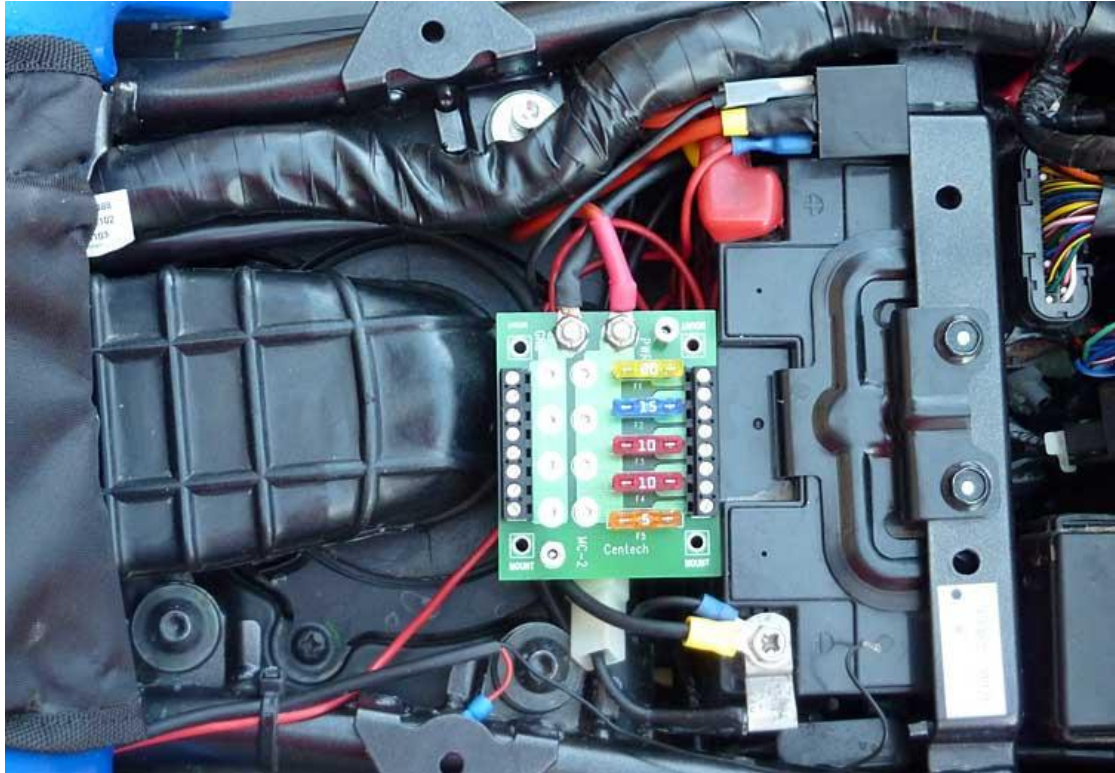


The Centech unit holds five fuses, the inner three handle two connections each, the outer two handle one connection, so up to eight devices can be powered at once with 5amp, 10amp, 15amp or 20amp fuses.

But in all cases I wanted switchable power--in other words, when the ignition is off, the devices are off. The way to do this is to insert a relay between the positive battery power and the fuse box. The relay is activated by a feed coming from the sidelight near the instrument panel.

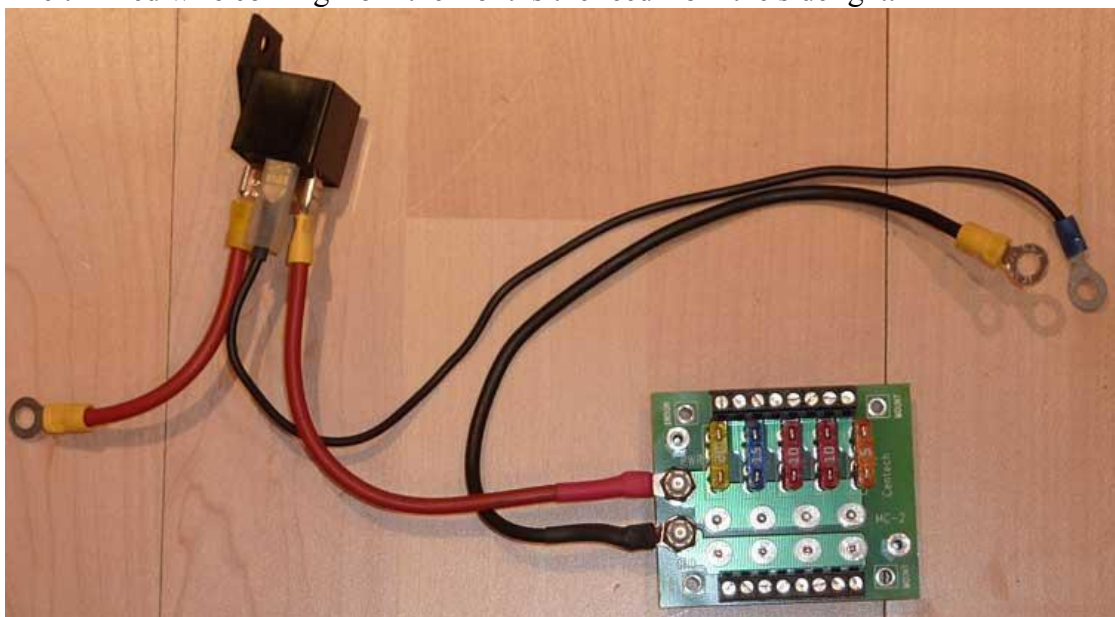
The four relay terminals are labelled 30, 85, 86 and 87. These are connected as follows:

- 30: positive battery terminal
- 85: cable from sidelight
- 86: earth (or negative battery terminal)
- 87: Centech unit



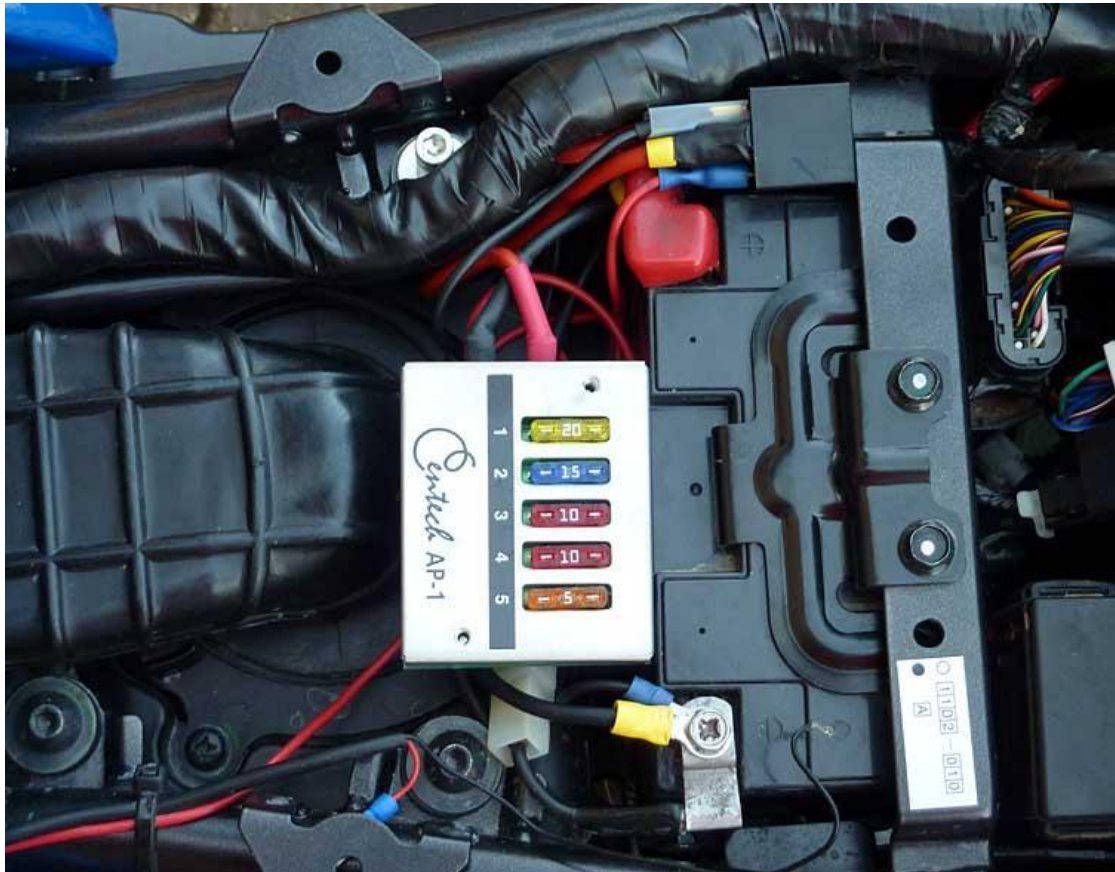
There's space for the Centech unit under the seat with the relay tucked away next to the positive battery terminal.

The thin red wire coming from the front is the feed from the sidelight.



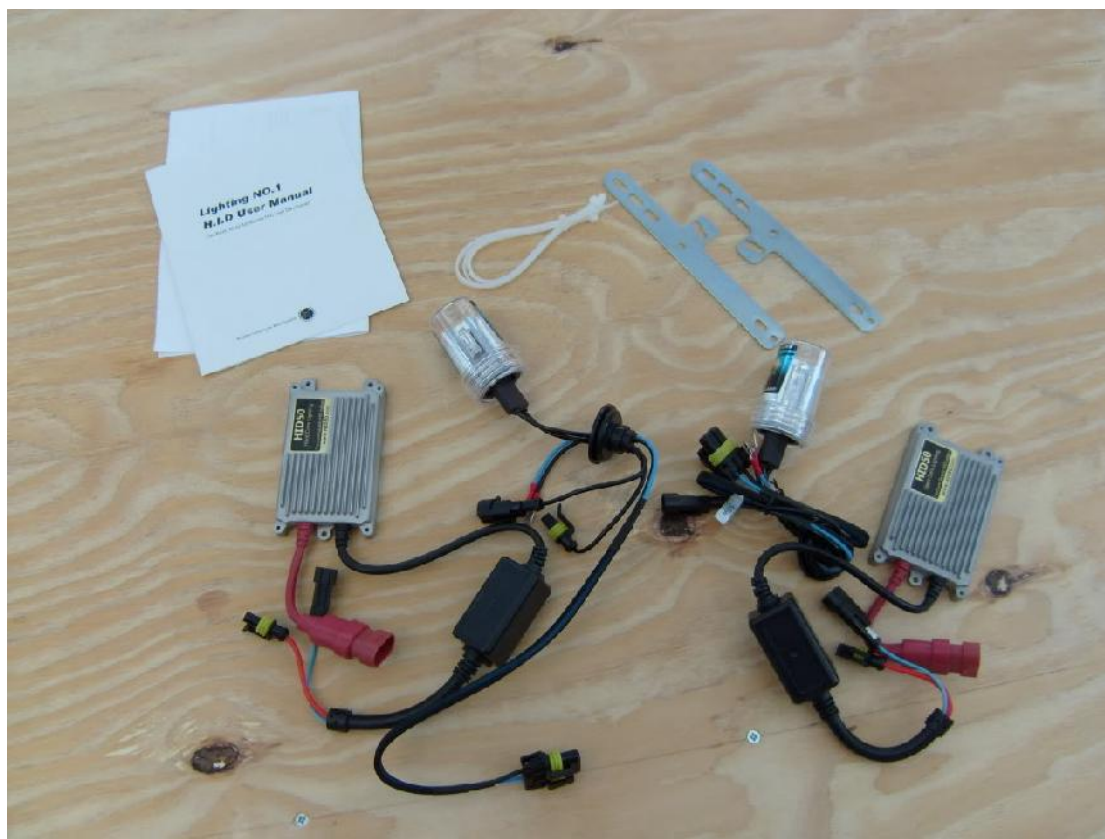
All the cable lengths were worked out in advance whilst the combo was assembled in the warmth of the kitchen.

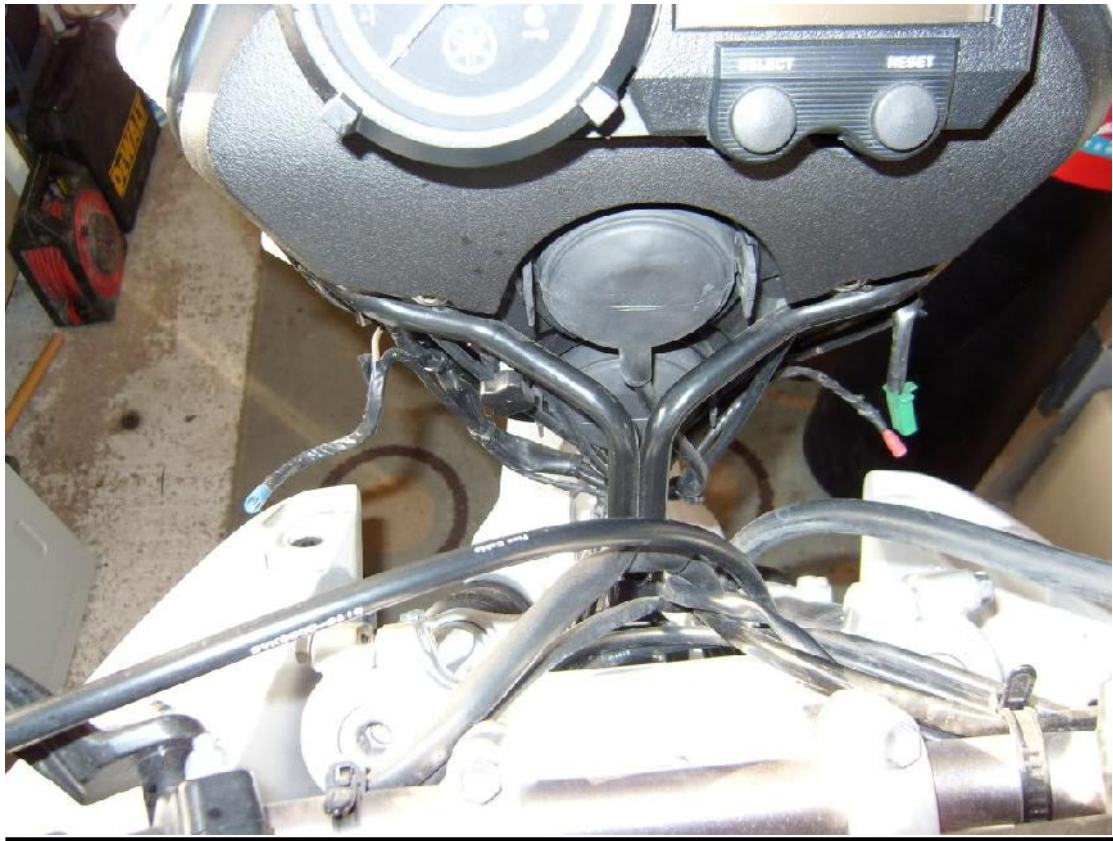
All that's missing from the wiring is the feed from the sidelight into the relay. Terminal spades were insulated before fitting.

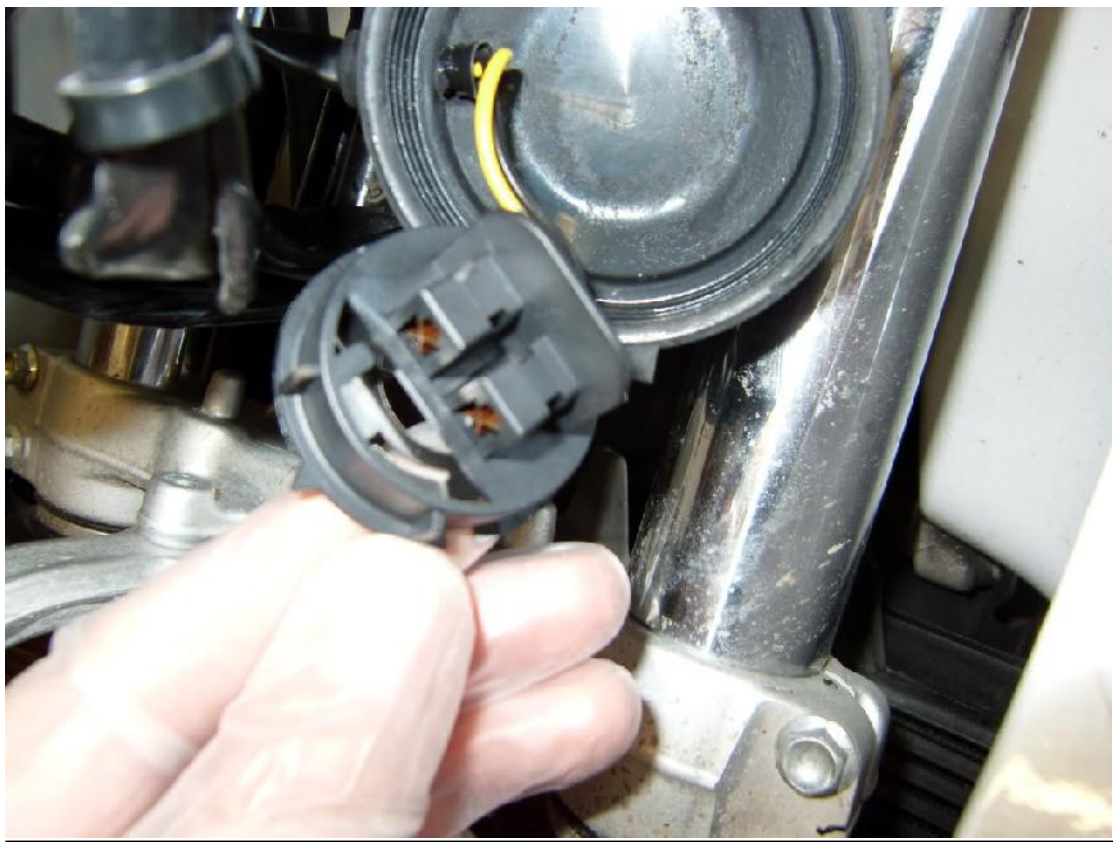
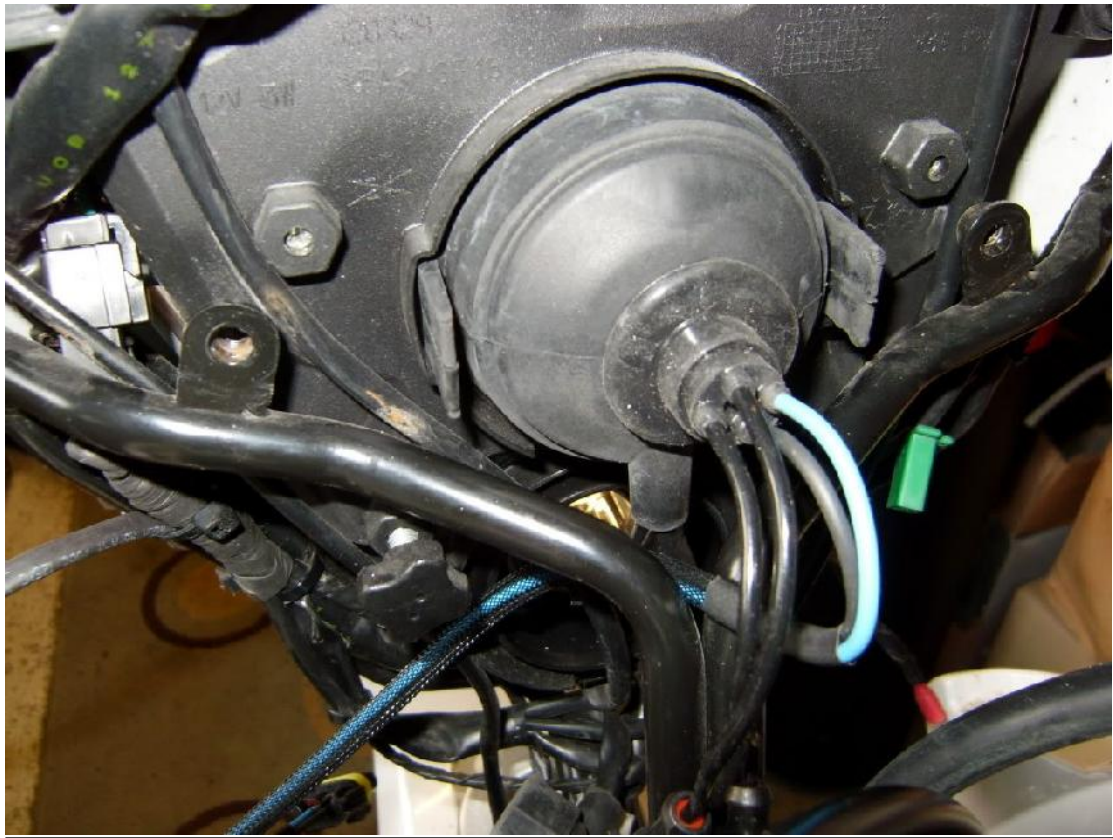


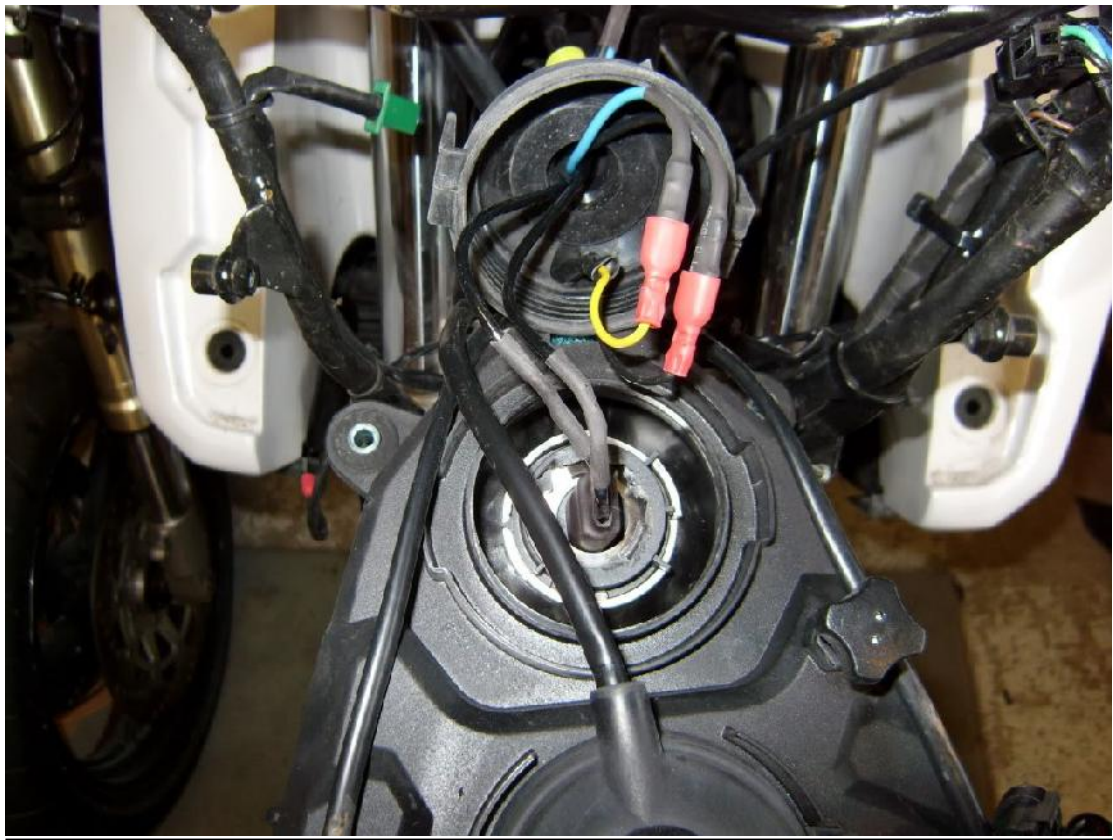
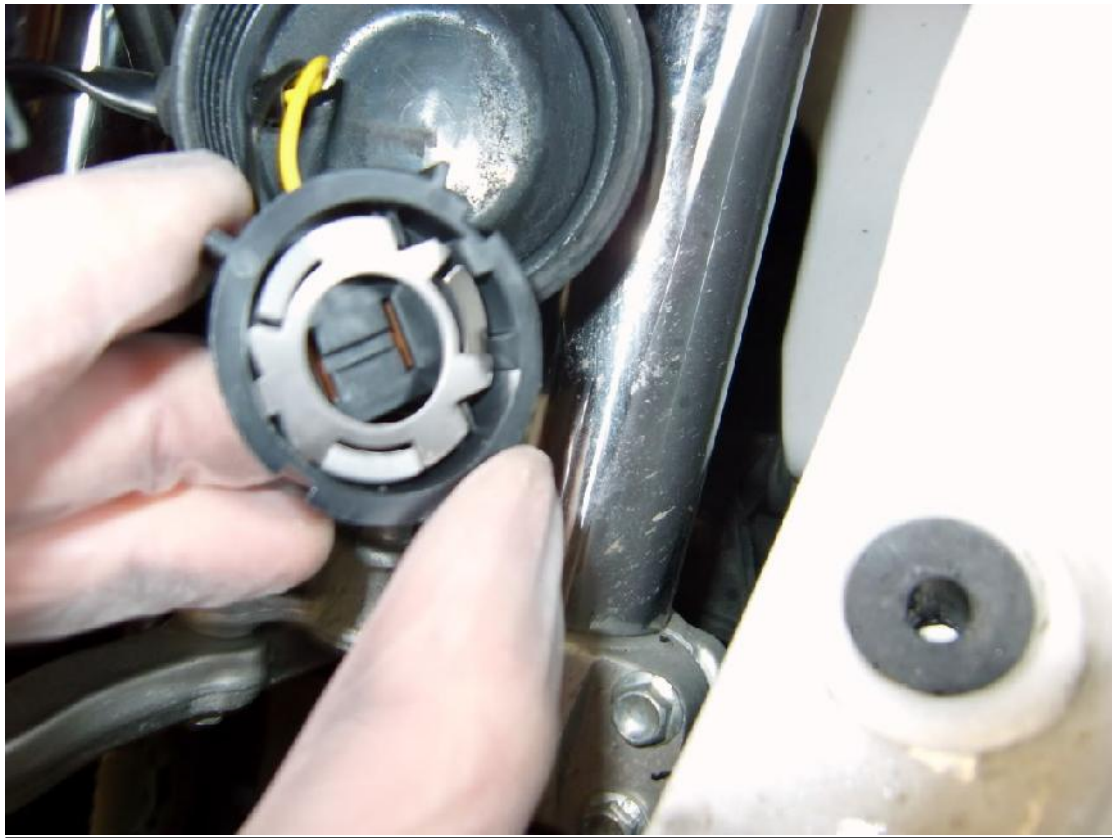
The finished installation. Most of the devices will be simple plug ins to each side of the fuse box, the exception will be the aux lights which will also have an on/off switch. Simple.

