



## Lower rear and lower side rigging assemblies V1.1

### **1) Lower rear rigging, QuikR with STARS, all GT450 and all GTR wings with trailing edge shift cables.**

The lower rear rigging rocker assembly is shown in drawing YQD-050-KIT (GT450). The QuikR and GTR wings are identical in this area. The latest version with Nicopress end fittings is shown but the assembly will also accept roll swaged terminal ends.

The lower rear rigging rocker articulates when the wing is rolled, so relieving bending loads on the wing keel and allowing the cables to align properly. The rocker assembly is designed so that all 3 bolts are tightened up against the bushes (part 41 in the drawing) so they do not rotate. Leaving the bolts free to rotate is NOT acceptable as castle nuts/split pins would be required to lock them and the rate of wear would be greater.

The original design of lower rear rigging cables use a Blue Wave roll swaged end termination with an eye 4.8mm thick. These were unavailable for a short time and an alternative Tecni end termination has been used, specified 5mm but some actually measure 6.1mm thick.

The end termination has now been changed to a Nicopress thimble, 5.2mm thick. The standard bush ZSP-308, 12mm long, will give enough clearance for end terminations up to 5.5mm thick.

If this is not sufficient to provide articulation, a longer bush ZSP-308-14 (14mm) is available. Note there are 7 plastic washers (FWP-011) in the assembly.

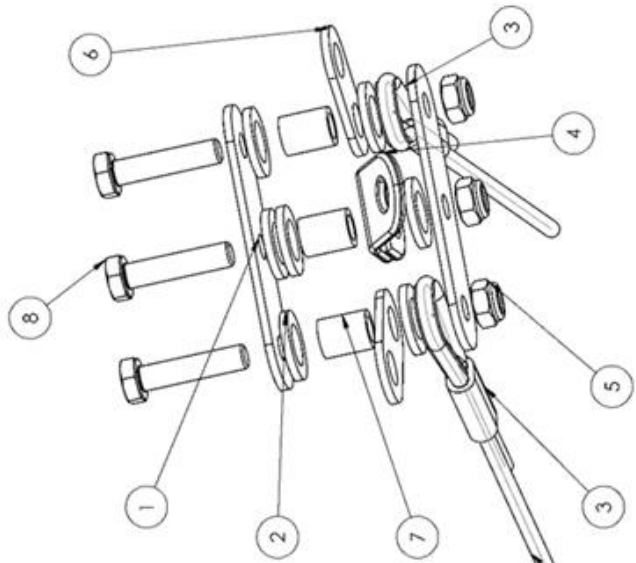
It has also come to our attention that the rocker bushes had been made short on some aircraft, possibly early production GT450 aircraft are the most affected.

When replacing the wires under SB 147 a combination of the thicker roll swage end terminations and short bushes could result in the rocker assembly tightening up so that it will not articulate.

When replacing cables, If the rocker assembly goes tight when the 3 rocker bolts are tightened, new, longer rocker bushes are required.

New nyloc nuts part FNM6-NT should be used on assembly. They should be tightened to 10NM.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	ZPL-036 3 HOLE TANG	STAINLESS STEEL	2
2	FWP-011	PLASTIC WASHER	7
3	YQD-046	REAR RIGGING CABLE	2
4	RT2-HD3M	MODIFIED KEEL TANG	1
5	FNM6-NT	M6 Nylok Nut	3
6	ZMS-177 ControlramTang	FOR TRAILING EDGE CABLES	2
7	ZSP-308 SPACER 0-3750Dx0.91inchxDx12m	3/8"OD 1/4"ID x 12mm SPACER	3
8	FBM6 - 25	Hex Bolt FB M6 x 25	3



ASSEMBLY SHOWN FOR THIMBLE TYPE END FITTINGS OR BLUE WAVE ( 4.8MM THICK) ROLL SWAGED FITTINGS.  
FOR TECMA (6MM THICK) ROLL SWAGED FITTINGS, REPLACE SPACERS ZSP-308 WITH 14MM SPACER ZSP-308-14

**NOTE:**

ASSEMBLY MUST ARTICULATE FREELY WITH ALL BOLTS TIGHTENED TO 10NM.  
LUBRICATE MOVING JOINTS WITH MOTORCYCLE CHAIN WAX

P&M AVIATION INC. 175 WILBOROUGH ST. 115 WILBOROUGH, VT 05378 TEL: 802-251-1151 FAX: 802-251-1152 WWW.P&M-AV.COM		(PART NO.) YQD-050-KIT	(OFFICIAL DRAWING) REVISED A
(MATERIAL) 304 STAINLESS STEEL (FINISH) Natural		(TITLE) REAR ROCKER ASSEMBLY FOR G1450, GTR, STARS EQUIPPED QUIRK	
(DIMENSIONS) (WEIGHT) (PART NO.) YQD-050-KIT		(PART NO.) YQD-050-KIT	
(DIMENSIONS) (WEIGHT) (PART NO.) YQD-050-KIT		(PART NO.) YQD-050-KIT	

