CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM80 ISSUE: 1

TYPE: **QUIK GTR**

(1) MANUFACTURER: P & M Aviation Ltd, Unit B, Crawford St, Rochdale, Lancs OL16 5NU

(2) UK IMPORTER: N/A

(3) CERTIFICATION: BCAR section S issue 5

(4) DEFINITION OF BASIC STANDARD: Airworthiness Submission QUIK GTR, GA drawing YQF-000 issue A

(5) COMPLIANCE WITH THE MICROLIGHT DEFINITION

(a)	MTOW	450 kg
(b)	No. Seats	2
(c)	Maximum Wing Loading	34.6kg/m²
(d)	Vso	39mph CAS
(e)	Permitted range of pilot weights	55-110 kg frontseat.
		0-110 kg rear seat.
	Total Maximum crew weight	220kg
(f)	Typical Empty Weight (ZFW)	234Kg
(g)	ZFW + 172 kg crew + 1 hr fuel (18litres /13 kg)	419Kg
(h)	ZFW + 86 kg pilot + full fuel (65litres /47 kg)	367Kg
(i)	Max ZFW at initial permit issue	265Kg

INVESTOR IN PEOPLE

(6) POWER PLANTS

Designation	Rotax 912 ULS	Rotax 912 ULS	Rotax 912 UL	Rotax 912 UL
Engine Type	4 cylinder 4 stroke	4 cylinder 4 stroke	4 cylinder 4 stroke	4 cylinder 4 stroke
Reduction Gear	2.43:1 gearbox	2.43:1 gearbox	2.27:1 gearbox	2.27:1 gearbox
Exhaust System	CKT Twin Exhaust	Rotax Side Mounted	CKT Twin Exhaust	Rotax side mounted
Intake System	K&N intake filter With Skydrive carb body heater	K&N intake filter With Skydrive carb body heater	K&N intake filter With Skydrive carb body heater	K&N intake filter With Skydrive carb body heater
Propeller Type	Warp Drive	Warp Drive	Warp Drive	Warp Drive
Propeller Dia x Pitch	172cm Dia 16° at tip	172cm Dia 16° at tip	172cm, 11° at tip	172cm, 11° at tip
Noise Type Cert No.	187M issue 4	187M issue 4	187M issue 4	187M issue 4
AAN approving configuration	AAN BMAA-1050 Issue 1	AAN BMAA-1050 Issue 1	AAN BMAA-1050 Issue 1	AAN BMAA-1050 Issue 1

(7) MANDATORY LIMITATIONS:

(A) Max Take-Off Weight — 450kg

(B) CG Limits — N/A not critical flexwing with predefined hang point position on the keel. The rear of the two hangpoints should be used.

(C) CG datum — Nosewheel axle.

(D) Cockpit Loadings (solo front seat only)

	Front	Rear	Total
Min	55kg	0	55kg
Max	110kg	110kg	220kg

(E) Never Exceed Speed — 120mph IAS

(F) Manoeuvring Speed — 90mph IAS

(G) Permitted Manoeuvres — 45° Nose up / 45° nose down
Non Aerobatic, max bank 60°
Normal acceleration limits, +4 / -0g

(H) Fuel Contents (Max Useable) — 63.4L

(I) Power Plant see table

Engine	Rotax 912 ULS	Rotax 912 UL		
Max RPM	5800max 5min. 5500 contin.	5800max 5min. 5500 contin.		
MAX CHT	135°C **	150°C**		
MAX EGT	880°C	880°C		
Fuel Spec	95 RON minimum unleaded to BS(EN)228 or AVGAS 100LL.*			
Engine Oil Spec	API - SG semi synthetic 4 stroke motorcycle engine oil.	API SF or SG semi synthetic 4 stroke motorcycle engine oil.		
Gearbox oil spec	Common supply with engine	Common supply with engine		
Fuel/Oil Mix	N/A	N/A		
Coolant Temperature	135°C**	150°C**		
Oil Pressure	2-5 bar above 3500 rpm	2-5 bar above 3500 rpm		
Oil Temperature	50-130°C	50-140°C		
Fuel Pressure	0.4-0.15 bar	0.4-0.15 bar		

(I) *Unleaded preferred. See flight manual for limitations on AVGAS.
(II) **With 100% Ethylene glycol or Evans NPG coolant. See SB121

(8) INSTRUMENTS REQUIRED:

ASI	Altimeter	RPM	CHT EGT Optional	Compass	Coolant temp	Oil Temp	Oil Pres	Fuel Pressure	VSI
Required (0-150mph.)	Required 0-20,000 ft	0-6000	0-200°C 0-1000°C	Optional	Measured by CHT sensor	0-150 degC	0-8 bar	Optional	Optional

(9) CONTROL DEFLECTIONS:

N/A weight shift control limits defined by structure geometry.