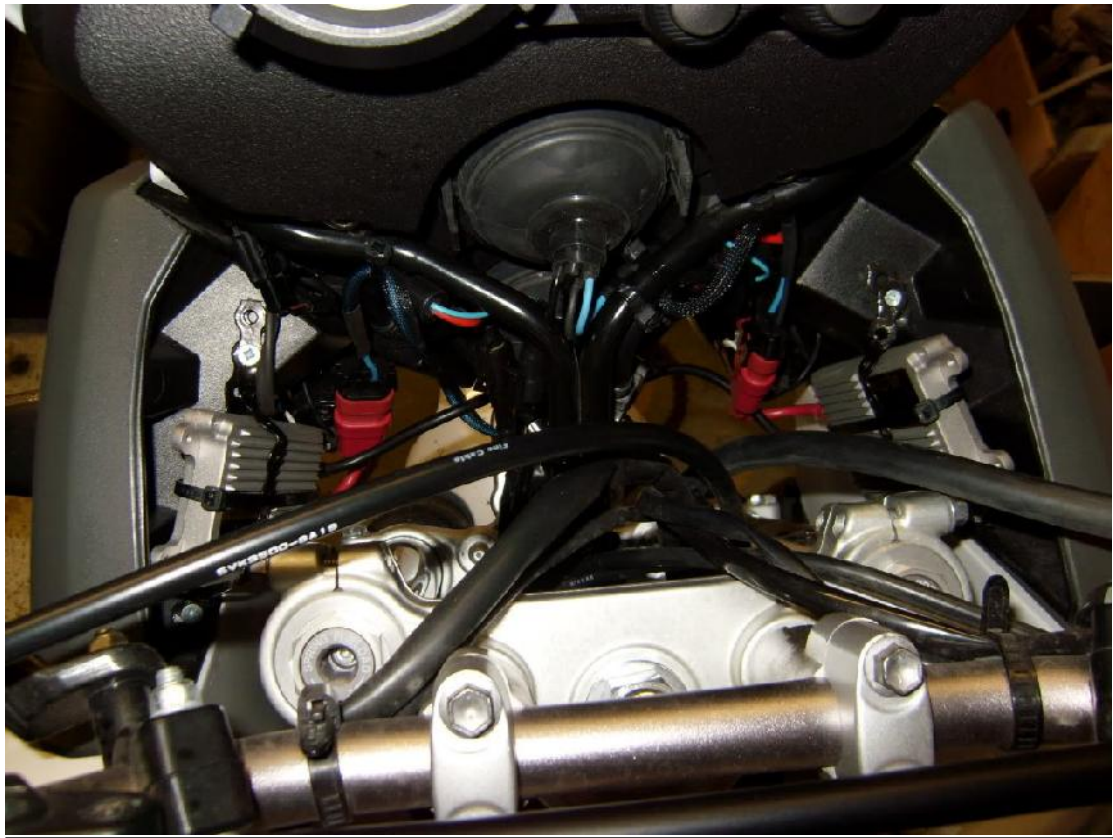
HID lighting to a XTZ











XT660Z Power Supply for a GPS

Most of the XTZ guys are using this connector for their GPS's, see below.

Make sure you check which is the + & - for your GPS before wiring it in.





Speedo Healer for the Tenere

The Speedo on the Tenere is about 9% out. I was not too happy with this and when I changed the front sprocket to a 14 from 15 it got worse. I like to know how fast I am going due to the masses of cameras in London.

I previously noted that the bike was doing 70 (GPS) when the Speedo was reading 77 so some quick calcs:

$70/77 = 90.9 \times 14/15 = 84.8.....$ a 15.2% error.

I decided to fit a Speedo healer at a cost of about £65 including postage. Small change when my last speeding fine was £550.

I decided to take pictures of the fitting to assist anyone else contemplating fitting one. My tank was half full when removed and did not spill any petrol at all.

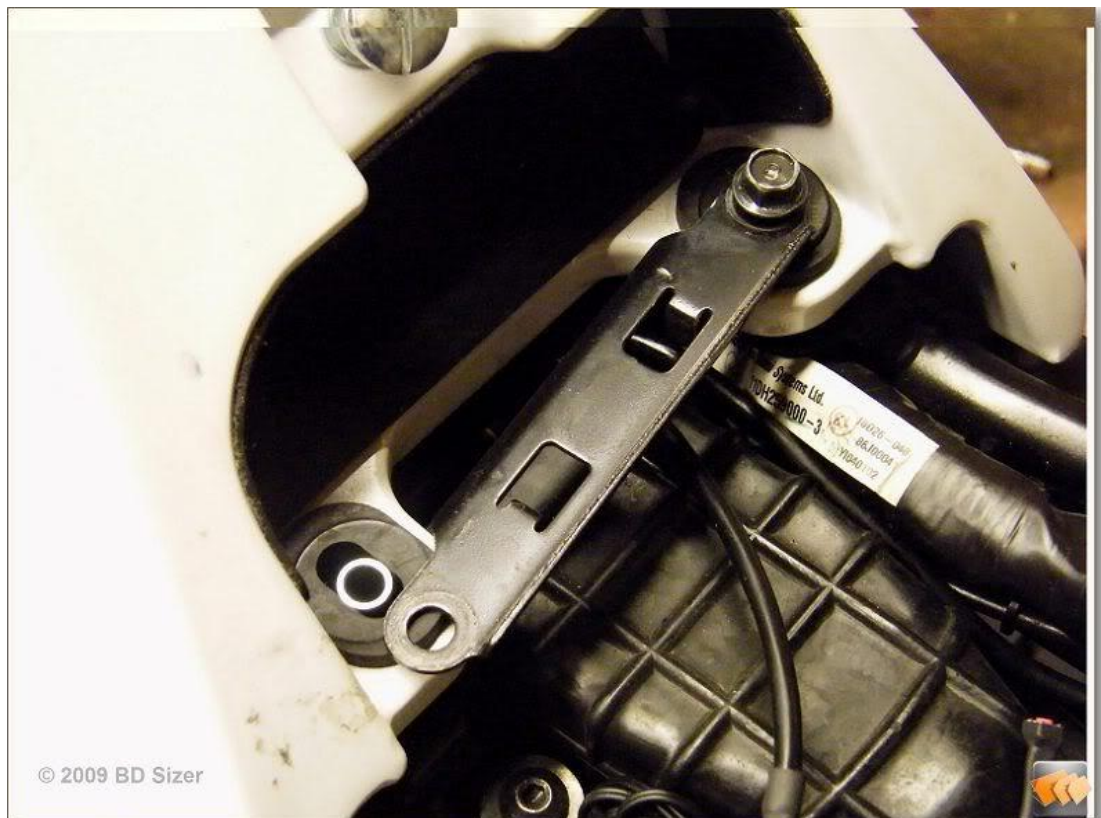
First, all the grey plastics have to come off.



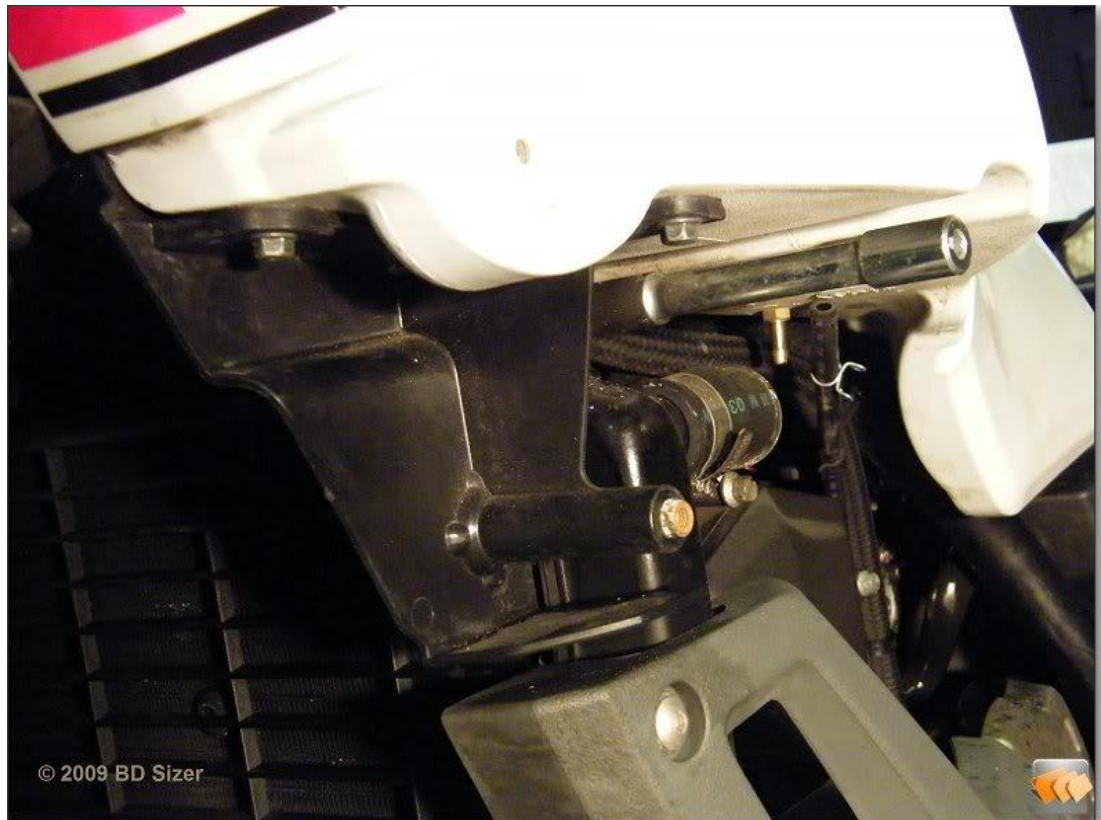
Beware the small spacers, they fall out and have a mind of their own.



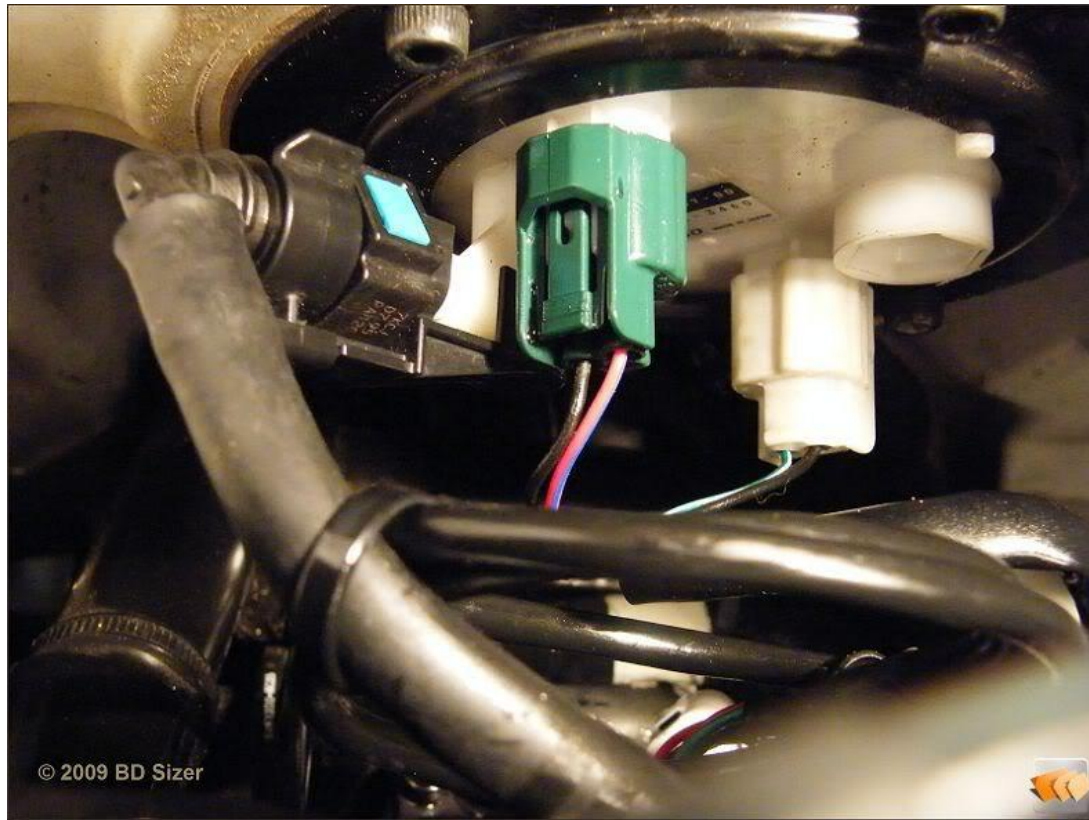
Next is the rear tank bracket, again, watch the spacers, they fall out when the tank is lifted.



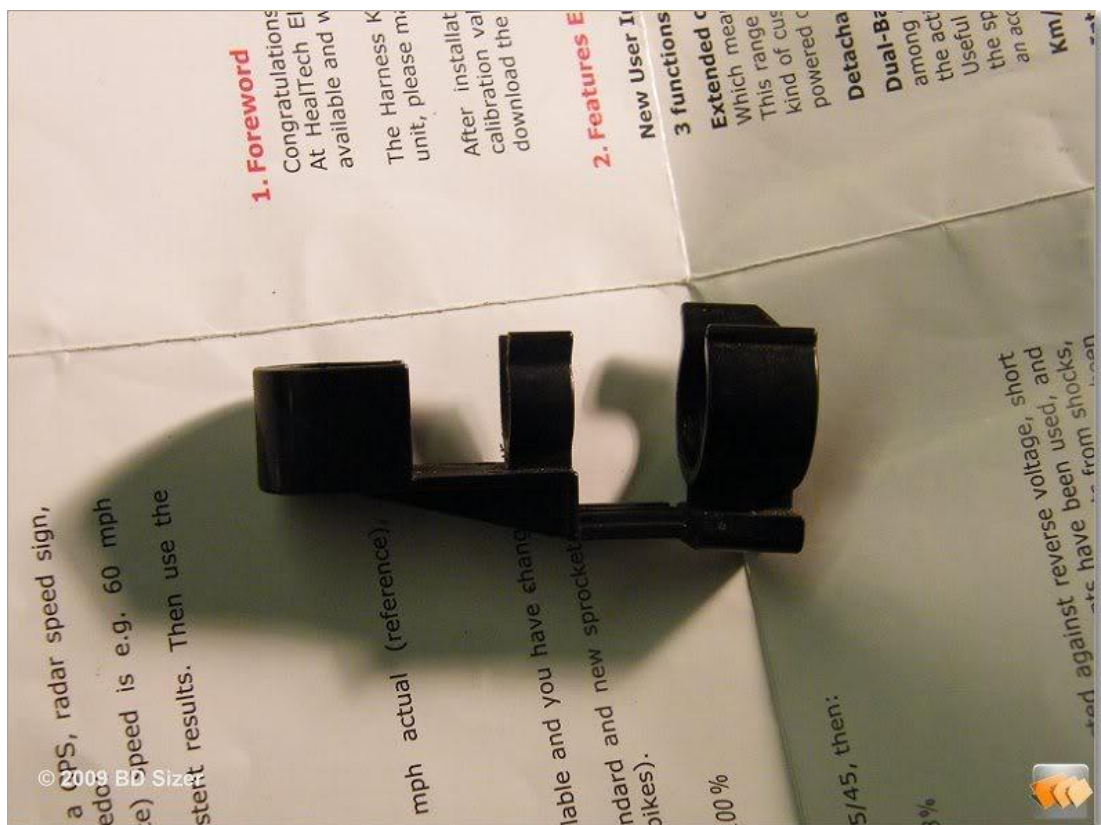
Remove the front long silver bolts from under either side of the tank and also the two black plastic brackets in front of those (3x 8mm bolts each). At the same time, slip off the tube on the left side behind the long bolt. Mine did not spill any fuel. Note the rusty thread on the bracket. It was the same both sides and made removal of one of the side panels a problem, had I left it much longer I am sure it would have seized solid and broken away from the bracket - rust inhibitor used for reassembly.



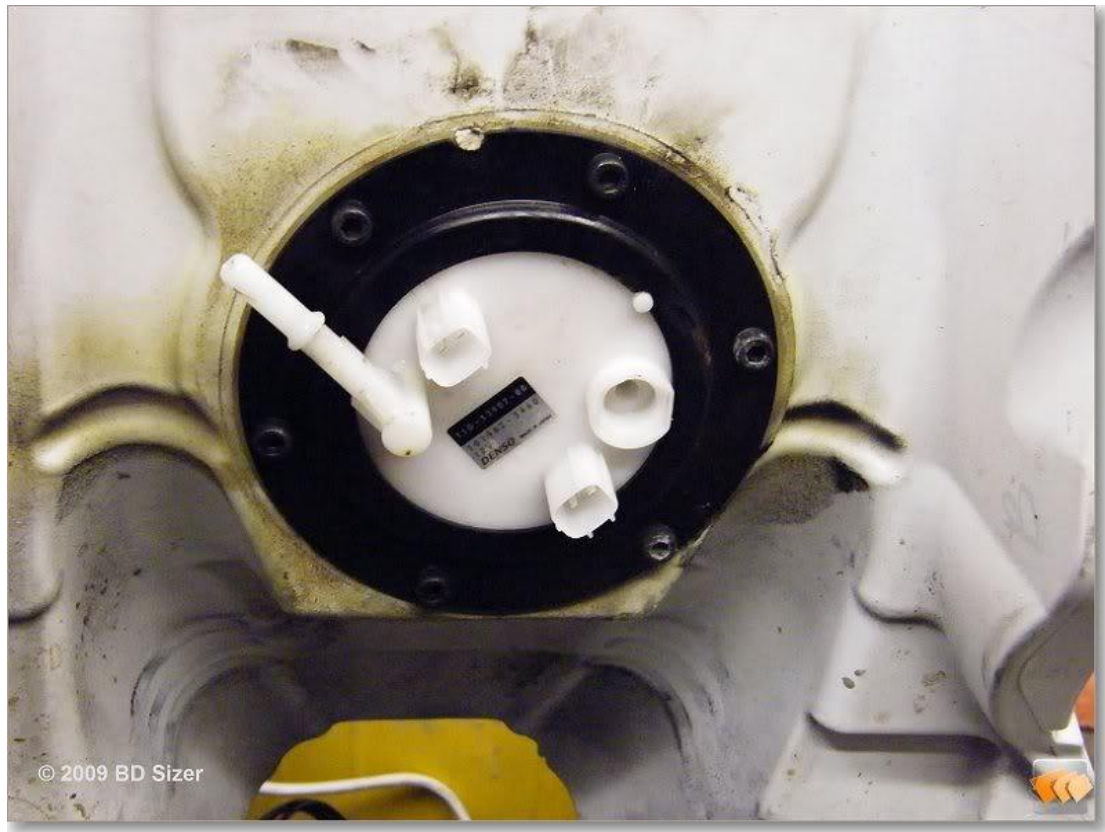
This is the hard bit. wiggle the tank up whilst keeping it roughly level and get someone to chock the rear up with something so you can get to the fuel line and electrics. The green and white plugs are simple enough to remove with the usual press catch on one side.



Now remove this clip from the fuel line and it will allow you to then squeeze the blue tabs on the fuel line and pull it off.



Now lift the tank off. This is what it looks like underneath.

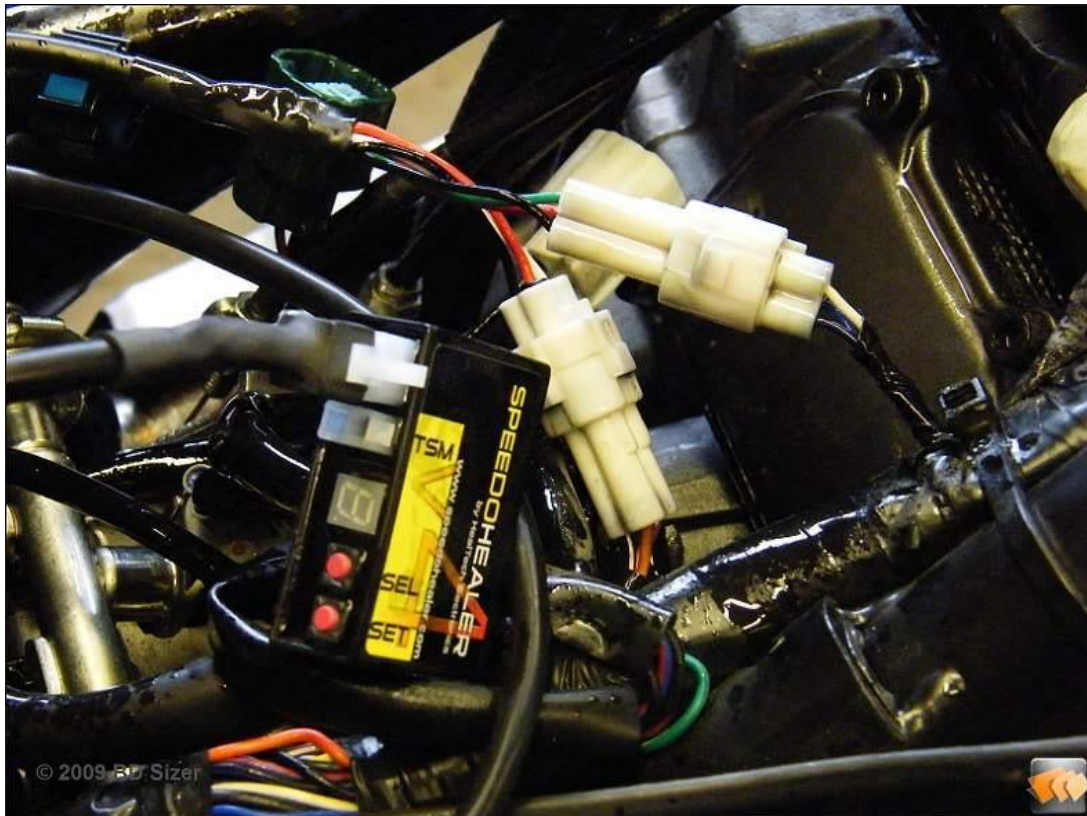


Now you can access the Speedo sensor cable. Its the 3 pin white one above the tappet cover, centre screen. Pull this plug apart. Care is needed when pressing the catch as it is a bit like a fish hook and the plug needs to be pushed together slightly before pressing the catch and then pulling the whole thing apart. (hope this makes sense).

