European Aviation Safety Agency

EASA

TYPE-CERTIFICATE DATA SHEET

Jetstream 3100 / 3200 Series

Type Certificate Holder:

BAE SYSTEMS (OPERATIONS) LTD

Prestwick International Airport
Monkton
Ayrshire
Scotland
KA9 2RW
United Kingdom

(Aircraft manufactured by British Aerospace/Jetstream Aircraft Ltd. Prestwick 1981 to 1997)

For Models: Jetstream Series 3100
Jetstream Series 3200

Issue 3, 15 January 2015

TABLE OF CONTENT

SECTION 1: GENERAL (ALL MODELS)

1. Data Sheet No.: EASA.A.191 (replacing UK CAA BA 15)

2. Airworthiness Category: Commuter Category Aeroplane

3. Performance Category: A

4. Certifying Authority: EASA

5. Type Certificate Holder:

BAE SYSTEMS (Operations) Limited
Prestwick International Airport
Monkton
Ayrshire
Scotland
KA9 2RW
United Kingdom

6. Construction Numbers:

Jetstream Series 3100 Models:

601 to 789, 791 to 794, 796 to 799, 801 to 804, 806 to 809, 811 to 813, 815 to 817, 822, 825 to 827, 829, 834, 838 and 839.

Jetstream Series 3200 Models:

790 and subsequent excluding 791 to 794, 796 to 799, 801 to 804, 806 to 809, 811 to 813, 815 to 817, 822, 825 to 827, 829, 834, 838 and 839.

SECTION 2: Jetstream Series 3100

I. General

1. Aircraft: Jetstream Series 3100

II. Certification Basis

1. Reference Date For Determining the Applicable Requirements - UK CAA Certification Application Date: 21 February 1980

2. EASA (UK CAA) Certification Date: 22 June 1982

3. EASA Certification Basis:

British Civil Airworthiness Requirements

The airworthiness requirements with which compliance has been demonstrated for the Jetstream Series 3100 type design, using the above reference dates, are:

(a) UK BCAR Section D, Issue 8, dated 1 February 1966 with the exception of Sub-Section D2 which is to Issue 13 dated 1 October 1976.

(b) ARB and UK CAA Blue Papers

ARB Blue Paper 407 dated 18 October 1963

ARB Blue Paper 422 dated 8 November 1965

ARB Blue Paper 438 dated 11 October 1967

ARB Blue Paper 441 dated 11 October 1967

ARB Blue Paper 445 dated 27 October 1970

ARB Draft Blue Paper 455 dated 27 May 1968

UK CAA Blue Paper 513 dated 19 January 1976

UK CAA Blue Paper 575 dated 19 September 1979

UK CAA Blue Paper 637 dated 27 May 1978

UK CAA Blue Paper 698 dated 10 March 1978

UK CAA Blue Paper 699 dated 21 October 1977

UK CAA Blue Paper 700 dated 10 March 1978

UK CAA Blue Paper 701 dated 24 March 1978

UK CAA Blue Paper 709 dated 16 March 1979

UK CAA Blue Paper 713 dated 16 March 1979

UK CAA Blue Paper 723 dated 22 May 1981

UK CAA Blue Paper 737 dated 9 May 1980

(c) UK BCAR Section J, Issue 3, dated 15 September 1966

(d) UK BCAR Section R, Issue 4, dated 10 April 1974

4. Special Conditions:

CAA Special Conditions Ref. 9/30/AHR1302 dated 30 May 1984 are applicable when an Automatic Performance Reserve System is embodied.

5. Exemptions:

None.

6. Equivalent Safety Findings:

None.

7. Environmental Standards:

UK BCAR Section N, Issue 2, dated 10 November 1978, Chap. N3-2, Para 2. Noise

III Technical Characteristics and Operational Limitations

1. Type Design Definition: JS-3100/TBS.3102/1

2. Description:

Low wing turboprop transport with conventional tail unit configuration, powered by two turbopropeller engines mounted conventionally above the wings driving four bladed propellers.

3. Equipment:

The basic required equipment as prescribed in the applicable airworthiness regulations must be installed in the aircraft for certification. All of the required equipment that must be installed as well as optional equipment approved for installation in the aeroplane by the JAA or EASA are listed in the Illustrated Parts Catalogue.

