CIVIL AVIATION AUTHORITY

AIRCRAFT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-102 Issue: 1
18 JUNE 2024

TYPE: Aeroprakt A32 Vixxen

(1) MANUFACTURER: Dragon Aviation Ltd
The Star
Glyn Ceiriog
Wrexham
LL20 7AB

(2) UK IMPORTER: N/A

(3) CERTIFICATION: CS-LSA Amendment 1

(4) DEFINITION OF BASIC STANDARD: Dragon Aviation Aeroprakt A-32 Vixxen Type Design Description Issue 1.2.

(5) COMPLIANCE WITH THE MICROLIGHT DEFINITION

(a) MTOW	600kg
(b) No. Seats	2
(c) Permitted range of pilot weights	65 – 120kg
Permitted total occupant weight:	Limited by MTOW
(d) Typical Empty Weight (ZFW)	315kg
(e) ZFW + 172 kg crew + 1 hr fuel	505kg
(f) ZFW + 86 kg pilot + full fuel (90 ltrs, 65kg)	466kg
(g) Max ZFW at initial permit issue	382kg

(6) POWER PLANTS

Designation	A32 Vixxen	A32 Vixxen
Engine Type	Rotax 912 ULS	Rotax 912iS
Reduction Gear	2.43:1	2.43:1
Exhaust System	Dragon Aviation	Dragon Aviation
Intake System	Dual intake filter	Single intake filter, balance box

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Propeller Type	Kiev 283/1800 ground adjustable, composite Or Kiev 263/1700 Or Eprop DUR-3-175-C4-T	Kiev 283/1800 ground adjustable, composite
Propeller Diameter x Pitch* *as per propeller manufacturer measuring instructions	1800mm x 1.5-1.7m - 1700mm x 1.5-1.7m - 1750mm x 27.5°	1800mm x 1.5-1.7m
Noise Type Cert No.	None required	None required
AAN approving configuration	AAN29629	AAN29629

(8) MANDATORY LIMITATIONS:

(A) Max Take-Off Weight 600kg

(B) CG Limits:
Fwd: 1.529m aft of datum
Aft: 1.780m aft of datum

(C) CG datum: Front face of propeller flange

(D) Cockpit Loadings (per seat) Min 65 kg
Max 120 kg

(E) Never Exceed Speed, V_{NE} 130 knots

(F) Manoeuvring Speed V_A 92 knots

(G) Permitted Manoeuvres: Maximum bank angle 60°
Non-aerobatic
side-slipping with angles up to 15°
Level and accelerated stalls without spinning
Normal acceleration limits no flaps +4g/-2g
Normal acceleration limits with flaps +2g/-0g

(H) Other limitations: Day VMC

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(I) Fuel Contents:	2x45 litres. Unusable fuel, 2ltr (88 litres usable) OR (if option 9 fitted see S.13) 2x57 litres. Unusable fuel, 2ltr (112 litres usable)

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(J) Power Plant

Engine	Rotax 912ULS	Rotax 912iS
Max RPM	5,800	5,800
Max Continuous RPM	5,500	5,500
MAX CHT (where CHT gauge fitted)	135ºC	135ºC
Max coolant temp	120ºC	120ºC
MAX EGT	880 ºC	880 ºC
Fuel Spec	As specified by BRP Rotax service instructions or Pilots Operating Handbook	As specified by BRP Rotax service instructions or Pilots Operating Handbook
Engine Oil Spec	As specified by BRP Rotax service instructions	As specified by BRP Rotax service instructions
Gearbox oil spec	Integral with engine	Integral with engine
Fuel/Oil Mix	N/A	N/A
Oil Pressure	Max: 7 bar (cold start) Min: 0.8 bar (0-3500 rpm) 1.5 bar (above 3500 rpm) Normal range: 2-5 bar	Max: 7 bar (cold start) Min: 0.8 bar (0-3500 rpm) 1.5 bar (above 3500 rpm) Normal range: 2-5 bar
Oil Temperature	Max: 130ºC Min: 50ºC	Max: 130ºC Min: 50ºC
Fuel Pressure	0.15-0.4 bar 0.5 bar maximum for pumps from S/N 11.0036. See operators manual.	2.8-3.2 bar 2.5-3.5 bar (3 second limit)

(9) INSTRUMENTS REQUIRED:

ASI: Knots 0-150kts	Altimeter: Feet/ mb subscale	Engine RPM	Coolant Temp	Oil Temp	Oil Pressure	Slip Ball	Fuel guage and Low fuel light.