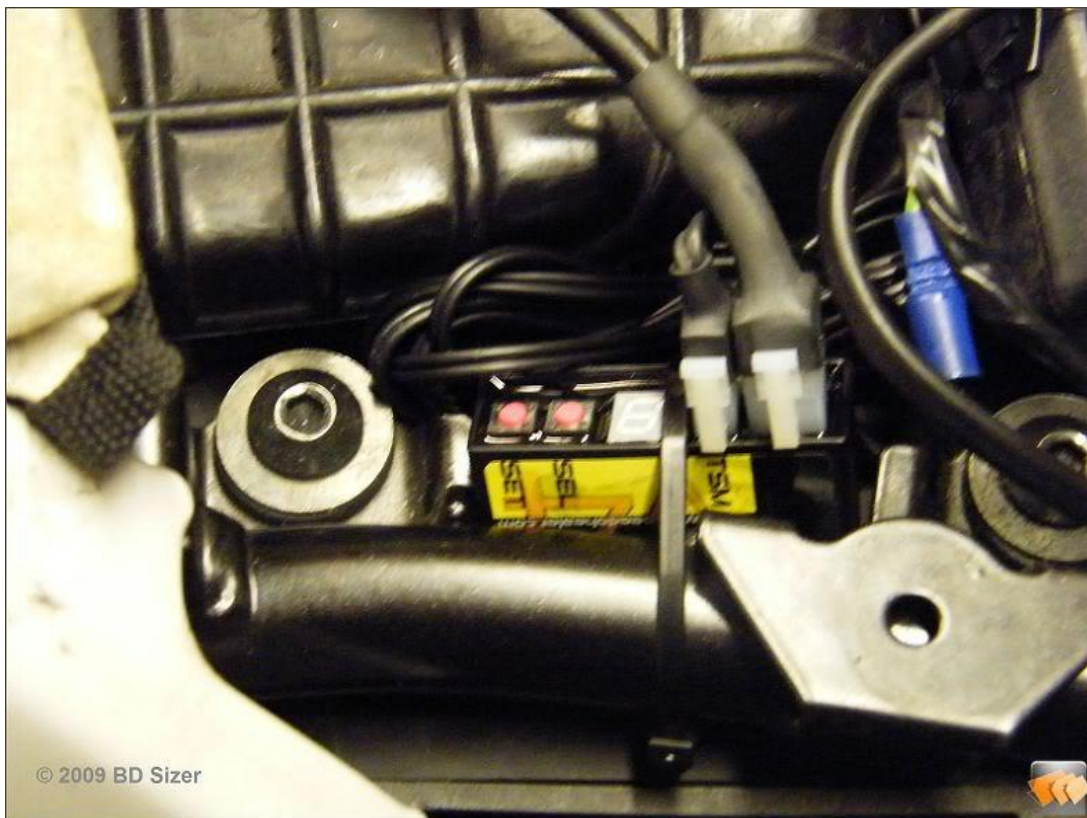


Once apart it is a simple matter of inserting the male and female of the Speedo Healer lead into the now exposed female and male of the existing plug.

All that remains is to plug the new lead into the Speedo Healer, plug in the supplied extra 2 pin lead and switch (not absolutely required unless you want to know you max speed recorded) tidy it up and find a place under the seat for the Speedo Healer bearing in mind that the buttons need to be accessible (not easy if you have other bits attached under the seat) and then calibrate it to suit your set up.



This is where mine ended up. I may move it yet. I have a relay, an Autocom, an MP3 player and battery pack squeeze in too, so space is tight. This is probably my main criticism of the Tenere when you consider its intended use.



The settings are (for my bike anyway) -9.1% for the Speedo only and -15.2% with the smaller 14T front sprocket. Follow the instructions supplied to program it.

I will calibrate the unit and test it against TomTom tomorrow

Placing a 47 on instead of a 45 would do the same thing as going from 15 to 14 on the front (well about 65% of it anyway). The pickup is indeed in the gearbox and the only way to make the Speedo read correctly would be to put something like a 42 on the rear or a 16 on the front. Both these would likely make the bike struggle in top gear against a strong wind or slight incline and make off road a nightmare.

The calculation is a simple division sum. e.g.

Standard $45T/15T = 3.00$

Mine $45T/14T = 3.21$

Your proposal ... $47T/15T = 3.13$

I have now calibrated the Speedo and I have programmed in an 18.5% (Yes 18.5%) correction to get the Speedo to agree with TomTom. This is all very dandy and I now know exactly how fast I am going but the downside is that the odometer is now out by about 7%. After 100 real miles my ODO thinks I've only done 93.

It appears that in the stock setup the gearing is correct for the ODO but way out for the Speedo - possibly in a vain attempt to slow us down.

Shorai Lithium Iron battery

There is a great weight saving when using a lithium iron Shorai battery it will also crank you bike faster, there are two versions you can buy .



Standard Recommendation: LFX12A1-BS12
MSRP: \$129.95

Our LFX Standard recommendation is the best overall pick for most applications, and has been selected to give strong cranking performance and long lifespan. This LFX battery is 6.80 Lbs. lighter than the lead-acid YT9B-BS.

Voltage (V):
12

A/Hr PbEq:
12

Cranking CCA (A):
155

Weight (grams):
700.00

Weight (lbs.):
1.54

Max Charge (A):
10

Terminal Polarity:





Duration Recommendation: LFX14A1-BS12

MSRP: \$159.95

The LFX Duration recommendation is for those who want the strongest possible cranking performance and lifespan, and don't mind a slight increase in weight and cost compared to the standard recommendation. Users with extra electrical accessories - like stereo systems used regularly when the vehicle isn't running - may also choose the duration suggestion. This LFX battery is 6.67 Lbs. lighter than the lead-acid YT9B-BS.

Specifications

Voltage (V):	12
A/Hr PbEq:	14
Cranking CCA (A):	210
Weight (grams):	830.00
Weight (lbs.):	1.83
Max Charge (A):	14
Terminal Polarity:	



As a comparison your XT660 OEM battery



Specifications

Manufacturer: YUASA

Battery type number: YT9B-BS

Battery type: Sealed maintenance-free battery

Filling kit included: Yes

Dimensions: 150mm x 70mm x 105mm

Capacity rating: 8Ah

Cold-start performance: 115EN

Maximum charging rate: 1 Amp

Weight (filled): 3.4kg

Terminal layout: Left: + Right: - (With the terminals on the edge nearest to you)

Replaces the following Part Numbers

Yuasa YT9B-BS

FTL9-BS

GT9B-BS GT9B-4

CT9B-BS

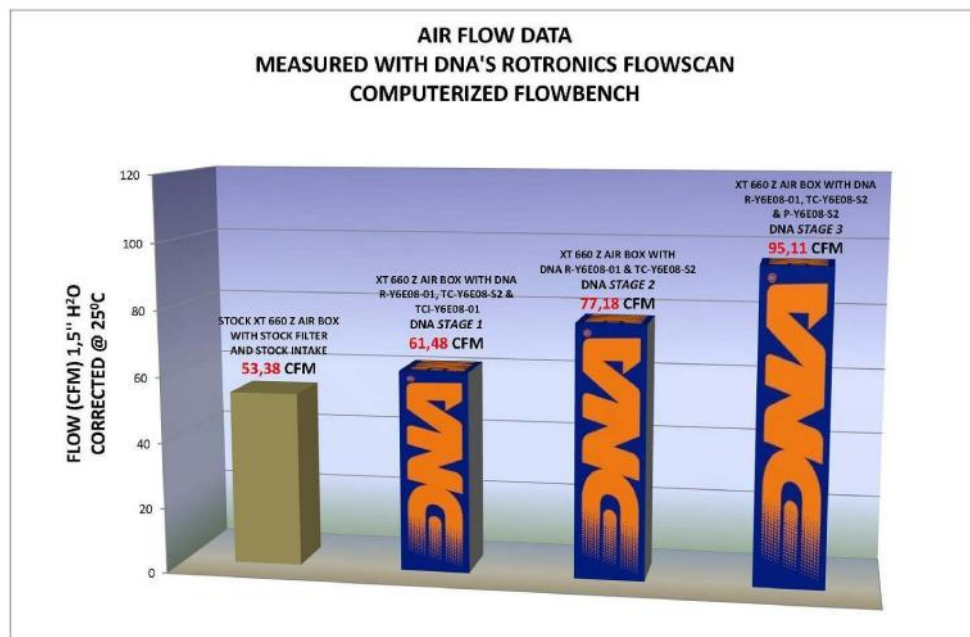
Varta 509 902 008

DNA Filters, Stage 1, 2 & 3

DNA Flow bench.



There are 3 different air filter system made by DNA, below are the flow results from the 3 filters



As you already know we have completed all the tests today using a stock XT 660 Z Tenere. With Very good results!
We tested the following configurations:

Test 1:

Stock XT 660 Z, stock filter, stock air box cover, stock exhausts [44.72HP](#)

Test 2:

Stock XT 660 Z, DNA Stage 1 filter **R-Y6E08-01**, stock air box cover, stock exhausts [46.14HP](#)

Test 3:

Stock XT 660 Z, DNA Stage 1 filter **R-Y6E08-01**, DNA Stage 2 air box cover **TC-Y6E08-S2** with DNA Stage 1 intake restrictor TCI-Y6E08-S1 installed to lower the airflow down to stock level, stock exhausts
(This configuration can be used if someone prefers to use the stage 2 cover without changing the fuelling) [47.50HP](#)

Test 4:

Stock XT 660 Z, DNA Stage 1 filter R-Y6E08-01, DNA Stage 2 air box cover TC-Y6E08-S2, DNA Stage 2 air filter P-Y6E08-S2 (replaces the left side air box cover), stock exhausts
This configuration is almost a Stage 3 application and needs fuel injection recalibration. [50.07HP](#)

Following are the dyno runs:



The DNA stage 3 air filter.





This new Bolt On High Performance filter from DNA, features:

- Extreme air flow **95,11 CFM @ 1,5 Inches** of water when combined with the DNA Stage 1 filter R-Y6E08-01 & the DNA Stage 2 Air box Top Cover TC-Y6E08-S2! The result is a complete Stage - 3 Application!
- + 23, 23% more than the popular DNA Stage 2 application!
- +78, 1 % more than the stock air box cover & filter!
- 98-99% filtering efficiency for maximum engine protection
- Dyno proven +5, 3 HP more power from the standard engine (with Power commander and stock exhaust)
- Specially designed laser cut frame with DNA logo, epoxy coated Grey "sand blast " colour
- Shipped ready to install, including the laser cut frame, installation info, 1 Power commander Map, dyno Graphs, and air flow Graphs

Part No. to order: P-Y6E08-S2

Application: Yamaha XT660 Z 2007'-2009'

Price: 80€ + package and posting

Designed and Manufactured in Greece by DNA Filters Ltd.

DNA Filters Ltd.

Head Office: 61, Vithinias str.

184 50 Nikea, Athens, Greece

T: (+30) 210 49 26 278 F: (+30) 210 49 26 279 www.dnafilters.com

DNA stage 3 independent testing.

1st, I would like to thank Dino from DNA for sending me one of the 1st DNA stage 3 filters for the XT660Z and allowing me to test the filter on an actually running bike.

Initial impressions:

I like what DNA did with this filter. The quality is as always great, plus they added an extra metal plate to help hold the filter in place. It fitted real easy and can be installed by just about anyone.

Testing:

As always Jon was ecstatic to receive the filter and was only too happy to let me play with his XT660Z on the dyno. Just a note. I operate my dyno at around 5000ft above sea level and as a result seem to be reading very low compared to other similar dynos. You can roughly add about 10 to 12% to my readings to get a good idea of how much power other low altitude dynos will read. Don't worry too much about the actually HP and torque amounts, rather look at the gains from before and after. The best is to work out the gains as a percentage and that will give you a good idea of how much you will be gaining over a stock setup.

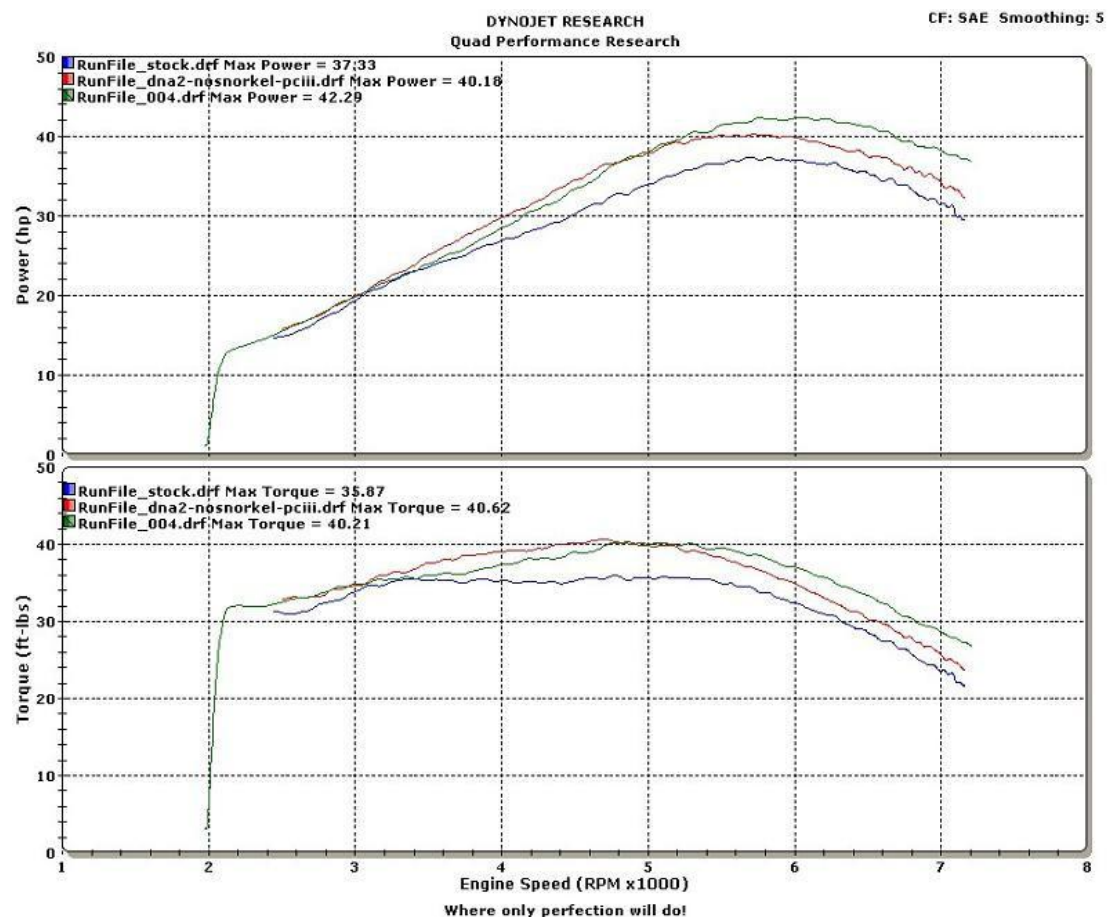
The 1st Dyno run we did was with Jon's bike in stock form. Nothing removed or added. See blue line. The bike produced peak power at around 5800 RPM and gave just over 37HP at the rear wheel.

The red line shows what happened when the DNA's Stage 1 and 2 filters, plus a power commander with a custom made fuel map was added. Exhaust is still stock. The power commander and fuel map by itself adds a few HP and is well worth the investment. This combination resulted in some impressive gains. Midrange power increased by as much as 10 to 12% over stock. Peak power was increased by around 8%. Jon said it felt like a different bike. He loved the improved low end grunt and crisper performance.

The last run, green line, was done with the DNA stage 1, 2 and 3 filter, plus a power commander. A custom fuel map was specially made for this combination. This setup resulted in some low RPM power losses when compared to the stage 1 and 2 filter only setup, but the good news is that it still made more power than stock. I don't believe anyone can blame the

stage 3 filter for this, as we got the same result when we run a open air box without any filters. It seems that the air box harmonics is affected at low RPM, but adding an aftermarket exhaust should restore the midrange power gains. One interesting thing Jon mentioned is that he did not notice the slight HP and torque losses of the stage 3 setup versus the stage 1 and 2 setup. It felt to him as if the bike ran way better than before, so don't read too much into this.

Saying that, this combination really came to life at around 4600 RPM and from 5200 RPM it made the stage 1 and 2 filter gains look like minor gains. Peak HP jumped up by 15% over stock plus peak RPM is now at 6100 RPM. The power output also gained massively over stock, all the way to the RPM limiter, which should result in much quick acceleration times and top speed gains. On the open road and for those thinking about taking some nice long trips, these top end gains are most welcome.



Overall impressions.

As with the XT660R/X, the DNA side cover filter make a massive difference in power. The same goes for the XT660Z's DNA stage 3 filter. I have tested various aftermarket exhaust system on both the XT660R/X

and the XT660Z and the DNA filter upgrades alone make by far more power than any of the exhaust systems I have tested. The DNA filter upgrade, even when combined with a power commander, is still a cheaper upgrade than adding a good set of aftermarket exhausts. The other advantage I like is that you can gain all that extra performance, and not having to deal with a loud exhaust system.

It is my own personal opinion that the DNA filter upgrades are the best bolt on performance upgrade you can do to the XTZ. Hands down!

PS, I highly recommend a power commander and custom fuel map with the DNA stage 1,2 and 3 filter setup. I forwarded Kev a copy of the map I made for Jon's Tenere, so please keep an eye out for it in the fuel maps section. (Only available to XT660.com members)

New DNA High Performance Stage 2 Air Box Cover

TC-Y6E08-S2 official release for the Yamaha XT 660 Z Tenere 2008'-2009'



New DNA High Performance Stage 2 Air Box Cover TC-Y6E08-S2 official release for the Yamaha XT 660 Z Tenere 2008'- 2009'

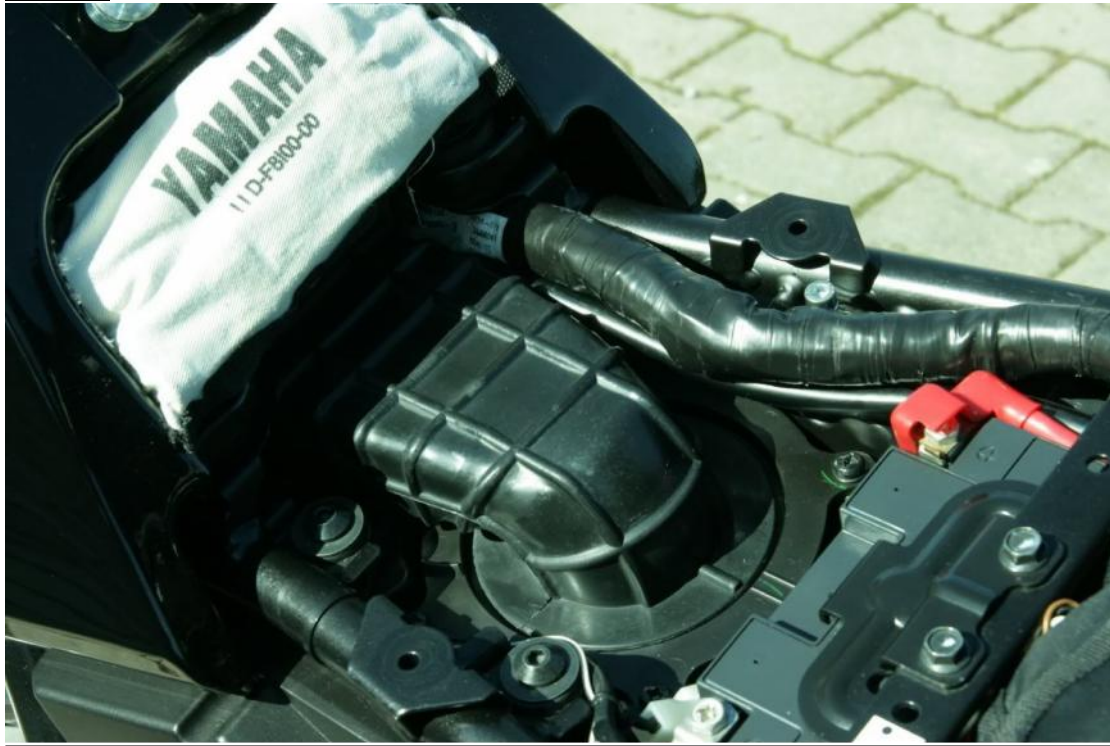
We proudly announce the official release of the TC-Y6E08-S2 for the Yamaha XT 660 Z Tenere 2008'>

- This cover is designed to replace the stock Air box cover and increase the intake air flow.
- Fitting the cover is very easy, simply remove the old one and replace with the DNA.

- DNA has developed the DNA stage 2 air box cover for race use or for highly modified bikes that have the possibility to re-program the fuel injection,

Using the DNA Stage 2 cover without modifying the fuel injection is not recommended and can cause damage to the engine.

Before



After



DIY stage 2 air box mod

DIY snorkel removal, AKA Poor Man stage 1 filter cover.



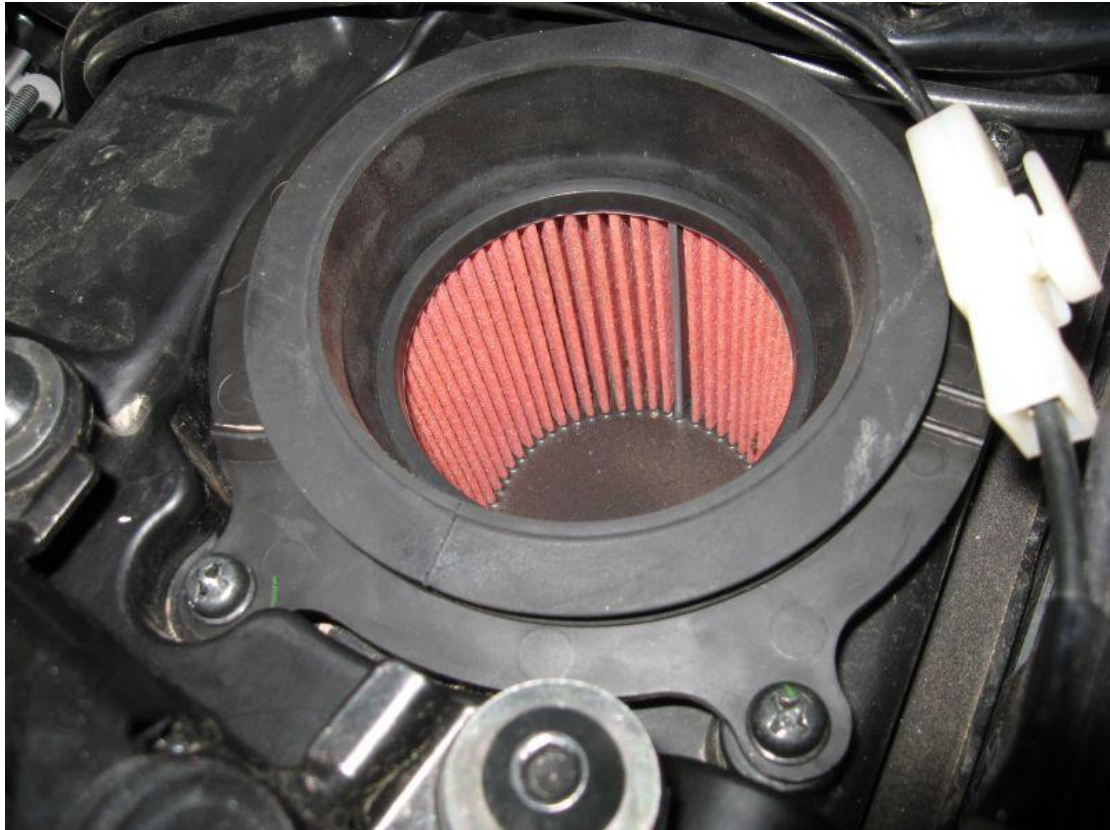
Snorkel Out. A visit to the local plumbing store ended with a rubber that fits either a WC or a XT660Z filter cap.



Placed on the filter cap.



And installed on the bike.



DNA Stage 1 Filter.

This filter replaces the original Yamaha paper filter.



For: **YAMAHA - XT 660Z Tenere 08'>**

Part ID: **R-Y6E08-01**



XT660Z Foam Unifilter

I finally managed to fit UNIFILTER bought from Touratech.

<http://www.touratech.com/shops/008/index.php?cPath=8&osCsid=53532ed2bc2e4a02866c0bce6f62bcbc>



I decided to buy this one, since they have good reputation, it is original filter for Australian Tenere, it has wire cage, so it's more durable, and suppose to be good choice for Sahara and the dunes.