Control bar move right	=	roll left
Control bar push out	=	pitch up
Trim switch up	=	slow trim
Push left pedal	=	taxi steering right
Push left toe	=	brakes on
Push right toe	=	throttle open
Hand throttle forward	=	throttle open
Ignition switches up	=	switch on
Choke forward	=	choke on
Tap aligned with body	=	fuel on

(10) PILOT'S NOTES, MAINTENANCE MANUALS REFERENCES:

10.1 Manuals approved for use with this aircraft**.**

(a) QUIK GTR Operator's manual issue 1
(b) Rotax 912 and 912-S Operator's manual
(c) Rotax 912 and 912-S Maintenance Manual.

10.2 The following placards are to be fitted:-

(a) Flight Limitations Placard (to be visible to pilot)
See Annex D.

(b) Engine Limitations Placard (to be located near to engine instruments)
N/A limitations are programmed into electronic Rotax FLYDAT instrument or marked as red lines on the instrument faces

(c) Fuel Limitations Placard (to be located near to filler cap)
See Annex D.

(d) Switches
See Annex D.

(11) MANDATORY MODIFICATIONS / SERVICE BULLETINS / AIRWORTHINESS DIRECTIVES ETC:

None.

Annual Bettsometer test with a 1.2mm diameter needle, with wing sails fitted and tensioned to flight is to be carried out to:
Upper & lower surface: 1000 grammes.
Stitches: 1360 grammes using a minimum 1mm diameter hook, pull upwards.
Technora trailing edge reinforcement: 5kgf through 1 cord, pull upwards.

(12) MINIMUM ISA PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb:	850 fpm at 55mph IAS (912 engine) 1000fpm at 55mph IAS (912-S engine)
Stall or Minimum Flying Speed:	39mph IAS at MTOW / idle.

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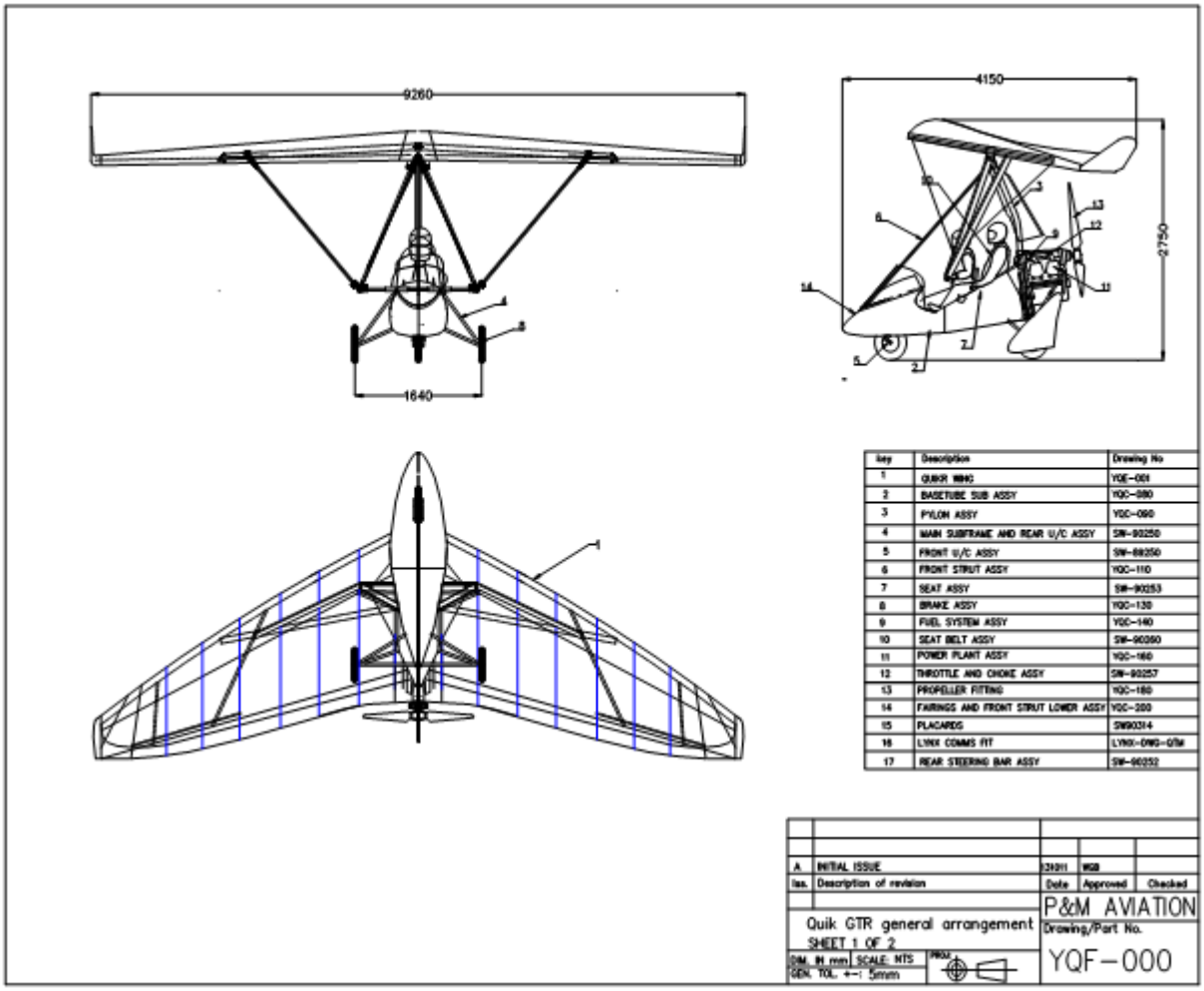
Issue History

