



European Aviation Safety Agency

EASA

TYPE-CERTIFICATE DATA SHEET

EASA.A.587

**S205
S208**

Type Certificate Holder:

Alenia Aermacchi S.p.A.
Via Paolo Foresio, 1
21040 Venegono Superiore (VA)
Italy

For variants: S205-18/F
 S205-18/R
 S205-20/F
 S205-20/R
 S205-22/R
 S208
 S208A

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S205 – 18/F S205 – 18/R

I. General

1. **Data Sheet No:** EASA.A.587

2. **Type / Variant or Model**

- (a) **Type:** S205
(b) **Variant or Model:** S205 – 18/F, - 18/R

3. **Airworthiness Category:** Utility Category

4. **Type Certificate Holder:** Alenia Aermacchi S.p.A. *Via Paolo Foresio, 1 - 21040 Venegono Superiore (VA) - Italy*

5. **Manufacturer:** Alenia Aermacchi S.p.A. *Via Paolo Foresio, 1 - 21040 Venegono Superiore (VA) - Italy*

6. **National Certification Date:** 25.February.1966 (S205 – 18/F) (ENAC C.O. A131)
28.May.1966 (S205 – 18/R) by (ENAC C.O. A131)

7. **ENAC Application Date:** 26.January.1965 by ENAC

8. **ENAC Recommendation Date:** N.A.

9. **EASA Type Certification Date:** N.A.

II. Certification Basis

1. **Reference Date for determining the applicable requirements:** 26.January.1965

2. **ENAC Certification Date:** 25.February.1966 (S205 – 18/F)
28.May.1966 (S205 – 18/R)

3. **ENAC Type Certificate Data Sheet No** A 131 Rev. 11

4. **ENAC Certification Basis:** FAR Part 23, dated February 1, 1965.

5. **Airworthiness Requirements:** FAR Part 23, dated February 1, 1965.

6. **Special Conditions:** N.A.

7. **Reversion and Exemptions:** N.A.

8. **Equivalent Safety Findings:** N.A.

9. **Environmental Standards including Noise:** N.A.

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:** Refer to Report N°598-208-063 Rev./ and subsequent approved revisions.

2. **Description:** Single engine, cantilever low wing monoplane of all metal construction equipment with a tricycle fixed (S205 – 18/F) and tricycle retractable (S205 – 18/R) landing gear. (Model S205 – 18/R same as Model S205 - 18/F except for retractable landing gear).

3. **Equipment:** Basic equipment required by the airworthiness rules (see Certification Basis) shall be installed on the aircraft for the Airworthiness Certificate release.
Besides are required the following equipment:
Stall warning , Safe Flight Instruments Cop. 164S
Refer also to the Equipment list in FM

4. **Dimensions:**

–	Span:	10866 mm (428 in.)
–	Length:	8000 mm (315 in.)
–	Height:	2890 mm (114 in.)

5. **Engines:** Lycoming O-360-A1A
State of Design Engine TCDS No. FAA E-286
EASA Engine TCDS No: N.A

5.1 Installed Engine Limits: For all operations, 2700 rpm (180 hp). (See Note 3)

6. **Propeller/s:** Hartzell HC-C2YK-1B/7666A-2
State of Design Propeller TCDS No. FAA P-920
EASA Propeller TCDS No: N.A

6.1 Propeller Limits: Diameter: Max. 1,880 m (74 in.), Min. 1,829 m (72 in.)
Pitch at R = 0,762 m (30 in.), Max: + 29°, Min.: + 12°

7. Fluids (Fuel/Oil/Additives):

7.1 Fuel 91-96 minimum grade aviation gasoline.

8. Fluid capacities (See Note 2, 4):

8.1 Fuel Total fuel 210 lt (55,5 US Gal), stored in:
2 wing tanks of 105 lt (27,75 US Gal) each at 2,538 m
Total Usable fuel 208 lt (55 US Gal)

8.2 Oil 7,5 lt (2 US Gal) at 0,800 m
Usable 5,5 lt (1,5 US Gal)

9. Airspeed limits:

– Never Exceed Speed VNE: 174 Kts (201 mph) CAS

10. **Maximum Operating Altitude and Temperature:** N.A.

11. Operating Limitations:

11.1 General: In standard configuration the aircraft is equipped and certificated for day VFR operations. Flights in known icing conditions is prohibited.

11.2 Additional limitations for take-off and landing: N.A.

12. Maximum Certified Weights:

– Maximum gross weight 1200 Kg (2645 lbs)

13. **Centre of Gravity Range:** See Flight Manual for CG envelope.

14. **Datum:** Reference Datum: 1,020m forward of center line of nose gear attachment bolts.

15. **Levelling Means:** Three screws on baggage compartment bulkheads.

16. **Minimum Flight Crew:** 1 pilot.

17. **Maximum Passenger Seating Capacity:** 3 (1 at +2,215m, 2 at +3,030m.)

18. **Passenger Emergency Exit:** N.A.

19. Maximum Baggage/Cargo Loads:

Location	Max Load/Loading
Baggage compartments	60Kg at +3,750m.

