

## **BETA SSDT 2014.**

For SSDT riders 'on confirmation of entry' please telephone Gary (01535 655970) to sign on for our back up service and inform him of your number and which bike you will ride and also your address and credit card details. There is no charge for the service, only if you use any parts. **You must sign on with us before you go to the SSDT.**

We supply spare parts, tools, compressors etc to help service your bike at the SSDT. Below are some helpful tips designed for people riding in the SSDT or you may find some things helpful anyway. These are modifications that we make to our own bikes. A lot of these things apply only to riders competing in the SSDT. Obviously these are only guidelines, you must prepare your bike fully. **EACH YEAR WE EXPERIENCE PROBLEMS FROM RIDERS WHO DO NOT BOTHER TO DO THE JOBS LISTED BELOW.** **SOME THINGS MAY SEEM UNIMPORTANT BUT THEY ARE ALL THERE FOR A REASON.**

2012/13 phone call from SSDT organisers. The SSDT committee have decided that they will be stricter with regard to us helping you with your bike so make sure you are able to carry out the work yourself.

Try to prepare your bike fully 2 weeks before so you are prepared well in advance. It is very difficult for us to do work on the Sunday before as we have a lot of riders to look after. Test your bike on the road for a minimum of a one hour before arriving to the SSDT.

If your bike is over one year old or has done a previous SSDT I advise checking the main bearings especially if engine has a wining noise, this is not essential but if you are unsure get somebody experienced to listen to your bike, also radiator hoses, head insert o-ring, head gasket and water pump impellor. The reason for changing the parts related to the radiator is that these are the biggest problems we have especially when riders do not bother keeping the radiator clean.

### **FRAME.**

**TYRES.** New.

**LOCKTIGHT.** Do not use on M5 screws or small screws you need to remove. M6 up is OK.

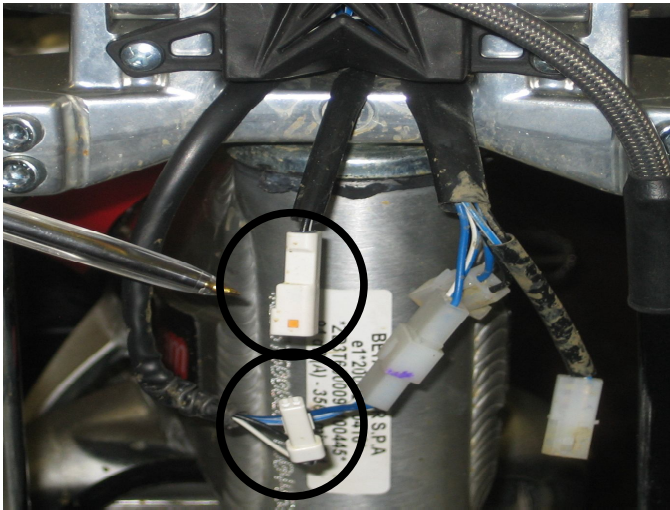
**BOLTS.** Check all accessible bolts to ensure they are tight. Check disc bolts and lock tight using green lock tight, do not over tighten. Check these regularly. 2014 bikes are lock tightened from new.

Do not locktight small bolts as it makes it very difficult to remove them if required.

**BRAKE PADS.** New front and rear. Check you have a little play in the rear brake rod. The piston must return fully to its off position, the rear brake can stick on if this is not correct. **IMPORTANT. Put a good cable tie round the rear brake rod "clip".** Grease the pins, which hold the pads in place. If the allen key fit is not good REPLACE. Check that the pipe, which runs from the rear brake master cylinder to the fluid reservoir is free and not trapped. Pre 2011 bikes + 4T.

**KILL BUTTON.** Evo pre 2012 only. Remove standard kill button and cut off the "bottom" white block connector as ringed in the diagram below and tape up. Remove standard kill switch assembly. To fit a aftermarket kill switch connect the two wires to the two wires that you are left with after cutting off the connector, it does not matter which way round they go, do not earth the kill button as it is earthed through the wiring loom.. **THIS IS IMPORTANT.**

Pre 2011 + 4T.



