



01756 793521

BETA PARTS, CLOTHING & ACCESSORIES



## Beta UK 2018 SSDT Preparation Guide

**For SSDT riders 'on confirmation of entry' please telephone Gary (+44 (0)1756 793521) to sign on for our back up service, inform him of your riding number and which bike you will ride and also your address and credit card details. There is no charge for our service, you only pay 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 regardless. These are modifications that we make to our own bikes. A lot of these things apply only to riders competing in the SSDT and obviously these are only guidelines. You must prepare your bike fully. 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.

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.

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 at the SSDT.

If your bike is over one year old or has done a previous SSDT we advise checking the main bearings especially if the engine has a whining noise. This is not essential, but if you are unsure get somebody experienced to listen to your bike. Also change your radiator hoses, head insert "O-ring", head gasket and water pump impellor. If you have had your bike from new then this work is not critical as you will know the history of the bike. If you do not know the history then it is well worth checking.

**TYRES** New. We recommend Michelin X11 tyres which hold their pressure. This is essential during the SSDT. Make sure you are able to repair both front and rear punctures.

**LOCKTIGHT** Do not use on M5 screws or small screws you need to remove. M6 up is OK. M5 "hexagon" headed screws are OK to locktight. Locktight rear disc bolts, stand bolts, gear lever, rear sump bolts, kickstart + kickstart countersunk bolt.

**SILENCER BOTTOM MOUNTING BOLTS** Replace these with hexagon bolts as shown in photo below and check each day. Gary has these.



**ALL BOLTS** Check all accessible bolts to ensure they are tight. Check these regularly throughout the week.

**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 is not a good fit then REPLACE.

**KILL BUTTON 14-18 EVO** You can remove the lights. Do not remove any wiring as the fan is wired through the wiring loom. We do not advise removing the mapping switch as it leaves the bike in the hard/quick setting (map 2) which is not correct for the SSDT. We have had only a few problems with the white connector plug on the kill button wire. We do not think you need to remove but if you have problems during the event this is the first place to look. We have a connector for the 2017/18 Evo which leaves the bike in mapping 1 which is the soft setting which is fine for the SSDT.

**CHAIN** Must be new or nearly new. Do not use a chain unless you know the quality is good and make sure you can get a half link if required, a standard Beta chain is very good quality. Keep the links you remove, as they may be useful in the future. You can get half links for a standard Beta chain which may be required.

**CHAIN SLIPPER PAD/ TENSIONER PAD** New, unless the bike is quite new. Put a "lock nut" on the back of the top chain slipper bolt. 2014-18 only.

**SPROCKETS** These should be new or nearly new.

**LINKAGE KNUCKLE** Check for free play in the swinging arm and inspect the linkage knuckle to make sure it is not damaged/cracked. Under normal conditions they do not crack but worth checking. Remove and grease all bolts and bearings. Do not over tighten the link arm bolts as you can pull the head off the bolt.

**REGULATOR PRE-2016 ONLY** Re route wire as shown in the diagram below 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. MY15-18 bikes are already routed as below. 2017-18 is behind the front number board.



**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 mud flap nuts are under the mudguard as sometimes they can flick off the radiator cover (rivet would be better).

We have also available a guard "shown below" which fits on the bottom of the radiator which prevents mud from getting into the rad. This works really well and should definitely be fitted.



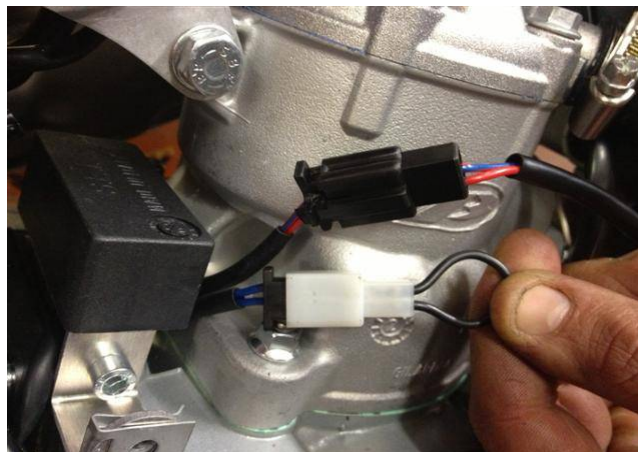
**RADIATOR. IMPORTANT** Throughout the event and especially after every moor crossing remove the radiator cover and clean. Do not touch or rub mud into the radiator, the radiator is very fragile so do not touch. You can blow out with the airline when you return to the start, same again do gently as you can damage the radiator. 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 a long road stretch. Make sure you do not lose the cover. To fill the Evo coolant correctly put the front wheel (0.5-1.0 meter) high as it fills better. Fill fully, the Evo will always push a little coolant out to find its level then it should be fine. Take your bike up the road for a run and make sure the fan is working correctly.