Issue No.		Reason and signatory
01	30/04/2012	Initial Issue

D S Cortizo

Illustration of Aircraft - 3 View



ANNEX A
MANDATORY MODIFICATIONS/SERVICE BULLETINS

Service Bulletins:

Nil

CAA Mandatory modifications:

Nil

P&M compulsory modifications:

Nil

ANNEX B
APPROVED OPTIONAL MODIFICATIONS

Mod Ref	Description	Issued
PG371	Instructor bars	03/10/02
M135	BRS Softpack Parachute	04/02/05
M137	Low drag panniers	06/04/05
M153	Landing light	31/08/05
M157	Standard GPS & Power socket	12/01/06
M218	Enigma instrument fit	21/08/08
M224	Avio LED position & strobe lights	15/10/08
M226	Rotax 912 80hp engine	07/05/09
M256 part 1	Explorer wheels and brakes	26/11/11

The installation of all optional modifications is to be inspected by a BMAA inspector and an entry made in the appropriate logbook(s). Note that other approved modifications may exist which are not listed here.

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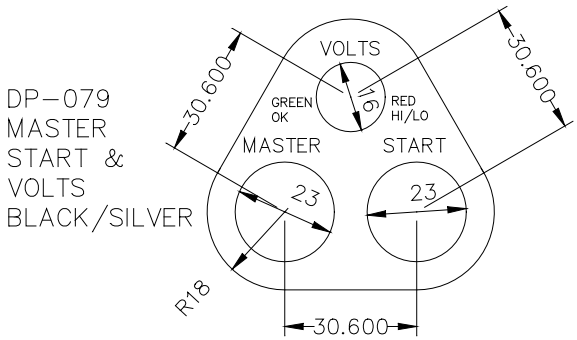
ANNEX C
WEIGHING INFORMATION

The table below is a guide only. Empty weights include unusable fuel, full oil, electrolyte and prepared ready for flight.

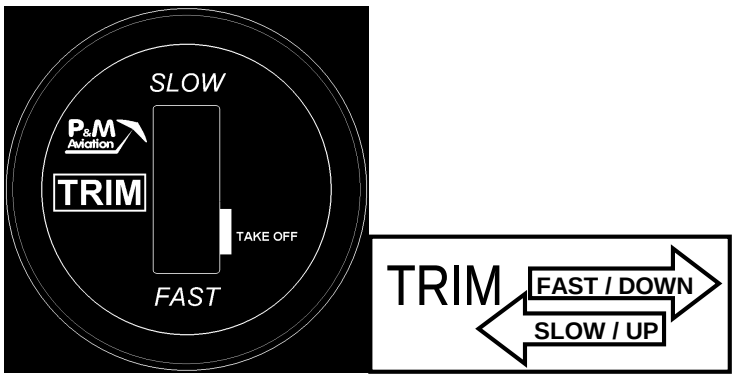
ITEM	WEIGHT kg
Quik -912s Trike	174
GTR wing only	59
OPTIONAL ITEMS	
DELUXE SEAT (1.150), ADD	0.46
50mm FRONT SEAT BOOSTER PAD	0.27
50mm FRONT S/BACK BOOSTER PAD ET	0.25
50mm REAR BOOSTER PAD	0.27
100mm REAR BOOSTER PAD	0.42
CONTROL BAR PROTECTION (2)	0.05
FRONT STRUT PROTECTION	0.04
LYNX ANTENNA	0.19
LYNX FILTER, POWER INT, PTT	0.81
INSTRUCTOR BARS	2.4
AEROTOW SYSTEM	1.5
ICOM HAND HELD RADIO	0.3
M135 BALLISTIC PARACHUTE	13