**KILL BUTTON 2012 EVO.** Remove the kill button on the side of the engine and fit a kill button on the handlebars. To fit a aftermarket kill switch connect the two wires to the two wires that you are left with after cutting off the connector, it does not matter which way round they go, do not earth the kill button as it is earthed through the wiring loom. **THIS IS IMPORTANT.**

**CDI BRACKET.** Pre 2012. Fit a M8 locknut instead of the standard nut as they vibrate loose. **IMPORTANT.**

**REGULATOR 2013/14.** Re route wire as shown in diagram away from the cylinder and tape the stator wire where it touches the cylinder. Gary has some heatproof tape available. The reason for this is to protect the wires if your bike overheats. 2013/14 Evo only.



**MUD FLAP + TAPE.** Very important. Fit well before so you know it works correctly. Prevents mud from clogging up the radiator. Also run some gorilla tape (this is stronger than standard duct tape) down the back of each side of the front fender, about 2cm out of the side of the back of the fender. Fit so nuts are under the mudguard as sometimes they can flick off the radiator cover (rivet would be better). A Gas Gas Pro front mudguard fits straight on the bike and is a better mudguard as they are longer and wider at the back. These only work on the bikes with the shorter front exhaust, i.e 2013/14 300cc only. Not 250cc models.

**RADIATOR. IMPORTANT.** Throughout the event and especially after every moor crossing remove the radiator cover and clean. Do not touch or rub mud into the radiator, the radiator is very fragile so do not touch. You can blow out with the airline when you return to the start, same again do gently. Every year we have riders retire because they do not do this. The radiator cover is designed to keep mud out of the radiator but it does not work well on the road. Remove when you are on the road. Make sure you do not loose the cover. To fill the Evo coolant correctly put the front wheel (1 meter minimum) high as it fills better. Fill full, the Evo will always push a little coolant out to find it's level then it should be fine. Take your bike up the road for a run and make sure the fan is working correctly.

**I CANNOT STRESS HOW IMPORTANT IT IS TO KEEP THE RADIATOR CLEAN; THE BIKE CANNOT COOL ITSELF IF IT CANNOT GET AIR. IF YOU DO NOT DO THIS THERE IS A GOOD CHANCE YOU WILL NOT FINISH THE EVENT. ALL THE EXPERIENCED RIDERS KEEP THEIR RADIATOR CLEAN AND NORMALLY HAVE NO PROBLEMS.**

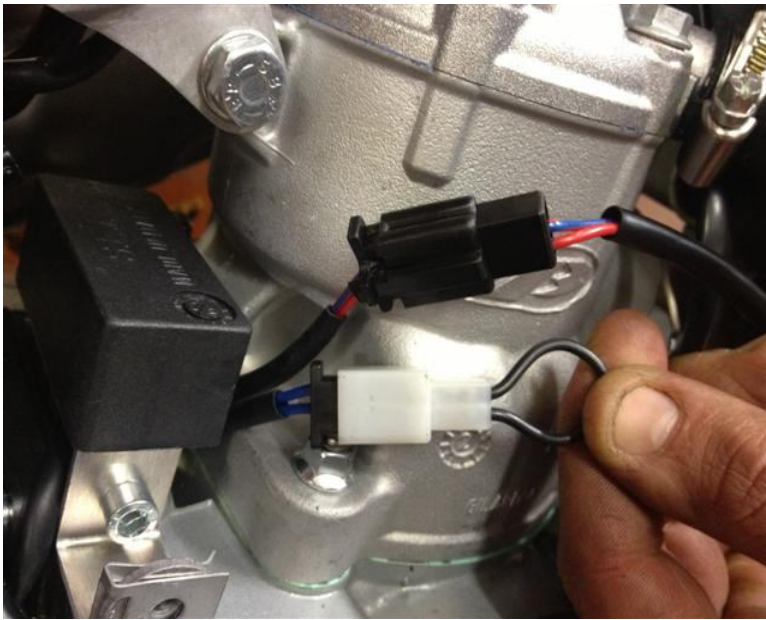
**SOME RIDERS FIT LADIES THIN (NOT THICK) TIGHTS OVER THE COVER WHICH WORKS VERY WELL. THIS WORKS BECAUSE THE RADIATOR KEEPS CLEAN SO IT CAN WORK CORRECTLY AND THE MUD DROPS OFF THE RADIATOR COVER. I THINK THIS IS A VERY GOOD MODIFICATION.**