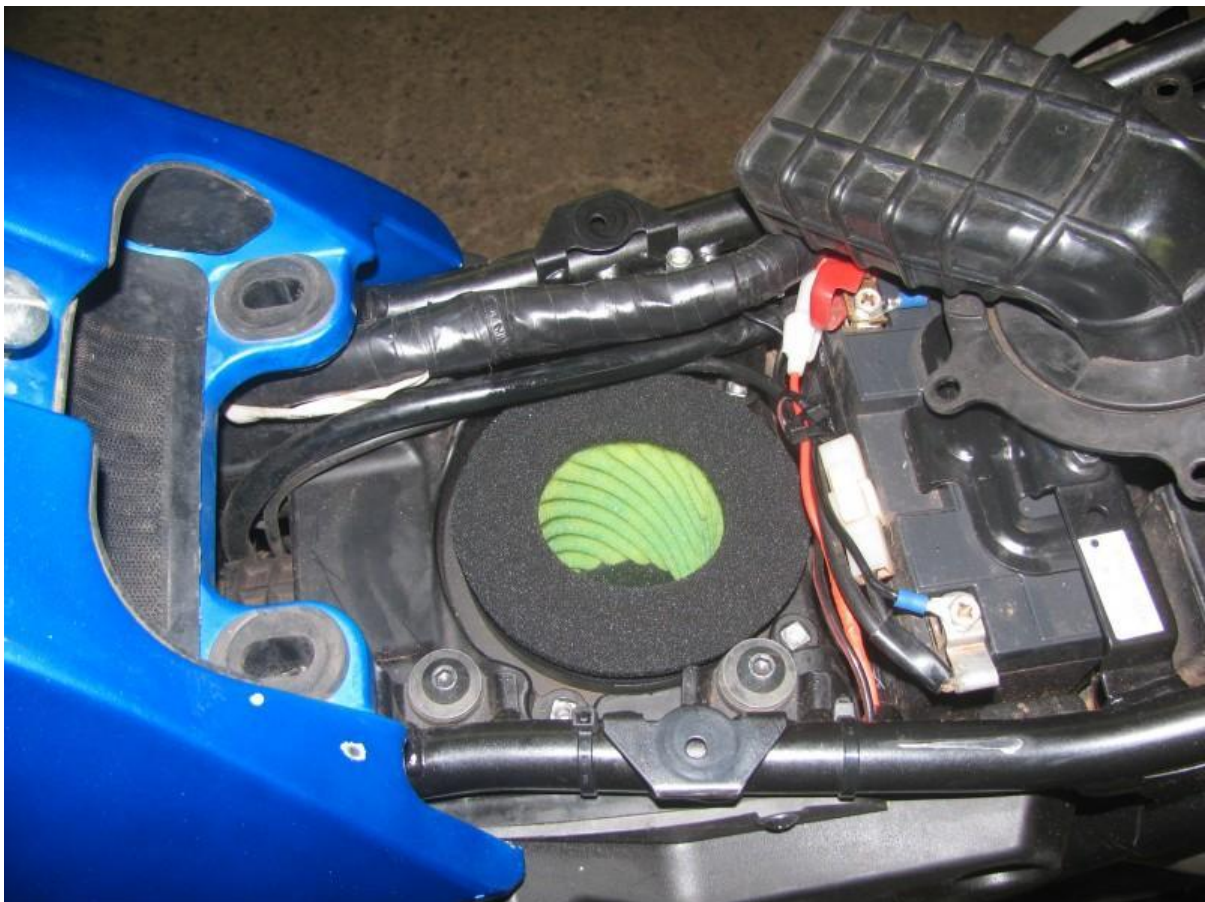
I oiled it with Motul AIR FILTER OIL SPRAY



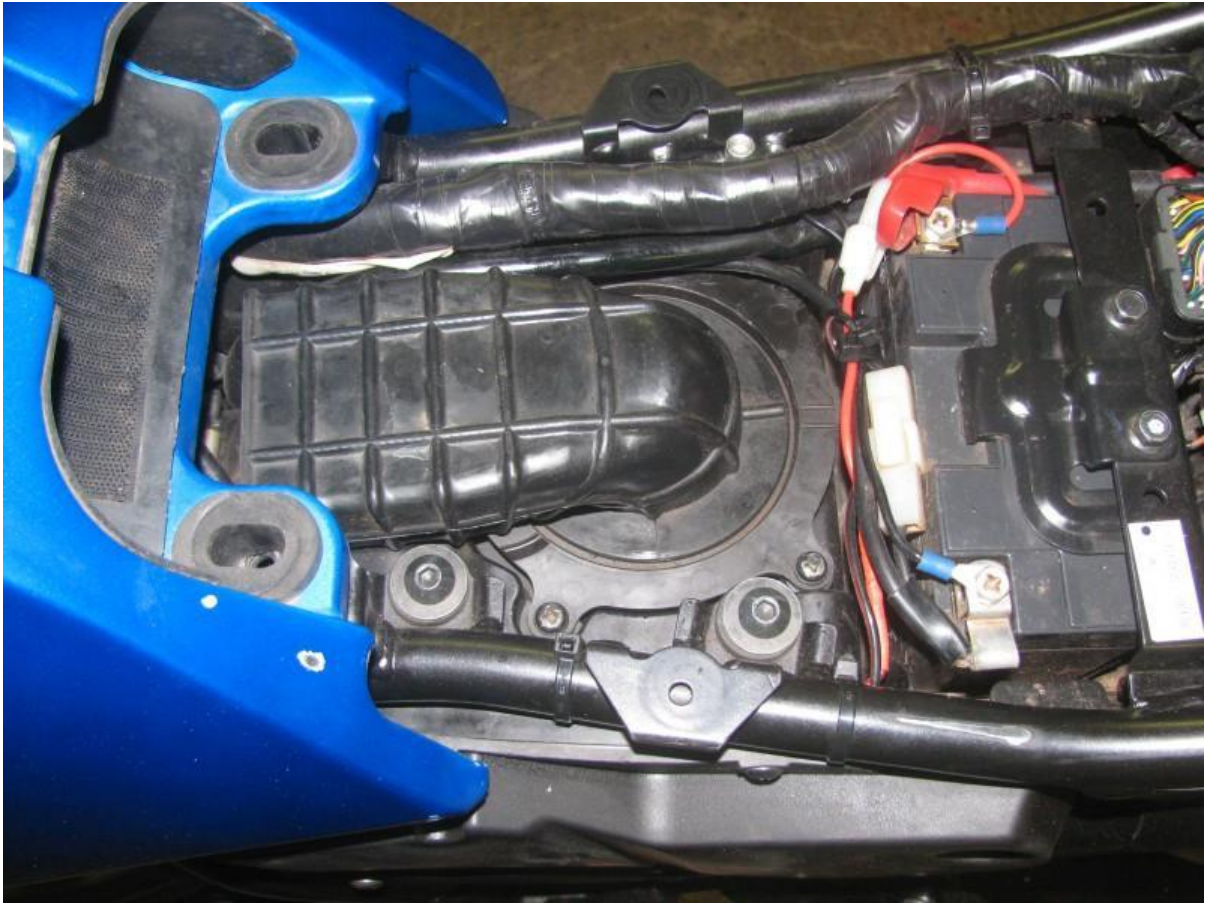
When oiled its gets really sticky and the colour is slightly blue.



UNIFILTER fitted in the air box.



I decided to keep the snorkel, since sand in the Sahara will not get in the air box that fast.



Engine breather Modification

Latest news: in Germany all Yamaha dealers got a writing concerning the modification of the breather (partno.11D-E5371-10, of '08 Tenere's), which must solve the oil drain pipe problem in the air box.







YAMAHA

Parts & Accessories

GENUINE

1PC

11DE53711000



YAMAHA MOTOR ITALIA S.P.A.

XTZ Exhausts

Leovince's SBK exhaust system.

Today I finally got the Leovince's. They were fitted by my dealer and fitted very well. It came with all the needed brackets and also db-killers(not as yet fitted, I think I will, because they're LOUD!). Looks and sounds great, and weighs much less(how much, I'll you know as soon as I put the original system on a scale), also bangs when you shut the throttle down, like with the original system, only louder.





Akrapovic XT-660 Z Tenere

The first available exhaust system
system for the new Yamaha Tenere!



- Made of stainless steel, Titanium and carbon (clamp)
- approx. about 2 kgs less than stock
- good sound
- very precisely made
- Available for: XT-660 Z

Akrapovic silencers XT-660 Z Tenere

Product number: AKRA-XT660Z Price: 1099.00 Euro.

GPR Yamaha Tenere 2008

Now available: The new GPR exhaust system for the new Tenere 2008. Very good looking exhaust system in the new "two-colour" look with black anodized end caps. The silencer has a double shape, round on the side to the head pipe, oval on the end cap. Precisely made and great sound. Each silencer has two (!!) separate dB-eaters. Available with or without catalytic converter.



- Made of stainless steel (Edelstahl) or Titanium
- 2 dB-Killer pro Endtopf
- with (mit) or without (ohne) catalyzer available
- Catalyzer can be added later
- Street legal - EG-ABE / TÜV
- Delivered with all needed parts

GPR silencers Yamaha XT-660 Z Tenere

Product number: Price: 0.00 Euro Choose your size: **Edelstahl ohne Kat 699.- Euro** **Edelstahl mit Kat 849.- Euro** **Titan ohne Kat 849.- Euro** **Titan mit Kat 999.- Euro.**

Leovince SBK Silencers XT-660 Z Tenere

Also Leovince now offers a new exhaust system for the new Tenere. Compared to the 'normal' XT's (XT-660 X and R) they do not use the X3 silencers, the newer SBK silencers will fit to the Tenere. The silencers are made of stainless steel (inner parts), the outer tube is made of aluminium. The silencers are oval shaped with a conical end cap. Exhaust system without catalytic converter.



- Stainless steel / aluminium made
- precisely made
- removable dB-eater
- exhaust system without catalyzer
- Catalyzer can be installed if needed
- E-marked / TUV approved

Leovince SBK Silencer Yamaha XT-660 Z Tenere

Product number: 8138 Price: 499.00 Euro

MTC Exhausts For XT660Z Tenere Here At Last!

<http://www.mtcexhausts.co.uk/>

This is probably the biggest news of 2010, MTC exhausts have sent me some pictures of the prototype cans for the Tenere,

These cans will be available for ALL pockets from level entry cheap stainless steel all the way up to Carbon / Titanium / Coloured Kevlar, domed ends, short length, tri-ovals and what not!

All of which will then be available in two major formats:

1) ROAD LEGAL, with baffles in the outlet and in the link pipes

or

2) TRACK USE ONLY, no baffles, loud as FXXX and completely straight through from header to can.

The Pics in this carousel are just 3 simple examples:

- Stainless Steel
- Black S/Steel
- Tri-Oval S/Steel

but remember you can order them to your exact specification in any format / material

Anyway without further ado here is the video.

<http://s144.photobucket.com/albums/r200/xt660/MTC%20Tenere%20Exhausts/>





De-cating your standard XT660Z Exhaust

Silencer remover



A view from both sides



Next using an angle grinder cut a flap.



You will find heat wool & a metal heat sink below the flap.



What it looks like inside



Cat removed



Cat now gone



Weld the metal heat sink plate back in, then refit the heat wool & weld the flap back into position.



Engine response is crisper throughout the rev range, it revs to higher engine speeds more freely and I've gained flexibility lower down. You will need to block off the AIS to stop the popping.

So all plus at this stage

Stainless welds on a stainless box so it should not rust.

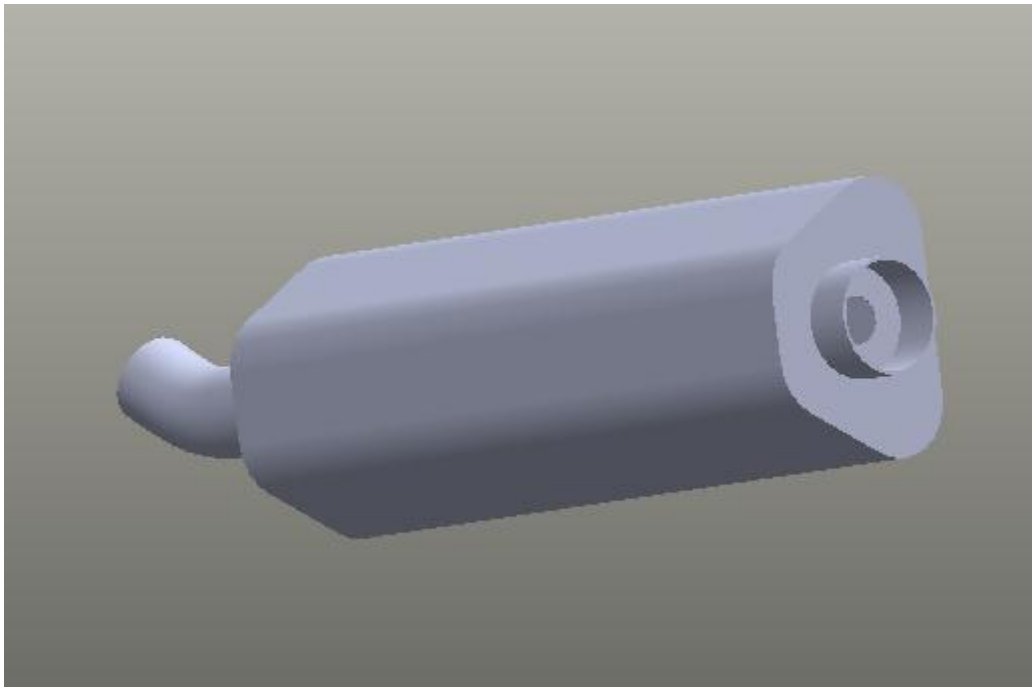
Making your own exhaust for your XTZ

Since all silencers for the Tenere are rather expensive I decided to build my own. I've posted this on a couple of other communities, first it's translated from Swedish and then it's copied from advrider.com so there may be some confusion. If that's the case ask me and I'll try to make things more clear. =)
If you don't feel like asking then you're at least able to look at the pictures. =P

Here it goes:

Since the silencer i nearly finished (some final modifications and a "paintjob" left) I'll post all updates in one post =)
It's copied from another community and manually translated from Swedish

First "sketch



I'm now more interested in making it from sheet metal which will make a "edgier" look, the best part about that idea is that it'll require a lot less welding compared to a silencer made of both parts of pipes and sheet metal.
Shape: The hexagonal look of the original, but in one can.

Update: 2010-11-14

[pic of two design options]

alt1: easier to access for internal modification

alt2: probably easier to seal properly and less prone to break open

Blue text: Rivets

Red text: Weld

[Pics of the original XT660Z for comparison]

2010-11-14

[Pic from the service manual showing the original exhaust]

The "original setup"

Sketch (gotta love MS-paint =D):

[A crappy sketch made in paint =P]

2010-11-18

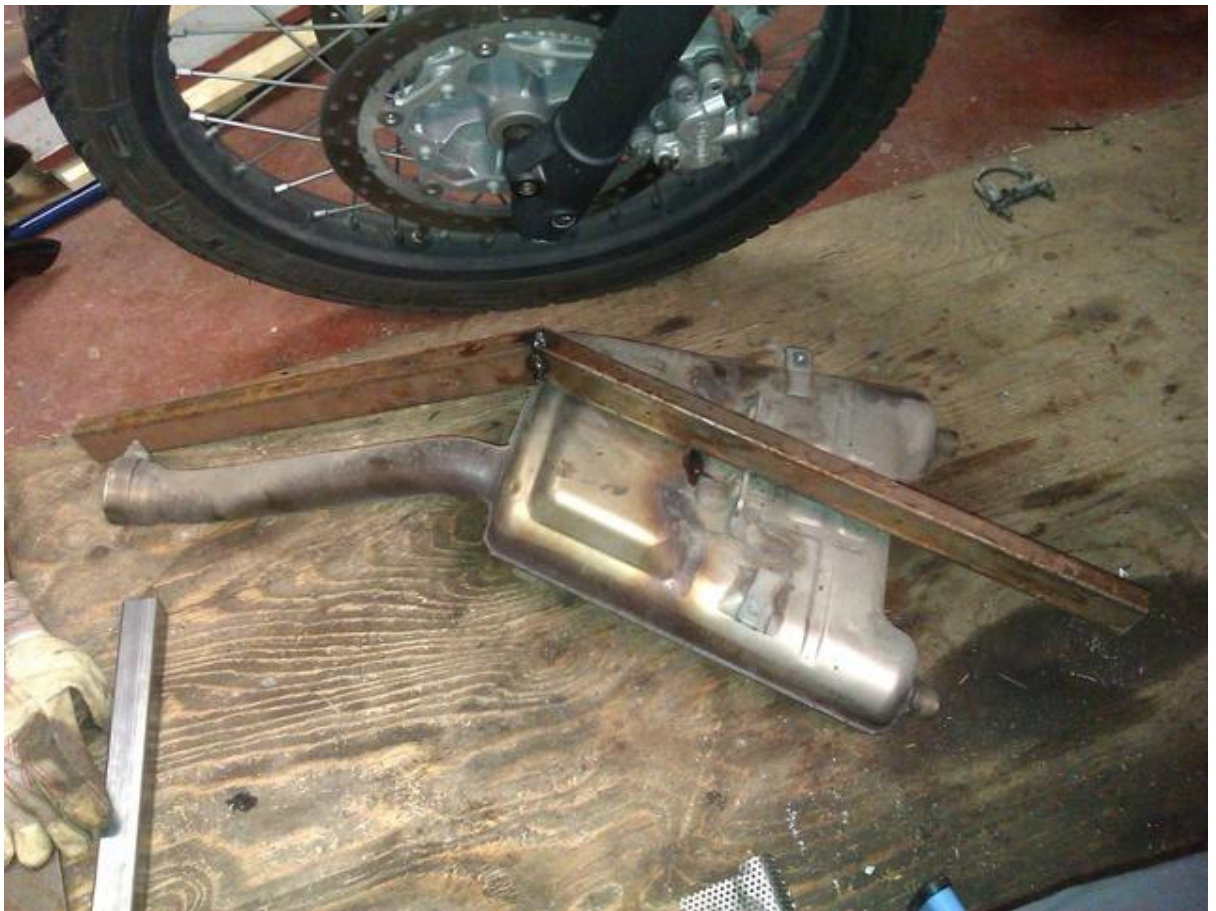
The design idea is from a XR650R-silencer. The end plugs can be seen here:

<http://forum.soe.se/showpost.php?p=358618&postcount=312>

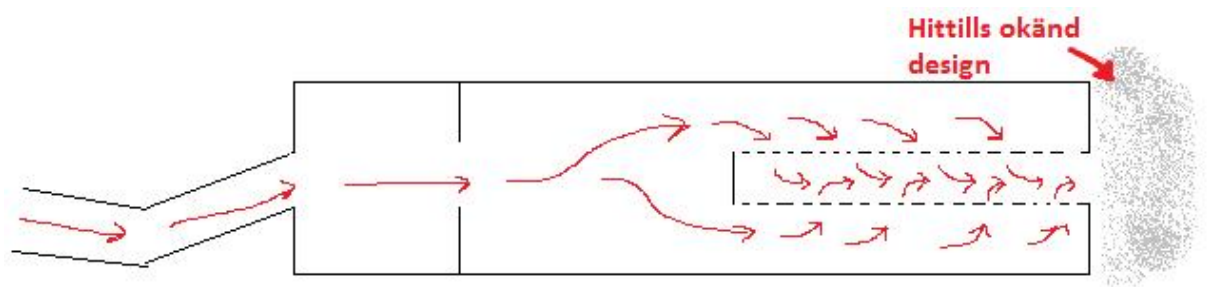
A friend of mine has that silencer with the louder "plug" and it sounds just about loud enough.

2010-11-21

Just a short update:



Making a jig



2010-11-22

Modification of the pipe that connects the silencer with the remain part of the original exhaust

"preview":
[outer tube held to place for a sneak peak]

2010-11-23

A more accurate sketch:
[CAD model]

2010-11-23

The shape of the chamfered end piece before its shaped:
[CAD-drawing]

2010-11-23



Today's work:



Comparison



2010-11-25

Mini update. The other wall is bent & a couple of not too relevant pic's



2010-12-05

A small amount of work done today:



2010-12-10

Time for a small update

[Pic of interior design at that moment]

Left to do:

- Sealing it up
- Weld the chamfered end piece to its place
- Making a bracket for the silencer
- Use the jig to get the "connecting pipe" welded in the right angle
- Sound check
- Possible post sound check modifications
- Painting
- Putting on the übercool decal on it =D

2010-12-11

Update

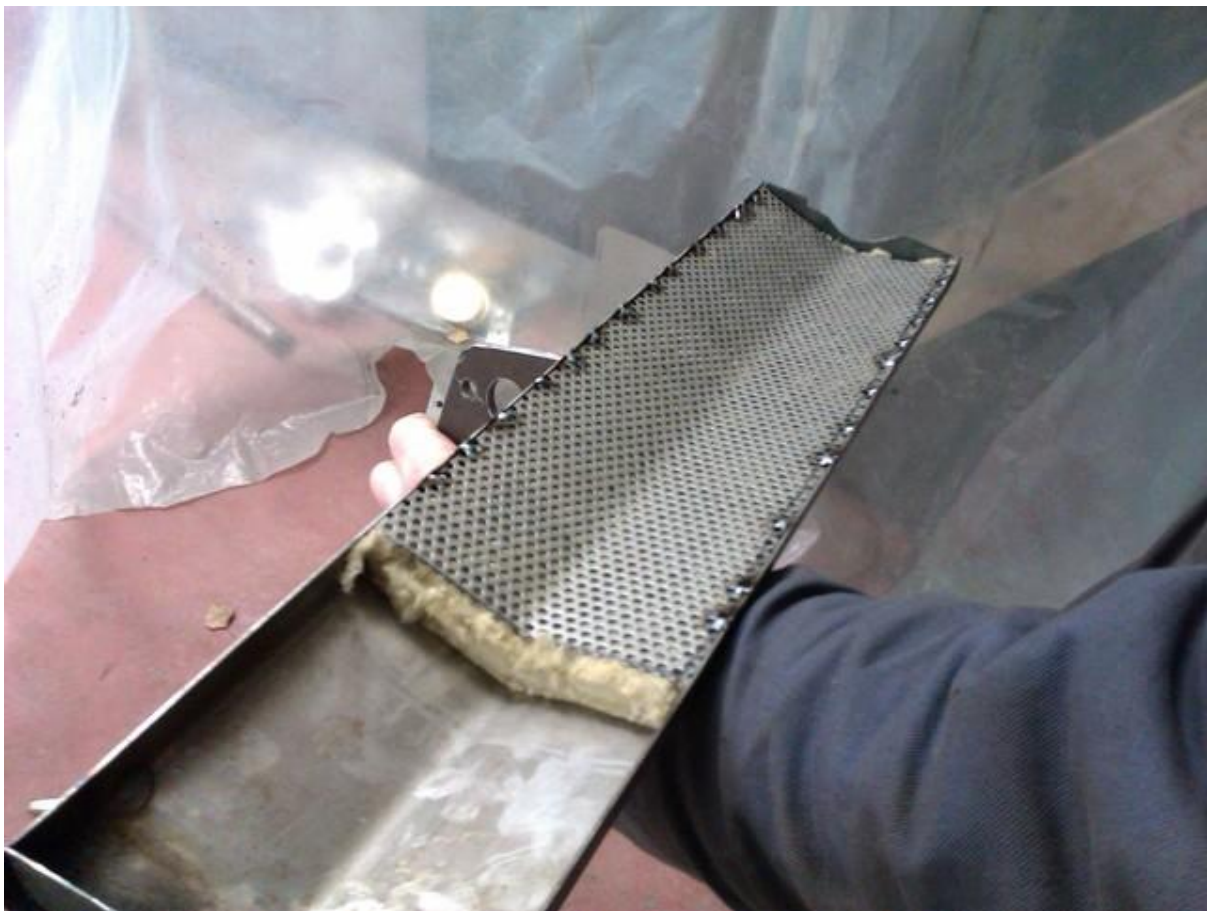
PANIC!!!

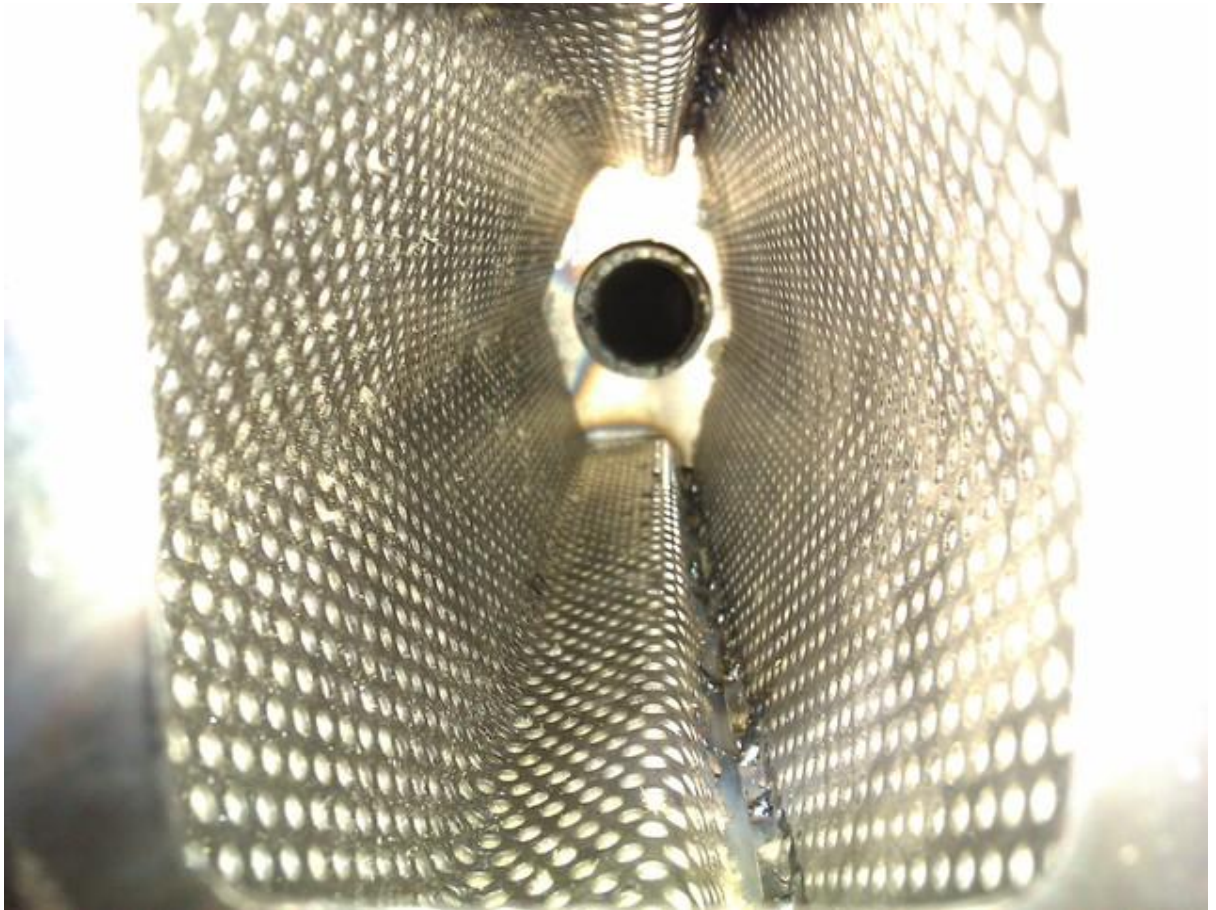
I've run out of welding wire =(

2011-01-09

Update

A few steps forward:





Assembled

The sound level has improved, it's acceptable now I guess, but I'll work more to make it more silent

Tomorrow (probably) I'll modify the other side of the interior wall in a similar way

A video clip where you can see the AIS working =D

<http://www.youtube.com/watch?v=FI7fJIEcu2E>

Close to being finished now:



Only exterior work left, like grinding down the welds a bit and painting it





2011-01-14

<http://www.youtube.com/watch?v=NJ0Z1gK2xkk>

<http://www.youtube.com/watch?v=FI7fJIEcu2E>



Fuelling & Fuel adjusters for the XTZ

There quite a few on the market these days, the best by far is the Power Commander, the PCIII & PCV will work on the XT660Z. Unlike the XT660X/R the XTZ's CO cannot be adjusted via the dash, you need a Yamaha tool to do this.