20. **Auxiliary Power Unit (APU):** N.A.

21. **Life-limited parts:** Refer to Maintenance Manual

IV. Operating and Service Instructions

- Flight Manual, Document No:** S205 – 18/F RAI-Approved Flight Manual 49.491/T dated February 23, 1966, and subsequent approved revisions.
S205 – 18/R RAI-Approved Flight Manual 50.312/T dated April 14, 1966, and subsequent approved revisions.
- Maintenance Manual, Document No:** PI S205 – 18F/R – 20F/R – 6 “PERIODIC INSTRUCTION” RAI Approved No 175.855/T dated June 10, 1981.
SM S205 – 18F/R – 20F/R – 6 “SERVICE MANUAL” (Not RAI Approved).
- Service Letters and Service Bulletins:** As published by Alenia Aermacchi and approved by ENAC (for SB only).
- Required Equipment:** Refer to equipment list in Flight Manual.

V. Notes

1. Applicable Serial Number: N/A
2. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at time of original certification, and at all times thereafter. The certificated empty weight and corresponding center of gravity locations must include:
 - Unusable fuel 3,3 lbs. at +99,9 in. (wing tanks)
 - System oil of 1 lb. at +31.5 in.
3. The following placards must be displayed in front and in clear view of pilot:
 - "THIS AIRPLANE MUST BE OPERATED AS A UTILITY CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND THE FLIGHT MANUAL".
 - "ACROBATIC MANEUVERS ARE LIMITED TO THE FOLLOWING:

CHANDELLES	150 mph TIAS
LAZY EIGHTS	160 mph TIAS
STEEP TURN	125 mph TIAS
STALLS (Except with stall)	SLOW DECELERATION".
 - "AVOID CONTINUOUS OPERATION BETWEEN 2000 AND 2250 RPM".
 - "DO NOT LOWER LANDING GEAR ABOVE 109 MPH CAS" (S205 -18/R).
 - "MAX MANEUVERING SPEED FOR FULL APPLICATION OF CONTROLS IS 137 MPH CAS. MAX CROSSWING VELOCITY:15 KNOTS".

On Baggage Door:

 - "MAX LOAD IN THIS COMPARTMENT: 132 LBS".
4. The wing tip tank installation, Drwg. 205-8-197, includes the assemblies, part No. 205-8-193-01 and -02 (left and right wing tip tank) of 30,5 US Gal. total capacity (15,25 gallons each tank), allowable fuel shall not exceed 20,5 US Gal., usable 18,5 US gal., at (+101,7 in.), as defined in the Technical Instruction No. 205 I-7. When the wing tip tanks are installed, the Appendix "1" of S205 - 18/F, -18/R, -20/F, -20/R Flight Manual (see item 604 of "Equipment") must be followed and this placard installed on the instrument panel, near to the fuel level indicator selector switch:
 - "MAX ALLOWABLE FUEL QUANTITY IN EACH WING TIP TANK (10,25 US Gal.)".
 - "USE WING TIP TANKS IN LEVEL FLIGHT ONLY".

S205 – 20/F **S205 – 20/R**

I. General

1. **Data Sheet No:** EASA.A.587

2. **Type / Variant or Model**

- (a) **Type:** S205
- (b) **Variant or Model:** S205 - 20/F, - 20/R

3. **Airworthiness Category:** Normal Category

4. **Type Certificate Holder:** Alenia Aermacchi S.p.A. *Via Paolo Foresio, 1 - 21040 Venegono Superiore (VA) - Italy*

5. **Manufacturer:** Alenia Aermacchi S.p.A. *Via Paolo Foresio, 1 - 21040 Venegono Superiore (VA) - Italy*

6. **National Certification Date:** 28.May.1966 (ENAC C.O. A131)

7. **ENAC Application Date:** 26.January.1965 (ENAC C.O. A131)

8. **ENAC Recommendation Date:** N.A.

9. **EASA Type Certification Date:** N.A.

II. Certification Basis

1. **Reference Date for determining the applicable requirements:** 26.January.1965

2. **ENAC Certification Date:** 28.May.1966

3. **ENAC Type Certificate Data Sheet No** A 131 Rev. 11

4. **ENAC Certification Basis:** FAR Part 23, dated February 1, 1965.

5. **Airworthiness Requirements:** See 4.

6. **Special Conditions:** N.A.

7. **Reversion and Exemptions:** N.A.

8. **Equivalent Safety Findings:** N.A.

9. **Environmental Standards including Noise:** N.A.

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:** Refer to Report N°598-208-063 Rev./ and subsequent approved revisions.

2. **Description:** Single engine, cantilever low wing monoplane of all metal construction equipment with a tricycle fixed (S205 – 20/F) and tricycle retractable (S205 – 20/R) landing gear. (Model S205 – 20/F same as Model S205 - 18/F except for increased maximum weight and Power Plant Installation). (Model S205 – 20/R same as Model S205 – 20/F except for retractable landing gear).