**MAKE SURE YOUR BIKE HAS A 1.4 RADIATOR CAP. THIS IS IMPORTANT.**

Evo all models. Re route header tank pipe as shown. If you have cooling problems you will get a warning. This will indicate the radiator is full of mud, you are going too fast on the road or there is a problem with the fan. **IMPORTANT.**



Evo 2013. Electrical adaptor to wire the fan live if the fan wiring/thermostat fails. Available from Gary. Get before the event.



**FAN WIRING.** If you do remove any wiring from your bike please contact us. Do not remove any electrical boxes or change any wiring. The fan is wired through the lighting wires on a standard bike.

**CHAIN.** Must be new or nearly new. Do not use a chain unless you know the quality is good, a standard Beta chain is very good quality. Keep the links you remove, as they may be useful in the future

**CHAIN SLIPPER PAD/ TENSIONER PAD.** New, unless the bike is quite new.

**SPROCKETS.** New or nearly new.

**REAR WHEEL SEAL.** Pre 2011. Remove rear tyre and clean with brake/contact cleaner and put a small line of sikaflex (NOT SILICONE) round the rim where the rim tape meets the rim at both sides and wet your finger to smooth a little, leave overnight for sikaflex to dry. Do not pump straight up or it will not work. Leave for 2 days minimum. This is an important modification for the SSDT. You can get sikaflex or tiger seal from a car motor factors. Make sure tyre is tubeless. Even if your tyre is not leaking this is a good modification. Do not remove the rim tape unless you have to as they are very hard to fit. **Do not start or arrive to the SSDT with a rim which is leaking. We cannot repair at the event.**

**REAR BRAKE ROD CLIP.** Put a good cable tie round to stop the clip from flicking off or a 6mm bolt and locknut.

**AIR FILTER.** Make sure your air filter is in good condition.

Pre 2011. Make sure you have a bleed grommet on the bottom of your air box incase you fill the air box with water. Available from us. Use a 13mm drill to fit. This is useful if we have a really wet year and you drown your bike, it makes it easy to get the water out of the air box if required or to check if any water has gone in. It is also useful on the 4T. if the bike has been on its side engine oil can run into the air box, which makes it smoke. It is good to let this out. 2012 onwards has a drain screw fitted from standard.



**Evo.** Seal any holes where water and mud can come from the rear wheel and also where the silencer connects to the sub frame We have also used the foam shown in the diagram for 4/5 years now. This will prevent water from the front wheel finding it's way into the air box, which happens when you ride down the tracks. Do NOT use normal foam or seal with tape as the air box must breathe. This is reticulated foam which allows the air box to breathe as it has air pockets running through the foam but will stop water from entering the air box. This is available from us already cut to shape.

**LINKAGE KNUCKLE.** Check that it is not cracked especially on + 1 year old bikes and on factory bikes as they are different. Under normal conditions they do not crack but worth checking.



Evo 2009-2012.

Evo 2013/14



**STAND.** Make sure it works well because you must have a stand all week for the parc ferme. When the stand is down do not put your body weight on the bike to start. Locktight stand bolts. If the stand returns automatically remove the M6 bolt.