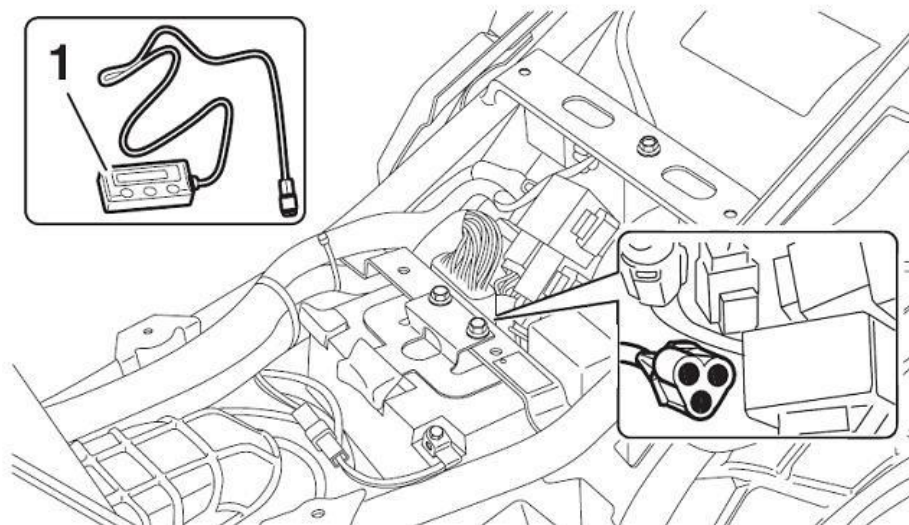


don't dream it... live it! www.cluby.com.au

Member Discounts | VIP Events | Rides and Raillies | Insider e-news | Information Exclusives

'CO' SETTING ADJUSTMENT

In stock trim Yamaha's new 660 Tenere runs clean, smooth and fairly hard for a bike with a rather heavy and restrictive exhaust system. There's also a little back-firing or popping-back in off-throttle situations that will have most owners believing their machine is a fraction 'lean' in the lower throttle settings. While there may be some looseness in stock trim, much of the popping-back during closed throttle can be traced to the Tenere's AIS (Air Injection System) as it delivers fresh air into the exhaust port to help diminish exhaust emissions at the muffler's outlet. Cars have used a very similar air-pump system for many years for the same outcome, as pollution laws around the world strive to restrict vehicle exhaust emissions. Traditionally, popping-back or back-firing in a thumper can indicate leanness. Importantly though, a leak at the exhaust header's gasket (at the cylinder head) or the joint gasket at the header/muffler connection can also cause popping-back or back-firing, and in the old days of pre-emission thumpers this diagnosis was fairly simple. However with the various noise and exhaust gas emission restrictions in place today - one of which is the Tenere's AIS - diagnosing lean running isn't as cut-and-shut as it once was. Luckily a fuel-injected bike - such as the Tenere - comes with a fuel-map that generally sorts out all the rich or lean running dramas that you would have to deal with on a carburetor bike. A bike with FI can generally run clean and sharp anywhere around the world thanks to fuel injection and its ability to constantly deliver the perfect stoichiometric fuel/air ratio (see TRAIL ZONE issue #27 for more info). In most cases a bike's fuel-mapping will also have the scope to self-adjust to accommodate a more free-flowing performance muffler - the only thing that might require adjustment in these cases is a slight tweak to the lower throttle mixture-setting, usually towards the richer side. In the case of Yamaha's popular fuel-injected WR250R, this low-speed fuel adjustment can be quickly and easily achieved within the bike's digital speedo in the 'Diag' mode. We'd have expected this might also apply for the Tenere, but it's not the case. The Tenere requires a plug-in Yamaha FI Diagnostic Tool (part 90390-03182 - \$407) and a few minutes to alter the 'CO reading' setting that controls the low-speed mixture setting (ie: the fuel/air ratio). On a bike with a carburetor this low-speed mixture setting is controlled by the fuel screw on a Keihin FCR carb, or by the air-mixture screw on a two-stroke's carb. Adjustment of the CO number/setting on the Tenere will ONLY affect up to the first 12 per cent of throttle, so it's a low-speed adjustment only. The Tenere's built-in fuel-mapping still controls the rest of the throttle range and will generally compensate/adjust for the installation of most aftermarket mufflers. New Tenere's will have a stock CO number very close to zero, perhaps minus-3 to plus-3. Adjust to a higher number for richer running, while lower numbers are leaner. Each bike and exhaust system may require a different setting number: we went from a stock 3 up to 22. Be sure to check hot-starting after making a richer setting adjustment, as a cold engine may start well on a richer setting but falter at hot-starts. CO adjustments will not interfere with the ECU or cause a dash fault-code light to appear. A dealer shouldn't charge more than \$30 for a CO adjustment.



Kev's XT660Z stage 3 fuel mod

1/ A Kev Fuel adjuster with connector block.



How it works

This fuel mod adjusts the Air temperature reading down from the actual ambient temperature. By adjust the temperature reading down the Engine Control Unit (ECU) thinks it is colder than it really is so in turn makes the mixture slightly richer.

When the Knob pointer is pointing at the white marker (12 O'clock position) the Kev fuel mod is turned off, to make the fuel mixture richer you turn the knob clockwise.

<http://www.youtube.com/watch?v=glkdBO8aZm0&feature=channel>

<http://www.youtube.com/watch?v=0OHzpRrZMnA&feature=channel>

Parts needed from your local electronics' store.

- 1 X variable 10k ohm resistor, rated 0.05w or more.
- 2 X lengths of 800mm long electrical wire, core thickness 0.8mm or thicker.
- 1 X 500mm of 5mm heat shrink
- 1 X 50mm length of 3mm heat shrink
- Small water proof box to house the mod
- 1 X O ring to seal the mod shaft.
- 1 X knob to turn the resistor
- Sealant to make the mod water proof, seal the lid & wiring loom





Fitting instructions

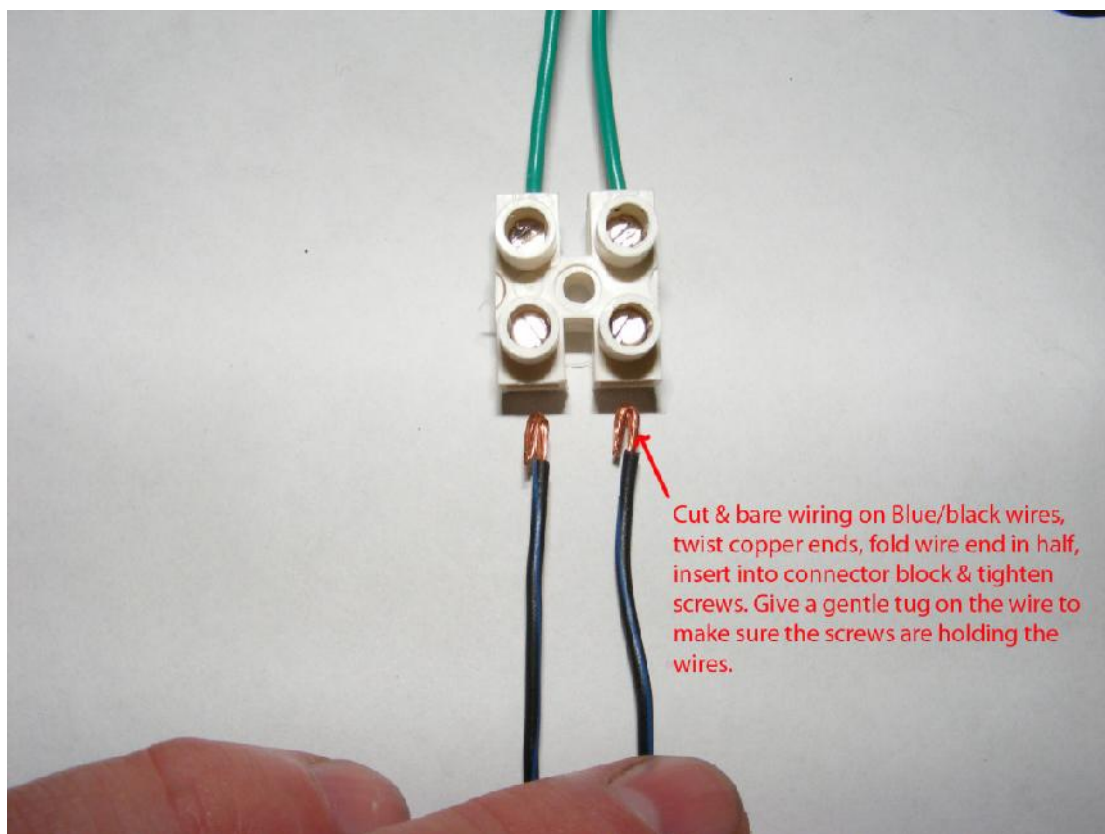
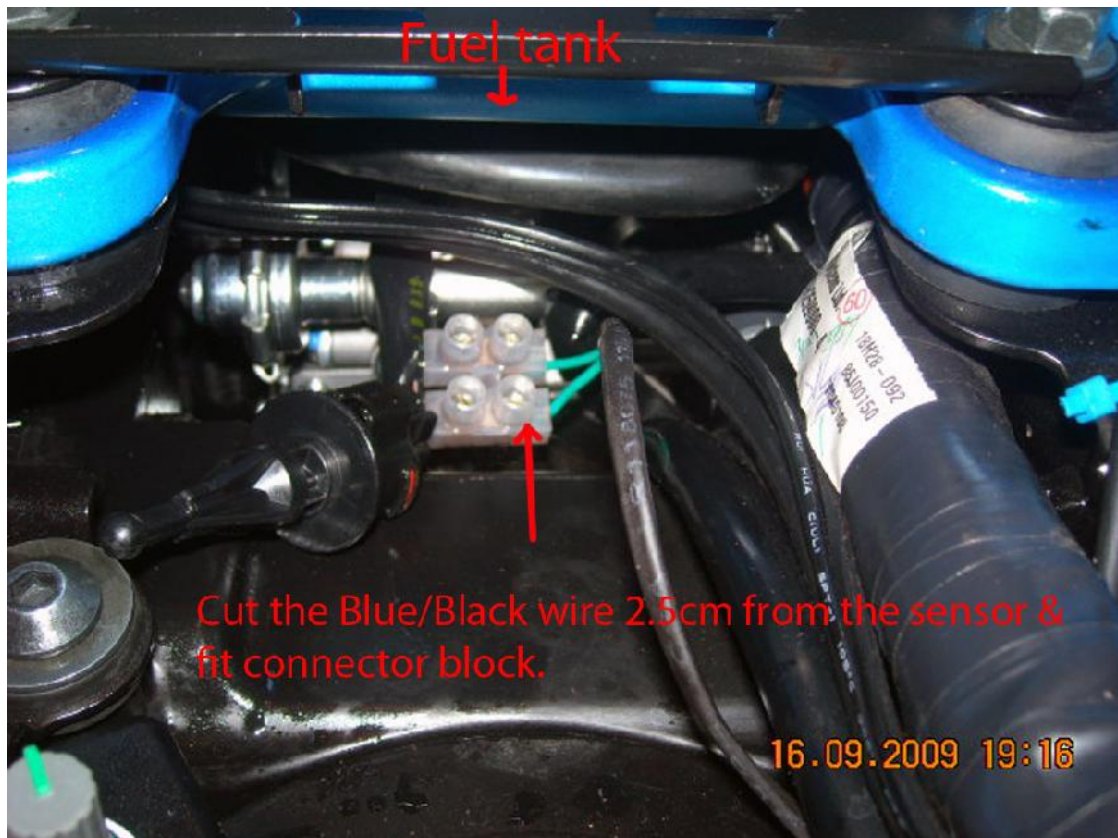
1/ Remove the ignition Key from the ignition.

2/ Remove the seat & locate the air temp sender wiring just under the fuel tank. You only cut one wire, cut the Blue/Black wire 2.5cm from the sensor, **you do not cut the Brown wire**, bare the Blue/Black wire by 1cm until you see the copper core, fit the Blue/Black wires in the connector block one in each hole & tighten the 2 screws holding the Blue/black wires, it does not matter which way around they go.

You can spray the connector block & wires with WD40 spray or similar, or tape up the connector with insulation tape, if you wish to.

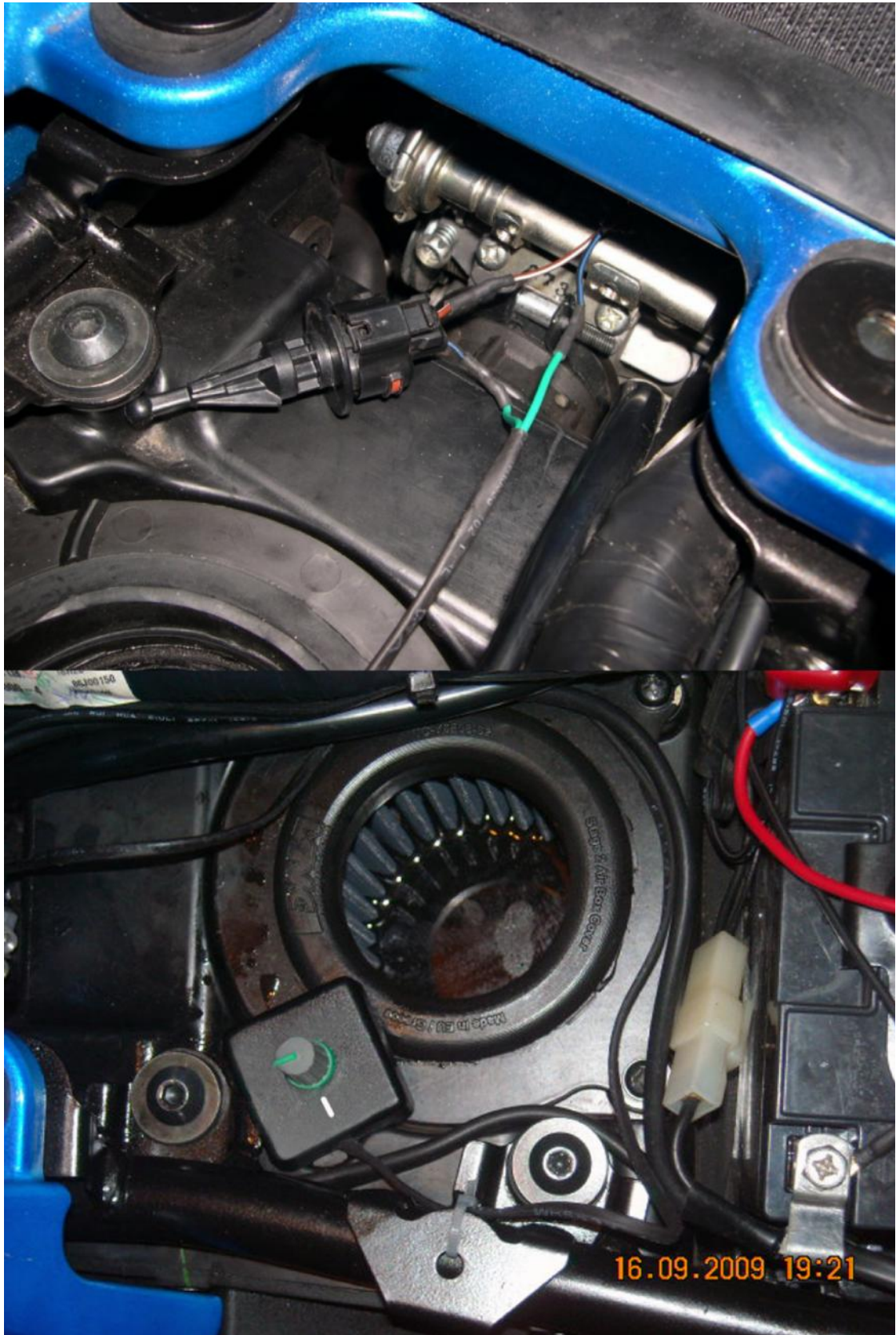
Note

The O2 sensor stays connected all the time, you do not need to disconnect the O2 sensor with this mod.



You can solder the wires together like this if you do not want to use

the white connector.

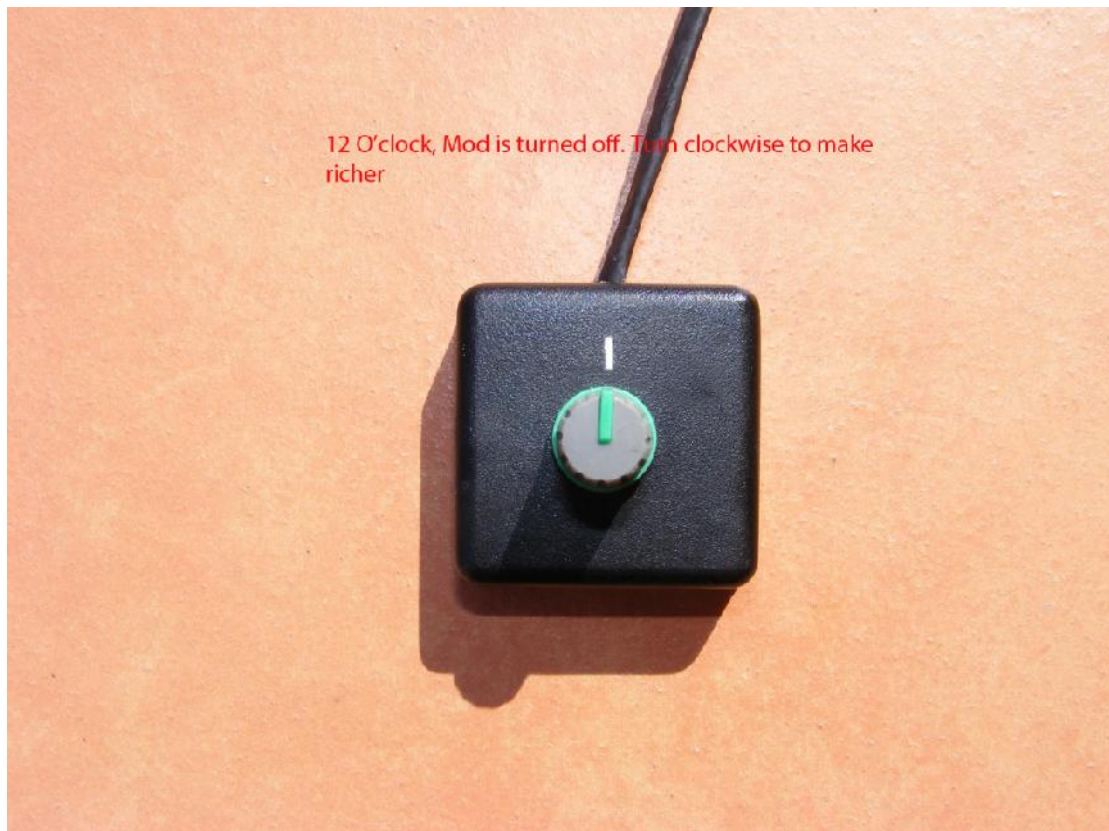


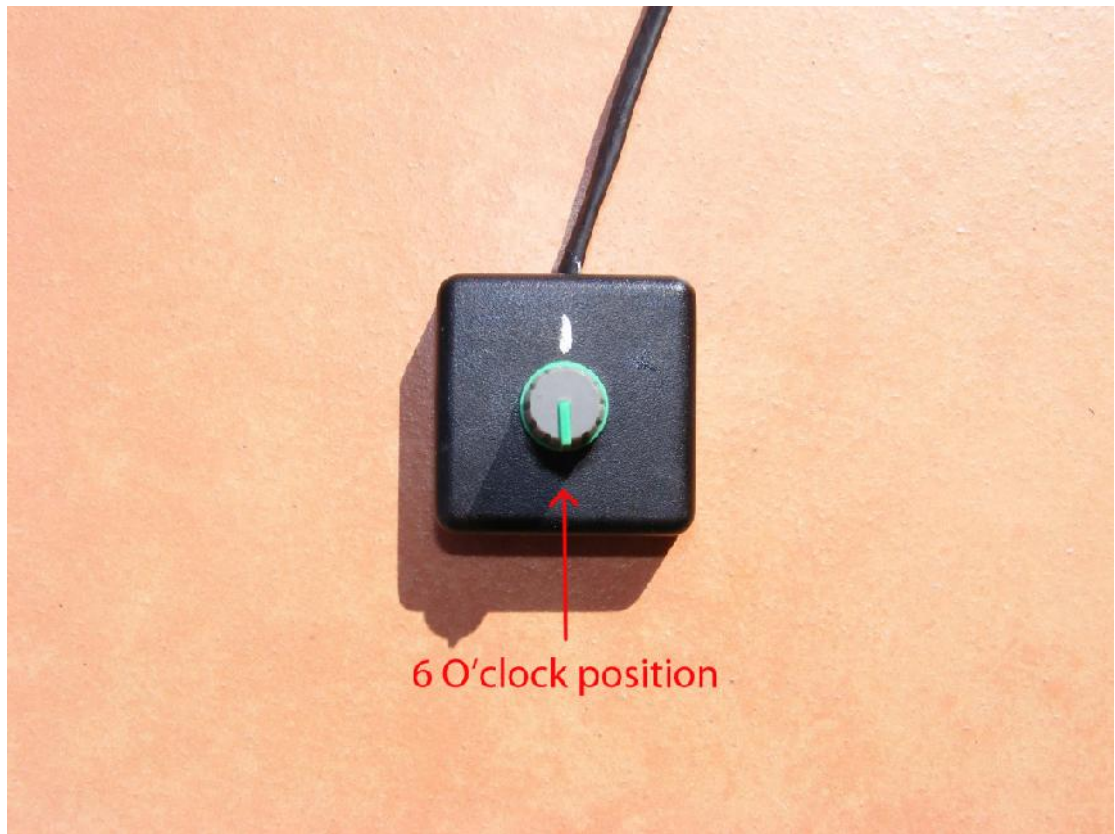
These settings are with standard or aftermarket pipes.

Standard XTZ or with Stage 1 filter, set mod to **2** to **4** O'clock position. Stage 1 + 2 filters, set mod to **4** to **6** O'clock position.

Stage 1 + 2 + 3 filters, set mod between **7** O'clock & **10** O'clock position.

These settings were tested at 20 degrees Celsius & may vary a little according to different ambient temperatures. It is best to try different settings to find the smoothest riding conditions for your bike, use these settings as a guide line.





Which Power Commander can fit which XT660

A **PCV** for a Raptor 700 2009 to 2010 will fit a XTX, XTR & XTZ 2007 to 2011

A **PCIII** for a XTX/R will fit a XTZ 2008 to 2010 & all years XTX, XTR 2004 to 2011.

Power Commander V

As mentioned already you can use a PCIII or PCV on the Tenere. A Power Commander allows you to adjust the fuel map, it is used to set the Air/Fuel ratio to the bikes best performance & fuel consumption. A custom made fuel map is always recommended, you need a dyno to build a custom fuel map.



The NEW Power Commander V

Power Commander V Product Introduction

The New Power Commander V is loaded with tons of new features. It is compatible with 2009 and newer bike models. Below you will find some Power Commander V features.