These may be integrated into the EFIS/EMIS

(10) CONTROL DEFLECTIONS:

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Flaperons (as ailerons)	Up: 15.5° ±1° Down: 11.1° ±1°
Tailplane	Up: 15° ±1° Down: -5° ±1°
Anti-servo tab (Relative to Tailplane)	Up: 32° ±1° Neutral: 4° ±1° Down: 0° ±1°
Pitch trim (Tailplane @ 0°)	Up: 8° ±1° Neutral: 4° ±1° Down: 0° ±1°
Rudder	Neutral: 2.5° to right Left/right: 25° ±1°
Flaps	Up: 0° Down: 10° ±1°, 20° ±1

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

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

(a) Pilots handbook (POH) approved for use with this aircraft is:
Aeroprakt-32 Pilot Operating Handbook A32-XXX-POH, where XXX is the aircraft serial number.
For iS engine: Aeroprakt-32 Pilot Operating Handbook A32-iS-XXX-POH, where XXX is the aircraft serial number.

(b) Maintenance manual approved for use with this aircraft is:
Aeroprakt-A32 Airplane Maintenance Manual A32-XXX-AMM, where XXX is the aircraft serial number.
For iS engine: Aeroprakt-A32 Airplane Maintenance Manual A32-iS-XXX-AMM, where XXX is the aircraft serial number.

(c) Engine, propeller, parachute system and other fitted equipment:
Manufacturer's Operating and Maintenance Manuals as appropriate at their current issues.

11.2 The following placards are to be fitted:-

The following placards are to be fitted:

(a) Flight Limitations Placard (to be visible to the pilot)
Contains airspeed, manoeuvring and loading limitations. See Pilot Operators Handbook.

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(b) Engine Limitations Placard (to be located near to the engine instruments)
A placard showing the limitations for all indicated engine parameters is to be mounted close to the engine instruments. Also, main limitations are to be shown as coloured markers (red for danger, amber for caution) on the instrument displays.

(c) Fuel Filler Placard (to be located adjacent to the fuel filler cap)

(d) Parachute Warning Placards (to be located on the exterior of the aircraft) Placards complying with BCAR Section S Issue 7 (or later) must be fitted.

(e) Secondary Control Markings
Choke, cabin heat, trim, flaps, fuel shut-off: see Pilot Operators Handbook. Other secondary controls are to be placarded as per the associated Pilot Operators Handbook supplement or normal aviation practice (if no associated Pilot Operators Handbook supplement).

(f) ASI Markings
See Pilot Operators Handbook.

(g) Switches
All switches are to be marked with function and sense (up=on, down=off).

(h) Fuses and Circuit Breakers
All fuses and circuit breakers are to be marked with function and rating.

(i) Fireproof Metal Plate
Showing the aircraft nationality and registration marks (e.g. G-ABCD) to be mounted in a prominent position on the fuselage.

(j) Occupant Warning Placard (to be visible to both occupants)

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

2019-005 Placarding Requirements for Aircraft fitted with a BPRS

(13) Optional Equipment Installations.

1) Stratos 07 Magnum 601 ballistic parachute recovery system
2) 6 x 8.00 wheels and mudguards
3) Dynon Skyview EFIS EMIS
4) Wing landing lights
5) Tailfin strobe
6) Belly strobe
7) Yoke controls with central plunger-type throttle (standard fit is control columns with a lever-type throttle)
8) I stick
9) 114 litre fuel tanks
10) Camera doors

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(14) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb:	827 fpm at 65 kt IAS
Stall or Minimum Flying Speed:	27 kt IAS at MTOW / idle / full flap.