3. **Equipment:** Basic equipment required by the airworthiness rules (see Certification Basis) shall be installed on the aircraft for the Airworthiness Certificate release.
Besides are required the following equipment:
Stall warning , Safe Flight Instruments Cop. 164S
Refer also to the Equipment list in FM

4. **Dimensions:**

- Span: 10866 mm (428 in.)
- Length: 8000 mm (315 in.)
- Height: 2890 mm (114 in.)

5. **Engines:** Lycoming IO-360-A1A
Lycoming IO-360-A1B6D
State of Design Engine TCDS No. FAA 1E10
EASA Engine TCDS No: N.A

- 5.1 Installed Engine Limits: For all operations, 2700 rpm (200 hp). (See Note 3)
6. **Propeller/s:** Hartzell HC-C2YK-1B/7666A-2
State of Design Propeller TCDS No. FAA P-920
EASA Propeller TCDS No: N.A
- 6.1 Propeller Limits: Diameter: Max. 1,880 m (74 in.), Min. 1,829 m (72 in.)
Pitch at R = 0,762 m (30 in.), Max: + 29°, Min.: + 14°
7. **Fluids (Fuel/Oil/Additives):**
- 7.1 Fuel 100-130 minimum grade aviation gasoline.
8. **Fluid capacities** (See Note 2):
- 8.1 Fuel Total fuel 210 lt (55,5 US Gal), stored in:
2 wing tanks of 105 lt (27,75 US Gal) each at 2,538 m
Total Usable fuel 208 lt (55 US Gal)
- 8.2 Oil 7,5 lt (2 US Gal) at 0,800 m
Usable 5,5 lt (1,5 US Gal)
9. **Airspeed limits:**
– Never Exceed Speed VNE: 174 Kts (201 mph) CAS
10. **Maximum Operating Altitude and Temperature:** N.A.
11. **Operating Limitations:**
- 11.1 General: In standard configuration the aircraft is equipped and certificated for day VFR operations. Flights in known icing conditions is prohibited.
- 11.2 Additional limitations for take-off and landing: N.A.
12. **Maximum Certified Weights:**
– Maximum gross weight : 1300 Kg (2866 lbs)
13. **Centre of Gravity Range:** See Flight Manual for CG envelope.
14. **Datum:** Reference Datum: 1,020m forward of center line of nose gear attachment bolts.
15. **Levelling Means:** Three screws on baggage compartment bulkheads.
16. **Minimum Flight Crew:** 1 pilot.
17. **Maximum Passenger Seating Capacity:** 3 (1 at +2,215m, 2 at +3,030m.)
18. **Passenger Emergency Exit:** N.A.
19. **Maximum Baggage/Cargo Loads:**
- | Location | Max Load/Loading |
|----------------------|------------------|
| Baggage compartments | 60Kg at +3,750m. |
20. **Auxiliary Power Unit (APU):** N.A.
21. **Life-limited parts:** Refer to Maintenance Manual

IV. Operating and Service Instructions

1. **Flight Manual, Document No:** S205 – 20/F RAI-Approved Flight Manual 50.312/T dated April 14, 1966, and subsequent approved revisions.
S205 – 20/R RAI-Approved Flight Manual 50.312/T dated April 14, 1966, and subsequent approved revisions.
2. **Maintenance Manual, Document No:** PI S205 – 18F/R – 20F/R – 6 “PERIODIC INSTRUCTION” RAI Approved No 175.855/T dated June 10, 1981.
SM S205 – 18F/R – 20F/R – 6 “SERVICE MANUAL” (Not RAI Approved).
S205/20-2 “MANUALE DI MANUTENZIONE AEROPLANO S205-20R” (A.e.C.L.) RAI-Approved, dated October 01, 1979 Revision 4, dated August 08, 2002.
3. **Service Letters and Service Bulletins:** As published by Alenia Aermacchi and approved by ENAC (for SB only).
4. **Required Equipment:** Refer to equipment list in Flight Manual.

V. Notes

1. Applicable Serial Number: N/A
2. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at time of original certification, and at all times thereafter. The certificated empty weight and corresponding center of gravity locations must include:
 - Unusable fuel 3,3 lbs. at +99,9 in. (wing tanks)
 - System oil of 1 lb. at +31.5 in.
3. The following placards must be displayed in front and in clear view of pilot:
 - "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND THE FLIGHT MANUAL".
 - "NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED".
 - "AVOID CONTINUOUS OPERATION BETWEEN 2100 AND 2350 RPM" (when Lycoming IO-360-A1A is installed)
 - "DO NOT LOWER LANDING GEAR ABOVE 109 MPH CAS" (S205 -20/R).
 - "MAX MANEUVERING SPEED FOR FULL APPLICATION OF CONTROLS IS 137 MPH CAS. MAX CROSSWING VELOCITY:15 KNOTS".

