

**CIVIL AVIATION AUTHORITY
SAFETY REGULATION GROUP**

MICROLIGHT TYPE ACCEPTANCE DATA SHEET (TADS)

NO: BM03 ISSUE: 2

- TYPE** Quicksilver MX
- (1) **MANUFACTURER:** Eipper Aircraft Inc,
26531 Ynez Road, Temacula, CA 92390,
USA
- (2) **UK IMPORTER:** Aerolite, Long Marston Airfield, Stratford
Upon Avon, Warks, CB37 8RT
- (3) **CERTIFICATION BASIS:** BCAR Section S requirements listed in CAA
document dated 19 June 1985 ref 9/30/UL18.

(4) **DEFINITION OF BASIC STANDARD:** Not Available

(5) **DIMENSIONS/WEIGHTS FOR COMPLIANCE WITH MICROLIGHT DEFINITION**

- (a) Wing area (inc canard area, excluding winglets): 14.87 m² (160 ft²)
 (b) Span: 9.75 m (32.0 ft)
 (c) Standard Mean Chord: 1.52 m (5 ft)
 (d) Dry Empty Weight: 117 kg (258 lb)
 (e) Max Take-Off Weight: 238 kg (525 lb)
 (f) Wing Loading (Weight Empty/Wing Area): 7.87 kg/m²
 (g) Wing Loading (Max Take-Off Weight/Wing Area):

(6) **POWER PLANTS**

Designation	Quicksilver MX	Quicksilver MX		
Engine Type	Cuyuna 430 R	Rotax 377		
Reduction Gear	Toothed or V-Belt 2:1	Toothed or V-Belt 2:1		
Exhaust System	Fischer or Eipper	Rotax		
Intake System				
Propeller Type	Various	Various		
Propeller Dia x Pitch	52" x 32"	52" x 32"		
Noise Type Cert No.	45M	N/A		

Noise requirement

	1 Seat	2 Seat	BCAR Reference
Registered Pre 1/4/86	80 dBA	84 dBA	N3-6, 3 Iss 4
Registered Post 1/4/86	76 dBA	80 dBA	N3-6, 4 Iss 4

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(7) **MANDATORY LIMITATIONS:** (*Indicates where are placarded)

(a) Max Take-off Weight: 238 kg (525 lb)

(b) C G Limits (3-axis aircraft): See para (d)

(c) C G Datum: Nosewheel Axle

(d) Cockpit Loadings: Seat: Position Aft Forward

 Pilot and Baggage (min) 72.6 kg (160 lb) 60 kg (133 lb)

 Pilot and Baggage (max) 106 kg (235 lb) 92 kg (204 lb)

(e) Permanent Ballast, Weight and Position: Nil

(f) Empty C G (3-axis aircraft): 72.57" aft of datum

* (g) Never Exceed Speed: 45 mph

* (h) Manoeuvring Speed: 45 mph

(i) Permitted Manoeuvres: Aerobatics prohibited

(j) Fuel Contents (Max Useable): 3, 5 or 6 US gallons

(k) Power Plant: See Table

Engine	Cuyuna 430R	Rotax 377		
Max RPM	N/A	N/A		
Max CHT	N/A	N/A		
Fuel Spec	Petrol	Petrol		
Oil Spec	2 Stroke Oil Premium Grade	2 Stroke Oil Premium Grade		
Fuel/Oil Mix	40:1	50:1		
Max EGT	N/A	N/A		
Oil Press	N/A	N/A		
Oil Temp	N/A	N/A		

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(8) INSTRUMENTS REQUIRED FOR TYPE APPROVAL:

AŞI	Altimeter	RPM	CHT	Compass
Hall Windmeter	Wrist Mounted	Not Required	Not Required	Not Required

(9) CONTROL DEFLECTIONS (3-AXIS SYSTEMS):

<u>Pitch Control</u>	Up: - 17° +/- 2°	Down:- 17° +/- 2°
<u>Tailplane Trim</u>	Up: - N/A	Down:- N/A
<u>Ailerons</u>	Up: - N/A	Down:- N/A
<u>Rudder</u>	Left: - 40° +/- 2°	Right:- 40° +/- 2°
<u>Steering</u>	Left: - N/A	Right:- N/A
<u>Spoilers</u>	Up:- 90°	Down:- 0°

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

MX Owners Manual

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

See Appendix 1

(12) MINIMUM PERFORMANCE AT MAX T/O WT

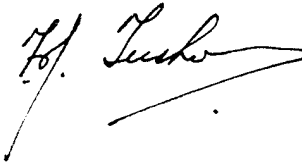
<u>Rate of Climb:</u>	700 ft/min (Rotax or Cuyuna)
<u>Stalling Speed:</u>	20 mph

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Notes:

1. G A Drawings and/or colour photographs illustrating the principal features of the aircraft submitted for type approval shall be attached to, and form part of, this Data Sheet.