**FUEL PIPE. IMPORTANT.**

Check it is not touching the cylinder and not bent so the fuel can flow correctly. Fit a in line fuel filter. IMPORTANT.

**SPOKES.** 2011 onwards, spokes need checking more than the previous models.

**REAR SILENCER. 2T only.** If the bike is noisy fit new packing. Change the silencer rubber bobbin if more than 1 year old (Pre 2014). Do not lift your bike from the silencer as that is what breaks the bobbin.

**SUMP.** Remove sump plate and press back to it's original position if it is stressed or bent towards the engine.

**RADIATOR HOSES.** If yours is more than 1 year old I advise changing the radiator hoses, do not over tighten clips.

**TOP FRAME DOWNTUBE BOLTS.** Remove and lock tight.

**SUSPENSION.** Set up as per handbook.

**LINKAGE.** Evo. Remove and grease and lock tight all bolts. Check daily. Do not overtighten the link arm bolts as you can pull the bolt shaft through the bolt head.

**FUEL TANK.** We have some customers that are concerned about the fuel capacity of the Evo so we have a solution for them or for any trials bike. Below is a photo of an extra fuel tank for the Beta Evo for events like the SSDT. It holds an extra 1.1 litres of fuel. Standard tank capacity, Rev-3 2T -3.0 litres, Evo 09-12 2.6 litres and 2013- 2.9 litres of fuel. The extra fuel tank uses a siphon system, which draws the fuel from the extra tank first. It is very easy to fit to any trials bike and fits very neatly onto the bike. For most riders I think this is a good modification. Make sure the pipes are the same as the photo with the pipe from the raised connector with nut goes to the fuel cap breather.

They are available from us. £43.48 + VAT.



## ENGINE 2T

**IMPORTANT. STARTING EVO 290/300.** The Evo 290/300 has high compression. When you start the bike make sure you give it a good kick. Sometimes when you give the bike a soft (half kick) it can kick back and break a tooth of the kickstart gear. If you start the bike correctly you will not have any problems.

**CLUTCH.** As long as it does not slip in the high gears it should be fine. If it is starting to slip, change before the event. Make sure you have some free play in the lever.

**GEARING.** If your main objective is to finish the SSDT I would strongly recommend gearing your bike up. If you are slow on the moors it helps you to make up some time on the road/track sections and also does not put as much stress on your engine. Try to use for as long as possible before the SSDT. Evo 09-13 2T use 13-41. Evo 14 12-42. This basically makes your first gear a touch lower than your original second but giving you the advantage of a high top gear. This is a BIG advantage. Most riders use this gearing for the SSDT. 4 stroke keep standard 11-42.

### KICKSTART RETURN BOLT.

This is located under the exhaust on the top left hand side of the engine. Simply make sure it is tight.

**ENGINE OIL.** New. Check every day during the event using the oil window, check oil window is tight. 4T we recommend changing the engine oil half way through the week.

**STARTING 2T.** 9 times out of 10 an Evo 2T starts best with choke and no throttle. If this does not work try no choke and full throttle

**SELECTOR 2014 EVO 2T ONLY.** We have only had a few problems about 2% of bikes but we always think it is good to check to be sure. The problem has been that the rivet has not been fitted correctly from Beta. The diagram shows the rivet which has dropped out of the selector plate. This is a faulty one. To remove you must take out the clutch to enable you to remove the selector. Simply get a centre punch and ensure that the rivet cannot come out. Re tighten the centre clutch nut to 70Nm using lock tight.



## ENGINE 4T ONLY.

**VALVES.** As per the handbook. They should be checked after 10 hours use and then every 60 hours. If they are not checked it can make the bike difficult to start. Do not arrive to the SSDT without doing this; this is something we cannot do at the event.