On Baggage Door:

 - "MAX LOAD IN THIS COMPARTMENT: 132 LBS".
4. The wing tip tank installation, Drwg. 205-8-197, includes the assemblies, part No. 205-8-193-01 and -02 (left and right wing tip tank) of 30,5 US Gal. total capacity (15,25 gallons each tank) limited to 20,5 US Gal., usable 18,5 US gal., at (+101,7 in.), as defined in the Technical Instruction No. 205 I-7. When the wing tip tanks are installed, the Appendix "1" of S205 - 18/F, -18/R, -20/F, -20/R Flight Manual (see item 604 of "Equipment") must be followed and this placard installed on the instrument panel, near to the fuel level indicator selector switch:
 - "MAX ALLOWABLE FUEL QUANTITY IN EACH WING TIP TANK (10,25 US Gal.)".
 - "USE WING TIP TANKS IN LEVEL FLIGHT ONLY".

S205 – 22/R

I. General

1. **Data Sheet No:** EASA.A.587

2. **Type / Variant or Model**

- (a) **Type:** S205
(b) **Variant or Model:** S205 – 22/R

3. **Airworthiness Category:** Normal Category

4. **Type Certificate Holder:** Alenia Aermacchi S.p.A. *Via Paolo Foresio, 1 - 21040 Venegono Superiore (VA) - Italy*

5. **Manufacturer:** Alenia Aermacchi S.p.A. *Via Paolo Foresio, 1 - 21040 Venegono Superiore (VA) - Italy*

6. **National Certification Date:** 28.May.1966 (ENAC C.O. A131)

7. **ENAC Application Date:** 26.January.1965 (ENAC C.O. A131)

8. **ENAC Recommendation Date:** N.A.

9. **EASA Type Certification Date:** N.A.

II. Certification Basis

1. **Reference Date for determining the applicable requirements:** 26.January.1965

2. **ENAC Certification Date:** 28.May.1966

3. **ENAC Type Certificate Data Sheet No** A 131 Rev. 11

4. **ENAC Certification Basis:** FAR Part 23, dated February 1, 1965.

5. **Airworthiness Requirements:** See 4.

6. **Special Conditions:** N.A.

7. **Reversion and Exemptions:** N.A.

8. **Equivalent Safety Findings:** N.A.

9. **Environmental Standards including Noise:** N.A.

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:** Refer to Report N°598-208-063 Rev./ and subsequent approved revisions.

2. **Description:** Single engine, cantilever low wing monoplane of all metal construction equipment with a tricycle retractable landing gear. (Same as Model S205 – 20/R except for Power Plant and Propeller Installation, increased maximum weight, number of seats, increased maximum baggage).

3. **Equipment:** Basic equipment required by the airworthiness rules (see Certification Basis) shall be installed on the aircraft for the Airworthiness Certificate release.
Besides are required the following equipment:
Stall warning, Safe Flight Instruments Cop. 164S
Refer also to the Equipment list in FM

4. **Dimensions:**

- Span: 10866 mm (428 in.)
- Length: 8000 mm (315 in.)
- Height: 2890 mm (114 in.)

5. **Engines:** Franklin 6A-350-CI
State of Design TCDS No. FAA E9EA
EASA Engine TCDS No: N.A

5.1 **Installed Engine Limits:** For all operations, 2800 rpm (220 hp).

6. Propeller/s:

McCauley 2A31C21/84S-4
State of Design Propeller TCDS No. FAA P-919
Hartzell HC-C2YF-1B/8459-4
State of Design Propeller TCDS No. FAA P-920
EASA Propeller TCDS No: N.A

6.1 Propeller Limits:

Diameter: Max. 2,032 m (80 in.), Min. 1,981 m (78 in.) No further reduction permitted.
Pitch at R = 0,762 m (30 in.), Max: + 20°50', Min. : + 11°20' (McCauley 2A31C21/84S-4)
Pitch at R = 0,762 m (30 in.), Max: + 30°30', Min. : + 11° (Hartzell HC-C2YF-1B/8459-4)

7. Fluids (Fuel/Oil/Additives):

7.1 Fuel 100-130 minimum grade aviation gasoline.

8. Fluid capacities (See Note 2, 6):

8.1 Fuel Total fuel 210 lt (55,5 US Gal), stored in:
2 wing tanks of 105 lt (27,75 US Gal) each at 2,538 m
Total Usable fuel 208 lt (55 US Gal)

8.2 Oil 8,5 lt (2,2 US Gal) at 0,800 m
Usable 6,6 lt (1,7 US Gal)

9. Airspeed limits:

– Never Exceed Speed VNE: 174 Kts (201 mph) CAS

10. **Maximum Operating Altitude and Temperature:** N.A.

11. Operating Limitations:

11.1 General: In standard configuration the aircraft is equipped and certificated for day VFR operations. Flights in known icing conditions is prohibited.

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11.2 Additional limitations for take-off and landing: N.A.

12. Maximum Certified Weights:

– Maximum gross weight: 1350 Kg (2976 lbs)

13. **Centre of Gravity Range:** See Flight Manual for CG envelope.

14. **Datum:** Reference Datum: 1,020m forward of center line of nose gear attachment bolts.

15. **Levelling Means:** Three screws on baggage compartment bulkheads.

16. **Minimum Flight Crew:** 1 pilot.

