

CIVIL AVIATION AUTHORITY

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)



NO: BM80 ISSUE: 2

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/m ²
(d) V _{so}	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

CIVIL AVIATION AUTHORITY

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM80 ISSUE: 2



(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

CIVIL AVIATION AUTHORITY

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)



NO: BM80 ISSUE: 2

(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)	<table><thead><tr><th></th><th>Front</th><th>Rear</th><th>Total</th></tr></thead><tbody><tr><td>Min</td><td>55kg</td><td>0</td><td>55kg</td></tr><tr><td>Max</td><td>110kg</td><td>110kg</td><td>220kg</td></tr></tbody></table>		Front	Rear	Total	Min	55kg	0	55kg	Max	110kg	110kg	220kg
	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)	65L												

CIVIL AVIATION AUTHORITY

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)



NO: BM80 ISSUE: 2

(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	120°C	120°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

CIVIL AVIATION AUTHORITY

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)



NO: BM80 ISSUE: 2

(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 or as amended.
- (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.

CIVIL AVIATION AUTHORITY

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)



NO: BM80 ISSUE: 2

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

SB132 Issue 4	Sail Reinforcement Test	Brookstesting	18/06/13
---------------	-------------------------	---------------	----------

Annual Bettometer test with a 1.2mm diameter needle, with wing sails fitted and tensioned enough to prevent puckering of sailcloth at the needle, is to be carried out to in accordance with Service Bulletin 133 issue 3.

Applied loads:

Upper & lower surface: 1360 grammes, for wings with Yellow Aramid Reinforcement.
Or

Upper & lower surface: 1000 grammes, for wings with Black Technora reinforcement.
Loads to be applied spanwise and chordwise.

Stitches: 1360 grammes using a 1.2mm diameter hook, pull at 90degs to surface of tensioned sail.

Annual Brooksmeter test after first 2 years, using Brooksmeter, on untensioned wing trailing edge is to be carried out in accordance with Service Bulletin 132 issue 4.

Applied loads:

Aramid X-05 Yellow sail reinforcement: 9kgf

or

Technora Black sail reinforcement: 8kgf

(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.

CIVIL AVIATION AUTHORITY

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM80 ISSUE: 2



Issue History

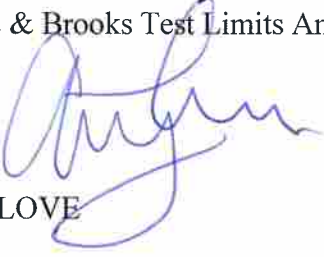
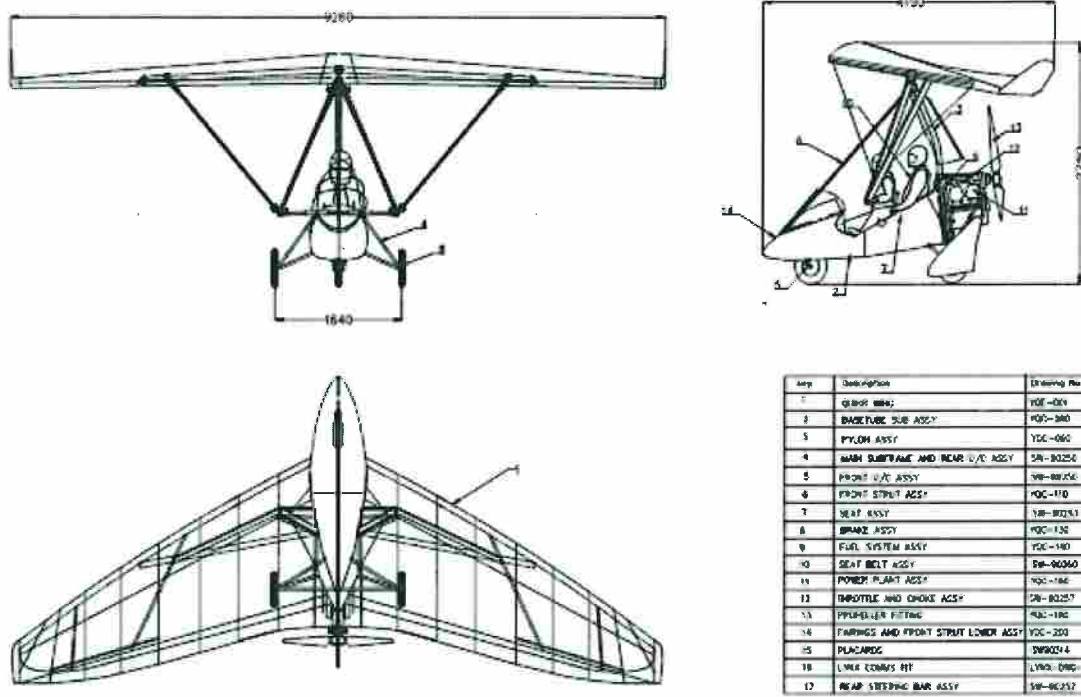
<u>Issue No.</u>		<u>Reason and signatory</u>
01	30/04/2012	Initial Issue D S CORTIZO
02	18/03/2015	Betts & Brooks Test Limits Amended & General Update  A C LOVE