<u>Issue</u>	<u>Date</u>	<u>CAA Approval</u>
2.	18 July 1989.	

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Appendix 1

Modifications

The following modifications must be incorporated on each Quicksilver MX microlight in order to comply with the requirements and to qualify for the issue of the Individual Exemption.

- S993(d) A fire resistant fuel line must be fitted in the proximity of the engine and routed as far as possible on the opposite side of the engine to the exhaust.
- S1141 The wiring for the ignition switch must either be fire resistant adjacent to the engine or located so that in the event of an engine fire the engine can be stopped.
- S1303 An airspeed indicator (Hall Windmeter) must be fitted on the tribar upright.
- S1542 A placard is to be installed in full view of the pilot which quotes the limiting speeds V_A and V_{NE} .

In addition as a further condition of Type Acceptance and the granting of Individual Exemptions, the pilot must carry a wrist altimeter if an altimeter is not mounted in the aeroplane and he must wear a protective crash helmet.

Inspection

The review of the compliance of the Quicksilver MX with the airworthiness requirements of the nominated paragraphs of BCAR Section S has indicated a number of areas where particular attention must be given by each BMAA Inspector responsible for inspection of MX aeroplanes and these are listed below:-

- a) Although tubing supplied by Eipper Aircraft Inc has been anodised, parts obtained from other sources may not be protected in this manner. Inspection of the structure is required to determine that an adequate level of protection against corrosion has been provided.
- b) Structural cables are plastic coated. these are to be inspected to ensure that the coating is in good order and that there is no corrosion at the cable ends.
- c) Ensure exhaust system is clear of structure and fabric.
- d) Ensure that fuel lines are adequately clipped and routed away from the exhaust side of the engine and routed to avoid the likelihood of an engine fire impinging upon the line.

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Appendix 1 (Contd)

Inspection (Contd)

- e) Fuel lines to be checked for a layout which avoids the likelihood of vapour locks.
- f) Ensure correct build assembly of individual aircraft, providing adequate rudder frame clearance from upper tail wires and adequate range of travel.
- g) Ensure that elevator push-pull tube provides range of travel in both directions as detailed on the TADS.
- h) Ensure that spoiler lines are not adjusted too tightly, since positive flight loads further tighten them.
- i) If an aircraft has been modified to provide the Rudder Pedal Conversion, inspector should check this according to data supplied.
- j) Ensure airspeed indicator is fitted when rigged for flight. Also check that an altimeter is either fitted, or the aircraft is placarded to show that an altimeter must be carried.
- k) Check bolts for corrosion in wing leading and trailing edges.

In addition the following Service bulletins, issued by the manufacturer must be actioned on each MX aeroplane when being inspected for the purposes of issuing the Individual Exemption:-

- 80-2-A Quicksilver Care. Check boom tubes for damage resulting from nose wheel not being tied down when at rest.
- 81-3A Cuyuna Rear Shaft Bearing.
- 81-4A Cuyuna Engine Pulleys
- 81-5A Seat Mount Assembly.
- 81-6-A Elevator Push/Pull Tube Safety Cable Assembly.
- 81-7A Elevator Pip Pins.
- 81-9A Cuyuna Reduction Root Tubes.
- 81-10A 560-8M Cuyuna Drive Belts.
- 81-11A Teleflex/Rudder Cable.
- 82-3-A Tri-Bar Crosstube Gusset Plate.
- 82-4AD Cuyuna Exhaust System

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Inspection (Contd)

- 82-5A Cuyuna 430 Trailing Edge Channel Bolt.
- 82-7A Rudder Balance Tab.
- 82-8-A Self-Locking Nuts.
- 82-9A Cuyuna 430D Mufflers, Part No 60105.
- 82-11A Seat Mount Assembly - MX Part No 70390.
- 82-12A V-Belt Drive Assembly.
- 82-16A Cuyana Service Newsletter.
- 82-18A Overtightening King Posts.
- 82-19A Vibration Wear.
- 83-01 Rotax Engine/Bing Carburettor Mounting Blocks.
- 83-01-A Main Wing Ribs.
- 83-02-A Root Tube
- 83-04-A Seat Mount Assembly - MX Part No 70390
- 8305-A Rotax 377 Engine Fuel Pumps.
- 8307-A Fuel Tank Rubber Seal.
- 8308-A Preventive Maintenance Tips.
- 8309-A Bing Carburettor Slide Guides.
- 8310-A King Post Channels, Root Tube Trailing Edges.
- 8401-A Flying Wire Shackles.
- 8403 Teleflex Guard Kit.
- 8501-A Field Assembly and Disassembly (to be inserted in Pilots Manual).

The following Eipper Airworthiness Directive, dated 10 August 1984 must have been complied with:-

- 8402-AD 75° Tangs.