- Reduced size from PCIII USB (less than half of the size of PCIII)
- USB powered from computer (9 volt adapter is no longer needed for programming)
- 2 position map switching function built in (map switch not included)
- Gear input (allows for map adjustment based on gear and speed)
- Analogy input (allows user to install any 0-5 volt sensor and build an adjustment table based on its input such as boost or temperature)
- With gear position input connected the PCV is capable of allowing each cylinder to be mapped individually and for each gear (for example: on a 4 cylinder bike with a six speed transmission there could be up to 24 separate fuel tables).
- Unit has a -100/+250% fuel change range (up from -100/+100%). This allows more adjustment range for 8 injector sport bikes
- 10 throttle position columns (up from 9 on PCIII USB)
- Enhanced “accel pump” utility (increased adjustment and sensitivity ranges)

- **Power Commander 3 or PCIII.**
-

You can use the PCIII for XT660X/R/Z 2004 to 2010



You can also use a PCV with Autotune.

This add on device allows you to build your own fuel map.

Auto Tune for Power Commander V

The Auto Tune kit monitors the fuel mixture (by installing the included Wide Band O2 sensor in the exhaust). It then sends this information to the Power Commander V and automatically corrects it while you ride. Each map that we offer has preset Air/Fuel ratio values included that we find to be the best overall settings. This lets you simply plug in the unit and let it do the work. For Harley Davidson models we ever monitor and adjust each cylinder individually for increased precision as on these models required fuelling can vary significantly between the front and rear cylinder.



-G.P.R PowerJet Extreme fuel commander.

Manufacturer: GPR Italy

Application: Yamaha XT660 X/R, Tenere 660 (specify)



Fine tune your engine while it's running! Installed in parallel with the original CPU.

Made with aluminium casing and dual controls.

Very easy and fast installation, only 2 wirings to connect.

You don't need a laptop or pc for installation or to test it on a Dyno.

Can be regulated while the engine is on and running.

Can be turned off immediately.

Works with all exhaust types.

Why do you need it:

It increases the engine power, especially at low and mid RPM.

Improves throttle response/acceleration.

Solves common carburetion problems when installing aftermarket exhausts.

Solves the lean mixture issue very common with euro regulated bikes.

Also available is the Multilevel version

We are authorized distributors for GPR Exhausts So we carry all available options for your bike!

All GPR exhausts we sell come with a full 2 years warranty!!!

[Visit My eBay Store](#) for other material options. Carbon fiber, Titanium, Inconel, Aluminium, Stainless steel, and Carbon look Poppy. Round or oval shapes as well as the G.P. Evolution, Tiburon, Megaphone, Powercone and Thunder line or write us at

SALES@EUROMOTARDS.COM.

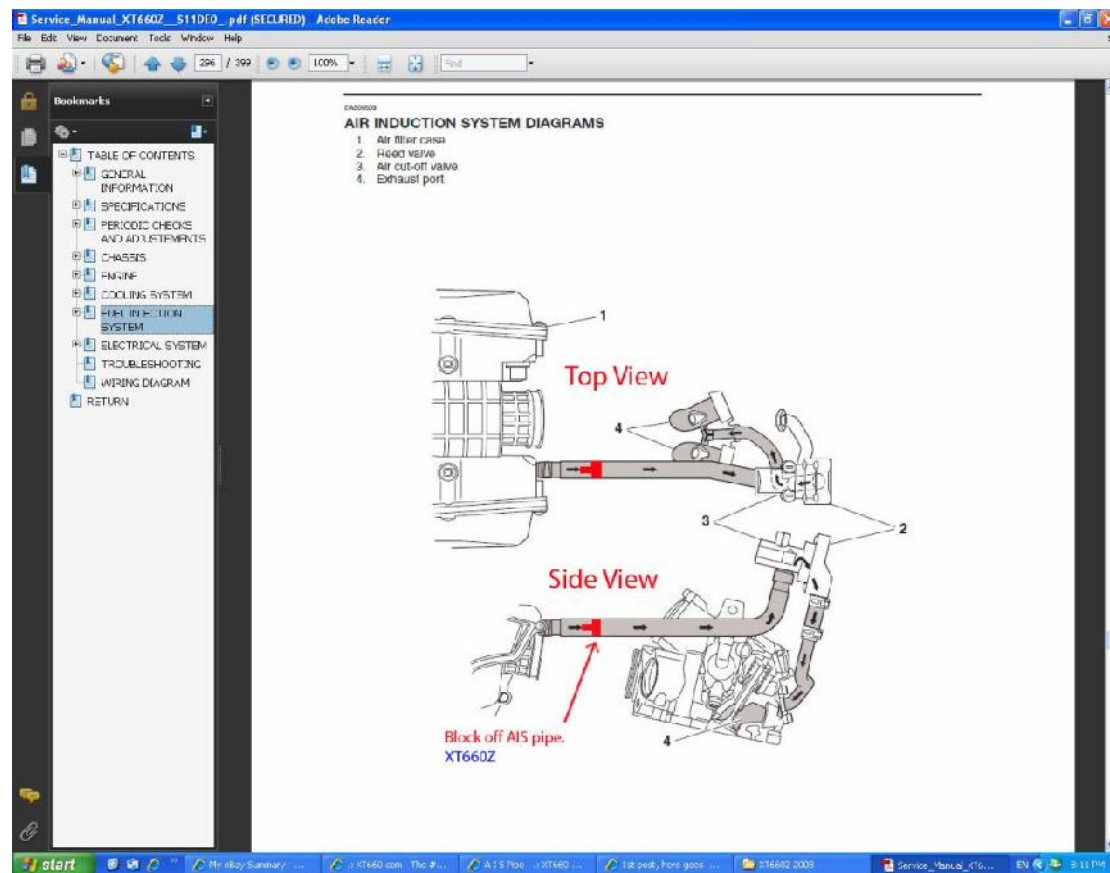
International orders ship with **Express courier**, insured and tracked on-line!

<http://stores.ebay.com/EuroMotards-Performance> **US \$296.90**

AIS Mod

We do this mod to stop the XT from popping back in the exhausts. There is nothing stopping you removing the whole AIS system & blocking the air box & exhaust port, just a bigger job then just blocking off one pipe.

If you just unplug the AIS plug the valve remains open all the time & defeats the object, your XT will pop all the time.



XTZ Fuel Tank Mod

Because I was fed up with the slow fuel filling (especially the last litres) I made a hole in the filler neck to let the air out and to speed up the filling.

Remove the screws on top and one on the inside of the cap (don't drop them).



Checked if there was room between the neck and the tank: yes there is.



Drill a hole (6 mm), don't go to far!!



WARNING

Please only use a Air or Hand drill, do not use an electric drill around fuel vapour.

Carryout this mod at your own risk.

XT660Z with extra fuel storage

A fabricated extra fuel tank out of a disused extinguisher and filler cap/ neck. It's a very simple one nut affair to remove the tank and heel it into the main tank so an increase of 9.4 ltrs, I may still have to use filling stations, though at least I hope to get my allotted amount!.

I'm not the only one annoyed by this and a few of us intend to stick together and voice our concerns , the ktm 690's riders even with extra tanks have only a 21ltr capacity definitely not fair, as the service crews are willing to supply the fuel but not allowed!





Body Mods

Seat

"Custom Motorcycle seats" in Coventry UK. Admittedly, I rode from Southampton to Coventry sitting on a kitchen drawer front, but the ride back was brilliant. No more being forced to sit in one position, you can sit where you please. They ended up re-building the entire seat, and added rider and pillion gel pads as an extra. Total cost was £230. It is quite tall now too, so anyone under 6ft might struggle, but they can basically do whatever you want.

Contact Mel or Ross at <http://www.motorbike-seats.co.uk/> or melvin.hunter@ntlworld.com for a quote, and have a look at the pics.



Shorter front fender

Ok, here is my high fender try out. Its actually a Super motard fender. I just drilled four holes in it.

It takes 10 minutes to switch the fenders. Low fender is better for all day use (riding in rain) I kept the Yamaha towing-ring. But maybe it would look better in white?





High front Mud guard

Fitted a high front mud guard and some Trelborg army special tyres.

The mud guard is a WR400/450 Polisport, you just have to put some 5 or 6 shims (washers) under the rear 2 bolts (longer ones) to tilt it slightly so it clears the radiator.





Chopping the tail...

Picture are worth a thousand words















Racks & Boxes for the XTZ







http://www.hepco-becker.de/_eng/frameset.php

On the website, as you can tell, there are no prices. So I've listed the price here in Euros. Bare in mind, that these are the prices in Denmark. When I called H&B directly, they said that the price may be quite different from country to country. But they should give you an idea of what price range we're talking.

Art 6504526.0001 (side racks): 222.512 Euro

Art 6504526.0101 (luggage rack): 83.911 Euro

Art 502405.0001 (engine crash bars): 206.963 Euro

Art 5054526.0001 (centre stand) : 184.577 Euro

ARD cases and Holan pannier racks

Just about to order some of these for the XTZ ,anybody got a set and if so what are they like ?

Leaving them plain aluminium for the time being and £35 cheaper than powder coated

Cases are £290 and the frames £160







They are great quality panniers are mounted solidly onto my SW Motech Quick lock EVO rack. The panniers stick out the same width as the handlebars which is perfect.











Top Box is an HB Explorer 45l.





Yamaha Top Box



Touratech



Soft Luggage

<http://shop.sw-motech.com/lshop.showdetail,126670433222582.de,1266704355-22614,brands.yamaha.xt660z,BCK.SP5001,15,Tshowrub-brands.yamaha.xt660z,.htm>





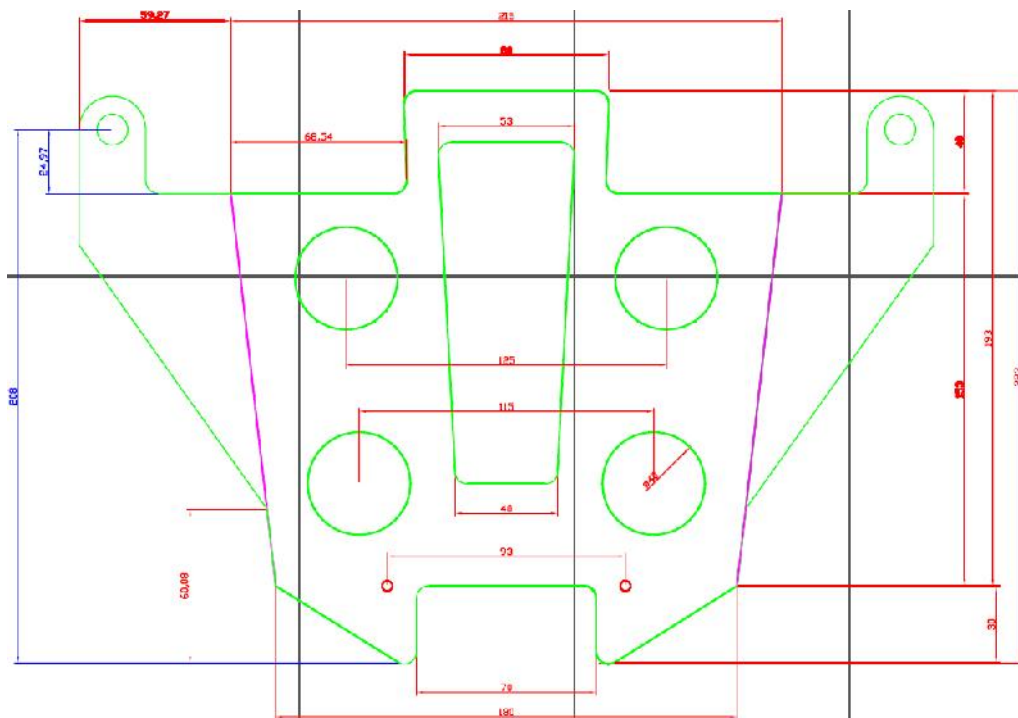


Its a Touratech plate, original for the 1150GS, modified to fit the XTZ



XT660Z Luggage Plate

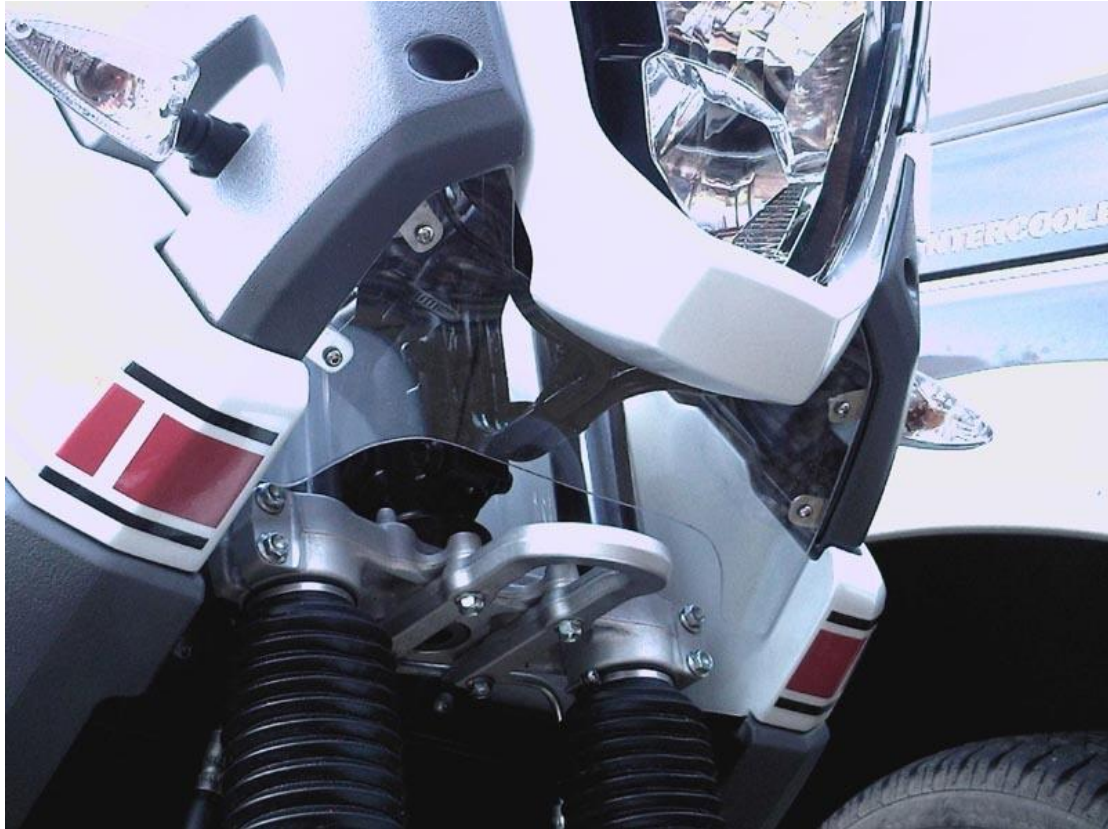
Luggage plate is cut out of steel plate 2-3 mm thick...

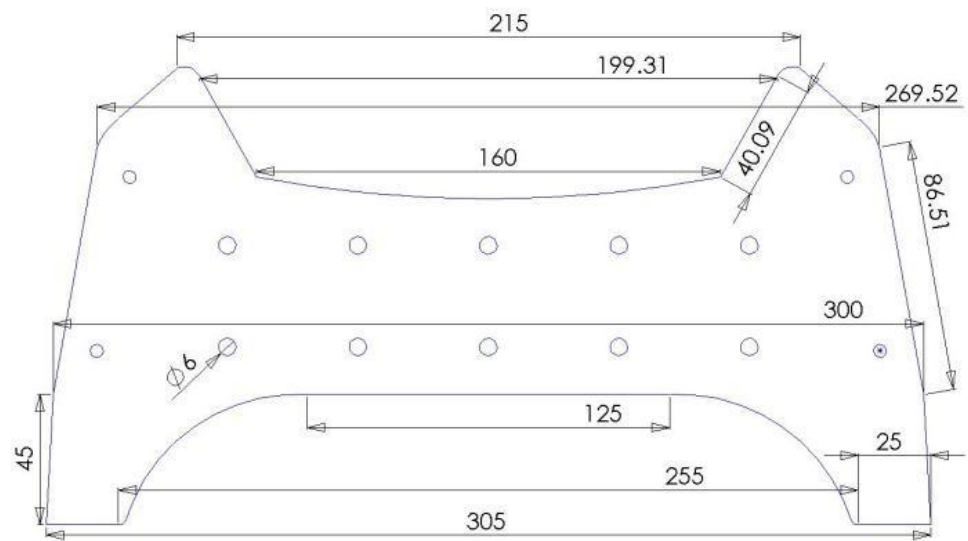
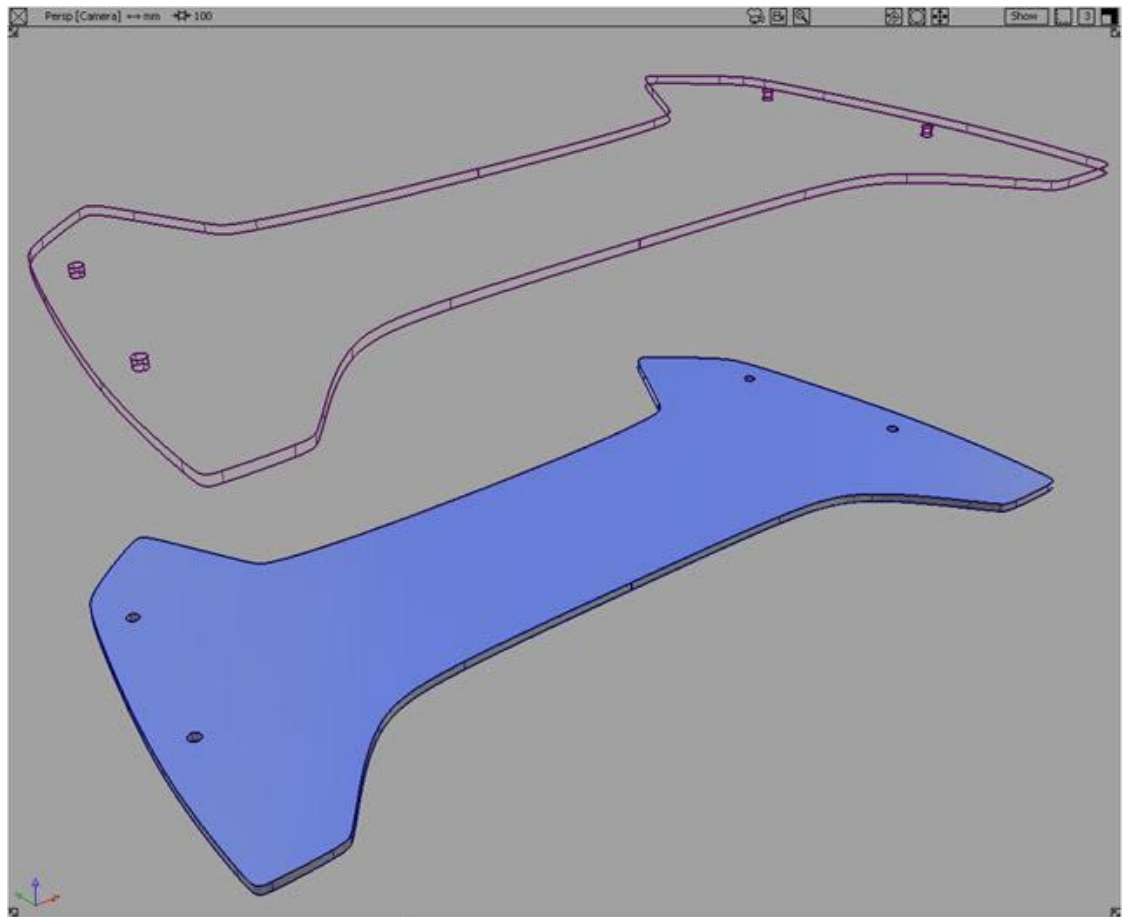


<http://i201.photobucket.com/albums/aa202/kevxtx/untitled-3.png>

Turbulence Stopper?

Here's the panel I've fitted to see if it stops some of the turbulent air coming up through the hole around the forks.

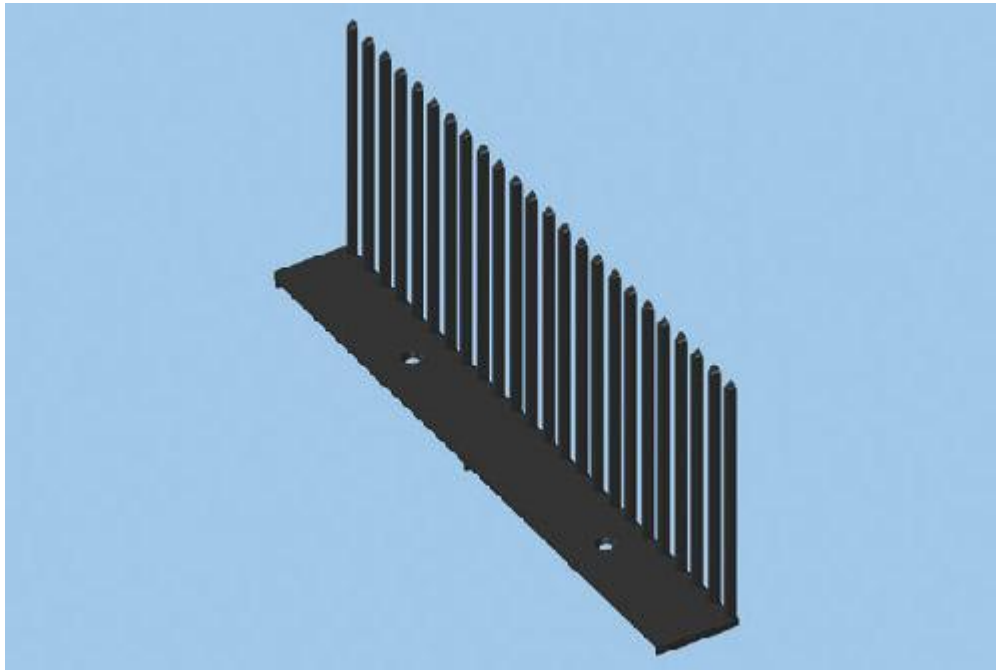




A different design.



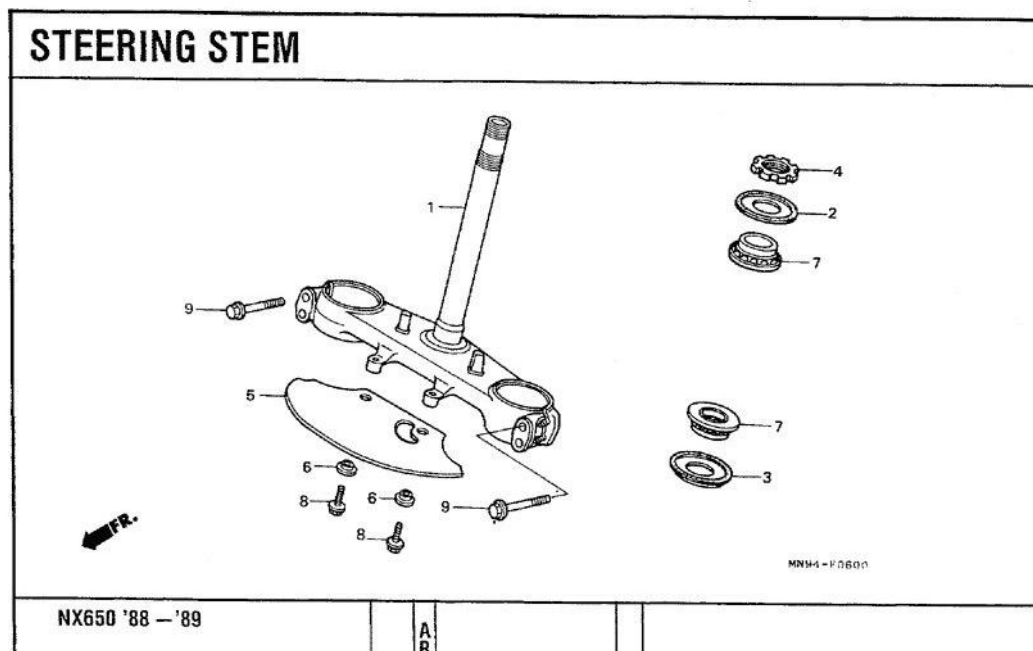
Another Approach











They say they all work, I personally have not tested them.

Taller front screen

- Higher than the original windscreen
 - Raised wind deflector at the rear to push the wind further up
 - Better wind protection for a more comfortable ride
 - Developed in the virtual wind tunnel
 - Easy Mounting, nothing has to be changed at the fairing
 - Original screws can be reused
 - Edge protection included
 - Approved and certificated by the German TÜV
- Height: 48 cm
- They offer a few different tint colours

Puig
www.puig.tv



Head light protection

Touratech head light protector below, is cheaper then Yamaha's.



Yamaha's head light protector part number. 11D-W0742-00-00



New levers

These are the C5 Sport (street bike) levers, rather than the off-road specific ones... the brake lever is the FZ1/FZ6 04-08 version, and directly fits the Tenere master cylinder. ASV PN. BRC541 (-S if you want the shorter version like this)



The clutch lever is the same as the Suzuki GSXR 600/750 from 97-05 (also the V-Strom DL650 04-07 or the SV650 99-06) and fits the stock Tenere perch - yea! ASV PN. CRC530 (-S if you want the shorter version like this)



They are meant to be unbreakable (this version has a 5-year guarantee) and certainly bend in a crash, although not as far round as their off-road specific F3 levers...