17. **Maximum Passenger Seating Capacity:** 3 (1 at +2,215m, 2 at +3,030m.) or
4 (1 at +2,215m, 2 at +3,030m, 1 at 3,750m) (See Note 4, 5).

18. **Passenger Emergency Exit:** N.A.

19. Maximum Baggage/Cargo Loads:

Location	Max Load/Loading
Baggage compartments	80 Kg at +3,750m(See Note 4).

20. **Auxiliary Power Unit (APU):** N.A.

21. **Life-limited parts:** Refer to Maintenance Manual

IV. Operating and Service Instructions

- Flight Manual, Document No:** S205 – 22/R RAI-Approved Flight Manual 51.256/T dated May 27, 1966, and subsequent approved revisions.
- Maintenance Manual, Document No:** SM S205 – 22RSM "SERVICE MANUAL S205 – 22R" Revision 1 dated July 15, 1987 (Not RAI Approved).
- Service Letters and Service Bulletins:** As published by Alenia Aermacchi and approved by ENAC (for SB only).
- Required Equipment:** Refer to equipment list in Flight Manual.

V. Notes

1. Applicable Serial Number: N/A
2. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at time of original certification, and at all times thereafter. The certificated empty weight and corresponding center of gravity locations must include:
 - Unusable fuel 3,3 lbs. at +99,9 in. (wing tanks)
 - Unusable fuel 12 lbs. at +101,7 (tip tanks) when wing tip tanks are installed. (See Note 6)
 - System oil of 1 lb. at +31.5 in.
3. The following placards must be displayed in front and in clear view of pilot:
 - "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND THE FLIGHT MANUAL".
 - "NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED".
 - "DO NOT LOWER LANDING GEAR ABOVE 109 MPH CAS".
 - "MAX MANEUVERING SPEED FOR FULL APPLICATION OF CONTROLS IS 137 MPH CAS. MAX CROSSWING VELOCITY:15 KNOTS".

On Baggage Door:

 - "MAX LOAD IN THIS COMPARTMENT: 176 LBS".
4. The fifth seat installation Drwg. No. 205-0-027-01 includes assemblies Part No. 205-2-038-01 (fifth seat at +147,6) and 205-2-041-101 and -102 (rear seat at +118,1) as defined in the Technical Instruction No. 205 I-3A. When the fifth seat is installed, the Appendix "2" of respective Flight Manuals must be followed and this placard must be installed in the baggage compartment:
 - "THE MAXIMUM LOAD IN THIS COMPARTMENT (176 lbs.) INCLUDES THE BAGGAGE AND/OR FIFTH PASSENGER".

NOTE:
On aircraft having the following S/N: 373; 385; 4-142 to 4-158 inclusive; 4-176 to 4-194 inclusive;
the fifth seat installation has been carried out by using two rear seats of fixed type with an arm of +118,1.
5. Installation of baggage compartment windows, as defined in Technical Instruction No. 205 I-8, is optional on S205 – 22/R aircraft to be modified for the installation of fifth seat in the same compartment.
6. The wing tip tank installation, Drwg. 205-8-197, includes the assemblies, part No. 205-8-193-01 and -02 (left and right wing tip tank) of 30,5 US Gal. total capacity (15,25 gallons each tank) usable 28,5 US gal., at (+101,7), as defined in the Technical Instruction No. 205 I-7. When the wing tip tanks are installed, the Appendix "3" of S205 - 22/R Flight Manual must be followed and this placard installed on the instrument panel, near to the fuel level indicator selector switch:
 - "USE WING TIP TANKS IN LEVEL FLIGHT ONLY".

S208

I. General

1. **Data Sheet No:** EASA.A.587

2. **Type / Variant or Model**

(a) **Type:** S208
(b) **Variant or Model:** S208

3. **Airworthiness Category:** Normal Category

4. **Type Certificate Holder:** Alenia Aermacchi S.p.A. *Via Paolo Foresio, 1 - 21040 Venegono Superiore (VA) - Italy*

5. **Manufacturer:** Alenia Aermacchi S.p.A. *Via Paolo Foresio, 1 - 21040 Venegono Superiore (VA) - Italy*

6. **National Certification Date:** 05.March.1968 (ENAC C.O. A131)

7. **ENAC Application Date:** 22.December.1967 (ENAC C.O. A131)

8. **ENAC Recommendation Date:** N.A.

9. **EASA Type Certification Date:** N.A.

II. Certification Basis

1. **Reference Date for determining the applicable requirements:** 22.December.1967

2. **ENAC Certification Date:** 05.March.1968

3. **ENAC Type Certificate Data Sheet No** A 131 Rev. 11

4. **ENAC Certification Basis:** FAR Part 23, dated February 1, 1965.

5. **Airworthiness Requirements:** See 4.

6. **Special Conditions:** N.A.

7. **Reversion and Exemptions:** N.A.

8. **Equivalent Safety Findings:** N.A.

9. **Environmental Standards including Noise:** N.A.

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:** Refer to Report N°598-208-063 Rev./ and subsequent approved revisions.

