



Fitting the Tillett carbon KEVLAR® 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.

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 a jigsaw with a metal cutting blade or a hacksaw are acceptable ways of cutting the carbon. After cutting, it is advisable to rub the edges with 40 to 180 grit sanding paper.

To fit the chainguard to the steel brackets, 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.



## BRACKET KIT FOR CARBON KEVLAR CHAINGUARD



At this stage it is important to ascertain what would happen if the axle were to be raised or lowered into its other position.

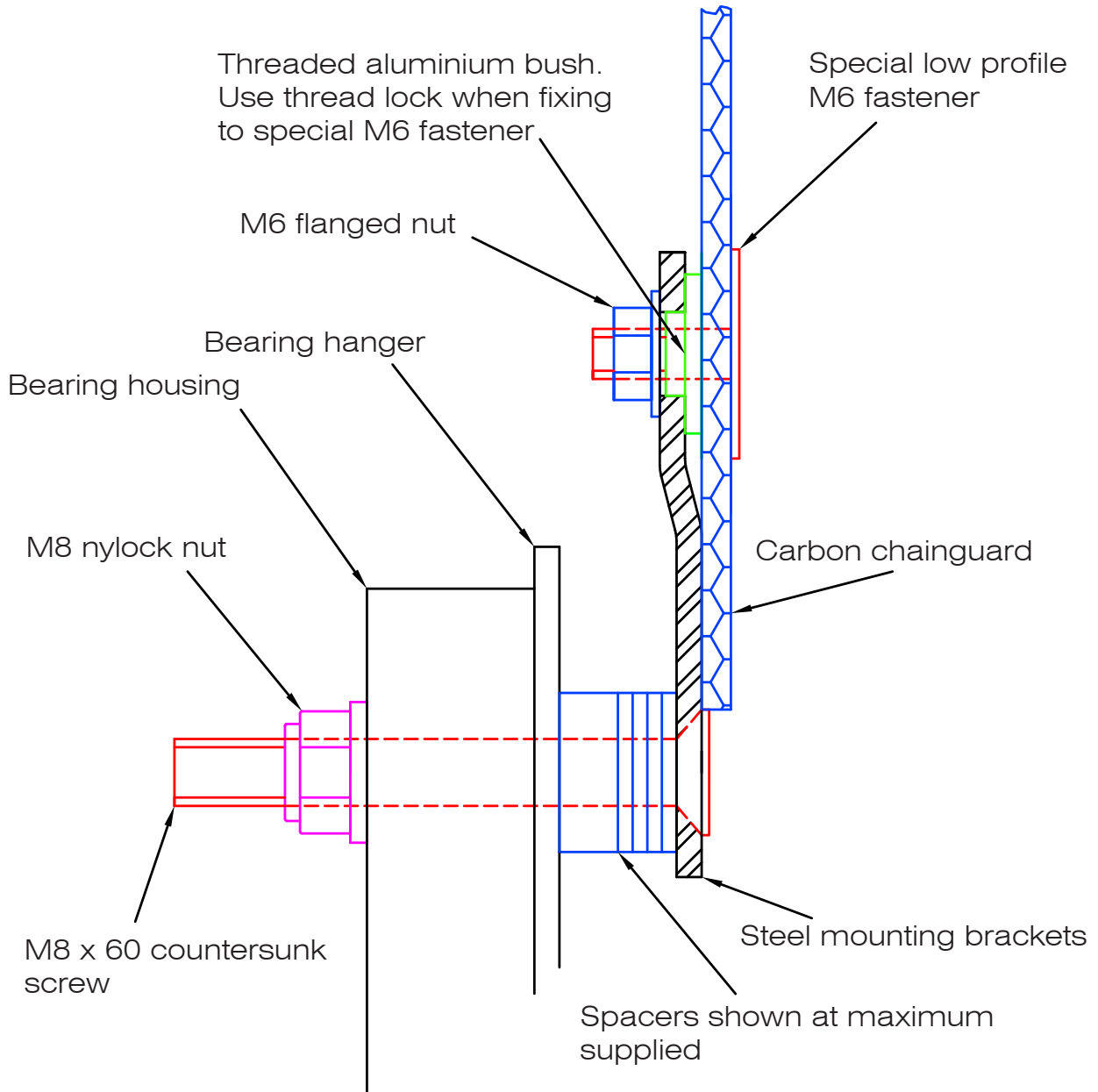
Because the brackets tend to be mounted using the bearing hanger bolts, when raising the axle, the guard moves differently in relation to the engine and could easily come into contact with it. Once you are happy with the position, spot through the centre of the mounting slot in the steel brackets using 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. 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. Nylock nuts would slow this process and in testing they have been found to be unnecessary.



## TILLETT CHAINGUARD BRACKET ASSEMBLY



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