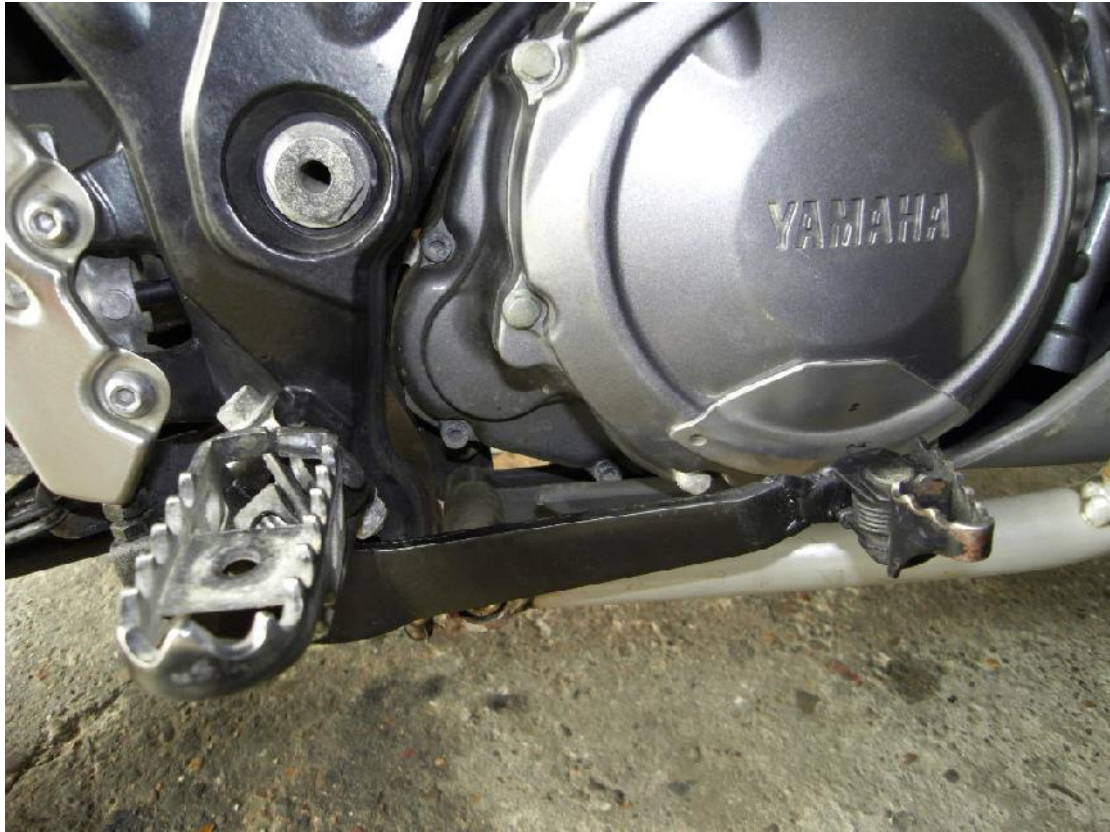


<http://www.busters-accessories.co.uk/productInfo.aspx?catRef=CRC510SG&kw=asy>

Rear Brake lever Mod

I hacked off the end from a brake pedal of a Honda xl600 and welded it to the rear brake pedal of the tenere (well my friend did, but it was my idea.





Should be more crash resistant now and that's the way Yamaha should have made it in the first place.

Bar Raisers

Fitted a pair of 3" bar raisers <http://www.mandp.co.uk/productinfo.a...-Round-Raisers> fitting was real easy took about 20mins, no clearance problems with cables and wires. Only an inch taller but makes a real difference.

A few tips

undo the nuts on the under side of the yokes before taking the clamps off, bolts are used in stead of nuts to hold the raisers on, and need to be M10x75. Use lock tight on all bolts.



XT660Z Bar raisers

I go the Mand P bar risers

flat side 3inch rise ...they fit easy you will need a longer 10ml bolt
I just used all thread with a nylock nut to bolt them on

I would not like to go to the 4inch as the throttle cable may snag

strangely I am 6ft 1 too I angles the bars forward slightly too and they
are hugely better i can stand up now without bending me knees too much

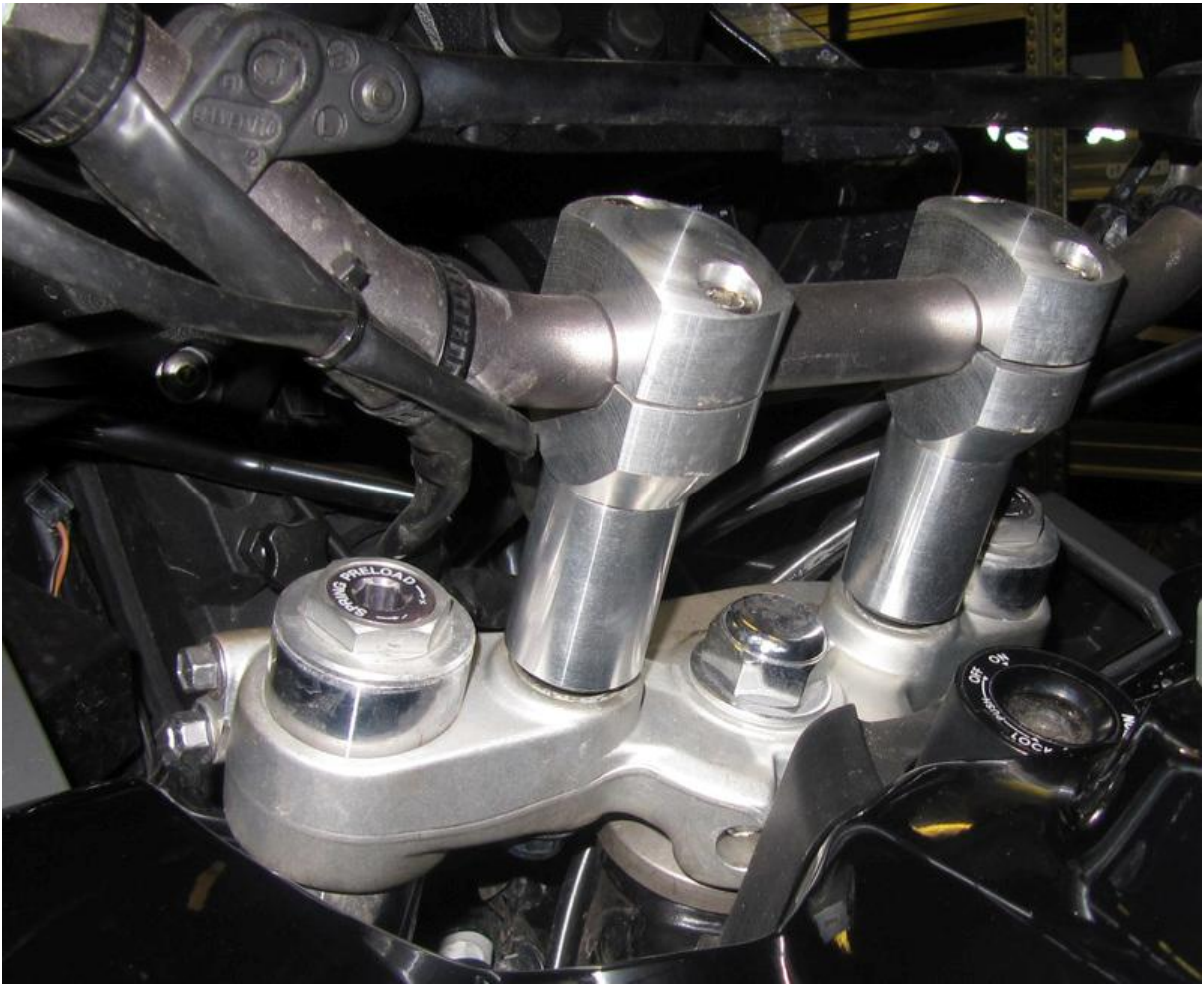
i got them from Mand P

3 in 7/8ths flat

part 528424

<http://www.mandp.co.uk/productinfo.a...mount-Precision>





SW Motech

The SW Motech 30 mm are like a spacer that sits on the pre existing bar clamps with new tops and longer bolts. A very easy 10-15min job to fit. Unbolt, lift bars out the way, put spacers in, put caps over the top, jiggle the bar around a bit. Put in the new bolts and you're done.

http://www.motorradgarage.com.au/catalog/product_info.php?cPath=106_218&products_id=37&osCsid=c3bc1b1ac5703068064cb6e5326ea639



Handlebar Conversion Kit 22mm to 28mm

Convert your 22mm handlebar clamps to take 28mm diameter (fat bars) handlebars with ease.

Conversion kit to fit BMW, Ducati, Gas-Gas, Honda, Kawasaki, KTM LC4, MZ, Suzuki, Triumph and Yamaha by SW-MOTECH.

Simply remove your existing 22mm handle bars, insert the conversion kit, and install your choice of 28mm handle bar.

Raises handlebars by 20mm

Available in Black or Silver.

http://www.motorradgarage.com.au/catalog/product_info.php?cPath=106_218&products_id=672&osCsid=c3bc1b1ac5703068064cb6e5326ea639



Handlebar Riser/Barbacks

Provides a more upright, comfortable riding position by raising and retracting the original (22mm) diameter tubular handlebar. No need to replace your handlebars - simply remove the original top clamp, place the riser between the handlebar and original bottom clamp, and install the replacement top clamp using included hardware. These SW-Motech Handle Bar Riser/ Barbacks increase the handlebar height by 25mm and also move them back 25mm.

http://www.motorradgarage.com.au/catalog/product_info.php?cPath=106_218&products_id=72&osCsid=c3bc1b1ac5703068064cb6e5326ea639



Engine Bars

Hepco & Becker engine bars from <http://www.motobins.co.uk/index.php>, turned up 12 days later.
10 out of 10 for fit and finish,
took about an hour too fit with no problems.

Some tips on fitting,

Remove horn and reg/rectifier, makes it easier to get at the front engine mount. (no need too remove exhaust)

Before refitting reg/rectifier check terminal connectors are pushed all the way into the connector block.

Radiator pipe rests on the left side upper mounting point, (see pic) I cut a piece of rubber and placed it between them.

Left side upper mounting point







XT660Z side stand mod.

Got fed up of that will it won't it feeling as you put the side stand down on soft ground so looked at the bolt on type camel toe extensions on the market. I wasn't willing to pay that sort of money so raided a skip for some steel sheet and cut out a new base for the side stand.

Cost: £4 for some paint and a bar of chocolate for the welder (workmate).





XT660Z Steering Head Bearing Sizes.

Upper Bearing :-

Outside Diameter - 46.97mm

Internal Diameter - 24.92mm

Lower Bearing :-

Outside Diameter - 54.97mm

Internal Diameter - 29.92mm

The old bearings do have some number stamped on them, not sure what these mean but here they are, it might help!

Upper - 32005J

Lower - 32006JR

After market suppliers

Touratech

http://www.touratech.com/shops/008/index.php?cPath=8_73&osCsid=f6f6d5a775eca60d97a99fc2c99a3045

Metal Mule

<http://www.metalmule.com/yamaha/xt-660-z-tenere/>

Kedo

<http://www.kedo.com/>

Off- The- Road

http://www.off-the-road.de/xt660_tenere_ersatzteile_parts.html?&L=1

Get Geared

http://www.getgeared.co.uk/MOTO-DETAIL_82L_Touring_Bag_Set?sc=28&category=206

XTZ Suspension Upgrades.

Like my former bike, the XT600E '03, which I had upgraded with Hyperpro springs front & back, my Tenere also got this upgrade at the last service(17.500km, this was a 20.000km service, prior to my vacation). Progressive springs at the front(and fork oil), one progressive spring at the back(shock stays original). I've done about 4.000km's since then and I must say, it's a big improvement: more smooth and better direct handling, much more control. The original setup was a bit soft to my liking and with experience of my XT600E I changed to the Hyperpro setup, fully adjusted to my riding-style(almost always with panniers, lots of back roads, mountains and highways, occasional off road), my weight. I've done different kinds of roads to see what it does: winding and twisty back roads & round about, bad roads (Belgium!) with potholes, highways, bit of gravel roads(no hardcore off road, mind you) and it performs mighty fine! And as y'all know it already handled very good, but now even better!! So, highly recommended(and that all for no more then 300,- Euro's), especially for riders who ride with panniers and passenger.

P.s.: kit numbers:

- forkspringkit:SP-YA06-SSA039
- shockspringkit:SP-YA06-SSB039
- combikit:SP-YA06-SSC039





Steering Damper for a XTZ660

Fitted my damper today, wasn't the easiest damper I have ever fitted I have to say but worked out great The damper is a rebadged MSC a great Aussie made product.



Original setup with bar risers

The ignition cover needs to come off, two Allen screws



Once the cover was removed it revealed the steering lock bolts are shear bolts. Once they are tight they shear and it prevents people unbolting the steering lock.



I drilled a small hole in the centre and once I was sure it was in the centre I drilled it as big as I dared below the head height.



I then used a drill bigger than the bolt shaft size to get rid of the head.



I used an easy out and removed both bolts.

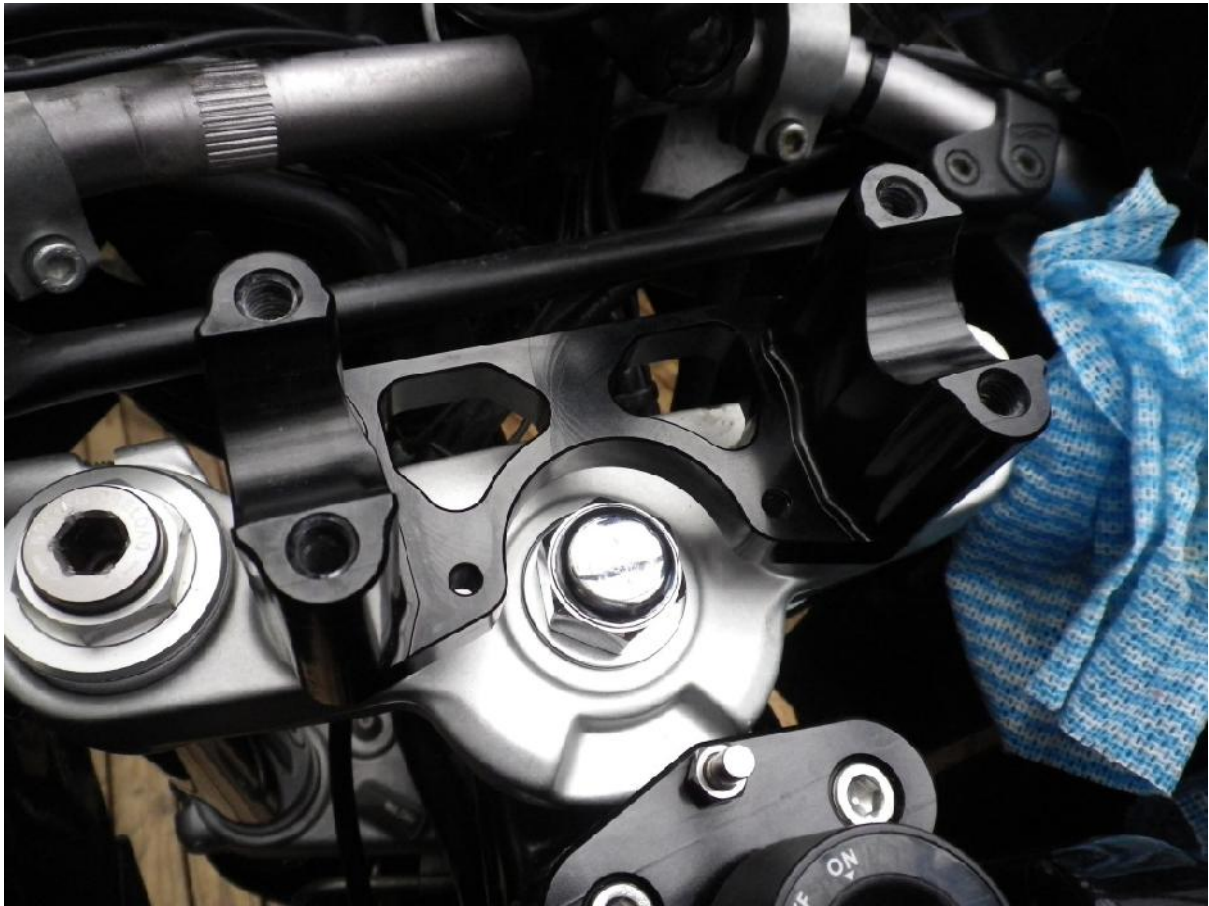




Both bolts are removed & ready for the pin bracket.



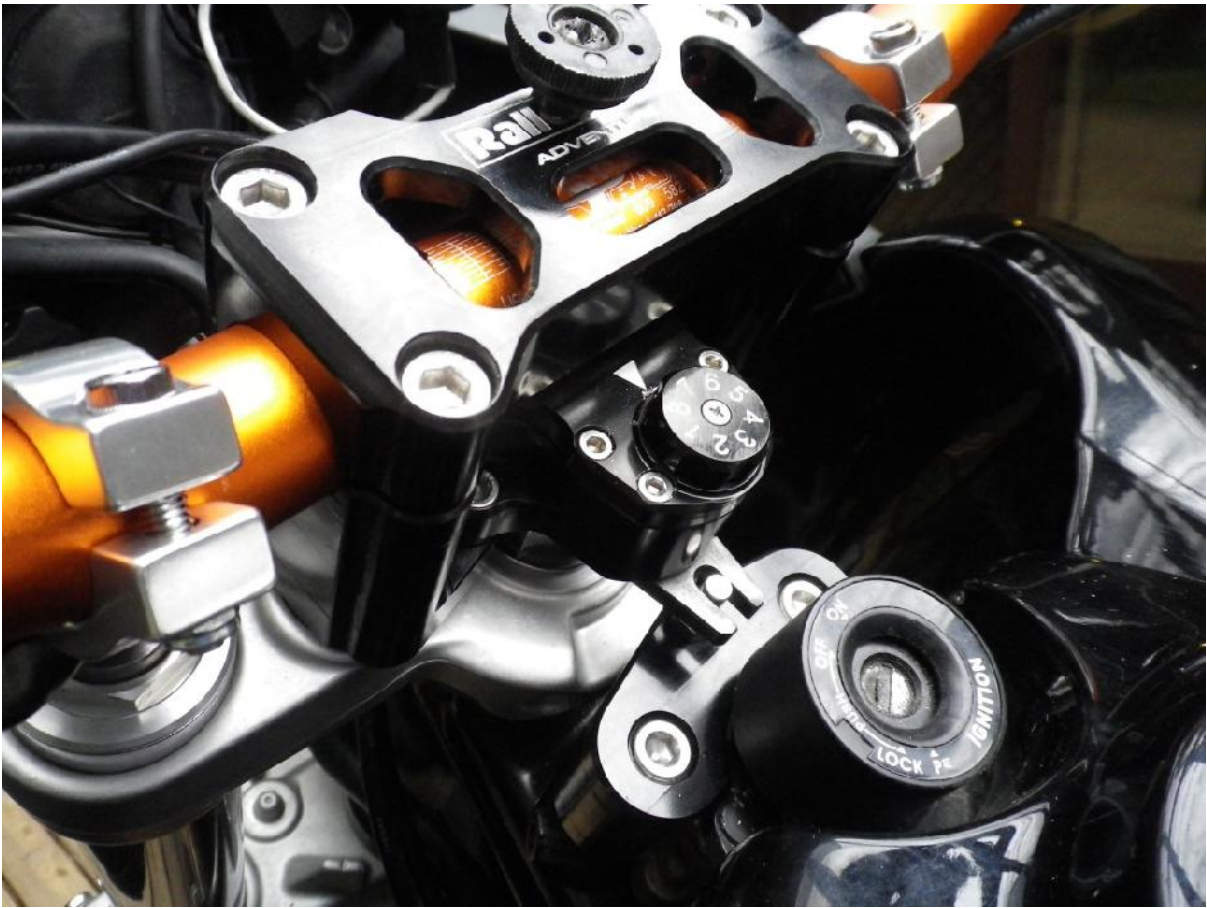
Once done I removed the standard bar mounts and mounted the bar mount bracket, it needed a spacer between the rubber mounts and the bracket.



It was now I discovered I hadn't listened to Steve when he said it is a fat bar mount, I flew down got Suttos and got a few sets of bars so I could try a few before I decided. (Try that with your cheap US web shops :laugh:)

Once a set was found I bolted it all up and happy days.







You can buy this great mod from these guys.

http://www.adventuremoto.com.au/product_info.php?cPath=69&products_id=464&osCsid=0c6e39f74cf26b57ce7ef78cd31e3024

WP48 conversion

Part 1 of WP48 conversion finished today. I just had a short visit at the shop. These are low quality shots with mobile.

New Excel Talon wheels (red/black) will be made in Feb. Upper fork crown is tailor made from CNC'd Aluminium and will be anodized red. It locates WP48 fork (89cm of length) 3cm downward compared to stock fork (90cm of length) but allows relocating it upward in case. 25cm of travel compared to 21cm stock. Serious damping. Hope we can keep that 25cm when testing full travel without hitting radiator by removing fork springs. Lower crown is from stock KTM 690er Enduro. Works unchanged, but will slightly modify limiter bolts.

There is no big change at riding geometry. We are trying to keep everything near to stock level. Will at max gain 2cm of height as soon as 18" rear wheel is used, but no more than that. Hopefully less.

Suspension feels completely different compared to stock.

The upper for crown has been designed specifically for my motorcycle and the 690er WP48 fork. This means, it has been quite expensive (not at all cheaper than OTR complete set which is also very nice and black already).

It fits the steering lock (front wheel heading straight when locked). The manufacturer (a major Austrian WP distributor) might be happy to produce some more of it a bit cheaper, since they now have got the CNC machine data feed. Do not know.

Also the new crown utilizes KTM handle bar mounts bolted into the fork crown, no longer needing a big bolt with some big hex nut below fork crown where it is a pain. So, easy handle bar clamp change and usage of stock KTM handlebar parts, even they provided two mounting positions as can be seen in pictures.

Lower fork crown needs a new shaft fitting the Tenere steering head.

They also manufactured it and pressed it into lower crown.

Fork mount, axle, wheel parts are fully KTM compliant. Hopefully (yet to be tested) we can even use KTM 690 stock fork setup without change of travel. This would be perfect. In fact, stock suspension setup appears to work quite well, but I have not yet ridden it. These things will happen in February earliest.

I was extremely lucky buying the KTM fork in perfect condition with axle, crowns and everything for a ridiculous price. Otherwise it would

have been too expensive.

Actually, I have previously been riding KTM for several years and I used to like it, apart from some engine damage. I am very impressed about the new 690s that I have not yet ridden but would like to. Nevertheless, I also like the Tenere and my WR, so to me its just a matter of coexistence.





<http://picasaweb.google.com/flatboarder/Tenere>

WP Forks

So first up the ktm steerer tube is too short they need to be about 10mm longer, I had initially considered machining a set of ktm sx clamps to accept the tenere pin [I normally use for wooded hare and hounds as they sharpen the exc's steering] I dismissed the idea as the yam lower triple has less depth than the ktm thus leaving the yam pin too short for the frame.