**CAMSHAFT DRIVE GEAR.** Check and locktight the bolts with green locktight. This must be checked on all 4T bikes before the SSDT. Torque to 10 Nm. You can do the valves at the same time

**OIL PUMP COVER 4T.** We also advise carrying a spare oil pump cover and a spare oil window.

**STARTING 4T.** The bike will not start any better if you try to kick-start too hard. It starts the easiest if you use smooth progressive strokes. Kicking too hard (aggressively) can break the kick-start gear. This is only under extreme situations. If the 4T will not start when hot. Hot start out, fuel tap pointing upwards. Smooth kick with no throttle or just taking the slack out of the cable. If after 4-5 kicks it does not start it is probably flooded. No hot start, fuel tap in normal position pointing up. Use half to full throttle and it will start. **IMPORTANT:** Use the hot start when the bike will not start normally. If the bike has been on it's side or you have some problems to start use the hot start and open the fuel tap so it is facing down but with NO THROTTLE. If this fails, full throttle with no hot start.

**CARB 4T.** There is a filter above in inlet fuel valve on the 4T which you should check/clean whilst you are cleaning the rest of the carb. There is a small screw to remove to take out.

**ROAD LEGAL.** Please make sure your bike is road legal, taxed, insured, rear number plate that you can read from the rear, horn, and speedo. Remember you are only insured for the event and the parade on Sunday if you are using the event insurance.

**RIDING CLOTHING.** Basically this is down to you. I personally have found the best system is to carry a small rucksack with some waterproofs you can put on if the weather gets bad. If you set off in full waterproofs you can guarantee it will be hot all day and vice versa if you don't. With this you have the best of both worlds. I usually wear my normal riding clothing, gortex socks, top and bottom waterproofs if required, warm waterproof gloves for the road, spare set of gloves. Goggles/face mask. Test all equipment well before to make sure it is comfortable and waterproof.

**TOOLS TO CARRY.** Same again this is just the basics. Check that I have not forgotten anything. Tools to remove both wheels. 1 front tube, this will repair both front and rear punctures in an emergency. Repair strips if the rear tyre splits. Pump and air bottles to inflate tyre. I always carry a small pump just incase I run out of air bottles. Change a tyre with the tools you are going to carry to make sure they work. With the rear tyre always try to repair first with tyre repair strips, only use a tube if these do not work. A helpful tip, if you are putting a tube in the rear wheel only take off 1 side of the tyre so you only have to seal 1 side when repaired. Spare spark plug and plug key. Throttle cable. Split link. Tools to remove carburettor. Tyre pressure gauge. Small brush which can go in your pocket to clean radiator.

**DAILY CHECK LIST.** Every day.

Air filter, disc bolts, footrest bracket bolts, kick-start bolt, gear lever bolt., chain tensioner is straight, chain tension, coolant, gear box oil (check in window), brake pads, spokes all OK. Evo linkage bolts.

**STOP WATCH WITH COUNTDOWN TIMER.** I cannot stress how important this is. During the event you have your running time. Some days the majority of riders end up getting short of time. You do not have time to work out how much time you have remaining. If you have a watch with a countdown you can set the complete running time including lunch stop and the last control back into Fort William and you always know how much time you have remaining. For the good riders you can calculate your time better so you can spend more time looking at the sections. This can be the difference between you losing time or not and even finishing in time or not. I have used a Casio G-Shock for 10 years and it has been perfect.

**TEST.** When you have finished your bike take it for 10/20 miles up the road and test in some sections, this will make sure everything is working well before you start.

**EACH YEAR WE EXPERIENCE PROBLEMS FROM RIDERS WHO DO NOT BOTHER TO DO THE JOBS LISTED. SOME THINGS MAY SEEM UNIMPORTANT BUT THEY ARE ALL THERE FOR A REASON.**

**IT IS SO DISSAPOINTING WHEN A RIDER RETIRES FROM A SMALL MECHANICAL PROBLEM. THE THINGS LISTED ARE THERE TO TRY AND PREVENT THAT HAPPENING.**

If you have any concerns please contact us.

All checked 5.3.14.