

Torque Settings for P&M Flexwing Aircraft

Issue: 1.2 Dated: 6/6/17 amended and added nosewheel nut

With the exceptions in the table below, fasteners in the airframe are shear loaded connections where they should only be tightened enough to remove all free play and then tighten half a turn. Over tightening will distort tubes etc.

Wire roll swaged end connections should only be tightened enough to allow the end termination to move freely in all directions, so that the rigging cable can be aligned with the load at all times. There must be enough slack to allow the end of the termination to describe a small circle to cater for any rotational vibrations which might be set up in the wire. If the roll end swage is bolted tight then this will lead to fatigue failures. In addition, it must be noted that where the wire enters the roll swage it must NOT be bent over or straightened out as this will also cause fatigue failures.

Torqued fasteners especially those secured by Loctite should be marked with a torque stripe. If you have any issues with torque settings on our wing or trikes, please contact us.

For all Rotax engine torques, please consult manufacturer's technical data, which can be accessed here <http://www.flyrotax.com/services/technical-documentation.html>

Type	Fastener	size	Torque (NM)	Loctite
QuikR, GTR	Fore and aft rigging cables bolt on the control frame	¼"	12	
Q2, Quik, QuikR, GTR	Vertical crossboom to LE channel bolt	10mm	15	
Q, Q2, Quik, QuikR, GTR	Hang bracket to block screws	6mm	10	222
GTR	Control frame channels to hang bracket	8mm	20	
All	10mm engine mount to crankcase bolts	10mm	35	
Quantum, Quik 912	Vertical rubber mount bolts	8mm	20	
Quantum, Quik 2 strokes, all Mainair	Vertical rubber Lord mount bolts	¼"	12	
Warp Drive propeller	Small hub bolts	¼"	13	Torque seal
Warp Drive propeller	Hub to driving flange bolts	8mm	20	Wire Lock
Arplast propeller	Small hub bolts	6mm	10	Torque seal
Arplast propeller	Hub to driving flange bolts	8mm	20	Wire Lock
PulsR, Hypertrike	Brake calliper to undercarriage beam	¼"	13	
PulsR, Hypertrike	Mainwheel axle	¾"	100	
Explorer Wheels	Hub bolts	5/16"	20	
Quantum, Quik trikes	Main axle nut inboard side	12mm	30	
	Side strut top and bottom rod end joints	10mm	30	
	Grimeca (spoked wheel) brake calliper bolts	8mm	20	
Also Mainair	Grimeca (spoked wheel) nose axle bolt	10mm	15	R clip