Illustration of Aircraft - 3 View



Item	Description	Drawing No
1	GROSS WING	YQF-000
2	BASE TUBE SUB-ASSY	YQF-280
3	TY-ON ASSY	YQF-060
4	MAIN SUBFRAME AND REAR L/C ASSY	SR-80250
5	FRONT L/C ASSY	SR-80250
6	FRONT STRUT ASSY	YQF-110
7	SEAT ASSY	SR-80250
8	BRAKE ASSY	YQF-130
9	FUEL SYSTEM ASSY	YQF-140
10	SEAT BELT ASSY	SR-80250
11	POWER PLANT ASSY	YQF-160
12	PROTILE AND CHOKE ASSY	SR-80250
13	PURIFIER FITTING	YQF-190
14	FARRINGS AND FRONT STRUT LOWER ASSY	YQF-220
15	PLACARDS	SR80250
16	LIVER COMPS FIT	LYNOL-000-070
17	REAR STEERING BAR ASSY	SR-80250

Rev	Description of revision	Date	Approved	Checked
A	INITIAL ISSUE			

Quik GTR general arrangement
 SHEET 1 OF 2
 DIM IN mm SCALE HTS
 GEN. VOL. 4-1-10

F&M AVIATION
 Drawing Part No.
YQF-000

CIVIL AVIATION AUTHORITY

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM80 ISSUE: 2



ANNEX A
MANDATORY MODIFICATIONS

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
M270	Sail TE Reinforcement	07/12/12
M275	Roll Trimmer	20/05/14
M282	Fournales Shocks	25/07/14
M286	Spinner	12/12/14

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.

CIVIL AVIATION AUTHORITY

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM80 ISSUE: 2



ANNEX C
WEIGHING INFORMATION

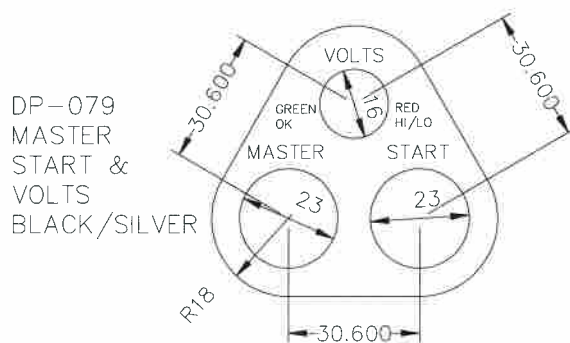
The table below is a guide only. Empty weights include unusable fuel, full oil, electrolyte and prepared ready for flight.

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

NO: BM80 ISSUE: 2

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





NO: BM80 ISSUE: 2

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**

www.pmaviation.co.uk

NO: BM80 ISSUE: 2

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

