

# MAKING YOUR DREAMS A REALITY

# FITTING INSTRUCTIONS

**KTM RC series STEP KIT** 

STAA-0024 (street) STAA-0124 (race only)



Also applies to KTM
390 Duke Step Kit
STAA-0032



# KTM RC Series and Duke Step Kit

Fitting Instructions, KTM RC Series and 390 Duke Adjustable Step Kit

#### STAA-0024, STAA-0124 and STAA-0032

Congratulations on your purchase of the TYGA Performance Step Kit. Please take a few minutes to familiarise yourself with the components and to read the fitting instructions below.

Before proceding with the removal of the standard steps it's important to make sure that you have everything in the TYGA step kit prepared and ready to fit. The swingarm axle must be removed and this will leave the bike a little unstable so it's advisable to make sure everything is easily to hand, or a friend is nearby to help.

The step kit is delivered with the main plates, and the hanger plates separated. For ease of fitment we recommend that you leave separated during fitting to the bike as the fully assembled steps can be a little cumbersome while fitting the swingarm axle and other securing hardware.

## \*We recommend the use of thread locking agent on all bolts to resist loosening of fasteners due to vibration\*\*

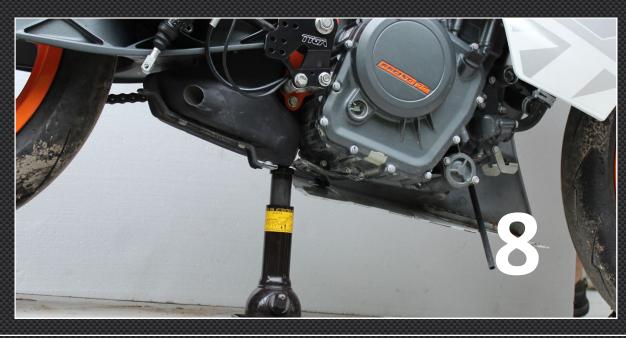
- 1) First and most important step is to make sure the vehicle is secured in an upright position. Use race stand (with TYGA Bobbins TYLY-1009/1209) or similar.
- Remove the standard lower cowl on right hand side. Left side does not need to be removed.
  - 3) Remove the rod end joint at the gear change arm. We will replace this.



- 4) Remove the side stand switch (2x M6 bolts)
- 5) Loosen the brake pressure switch on the brake master cylinder, and just nip up. We need to rotate the hose 180 degree later in the assembly and loosening now makes it easier later.



- 6) Loosen the nut on the swingarm axle
- 7) Loosen the M10 bolts below the swingarm axle. The front bolt passes all the way through the frame from left to right and is secured by an M10 nut.
- 8) Prepare a jack to prop underneath the standard exhaust system (at the CAT box), this allows you to lift the center of the bike and take the weight off the swingarm axle for easy removal



- 9) Remove the lower M10 bolts. Note that there are spacer fitted between the standard steps and the frame. On the left side is an additional part with doubles as a spacer and chain slider. Carefully note the orientation of these spacers as we will refit them in the same orientation as removed.
  - 10) Remove nut from the swingarm axle.
    - 11) Remove the R/H step assembly.
  - 12) Once again, loosen the brake pressure switch and rotate the banjo 180 degrees.

    Tighten the brake pressure switch.
    - 13) Remove split pin from brake pushrod assembly.
  - 14) Remove brake master cylinder from hanger assembly, complete with pushrod.

    Now comes the slightly tricky part. This may require an extra set of hands to help steady the bike as things can get a little loose with the swingarm axle removed.
- 15) Use the jack under the exhaust pipe, and slowly take the weight off the bike until you feel the swingarm axle go loose. At this point is can be pushed out. Please be aware that the bike will be partially unsupported while the axle is removed so make sure that the jack is secure and that the bike is not allowed to topple over.
  - 16) Remove the swingarm axle and L/H standard step.
  - 17) If using the street step kit (STAA-0024) then you will need to remove the side stand (2x M10 bolts). Retain the side stand and the bolts as these will be refitted later.
  - 18) The remainder of the L/H step assembly can be discarded as we do not reuse any parts.
- 19) Fit the L/H main plate (STAH-0047A) to the swingarm axle. No washers or spacers are required.



- 20) Align the bush in the swingarm with the hole through the frame and push the swingarm axle into the frame.
- 21) Now, push the main plate up to the swingarm, and loosely fit the rear side M10 bolt, and screw it a couple of turns into the hole on the frame. At this point, don't worry too much about the spacers as we will need to get in there and have another go at that later.

  We just want to stop the main plate swinging around for now.
- 22) Carefully align the frame hole and the R/H swingarm bush, and the swingarm axle can be pushed through the whole way. You may need to play with the jack (raise or lower) to get an easy fitment.
  - 23) Remove jack.
- 24) Now fit the R/H main plate (STAH-0048B) and secure loosely with the swingarm nut.



25) Check routing of the brake line, switch wires and reservoir hose.