Issue History

Issue No.	Date.	Reason and signatory
1	18.06.2024	Initial issue

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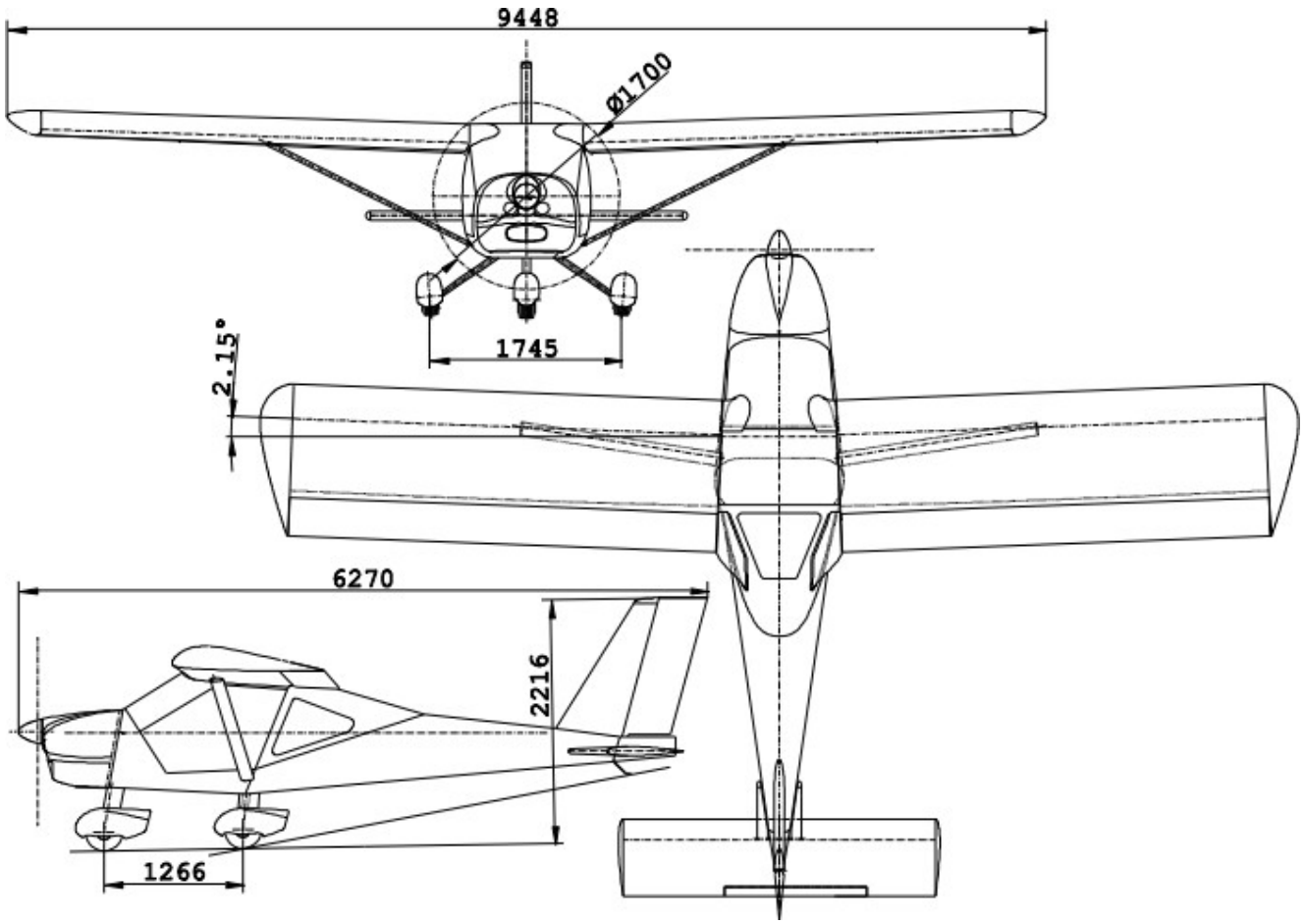
Illustration of Aircraft



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ANNEX A – MANDATORY MODIFICATIONS

None at this time.

ANNEX B - APPROVED OPTIONAL MODIFICATIONS

A list of approved minor modifications is available from Dragon Aviation Limited.
Minor modifications applicable at release-to-service are listed on the aircraft Delivery Checklist.

ANNEX C - WEIGHING INFORMATION

N/A. Aircraft to be weighed by manufacturer.

Refer to the specific aircraft weight and balance certificate,

ANNEX D – STANDARD PLACARDS

GENERAL PLACARDS AND MARKINGS:

Placards as section 11.2

The aircraft is fitted with a permanently attached fireproof plate with the aircraft registration number.

The registration letters are to CAP523, the CAA standard for aircraft registration.
Alternative markings and position of markings is acceptable provided they comply with this standard.

Note that all placards must have the same units of measure as the instruments.