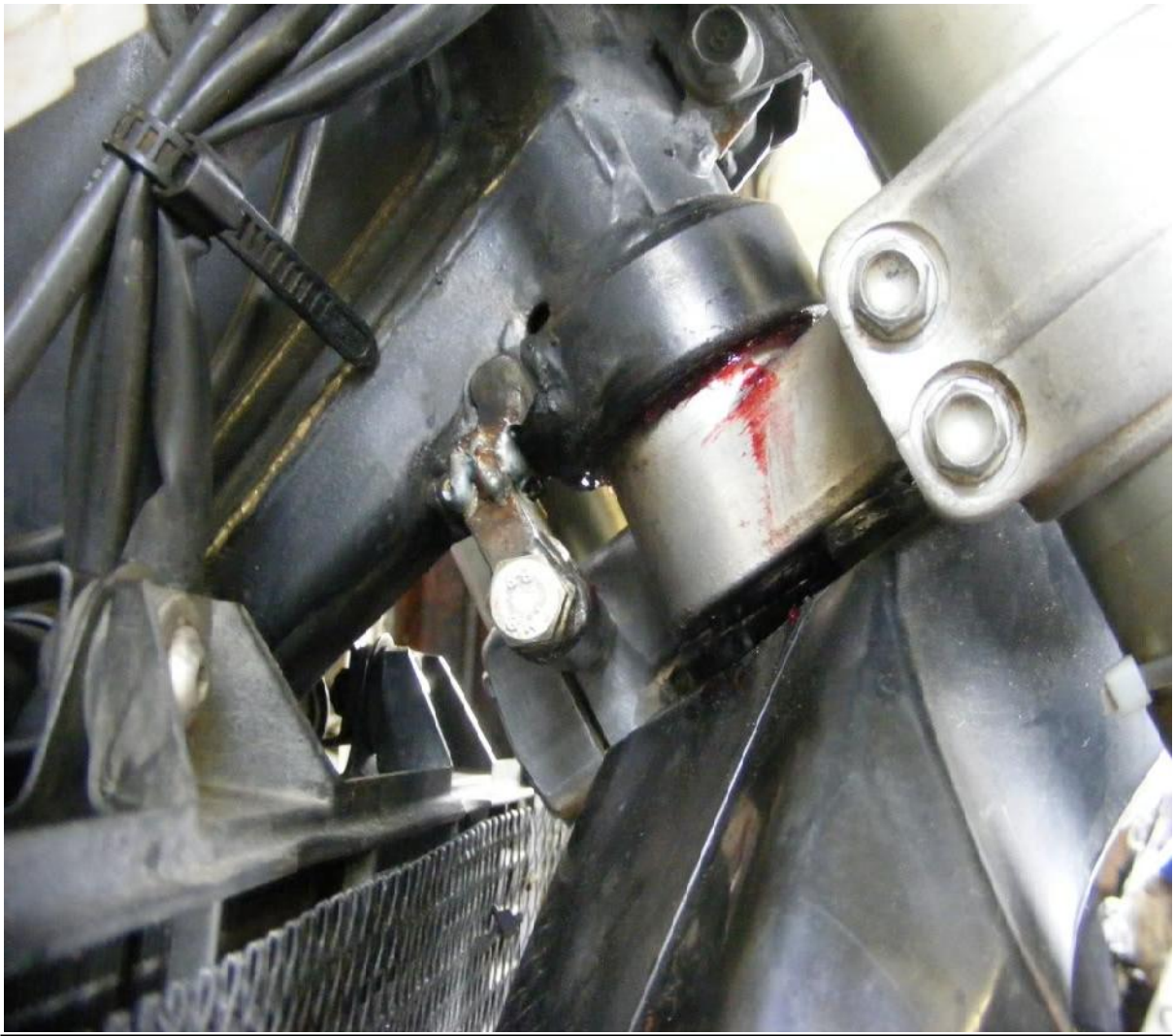
So I rifled around under the bench and found a set of klr 650 lower triples, length was good the ten top bearing fitted perfectly, the only downer was the lower bit was 1mm dia. too small for either the triple or bearing. So off to an engineering friend who welded it up and machined it back to where I needed and hardened the pin result, so off to the press and in no time pin sorted.



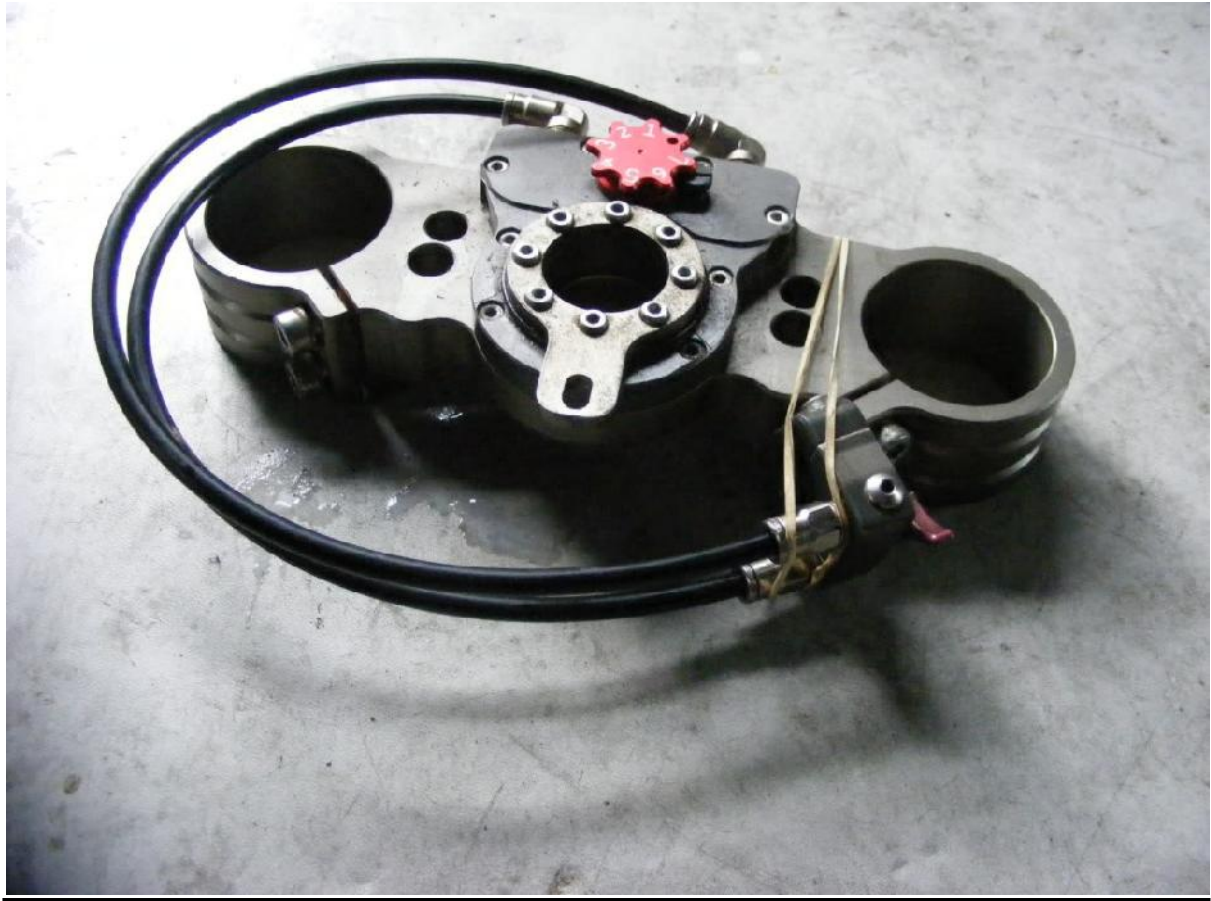
Now a bush was needed to take the pin size up to the kTM top triple hole very simple. the forks were in no dramas. Next fabricate and fit a lock stop copying the KTM setup and simply weld to the frame.

Adjustable lock stop fitted.





The only downside is I cannot find a way to fit the beautifully engineered rtt damper, it's a work of art with thumb control adjustment. oh well never needed one before pity would liked to have tried it.



The 300mm disc fitted the EXC hubs then the calliper and bracket came off the rally bike the beauty is the calliper bracket has two sensors already fitted for the dual imo's cool!



The usual Magura bars fitted with a mismatch of rally and EXC clamps to give the riding position I wanted, the standard ten position for my height suits sitting so a comfy higher more forward was needed for both seated and standing it certainly encourages elbows up the way I'm used to!. a pair of foam grips and a black KTM mudguard finished it, off now for a spin!



Full Ohlins Suspension for the Tenere XT660Z

Today I had a full Ohlins suspension fitted to the Ten. I intend to write a full report on the changes this has brought to the handling, both on and off road, over the next weeks. To start, the part numbers and fitting details are here. Thanks to all the guys on the forum who have helped me to select the Ohlins setup, I know that others here have fitted the Ohlins rear shock. I don't want to detract from their reviews, which were a valuable resource to me in choosing my set-up, but I don't think anyone's done the whole lot yet.

Like most bikes, my Ten has to perform many different duties, a weekday commuter, an evening bus taking my girlfriend and I to the movies or restaurant, off-piste riding on the weekends and the planned longer distance trips to Africa. Forcing one bike to do all this is asking a lot, yet the Ten copes very well with all these demands. Whilst never excelling in any one area, the Ten admirably copes with all. One of the benefits of this great bike is it's jack-of-all-trades abilities. I should add that I have newer and faster bikes in my garage, but I find that I ride these less and less, as they just aren't as much fun as the Ten. I digress; my point is that the Ten needs to cope with a vastly different weight setup for each role I expect it to perform. My initial concern with the suspension is that although good, the rear would sag too much under load, so rider (and luggage) sag took up nearly half the suspension travel. In addition, when loaded up, the rear wallows over bumps making the bike feel unresponsive and twitchy. I don't load heavily, I weigh 84kg and my luggage (including the weight of my Touratech zega-pro panniers) is an additional 35kg. Even at these weights the OEM Sachs shock felt tired and wallowy. I never had a problem with the front forks, other than the excessive dive under braking, this I could live with, but if I was going to open them up and service them anyway, I decided to fit the Ohlins springs too. These aren't very expensive (compared to the rear). The shortlist for a new suspension setup was either the Wilbers setup, Hyperpro, or the Ohlins set. I spoke to a guy at Off The Road in Germany who was very helpful, suggested that the Wilbers shock was no good for off road use, as it has less travel than the original. Found it very difficult to get hold of the info for the Hyperpro suspension, all I could find was an up rated spring, and although this would solve the sag problem, I didn't

think it would stop the wallowing back end. One of the issues with suspension is that its very expensive to upgrade. The ohlins were expensive, but were only 20% more than the Wilbers setup.

I had all of the stuff fitted by Motostion in Madrid, who are the local Ohlins agent. They were great, and I was able to watch, take pictures and help the guy who fitted them so next time I can service them myself. The parts needed are;

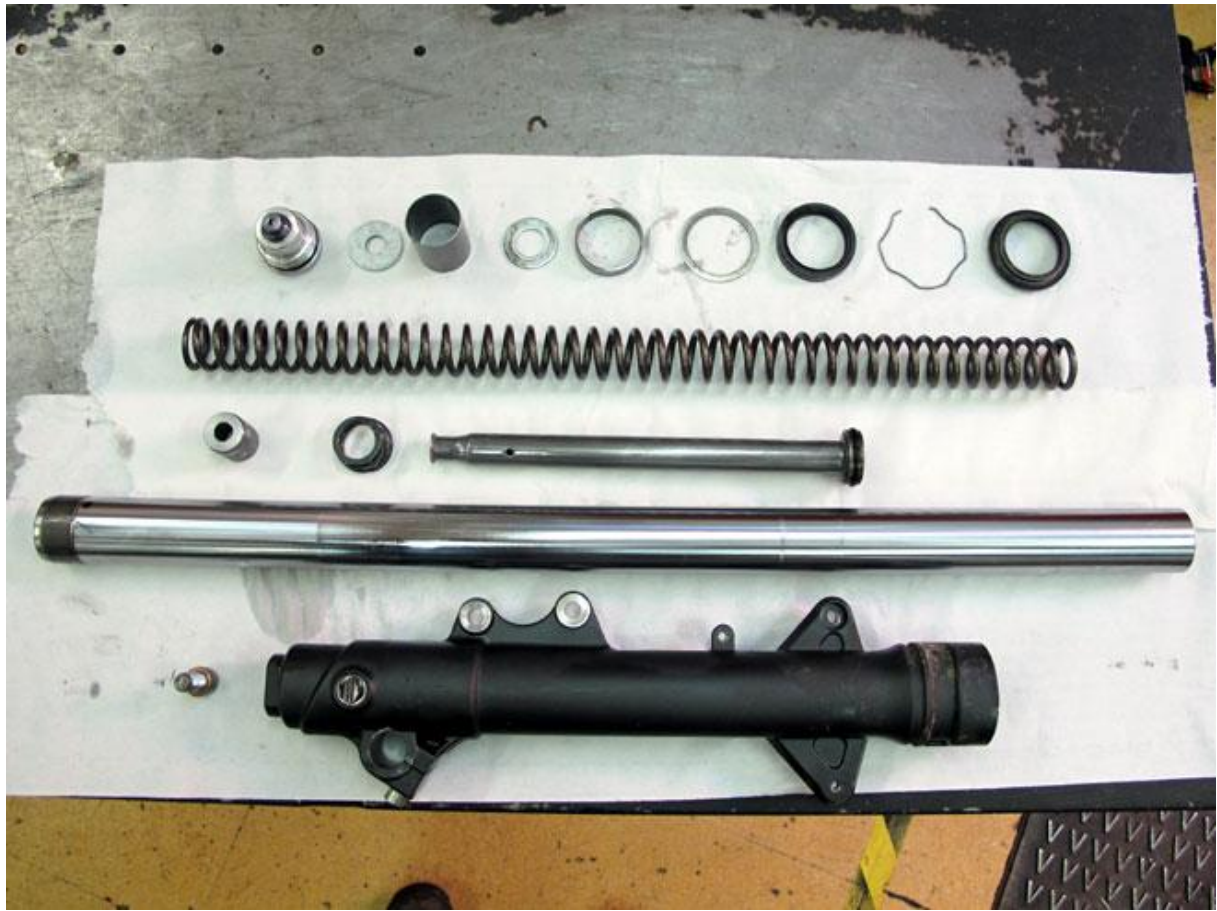
Rear Shock Ohlins part no. YA817
Front Fork Springs Ohlins part no. 08716-50
Fork Seals
Dust Caps
2l of 15W fork oil

Took us three hours to fit this lot, I reckon it would have taken me days if I had done it on my own!

First impressions of the bike were that it was much stiffer than with the OEM shock, but on the ride home from the dealer, I found the shock seemed to have more usable travel than the OEM shock.. So stiffer yet more compliant if that makes sense? Also the bike doesn't rear-up as much under hard acceleration, nor does it seem to dive as much under braking.



Fork components laid out in the order they need to be replaced.







Lowering The XT660Z

You can drop the front forks 30 mm and installed longer Diversion 900 links to lower the bike about 40 mm, which costed only 25 euro. You will also need to cut a piece out of the side stand and welded it back together.



You can always use a set of **Metal Mule links**. They can be bought from German, search off Ebay Germany for the links.



Cheap Cush Drive Mod

There is a Kev mod already for this problem I did mine this past Monday after getting a puncture. You only get around 5000 miles out of a new set of rubbers they become compressed then start to break up, the excess movement allows the rubber to twist & this causes them to break up, the sprocket carrier then has lots of free play, which makes the bike surge & feel snatchy at low speeds. Once they have become compressed they don't really shrink much more, so the free play needs to be taken up.

My fix is very simple, I have never needed to replace the dampening rubbers on any of my XT's even with my last XT doing over 20K miles.

If the rubbers are in tacked & not breaking up you can take up the free play using a inner tube rubber strips. By cutting 4 strips & laying them over the dampener rubbers then push the sprocket carrier into the wheel hub, this will fold the rubber strips in half & rap them around the sprocket holder & between the rubbers. You cut each rubber strips to size so they can rap over the sprocket carrier to size. You can use different thickness rubber tubes or double them up to take up the free play, go to a bike shop & get an old inner tube from them. You want the rubber strips tight, you need to apply a lot of pressure to get the sprocket holder to into the wheel hub, using both hands push like hell on the sprocket from side to side & the rubbers will fold in half & slip between the rubbers & go together, you can add some talcum powder to make it easier. Do not use any spray lube to get it together, the lube will damage the rubbers.

I would recommend one to do it around 3500 miles so the rubbers are still in good condition & you will never need to replace them & you will always have a tight sprocket Holder.



After taking out the rubbers.



After some light cleaning, this was the amount of rubber that has disintegrated.



After placing back the cush drive, I cut out some rubber sheets from a punctured used tube to remove the clearance.



And after which, push the sprocket carrier into it. You can use talcum powder on the rubber strips to make it easier to push together.



No more free play in the sprocket holder.



GStry from South Africa has been working on his own storage compartment on his XT660Z

The whole story can be found here.

<http://www.xt660.com/showthread.php?t=12628>

The mod has really been very difficult to shape and get to fit like a glove under the frame, which it finally does but unfortunately in my greedy effort to find more space, I cut my battery box to pieces, little by little, until there was not much left. So now, I need a new battery box to redo the front!.

The way I have it at the moment is fine for me but it would be difficult and mission for others to start hacking away at their battery boxes.

My aim for the mod is to make as close to 8 cu litres of space under the seat as possible, as well as include, a not so easy to find, safe spot to keep emergency cash, passports, important papers etc
Starting with the ugly.



Created with











A few more pics and some of my ideas.

There is enough clearance for the back wheel, as the mod takes up the space of the standard exhaust box. In the front, I have created an arch where more space is needed for the wheel.

The storage mod is not symmetrical, ie not equal in shape on both sides due to the exhaust positions.

I have (will be) moving my exhausts further back slightly and will need to get my Akrapovics pipes changed to suit. I had a hard time deciding about this but in the end it made such a difference to the storage area and also gets rid of the considerable weight of the current exhaust mounting bracket. There are the premade holes in the frame, for the exhausts that were never used!!

I will be using Carbon fibre and Kevlar to keep it as strong and light as possible.

I have ordered the tail light from the US and will post pictures of them tomorrow.

There is still a lot of sanding and filling to go and the back needs to be finished to suit the led tail light and indicators I have bought.

From the side the storage mod is all but hidden from view by the exhausts and I have tried to keep the same lines of the bike flowing.... I could have made more space but it would have sacrificed looks, this is a nice looking bike, no point in spoiling it.

Access will be from under the seat so it will be a lockable area.

Want to include a short tail tidy at the back which will help protect the tail light and help stretch the lines a little.

Finally, this is a hobby, I do not do this for a living and doing the best I can, if you have any advice, or other ideas which will help please give it, I'm all ears.

Hopefully the plug will be ready to be cut into two for the moulds soon.







Update.

Still working on the plug for the mould and as you can see still a lot to do.

A few pics showing a rough tail tidy (tail piece/mudguard) I've added to see what it looks like.

Have added exhausts to give an idea of the overall look.





Have bought the tail lights from Custom Dynamics in the US. Actually really struggled to find something and finally settled for two LED Light Bars. One bar has the tail running light, brake light and indicators, as you mention and the other bar light is a running light and brake light. <http://www.customdynamics.com/index.htm>

They are 6" long and will fit under the tail tidy. I'm still waiting for them to arrive so will need to change the design slightly on the tail of the mod to accommodate them. Will take a look at Clear Alternatives and see what they have.

Regarding the number plate, I have been thinking about it and not sure of the law in other countries regarding the size and also the angle of the plate. The UK and SA should be similar but I'm sure its policed more there.

Trying to streamline the plate and still make it legal at the same time, it's raked up a little from standard but not by much. My standard number plate fits between the exhaust but its tight. If other countries have larger plates they will have to move the plate down to make more room.

Have not considered making it for a single can but have been thinking about the current looks on a single can bike. So thanks for pointing that out, I will take a look at that...maybe make two moulds 😊.

Not sure if you noticed but have also moved my Akro's back from the original mounting point, so my exhaust will need to be modified. It was a hard choice but made a big difference to the storage mod and also got rid of the bulky stainless mounting bracket.

6" Black Integrated LED Light Bar



***Dual Intensity Red LED Brake Lights
Integrated Amber LED Turns***



Have just finished a 5.6 litre storage mod for the Tenere. A permanent solution to store a number of important items, like tyre levers, rain suit additional tools, first aid kit, spare tubes.

Used the bracket from the stock exhaust, epoxy, Kevlar and Carbon fibre cloth. Its light and very strong.

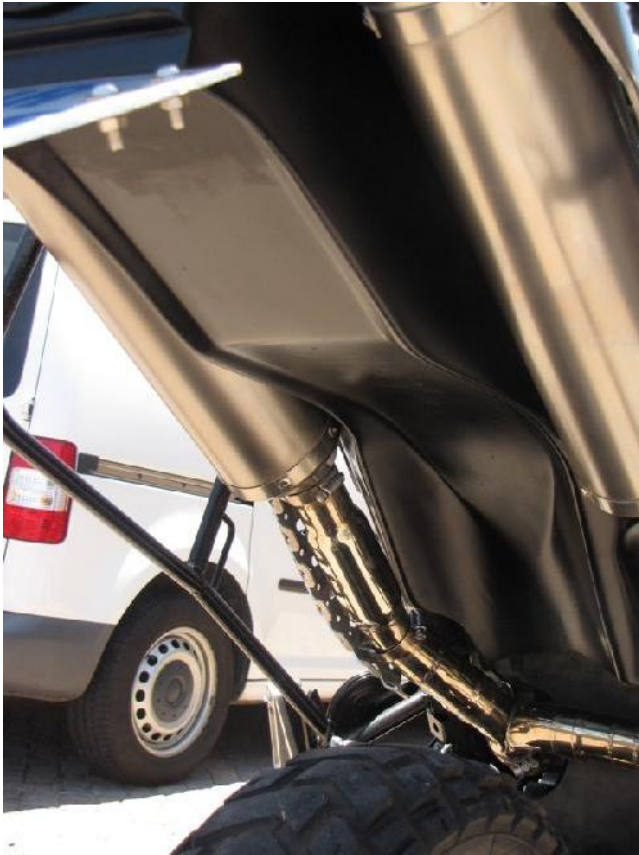
Just need to do the lid.

With the back shock completely depressed there is still 70mm of clearance. In the photo's it looks like its touching the exhaust but there is at least 15mm gap.

The finish is not perfect but adequate, at least now I can improve the mould and was using a flash so looks worse than it is.

It cannot readily be seen behind the exhaust.











XT660Z Chain Guard

I used the older KTM genuine chain block circa 2002 it lasts the longest
As it lasts so well it wears the split link so riveting the chain is advisable.

The bracket is 3mm stainless plate 52x 65 with a right angle fold, so now 52x40 with a 25 right angle. The slightly slotted 8.5mm holes where it secures to the swing arm.

The swinging arm is drilled to the centre of the flat part, the rear most bolt is app 180mm from the end of the swinging arm, I used stainless bolts facing down so easy to remove or repair if damaged on the trail. the bolt heads have a foot welded on to stop them rotating in the hollow of the swing arm. The block is fastened with 6mm bolts the rearmost hole is slightly slotted to adjust to sprocket size.





I have made one amendment and split the guide with a hacksaw and then put the metal bushes back in. It can be taken off really easily.





Adjustable brake levers for Yamaha XT660 / R / X / Z / Tenere 2004 - 2011

Brake levers listed below can be used on Yamaha:

- XT660R (XT 660 R, XT660 R, XT 660R) of the years 2004, 2005, 2006, 2007, 2008, 2009, 2010 and 2011
- XT660X (XT 660 X, XT660 X, XT 660X) of the years 2004, 2005, 2006, 2007, 2008, 2009, 2010 and 2011
- XT660Z (XT 660 Z, XT660 Z, XT 660Z) Tenere of the years 2008, 2009, 2010 and 2011.

<http://www.redracingparts.com/en/english.htm#english/motorbikesmotorcycles/partsandaccessories/titaxbrakelevers/yamaha/XT660RXT660XT660ZTenere2004.php>



From Off The Road

<http://www.off-the-road.de/XT-660/brakes-accessories/2/>

Break lever, adjustable

Adjustable clutch lever Adjustable in 6 positions. Made from billet aluminum. Available in black, blue and silver. Available for the XT-660 R and XT-660 X.

115,00 €*



Break lever, adjustable

Adjustable in 6 positions. Made from billet aluminium. Available in black, blue and silver. Available for the XT-660 R and XT-660 X.



Brake lever extension XT-660 R/X

Who does not know this feeling when your boot suddenly hits just air. Our brake lever extension helps to prevent situations like this. Fits Yamaha XT-660 R, X and Z. Made of laser cut stainless ...

21,00 €*



Magura radial brake pump 195

The Magura radial master cylinder 195 has an obliquely inclined pump - this creates very favourable growing conditions in the various motorcycles. ...



XT660Z engine noise at 4200rpm.

I've been using the Tenere for 1year+ and is loving the bike very much but I'm bothered by an engine noise that I recently noticed.

In my 09'XT660Z @22000 km I started to note a metallic vibrating noise around 4200 rpm (starts around 4200 rpm and goes after 4700 rpm). Its noticeable with same intensity and pitch in any gear, moving or stopped, accelerating, decelerating or at constant engine speed.

It seems just like a loose screw that vibrates but with a higher pitch more like some sort of a vibrating whistle. All screws are tight though

The bike engine was full stock when I first notice this. I noticed this with warm/hot engine and I never rev beyond 4000 rpm with cold engine, so I never notice this with cold engine.

Most of the time the noise is there but sometimes it disappears for a few miles and then comes back.

The bike runs fine except between 4200rpm-4700rpm, at any gear, the engine(or some other possible location) is making the noise...

I removed the LHS radiator side cover. It was the top one of the two set screws that join the panel to the exhaust heat shield. The screw is too long and tapped against the exhaust pipe, it had actually worn away at an angle. I cut off about 7-8mm, refitted and the rattle disappeared!



Known faults relating to noises in the 660 motor that I know of there might be others but these are the ones I have documented over the past 5 years. They failed for various reasons some were by abuse from not servicing.

- 1/ Lose tappets, many
- 2/ Main bearing failure, X5
- 3/ Big end failure, X1
- 4/ Cam chain guide plate broken, X1
- 5/ Decompression pin broken, X1
- 6/ Gearbox output shaft broken X2
- 7/ 3/4th gears broken, X2
- 8/ Worn piston & bore X3
- 9/ Clutch nut lose, X1
- 10/ Primary gear nut lose, X3
- 11/ Bent inlet valves, cotter broken, X1