



TYPE-CERTIFICATE DATA SHEET

EASA.A.606

for
VIPER SD-4

Type Certificate Holder

TOMARK, s.r.o.

Strojnícka 5
080 01 Prešov
Slovak republic

For models: Viper SD-4





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SECTION A: VIPER SD-4

A.I. General

1. Type/ Model/ Variant

Type: Viper SD-4
Model: Viper SD-4

2. Airworthiness Category:

Restricted

3. Manufacturer:

TOMARK, s.r.o.
Strojnícka 5
080 01 Prešov
Slovak republic

4. EASA Certification

Application Date: 07 December 2012

A.II. EASA Certification Basis

1. Reference Date for determining

the applicable requirements: 07 December 2012

2. Airworthiness Requirements: Certification Specification for Light Sport Aeroplanes (CS-LSA), Amdt. 1

3. Special Conditions:

-

4. Exemptions:

None

5. Deviations:

None

6. Equivalent Safety Findings:

None

7. Environmental Protection

Requirements: Chapter 10 of ICAO Annex 16, Volume I. For details see TCDSN EASA.A.606





A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Master document list TOM-TC-01-MDL.A
2. Description: The Viper SD-4 features:
- Conventional low wing configuration;
- Conventional tail;
- Single piston tractor engine;
- Fixed pitch propeller;
- 2 seats, side by side;
- Fixed tricycle landing gear with steerable nose wheel and streamlined wheel covers.
3. Equipment: Minimum equipment list according to flight manual (TOM-TC-01-AFM, latest approved revision)
4. Dimensions:
- | | | |
|-----------------|-------|----------------|
| Total length: | 6.40 | m |
| Maximum height: | 2.20 | m |
| Wing span: | 8.34 | m |
| Wing area: | 10.45 | m ² |
5. Engine:
- | | |
|-------------------|--|
| Model: | Rotax 912 ULS / Rotax 912 S |
| Type Certificate: | Certified as part of the aircraft / EASA.E.121 |
| Limitations: | None |
6. Load factors:
- | | |
|----------|------------------------|
| +4g, -2g | (clean) |
| +2g, 0g | (flapped) (see note 1) |
7. Propeller
- | | |
|--------------------|-----------------------------------|
| Model: | Neuform, CR3-65-(IP)-47-101.6 |
| Manufacturer: | Neuform Composites GmbH |
| Type Certificate: | Certified as part of the airplane |
| Number of blades: | 3, ground adjustable |
| Diameter: | 1.65 m |
| Sense of Rotation: | Right (in flight direction) |
| Weight: | 5.1 kg |





8. Fluids

| | |
|---------------------|---|
| Fuel: | MOGAS EN 228 Super / EN 228 Super plus |
| <i>Alternative:</i> | AVGAS 100 LL = ASTM D910-76 = MIL-G5772 |
| Oil: | see Rotax Operation Manual and applicable information (see SI-912-010) |
| Coolant: | see Rotax Operation Manual and applicable information (SB-912-043) |

9. Fluid capacities

| | |
|-----------------|-----------------------|
| Fuel: | 90 L (usable) |
| Oil: | 3 L |
| Coolant system: | 1.5 L (approximately) |

10. Air Speeds (IAS):

| | | |
|-----------------|--------------------------|---------------------|
| V _{S0} | Stall speed flap pos. II | 43 kts |
| V _{S1} | Stall speed clean | 49 kts |
| V _F | Flap speed | 79 kts (see note 1) |
| V _A | Manoeuvring speed | 88 kts |
| V _C | Cruise speed | 102 kts |
| V _{NE} | Never exceed speed | 126 kts |

11. Flight Envelope

Maximum altitude 15.500 ft

12. Approved Operations

Capability: Day-VFR

13. Maximum Masses:

| | |
|--------------------------------|--------|
| Maximum permissible empty mass | 405 kg |
| Maximum take-off mass | 600 kg |

14. Centre of Gravity Range:

| | |
|--------------|------------------|
| Forward CG | 310 mm (24% MAC) |
| Aft CG limit | 413 mm (32% MAC) |

15. Datum (origin):

| | |
|--------------------|--------------------------------|
| X (aft positive) | Wing leading edge |
| Y (right positive) | on centre line |
| Z (up positive). | propeller flange / centre line |

16. Control surface deflections:

| | |
|----------|--|
| Aileron | 27° up, 16° down (+/- 1°) |
| Flap | 0°, 15°, 30°, (40°) down (+/- 2°) (see note 2) |
| Elevator | 25° up, 20° down (+/- 1°) |
| Rudder | 30° left/right (+/- 1°) |





ADMINISTRATIVE SECTION

I. Acronyms & Abbreviations

| | |
|--------|--|
| AFM | Airplane Flight Manual |
| Amdt. | Amendment |
| AMM | Airplane Maintenance Manual |
| CG | Centre of Gravity |
| CS-LSA | Certification specification for Light Sport Aeroplanes |
| DWN | down |
| EASA | European Aviation Safety Agency |
| IAS | Indicated Airspeed |
| ICAO | International Civil Aviation Organization |
| kg | kilograms |
| km/h | kilometres per hour |
| MAC | Mean Aerodynamic Chord |
| N.A. | Not applicable |
| SC | Special Condition |
| TCDSN | Type Certificate Datasheet Noise |
| VFR | Visual Flight Rules |

II. Type Certificate Holder Record

TOMARK, s.r.o.
Strojnícka 5
080 01 Prešov
Slovak republic

III. Change Record

| Issue | Date | Changes |
|--------------|-------------|----------------|
| Issue 1 | 22.03.2016 | Initial Issue |
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