4. Dimensions:

Length	14.36 m	47 ft 1.5 in
Wingspan	15.85 m	52ft 0 in
Height	5.20 m	17ft 5.3 in
Wing Area	25.08 m^2	270 ft^2

5. Engines:

Two:	TPE 331-10U-501H	
or	TPE 331-10UF-501H	(Modification 7192)
or	TPE 331-10UF-511H	(Modification 7300)
or	TPE 331-10UF-512H	(Modification 7356)
or	TPE 331-10UF-513H	(Modification 7357)
or	TPE 331-10UR-513H	(Modification 7379)
or	TPE 331-10UG-513H	(Modification 7432)
or	TPE 331-10UGR-513H	(Modification 7434)
or	TPE 331-10UG-514H	(Modification 7548)
or	TPE 331-10UGR-514H	(Modification 7547)

Note: Both engines must have the same model and part number, except -10UG-513H and -10UG-514H may be interchanged, and -10UGR-513H and -10UGR-514H may be interchanged.

Engine Limits:

	Shaft Horse Power (SHP)	Propeller Shaft Speed (RPM)	Exhaust Gas Temperature (EGT) Single Red Line (ºC)
Takeoff	900 *	1591	650
Maximum Continuous	900	1591	650
Starting	-	-	770

* - 940 SHP for aircraft incorporating modification 7340.

For detailed engine limitations, see HP.4 Series Aircraft Flight Manuals and relevant Engine Type Certificate Data Sheet.

6. Auxiliary Power Unit (APU): Not applicable.

7. Propellers:

2 Dowty Rotol Type (c)R.333/4-82-F/12 (4 blades)

Propeller Limits:

	Pitch Angles at Section J-J Setting Line	Tolerance
Start Locks	- 1º 45’	+ 0º 30’
Flight Idle	+ 9º 00’	+ 0º 30’
Feathered	+ 82º 20’	± 0º 20’
Reverse	- 13º 00’	+ 0º 30’

For detailed propeller limitations see HP.4 Series Aircraft Flight Manuals and relevant Propeller Type Certificate Data Sheet.

8. Fluids (Fuel / Oil / Additives):

For details of approved fuels, oils and additives see HP.4 Series Aircraft Flight Manuals.

9. Fluid Capacities:

9.1 Fuel Capacity:

Fuel Capacity	UK Gal	US Gal	litres	kg	lb
Usable	376	451	1707	1366	3011
Unusable	8	10	38	30	67
Total	384	461	1745	1396	3078

Note: Conversion of 0.8 kg/litre.

9.2 Oil Capacity:

Each engine and oil tank combined:
15.14 litres
3.54 UK gallons
4.0 US gallons

10. Air Speeds: Refer to HP.4 Series Aircraft Flight Manuals.

11. Maximum Operating Altitude: 25,000 feet.

12. All Weather Capability: Category 1

13. Maximum Weights:

Basic Maximum Weights:

Condition	Maximum Weight (kg)	Maximum Weight (lb)
Taxi and Ramp	6,650	14,660
Take-off	6,600	14,550
Landing	6,600	14,550
Zero Fuel	6,000	13,228

Variations in aircraft maximum weights are allowed through modification action. This will result in an amendment to the Aircraft Flight Manual. The following is a list of absolute maximums. Reference should be made to the Aircraft Flight Manual and applicable service bulletins:

Condition	Maximum Weight (kg)	Maximum Weight (lb)
Taxi and Ramp	7,109	15,672
Take-off	7,059	15,362
Landing	6,759	14,900
Zero Fuel	6,486	14,300

14. Centre of Gravity Range: Refer to HP.4 Series Aircraft Flight Manuals.

15. Datum: Refer to Weight and Balance Manual

16. Standard Mean Chord (SMC): Refer to Weight and Balance Manual

17. Levelling Means: Refer to Weight and Balance Manual

18. Minimum Flight Crew: Two (Pilot and Co-pilot) for all types of flight

19. Maximum Seating Capacity (including crew): 21

20. Emergency Exits:

Location	Type	Size	
		mm	inches
1. One Passenger Entry Door - Left Side (Aft Cabin)	Type I	1295 x 864	51 X 34
2. One Overwing Emergency Exit - Right Side	Type III	914 X 599	36 X 22

21. Baggage/Cargo Compartments:

Location	Class	Max Allowable Load	
		kg	lb
Baggage Bay	(See Note 1)	315	695
Baggage Pod (See Note 2)	(See Note 1)	205	453

Note 1: The certification basis of the aircraft pre-dates the introduction of cargo and baggage compartment classifications.