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

**HEADER TANK PIPE. VERY IMPORTANT** Evo all models. Re-route header tank pipe as shown in the diagram below. If you have cooling problems you will get a warning before damage is done. 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.



**EVO ELECTRICAL ADAPTOR** Carry an electrical adaptor as shown in the diagram below to wire the fan live if the fan wiring/thermostat fails. These will be available from Gary in the Parc Ferme. This is very useful to carry.



**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 loom/wires on a standard bike.

**REAR WHEEL SEAL** Pre 2011 only. 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 at the SSDT with a**



rim which is leaking. We cannot repair at the event and we do not recommend you use this type of wheel full stop.

**AIR FILTER** Make sure your air filter is in good condition. Check air box bleed screw is working correctly and you can remove easily. A better drain screw is available from Gary. An excellent mod is to use an old tyre valve, drill the valve hole as big as possible and fit to the side/bottom of the air box. Attach some clear pipe and block the end. This is excellent if conditions are bad as you can see if water is in the air box without removing the air filter. It is tricky to make but very worthwhile.

**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 5+ years now. This will prevent water from the front wheel finding its way into the air box, which happens when you ride down the tracks. This is where most water enters the air box. 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. Tape the air box lid to ensure water cannot find its way in. The bike can breathe through the vents in the rear fender but the blue foam will stop water/mud from getting to the air filter.



**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 it. Locktight stand bolts and check every day. If the stand returns automatically remove the M6 bolt behind the stand bracket. Check your stand bracket is not cracked as these can be weak. We recommend re welding if you find a crack as this will be stronger than standard.

**FUEL PIPE. IMPORTANT** Check it is not touching the cylinder and not bent so the fuel can flow correctly. Fit an in line fuel filter. IMPORTANT. On the Evo 2015-18 we recommend running the pipe right round the carb or routed up towards the fuel tank so the pipe does not kink. Make sure it is not near the exhaust.

**SPOKES** Check each day.

**REAR SILENCER. 2T EVO** If the bike is noisy fit new packing. Change the silencer rubber bobbin if more than 1 year old (Pre 2015 only). Do not lift your bike from the silencer as that is what breaks the bobbin.

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

**RADIATOR HOSES** If yours are more than one year old we advise changing the radiator hoses. Do not over tighten clips.

**SUSPENSION** Set up as per handbook.

**FUEL TANK (NOT 2017-18 model)** 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 2013-17 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 we 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. This cannot be fitted to a 2017-18 bike as the regulator is positioned behind the front number board.



They are available from us for around £50.00 + VAT.

**ELECTRICAL CONNECTORS 2017/18 EVO** Separate all connectors and make sure they are pushed together correctly as shown in the diagram below. Secure with small cable ties or tape.



