



# Type Certificate

Number: VA517  
Issue 3

Pursuant to regulation 21.29 of the Civil Aviation Safety Regulations 1998 this type certificate is issued to Pay's Air Service Holdings Pty Ltd in respect of the PAS SM1019 aircraft.

This certificate is valid until it is suspended or cancelled by the Civil Aviation Safety Authority. The basis of certification is as described in Type Certificate Data Sheet number VA517.

Date of Application: 22<sup>nd</sup> May 2007

Date of Issuance: 18 July 2008

Date of reissue: 18 December 2018



Richard Stocker  
Delegate of the Authority

No	VA517
Revision	Revision 3
Aircraft	PAS SM1019
Date	18 December 2018

## TYPE CERTIFICATE DATA SHEET

This data sheet, which is part of Type Certificate No. VA517, lists the conditions and operational limitations under which the aircraft for which the Type Certificate was issued meets the airworthiness requirements of the Civil Aviation Safety Authority.

**Certificate Holder** Pay's Air Service Holdings Pty Ltd.  
PO Box 158  
Scone  
NSW, 2337  
Australia

**PAS SM1019** Restricted Category - approved 28 April 2008.

Engine RR Allison 250B-15G

Engine Limits Standard sea level condition.  
317 HP maximum take off power (for 5 minutes).  
270 HP maximum continuous power at 2025 propeller rpm.  
Maximum indicated torque:  
109% (109 psi) for 10 seconds.  
100% (100 psi) for 5 minutes.  
85% (85 psi) continuous.  
Exhaust Temperature (TOT).  
Transitory 843°C (1550°F) for 6 seconds.  
Take off 749°C (1380°F) for 5 minutes.  
Max Continuous 693°C (1280°F).

Fuel Aviation turbine fuel to Specification ASTM D1655, Jet a-1 or other alternative fuels approved by the engine manufacturer.

Oil MIL-L-7808G or MIL-L-23699 and subsequent revisions.

Propeller Hartzell HC-A3V-5/V10133D-11R.  
Minimum diameter 2285 mm (90") (No reduction permitted).  
Minimum pitch (reverse) -15°.  
Maximum pitch (feather) 85°.  
Or

Propeller Cont'd)	Hartzell HC-B3TF-7/T10173-11R. (per modification 1U-SM1019-OT134 dated 79-07-11)		
Air Speed Limits (knots IAS)	Never Exceed (Vne)		169 KIAS.
	Manoeuvring (Va)		111 KIAS.
	Max Structural (Vno)		132 KIAS.
	Max flaps extended (Vfe)		87 KIAS.
Crosswind Component	Maximum for take-off and landing - 15 knots.		
Centre of Gravity (See Note 7)	Forward Limit: 853 mm aft of datum at 930kg or less. 942 mm aft of datum at 1270 kg. Variation is linear between 930 kg and 1270 kg.		
	Aft Limit: 1023 mm aft of datum at all weights.		
Datum	Lower front face of the engine firewall.		
Levelling Means	Horizontal torsion tube of the control stick.		
Maximum Weight	Take Off	1270 kg.	(See Note 7)
	Landing	1090 kg.	
Minimum Crew	1 Pilot (at 915 mm aft of datum).		
Number of Seats	2 Pilot (at 912 mm aft of datum) and Observer/Pilot (1930 mm aft of datum)		
Maximum Baggage	45.3 kg at 2540 aft of datum.		
Fuel Capacity	Total	310 litres.	
	Usable	295 litres.	
	4 wing tanks with 77.5 litres at 1117.6 mm aft of datum (see Note 1).		
Oil Capacity	7 litres 88.9 mm aft of datum. Usable 6 litres (see Note 1).		
Control Surface Deflections	Aileron	Up	20° + 2°
		Down	14° ± 2°
	Elevator	Up	26° + 1°
		Down	20° ± 1°

Control Surface Deflection (cont'd)	Elevator trim	Up	27° + 1°
		Down	16° ± 1°
	Rudder	Left	16° ± 1°
		Right	16° + 1°
	Wing flaps	Take off	from 0° to 30° +2°, -1°
		Landing	from 0° to 60° + 2°, -1°

#### Certification Basis

FAR 23 dated 1<sup>st</sup> February 1965 including amendments 23-1 through 23-6 (see Note 2).

Type Certificate VA517 is based on Type Certificate No. SO/A-149 issued by the Italian RAI for the SIAI Marchetti S.p.A model SM1019/1019A aircraft dated 2/10/1971. (See Note 6)

A Special Certificate of Airworthiness in the restricted category may be issued for the following special purposes as specified in regulation 21.25 of the Civil Aviation Safety Regulations 1998:

- a) forest and wildlife conservation [CASR 21.25 (2)(b)]
- b) firefighting [CASR 21.25 (2)(c)]
- c) aerial surveying [CASR 21.25 (2)(d)]
- d) patrolling [CASR 21.25 (2)(e)]

#### Equipment and Placards

Equipment and placards required by the original Italian type certificate data sheet SO/A-149 are also required for aircraft covered under Type Certificate VA517.

Eligible Serial Numbers MM57217/00-25 and MM57222-030 (see Notes 3 & 6).

#### NOTES

- Note 1 The aircraft must be operated in accordance with the CASA approved aircraft flight manual, Document No. PAS/AFM/SM1019.
- Note 2 Prior to the issue of an Australian Special Certificate of Airworthiness, the aircraft must comply with Pays Air Service Conformity Inspection Program, Document No. PAY040.
- Note 3 Additional serials numbers will be considered upon separate application.
- Note 4 Aircraft must be maintained in accordance with Pays Air Service System of Maintenance for the PAS SM1019.

Note 5 An additional placard with the words “RECOMMENDED CLIMB SPEED – 85 KTS IAS” is to be affixed adjacent the existing airspeed placard; colour, font and font size to match existing placards.

Note 6 The manufacturer’s data plate installed on the two aircraft referenced by serial number in this TCDS reflects the basic SM1019 model. Records indicate the aircraft were originally built to the SM1019A configuration. The SM1019A build configuration satisfies the requirements of this TCDS.

Only aircraft that are configured the same as the aircraft listed by serial number in this TCDS are eligible for consideration under Note 3 above.

Note 7 When operating at maximum take off weight of 1270 kgs the aircraft is restricted to manoeuvres permitted for normal category aircraft per the aircraft flight manual.

Other manoeuvres are restricted to those placarded under “Utility” on the aircraft instrument panel. For such manoeuvres the following MTOW and CG Limits apply:

MTOW 1140 Kgs

Centre of Gravity Forward Limit:

853 mm aft of datum at 900 kg or less

942 mm aft of datum at 1140 kgs

Variation is linear between 900 kg and 1140 kg

Aft Limit:

1016 aft of datum at all weights

## Revision History

Revision 1 was issued to correct an error in the Type Certificate holders’ legal name. (Pays Air Service Pty Ltd).

Revision 2 updates the TCDS to reflect the actual model of SM1019 pertaining to the two serial numbers referenced in the TCDS.

Revision 3 was issued to transfer the holder from Pays Air Service Pty Ltd to Pay’s Air Service Holdings Pty Ltd. Serial number MM57248-056 was removed and serial number MM57222-030 included

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