ANNEXE D
EXAMPLE PLACARDS

Title	**Location**
Flight Limitations:	On LH wing upright
Engine Limitations:	On panel
Aircraft Weights:	On basetube
Baggage Limitations:	On baggage container
Fuel Type, Capacity and Mix Ratio:	On rear suspension leg
Fuel Cock On/Off Positions:	On seat
Ignition Switch On/Off Positions:	On ignition switch bracket
Propeller Pitch Setting:	On airbox or radiator
Hand Throttle:	On throttle unit
Wiring Loom Disconnection Warning:	On airbox or carb covers
Trimmer Setting:	On trim switch (electric trim)
	On trim display (electric trim)
Tip Turn Adjusters:	On leading edge tube tips
Latch Locking:	On seat next to latch
Oil Type and Quantity:	On oil cap
Propeller Pitch:	On oil cooler
Fuel Load Limitations:	In the cockpit



TRIM INDICATOR AND TRIM SWITCH PLACARDS



MAIN PLACARD

P&M AVIATION

QUIK GTR

FLIGHT LIMITATIONS

MANOEUVRING SPD		90MPH
NEVER EXCEED Vne		120MPH
MAX CROSS WIND		12MPH

ENGINE LIMITATIONS

MAX OIL PRESSURE		7 BAR
MIN OIL PRESSURE		1.5 BAR
MAX OIL TEMP	(912)	140 DegC
	(912S)	130 DegC
MIN OIL TEMP		50 DegC
MAX CHT	(912)	150 DegC
	(912S)	135 DegC
MAX CONT RPM		5500
MAX RPM5		800

PAYLOAD LIMITATIONS

MAX. TAKE OFF WEIGHT	450KG
MAX. COCKPIT LOAD	220KG
MAX. P1 LOAD	110KG
MAX PASSENGER LOAD	110KG
MIN P1 LOAD	55KG

DO NOT EXCEED MAX. LOAD

WARNING

MINIMUM FULL POWER CLIMB SPEED 40 MPH
DO NOT EXCEED 60 DEGREES ANGLE OF BANK
THIS AIRCRAFT IS NON-AEROBATIC
NO WHIPSTALLS, WINGOVERS, TAILSLIDES, LOOPS, ROLLS OR SPINS
NO NEGATIVE G
MAINTAIN POITIVE 'G' LOADING AT ALL TIMES
FLY SOLO FROM FRONT SEAT ONLY

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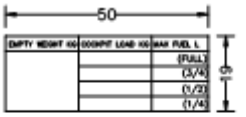
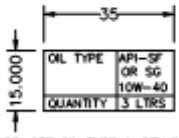
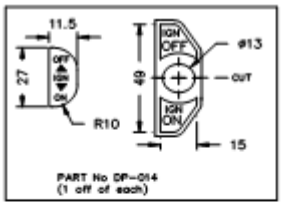
MISCELLANEOUS PLACARDS. IGNITION SWITCH PLACARD IS SPLIT AND USED FOR BOTH MAG SWITCHES.



DP-075 FUEL LOAD PLACARD (ALL)



DP-077 OIL TYPE & QTY PLACARD

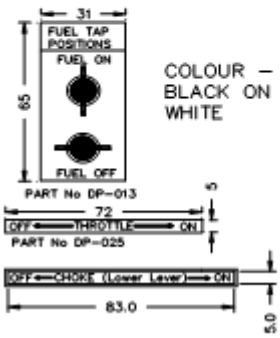


PART No DP-014
(1 off of each)

PART No DP-016

PART No DP-015

COLOUR
RED ON
WHITE



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