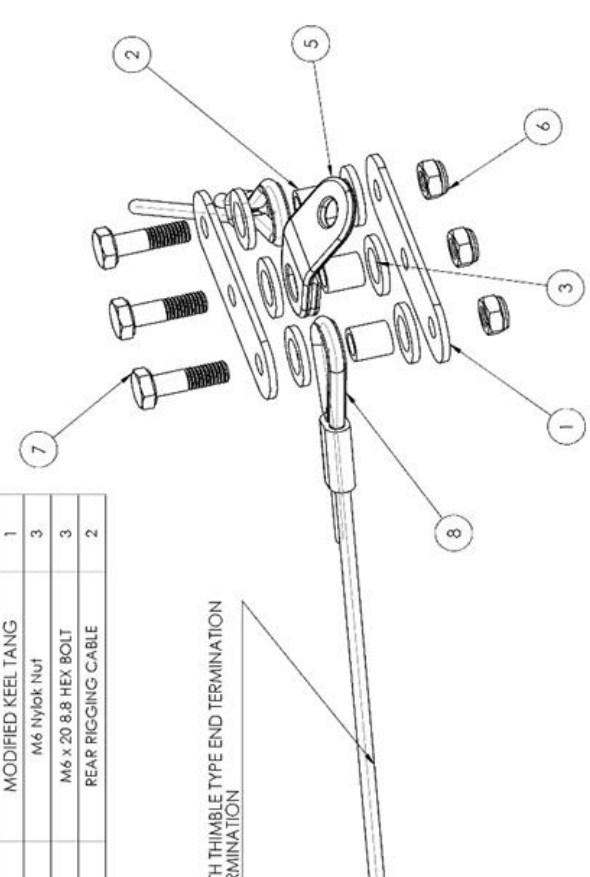


8m Tree Park, Monton, Warborough OX8 1PS, Witbee Ph 01672 861350

## 2) Lower rear rigging, early QuikR without STARS, GTR wing fitted to the Hypertrike (no trailing edge shift cables)

For these aircraft, the absence of the trailing edge shift cables means shorter bolts and spacers are needed. Note machined brass bushes and plastic washers are used in this assembly, as the original design used steel bushes which were subject to corrosion. There are 6 plastic washers in this assembly.


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	ZPL-036 3 HOLE TANG	STAINLESS STEEL	2
2	ZSP-342 SPACER 0-3/50DxQtrinchDx10.3mm	3/8"OD 1/4"ID x 10.3mm SPACER	3
3	FWP-001	PLASTIC WASHER	6
4	YQE-046	REAR CABLE ASSEMBLY	2
5	RT2-HD3M	MODIFIED KEEL TANG	1
6	FNM6-NT	M6 Nylok Nut	3
7	FBM6 x 20	M6 x 20 8.8 HEX BOLT	3
8	cable Assy 4mm	REAR RIGGING CABLE	2



LOWER REAR RIGGING WITH THIMBLE TYPE END TERMINATION  
OR ROLL SWAGED END TERMINATION

**NOTE**  
ASSEMBLY MUST ARTICULATE FREELY WHEN BOLTS ARE ALL TIGHTENED TO 10NM  
LUBRICATE ASSY WITH MOTORCYCLE CHAIN WAX.

TO: SALES DIVISIONAL MANAGER 11111	FROM: SALES 11111	APPROVALS DATE: 11/11/11	REVISIONS 11111
TITLE: <b>YQE-050-KIT</b>		DATE: 11/11/11	
DESCRIPTION: <b>KEEL ROCKER ASSEMBLY FOR EARLY QUIKR (NO STARS)</b>			
PART NUMBER: <b>YQE-050-KIT</b>		DATE: 11/11/11	
SCALE: 1:1			
SHEET: 1 OF 1			



### 3) GT450 lower side rigging replacement.

The lower side rigging has been modified with Nicopress end fittings. The cable YQD-045 is now supplied with a 3mm thimble one end, identified by a white marker, which fits to the control frame end and a 4mm thimble at the cross boom end. The bolts should be done up allowing the cables to align with the load. The 3mm thimble is interchangeable with the original roll swaged terminal.