## ENGINE 2T

**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.

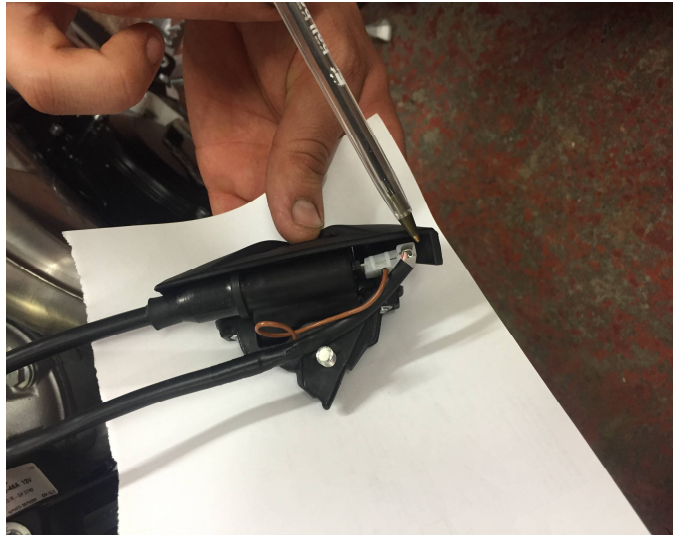
**GEARING** If your main objective is to finish the SSDT we would strongly recommend gearing your bike up. If you are slow on the moors it helps you to make up some time on the road/track sections and also does not put as much stress on your engine. Try to use for as long as possible before the SSDT. Evo 09-13 2T use 13-41. Evo 14-18 use 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. Gearing is personal so test well before the event. The main objective is to make first gear comfortable for you so your sixth gear is as high as possible helping you on the road/tracks. Some riders use 1 tooth higher on the front. You must test but remember the SSDT sections are very straight line compared to most events.

**KICKSTART AND KICKSTART RETURN BOLT** This is located under the exhaust on the top left hand side of the engine. Check it is tight.

**ENGINE OIL** This should be new. Check every day during the event using the oil window, check oil window is tight. We recommend changing the engine oil half way through the week as your bike will do a lot of miles.

**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

**COIL 2T** We have had some bikes earth out when the coil wires rub through on the frame or the plastic cover wears and allows the connector to earth on the frame. We recommend putting some silicone on the connector and adding some tape to prevent this happening.



**REGULATOR 2017-18 EVO** We recommend fitting a front number plate as shown before you arrive at the event so when you receive your SSDT riding number you can simply fit to the outside of the number plate you have fitted. This will be much easier than fitting to the SSDT number board especially if the weather is bad. Gary has a kit with bolts and nuts and a P Clip to hold the mapping switch. If you want to remove the mapping switch and leave your bike in the standard setting which you should use at the SSDT Gary also has a connector which simply plugs into the mapping switch connector leaving the bike in the standard/soft setting.



## 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 at the SSDT without doing this as this is something we cannot do at the event.





01756 793521

BETA PARTS, CLOTHING & ACCESSORIES



**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 its 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.

## OTHER INFORMATION

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

**RIDING CLOTHING** Basically this is down to you. We have found the best system is to carry a small rucksack with some lightweight 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 a versa if you don't. With this you have the best of both worlds. We usually wear 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 you have not forgotten anything. Tools to remove both wheels. 1 front tube, this will repair a front puncture and a rear punctures in an emergency if the tyre came off the rim. Repair strips if the rear tyre splits. Pump and air bottles to inflate tyre. We recommend carrying a small pump in case you 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 and 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 one side of the tyre so you only have to seal one side when repaired. Carry: Spare spark plug and plug key. Throttle cable. Split link. Tools to remove carburettor. Tyre pressure gauge. A small brush which can go in your pocket to clean the radiator.



01756 793521

BETA PARTS, CLOTHING & ACCESSORIES



**DAILY CHECK LIST. DO THIS EVERY DAY** Air filter, disc bolts “rear mainly”, footrest bracket bolts, kick-start bolt, gear lever bolt “increase slot if closed when tight”, chain tensioner is straight, chain tension “DO NOT OVERTIGHTEN AS THIS CAN CAUSE THE CHAIN TO BREAK, coolant – check in the morning when the bike has cooled down, pinch the rad hose, if you can see coolant it is fine, gear box oil (check in window), brake pads, spokes all OK, stand bolts, rear sump bolts, silencer top and bottom bolts.

**STOP WATCH WITH COUNTDOWN TIMER** We 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. We have used a Casio G-Shock for 10 years and it has been perfect.

**TEST** When you have finished preparing 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 DISAPPOINTING WHEN A RIDER RETIRES DUE TO A SMALL MECHANICAL PROBLEM. THE ADVICE IN THIS DOCUMENT ARE THERE TO TRY AND PREVENT THAT HAPPENING.

If you have any concerns or questions, please contact us.