2. **Description:** Single engine, cantilever low wing monoplane of all metal construction equipment with a tricycle retractable landing gear. (Same as Model S205 – 22/R except for Power Plant and Propeller Installation). (See NOTE 6)

3. **Equipment:** Basic equipment required by the airworthiness rules (see Certification Basis) shall be installed on the aircraft for the Airworthiness Certificate release.
Besides are required the following equipment:
Stall warning , Safe Flight Instruments Cop. 164S
Refer also to the Equipment list in FM

4. **Dimensions:**

- Span: 10866 mm (428 in.)
- Length: 8095 mm (319 in.)
- Height: 2890 mm (114 in.)

5. **Engines:** Lycoming O-540-E4A5
State of Design Engine TCDS No. FAA E-295
EASA Engine TCDS No: N.A

5.1 **Installed Engine Limits:** For all operations, 2700 rpm (260 hp). (See Note 3)

6. **Propeller/s:** Hartzell HC-C2YK-1B/8467-8R
Hartzell HC-C2YK-1B/8477-8R
State of Design Propeller TCDS No. FAA P-920

EASA Propeller TCDS No: N.A

6.1 Propeller Limits:

Diameter: Max. 1,930 m (76 in.), Min.: 1,905 m (75 in.) (Hartzell HC-C2YK-1B/8467-8R)
Diameter: Max. 1,930 m (76 in.), No reduction permitted. (Hartzell HC-C2YK-1B/8477-8R)
Pitch at R = 0,762 m (30 in.), Max: + 32°, Min.: + 15°30' for both propellers.

7. Fluids (Fuel/Oil/Additives):

7.1 Fuel 91-96 minimum grade aviation gasoline.

8. Fluid capacities (See Note 2):

8.1 Fuel Total fuel 210 lt (55,5 US Gal), stored in:
2 wing tanks of 105 lt (27,75 US Gal) each at 2,538 m
Total Usable fuel 208 lt (55 US Gal)

8.2 Oil 11,4 lt (3 US Gal) at 0,800 m
Usable 8,75 lt (2,3 US Gal)

9. Airspeed limits:

– Never Exceed Speed VNE: 174 Kts (201 mph) CAS

10. Maximum Operating Altitude and Temperature: N.A.

11. Operating Limitations:

11.1 General: In standard configuration the aircraft is equipped and certificated for day VFR operations. Flights in known icing conditions is prohibited.

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11.2 Additional limitations for take-off and landing: N.A.

12. Maximum Certified Weights:

– Maximum gross weight :: 1350 Kg (2976 lbs)

13. Centre of Gravity Range: See Flight Manual for CG envelope.

14. Datum: Reference Datum: 1,020m forward of center line of nose gear attachment bolts.

15. Levelling Means: Three screws on baggage compartment bulkheads.

16. Minimum Flight Crew: 1 pilot.

17. Maximum Passenger Seating Capacity: 3 (1 at +2,215m, 2 at +3,030m.) or
4 (1 at +2,215m, 2 at +3,030m, 1 at 3,750m) (See Note 3).

18. Passenger Emergency Exit: N.A.

19. Maximum Baggage/Cargo Loads:

Location	Max Load/Loading
Baggage compartments	80 Kg at +3,750m(See Note 3).

20. Auxiliary Power Unit (APU): N.A.

21. Life-limited parts: Refer to Maintenance Manual

IV. Operating and Service Instructions

1. **Flight Manual, Document No:** S208 RAI-Approved Flight Manual 64.493/T dated March 04, 1968, and subsequent approved revisions.
2. **Maintenance Manual, Document No:** PI 1U-S208/S208A-6 "PERIODIC INSPECTION PROCEDURES" RAI-Approved 185.158/T dated September 12, 1980 and subsequent approved revisions.
PI S208-2 "MAINTENANCE MANUAL S208" (Not RAI Approved).
3. **Service Letters and Service Bulletins:** As published by Alenia Aermacchi and approved by ENAC (for SB only).
4. **Required Equipment:** Refer to equipment list in Flight Manual.

V. Notes

1. Applicable Serial Number: N/A
2. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at time of original certification, and at all times thereafter. The certificated empty weight and corresponding center of gravity locations must include:
 - Unusable fuel 3,3 lbs. at +99,9 in. (wing tanks)
 - Unusable fuel 12 lbs. at +101,7 (tip tanks) when wing tip tanks are installed. (See Note 6)
 - System oil of 1 lb. at +31.5 in.
3. The following placards must be displayed in front and in clear view of pilot:
 - "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND THE FLIGHT MANUAL".
 - "NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED".
 - "AVOID CONTINUOUS OPERATION BETWEEN 2500 AND 2600 RPM ABOVE 25" HG. MANIFOLD PRESSURE" (when Hartzell HC-C2YK-1B/8467-8R propeller is installed).
 - "DO NOT LOWER LANDING GEAR ABOVE 109 MPH CAS".
 - "MAX MANEUVERING SPEED FOR FULL APPLICATION OF CONTROLS IS 137 MPH CAS. MAX CROSSWING VELOCITY:15 KNOTS".