- 26) Loosely fit the rear side M10 bolt, though the main plate, then supplied spacer (STHB-0030), and through the standard spacer and into the frame hole. Just a couple of threads is OK for now.
- 27) If you have the Street Step Kit (STAA-0024) then you need to fit the side stand to the spacer (STAH-0047C) with the original 2x M10 bolts. Torque setting 33Nm.
- 28) If you have the Race Step Kit (STAA-0124) then you need to prepare 2x spacers (STHB-0020).



- 29) Fit the long M10 bolt through the front lower hole on the L/H main plate. The order is main plate, spacer STHB-0020, chain slider, standard spacer and into the frame hole. As it comes through to the R/H side, align the standard spacer and then spacer STHB-0030 and finally through the R/H main plate.
  - 30) Fit the M10 nut loosely.
  - 31) Fit the L/H hanger plate (STAH-0047B) to the position of your choice and secure loosely with 2x M8 bolts.
  - 32) Secure the rod end to the gear change arm. Note that the road setup requires a 10mm bush to avoid interference between the link rod and side stand. The race setup does not use the 10mm bush. Instead fit 2x M6 washers between rod end and gear arm. Insert Picture.
    - 33) Fit the R/H hanger plate (STAH-0048B) to the position of your choice and secure loosely with 2x M8 bolts.

34) On rear brake master cylinder, remove the pushrod, and then remove the rubber boot



35) Drop an M6 washer into the rubber boot to act as a seat for the taper spring, and drop the spring in.







36) Now refit the pushrod through the boot, washer and spring. Align the large diameter of the taper spring concentrically on the master and secure the rubber boot.

37) Fit the brake pushrod to the brake link shaft on the brake lever, and install the 2x M6 button head bolts, washer and Nylok nuts. Fully tighten.

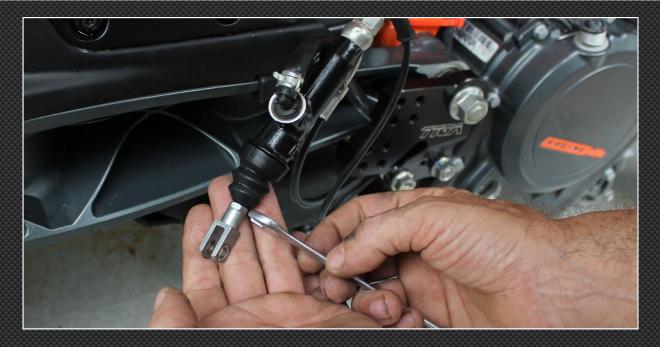


- 38) Fit R-Clip to secure pushrod to lever.
- 39) Now you are ready to tighten the bolts. Use of thread locking agent is recommended at all points.
  - 40) Start by nipping up the swingarm axle nut, followed by the M10 bolts.
    - 41) Fully tighten swingarm axle nut. Torque setting 140Nm
      - 42) Fully tighten M10 bolts. Torque setting 50Nm
    - 43) On Street step kit, refit and tighten the side stand switch.
  - 44) Fully tighten M8 bolts securing the hanger plates. Torque setting 24Nm.
  - 45) Check gear selection is smooth and that all gears can be selected without stiffness.
    - 46) Check rear brake operation
      - 47) Refit R/H lower cowl.

# **ADJUSTMENTS**

Adjusting Brake Lever Height:

The brake lever height can be adjusted by way of a lock nut on the pushrod. Extend length of pushrod to raise height on lever. After pushrod adjustment, you will need to then adjust the lever stopper (see picture)



The lever stopper is located under the brake lever. This stopper constrains the lever again pressure from the return spring fitting under the rubber boot. Adjust this stopper to give 0.5-1mm of free play



Adjusting the gear lever:

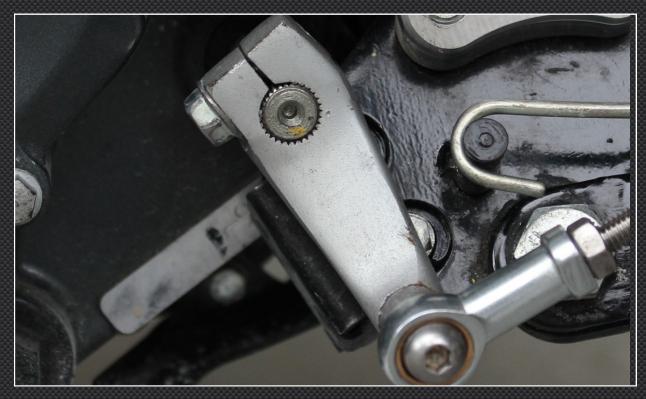
For both the street and race types, the gear change mechanism can be fixed for both 'normal' and 'reverse/race' shifting.



The height of the lever can be adjusted for all four height/back position by careful adjustment to the length of the link rod.



Additional height/lowering of the gear lever can be achieved by rotating the gear change arm +/- one spline from the standard position without upsetting the linkage ratio or smooth action.



#### **FINALLY**

Check and double check that all fasteners are tightened.

Now go out and ride it like you stole it!!



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