



## TILLETT RACING SEATS **CHAINGUARD**

The fitting of the chainguard is slightly different depending on which type of engine is used. Some engine types are configured to run the chain very close to the bearing hanger, for example on the old 100 cc direct drive engines or the new OK engines, where there is no clutch. In the X30 and Rotax Max classes the chain will often run further away from the bearing hanger. For this situation spacers are included in the fitting kit to adjust the guard to ensure that the chain runs centrally. With engines that have to run with a regulation front sprocket or clutch cover you may need to trim the guard differently to that provided or buy the KF,OK,X30 version shown below.

For Max engines there is not normally any need for additional trimming. Sometimes a small amount may need to be trimmed back where the guard meets the engine. For cutting the composite use an angle grinder with a metal grinding disc, a sandpaper flap wheel or diamond saw. A jigsaw with a metal cutting blade or a hacksaw are also acceptable ways of cutting the composite. After cutting, it is advisable to rub the edges with 40 to 180 grit sanding paper, this will smooth the edges which can be very sharp when just trimmed.

To fit the chainguard to the kart, first fix the brackets to the engine side bearing hanger. The two brackets should be fitted in a vertical position. This allows a little adjustment by rotating both brackets. The countersunk side of the bracket allows the use of a countersunk bolt, which reduces the likelihood of the sprocket hitting the bolt head. If a normal bolt is to be used you will need a washer to span the countersink. By offering up the Chainguard you should be able to identify whether or not the brackets will need spacing out from the hanger to allow the sprocket to rotate in the middle of the guard.

The cut out for the axle should be aligned centrally with the axle and enough height should be allowed to take the largest sprocket (or sprocket protector) that will be used. At this stage it is important to ascertain what would happen if the axle were to be raised or lowered into its other position.



KF, OK, X30  
For engines with front sprocket cover

## SHORT BRACKET KIT FOR COMPOSITE CHAINGUARD



Because the brackets tend to be mounted using the bearing hanger bolts, when raising the axle, the guard moves in relation to the engine and could easily come into contact with it. The composite guard is not very flexible and it should not touch any part of the kart other than at the mounting points.

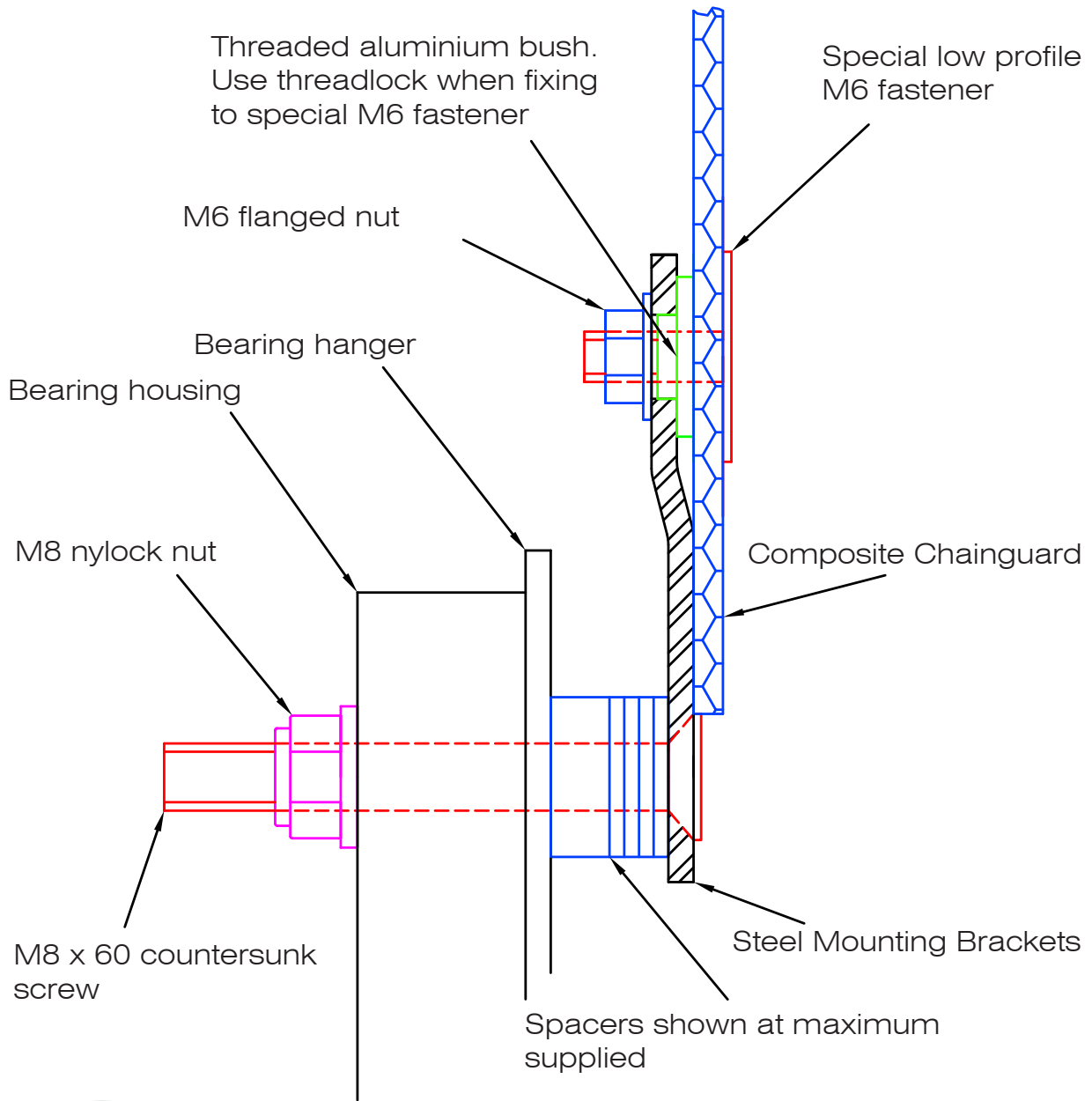
Once you are happy with the position, spot through the center of the mounting slot in the steel brackets using a marker pen, then accurately drill two 7mm holes in the guard. (Drill the hole big enough that the inner low profile bolt sits down flush with the composite.) Using the special fasteners on the inside of the chainguard and the aluminum locating bushes on the outside, fix these assemblies to the guard.

It is unlikely that you will be taking these two fittings apart again so use plenty of thread lock to keep them from vibrating loose. Do not over tighten as this could crush the honeycomb core in the composite. To tighten you will need two 19mm spanners. It is important not to overtighten these fittings.

Finally, when you have adjusted the brackets, make sure that the bushes are properly located, then the M6 nuts with the captive washer can be tightened. These plain nuts allow for quick removal of the whole guard, allowing easy access to the chain and sprocket. Nylocks would slow this process and in testing they have been found to be unnecessary.



# TILLETT CHAINGUARD BRACKET ASSEMBLY



Rotax, TAG  
For engines with front sprocket cover



RHD  
Shorter for engines without clutch or cover