On Baggage Door:

 - "MAX LOAD IN THIS COMPARTMENT: 176 LBS".
4. The fifth seat installation Drwg. No. 205-0-027-01 includes assemblies Part No. 205-2-038-01 (fifth seat at +147,6) and 205-2-041-101 and -102 (rear seat at +118,1) as defined in the Technical Instruction No. 205 I-3A. When the fifth seat is installed, the Appendix "2" of respective Flight Manuals must be followed and this placard must be installed in the baggage compartment:
 - "THE MAXIMUM LOAD IN THIS COMPARTMENT (176 lbs.) INCLUDES THE BAGGAGE AND/OR FIFTH PASSENGER".

NOTE:
On aircraft having the following S/N:002; 003;
the fifth seat installation has been carried out by using two rear seats of fixed type with an arm of +118,1.
5. The wing tip tank installation, Drwg. 205-8-197, includes the assemblies, part No. 205-8-193-01 and -02 (left and right wing tip tank) of 30,5 US Gal. total capacity (15,25 gallons each tank) usable 28,5 US gal., at (+101,7), as defined in the Technical Instruction No. 205 I-7. When the wing tip tanks are installed, the Appendix "3" of S208 Flight Manual must be followed and this placard installed on the instrument panel, near to the fuel level indicator selector switch:
 - "USE WING TIP TANKS IN LEVEL FLIGHT ONLY".
6. The model S208 may be converted into S208A:
 - By modifying it in accordance with "Technical Instruction No. 208 I-1" by using "Kit P/No. 208 I-1".
 - By replacing the nameplate and the Flight Manual with those for Model S208A, and
 - By accomplishing the modifications reported on Note 4 (See Note 7 for the S208 aircraft S/N 001) and Note 5, if they are not already installed.
7. The S208 aircraft S/N 001 has been converted into S208A without fifth seat installation with the rear seat, P/N 205-2-003, installed having an arm of (+119,3). In the baggage compartment is installed the placard:
 - "MAX LOAD IN THIS COMPARTMENT: 220 LBS".

S208A

I. General

1. **Data Sheet No:** EASA.A.587

2. **Type / Variant or Model**

- (a) **Type:** S208
(b) **Variant or Model:** S208A

3. **Airworthiness Category:** Normal Category

4. **Type Certificate Holder:** Alenia Aermacchi S.p.A. *Via Paolo Foresio, 1 - 21040 Venegono Superiore (VA) - Italy*

5. **Manufacturer:** Alenia Aermacchi S.p.A. *Via Paolo Foresio, 1 - 21040 Venegono Superiore (VA) - Italy*

6. **National Certification Date:** 18.January.1973 (ENAC C.O. A131)

7. **ENAC Application Date:** 31.May.1971 (ENAC C.O. A131)

8. **ENAC Recommendation Date:** N.A.

9. **EASA Type Certification Date:** N.A.

II. Certification Basis

1. **Reference Date for determining the applicable requirements:** 31.May.1971

2. **ENAC Certification Date:** 18.January.1973

3. **ENAC Type Certificate Data Sheet No** A 131 Rev. 11

4. **ENAC Certification Basis:** FAR Part 23, dated February 1, 1965 including amendments 23-1 through 23-6.

5. **Airworthiness Requirements:** FAR Part 23, dated February 1, 1965 including amendments 23-1 through 23-6.

6. **Special Conditions:** N.A.

7. **Reversion and Exemptions:** N.A.

8. **Equivalent Safety Findings:** N.A.

9. **Environmental Standards including Noise:** N.A.

III. Technical Characteristics and Operational Limitations

1. **Type Design Definition:** Refer to Report N°598-208-063 Rev./ and subsequent approved revisions.

2. **Description:** Single engine, cantilever low wing monoplane of all metal construction equipped with a tricycle retractable landing gear. (Same as Model S208 except for increased maximum weight, number of seats and increased maximum baggage).

3. **Equipment:** Basic equipment required by the airworthiness rules (see Certification Basis) shall be installed on the aircraft for the Airworthiness Certificate release.
Besides are required the following equipment:
Stall warning, Safe Flight Instruments Cop. 164S
Refer also to the Equipment list in FM

4. **Dimensions:**

–	Span:	10866 mm (428 in.)
–	Length:	8095 mm (319 in.)
–	Height:	2890 mm (114 in.)

5. **Engines:** Lycoming O-540-E4A5
State of Design Engine TCDS No. FAA E-295
EASA Engine TCDS No: N.A

5.1 **Installed Engine Limits:** For all operations, 2700 rpm (260 hp). (See Note 3)

6. **Propeller/s:** Hartzell HC-C2YK-1B/8467-8R
Hartzell HC-C2YK-1B/8477-8R
State of Design Propeller TCDS No. FAA P-920
EASA Propeller TCDS No: N.A

6.1 Propeller Limits:

Diameter: Max. 1,930 m (76 in.), Min.: 1,905 m (75 in.) (Hartzell HC-C2YK-1B/8467-8R)
Diameter: Max. 1,930 m (76 in.), No reduction permitted. (Hartzell HC-C2YK-1B/8477-8R)
Pitch at R = 0,762 m (30 in.), Max: + 32°, Min.: + 15°30' for both propellers.

7. Fluids (Fuel/Oil/Additives):

7.1 Fuel 91-96 minimum grade aviation gasoline.

8. Fluid capacities (See Note 2):

8.1 Fuel Total fuel 325,5 lt (86 US Gal), stored in:
2 wing tanks of 105 lt (27,75 US Gal) each at 2,538 m
2 tip tanks of 57,75 lt (15,2 US Gal) each at 2,583 m
Total Usable fuel 316 lt (83,5 US Gal)

8.2 Oil 11,4 lt (3 US Gal) at 0,800 m
Usable 8,75 lt (2,3 US Gal)

9. Airspeed limits:

– Never Exceed Speed VNE: 181 Kts (209 mph) CAS

10. Maximum Operating Altitude and Temperature: N.A.

11. Operating Limitations:

11.1 General: In standard configuration the aircraft is equipped and certificated for day VFR operations. Flights in known icing conditions is prohibited.

11.2 Additional limitations for take-off and landing: N.A.

12. Maximum Certified Weights:

– Maximum gross weight: 1505 Kg (3318 lbs)

13. Centre of Gravity Range: See Flight Manual for CG envelope.

14. Datum: Reference Datum: 1,020m forward of center line of nose gear attachment bolts.

15. Levelling Means: Three screws on baggage compartment bulkheads.

16. Minimum Flight Crew: 1 pilot.

17. Maximum Passenger Seating Capacity: 4 (1 at +2,215m, 2 at +3,030m, 1 at 3,750m)

18. Passenger Emergency Exit: N.A.

19. Maximum Baggage/Cargo Loads:

Location	Max Load/Loading
Baggage compartments	100Kg at +3,750m.

20. Auxiliary Power Unit (APU): N.A.

21. Life-limited parts: Refer to Maintenance Manual

IV. Operating and Service Instructions

1. **Flight Manual, Document No:** S208 RAI-Approved Flight Manual 105.990/T dated January 18, 1973, and subsequent approved revisions.
2. **Maintenance Manual, Document No:** PI 1U-S208/S208A-6 "PERIODIC INSPECTION PROCEDURES" RAI-Approved 185.158/T dated September 12, 1980 and subsequent approved revisions.
PI S208-2 "MAINTENANCE MANUAL S208" (Not RAI Approved).
3. **Service Letters and Service Bulletins:** As published by Alenia Aermacchi and approved by ENAC (for SB only).
4. **Required Equipment:** Refer to equipment list in Flight Manual.

V. Notes

1. Applicable Serial Number: N/A
 2. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at time of original certification, and at all times thereafter. The certificated empty weight and corresponding center of gravity locations must include:
 - Unusable fuel 3,3 lbs. at +99,9 in. (wing tanks)
 - Unusable fuel 12 lbs. at +101,7 (tip tanks) when wing tip tanks are installed.
 - System oil of 1 lb. at +31.5 in.
 3. The following placards must be displayed in front and in clear view of pilot:
 - "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND THE FLIGHT MANUAL".
 - "NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED".
 - "AVOID CONTINUOUS OPERATION BETWEEN 2500 AND 2600 RPM ABOVE 25" HG. MANIFOLD PRESSURE" (when Hartzell HC-C2YK-1B/8467-8R propeller is installed).
 - "DO NOT LOWER LANDING GEAR ABOVE 115 MPH CAS".
 - "MAX MANEUVERING SPEED FOR FULL APPLICATION OF CONTROLS IS 142 MPH CAS. MAX CROSSWING VELOCITY:15 KNOTS".
 - "USE WING TIP TANKS IN LEVEL FLIGHT ONLY".
- On Baggage Door:
- "MAX LOAD IN THIS COMPARTMENT (220 LBS) INCLUDES THE BAGGAGE AND/OR FIFTH PASSENGER".

Notes

- a. Each individual airplane will be supplied with a placard that specifies the kind of operation such as VFR and IFR, Day or Night, to which the operation of the airplane is limited by the equipment installed.
- b. The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition, the following items of equipment are required:
 - Pre-stall warning indicator, Safe Flight Indicator Corp. 164S. (P/N NS5F026) (All models). 5lb +67 in.
 - Applicable S205, S208 and S208A flight manuals. (See relative paragraphs "Operating and Service Instructions" of this document).
- c. As of November 30, 1989, SIAI Marchetti Spa became a member of Agusta S.p.A. Group.
- d. As of January 1, 1997, Aermacchi S.p.A. has acquired SIAI Marchetti S.r.L.
- e. As of July 13, 2006, Aermacchi S.p.A. became Alenia Aermacchi S.p.A.

ADMINISTRATIVE SECTION

I. Acronyms

N/A

II. Type Certificate Holder Record

Alenia Aermacchi S.p.A.
Via Paolo Foresio, 1
21040 Venegono Superiore (VA)
Italy

III. Change Record

Issue	Date	Changes
01	21. December 2011	Transfer to EASA Type Design