Note 2: An optional baggage pod can be fitted to the underside of the fuselage centre section. (Mod. JK3339A refers)

Or as otherwise placarded on the airplane.

22. Wheels and Tyres:

Landing Gear: Hydraulically retractable tricycle
Track: 5.94m (19ft 6in)
Wheelbase: 4.6m (15ft 1in)

Nosegear: 2 wheels per unit
Tyres: 6.00 - 6 (4 Ply)
Maximum Tyre Pressure: As stated in the Aircraft Maintenance Manual

Maingear: 1 wheel per unit
Tyres: 28 x 9.00 - 12 (12 Ply)
Maximum Tyre Pressures: As stated in the Aircraft Maintenance Manual

IV Operating and Service Instructions

The following publications provide the necessary information to enable the subject aircraft to be operated and maintained satisfactorily:

1. Aircraft Flight Manual: HP.4 Series
2. Crew Manual: SA.4-3100/CM/-
3. Maintenance Schedule: SA.4-3100/MS/2
4. Manufacturers Maintenance Manual: SA.4-3100/AMM/-

5.	Structural Repair Manual:	SA.4-3100/SRM/1
6.	Wiring Diagram Manual:	SA.4-3100/WM/-
7.	Illustrated Parts Catalogue:	SA.4-3100/IPC/1
8.	Weight and Balance Manual:	SA.4-3100/WBM/-
9.	Master Minimum Equipment List:	SA.4-3100/MMEL/01
10.	Component Maintenance Manual:	SA.4-3100/CMM/-

11. Manufacturers Service Bulletins approved under the authority of CAA UK Approval DAI/9386/92 or DAI/1011/55 or JAA JAR 21 Approval CAA.JA.02034 or EASA Part 21 Approval EASA.21J.047.

Note: Airworthiness Limitations and Certification Maintenance Requirements are listed in the Maintenance Schedule

V. Notes

1. Cabin Interior and Seating Configurations must be approved.

2. Jetstream Series 3100 aircraft were allocated Model Numbers according to the certificating authority of the State of Registry. The following table includes all the Models together with the applicable AFM reference:

Model Number	Airworthiness Authority	AFM
3101	FAA (USA)	HP.4.10
3102	CAA (UK)	HP.4.11
3103	LBA (Germany)	HP.4.11
3107	D of A (Australia)	HP.4.13
3108	RLD (The Netherlands)	HP.4.11
3109	RAI (Italy)	HP.4.11
3110	LFV (Sweden)	HP.4.11
3112	TCAG (Canada)	HP.4.14
3116	FOCA (Switzerland)	HP.4.11

SECTION 3: Jetstream Series 3200

I. General

1. Aircraft: Jetstream Series 3200

II. Certification Basis

1. Reference Date For Determining the Applicable Requirements -UK CAA Certification Application Date: 1 June 1987

2. EASA (UK CAA) Certification Date: 06 September 1988

3. EASA Certification Basis:

As for Jetstream Series 3100, except the Ground Load and Landing Gear requirements of BCAR D3-5 and D4-5 are replaced by the equivalent requirements of JAR 25 as amended up to and including Change 11.

4. Special Conditions:

CAA Special Conditions Ref. 9/30/AHR1302 dated 30 May 1984 are applicable when an Automatic Performance Reserve System is embodied.

5. Exemptions:

None.

6. Equivalent Safety Findings:

None.

7. Environmental Standards:

BCAR Section N, Issue 4, dated 1 January 1988, Chapter N3-4. Noise

III Technical Characteristics and Operational Limitations

1. Type Design Definition: JS/3200/TBS.3202/1

2. Description:

Low wing turboprop transport with conventional tail unit configuration, powered by two turbopropeller engines mounted conventionally above the wings driving four bladed propellers.

3. Equipment:

The basic required equipment as prescribed in the applicable airworthiness regulations must be installed in the aircraft for certification. All of the required equipment that must be installed as well as optional equipment approved for installation in the aeroplane by the JAA or EASA are listed in the Illustrated Parts Catalogue..

4. Dimensions:

Length	14.36 m	47 ft 1.5 in
Wingspan	15.85 m	52ft 0 in
Height	5.20 m	17ft 5.3 in
Wing Area	25.08 m^2	270 ft^2

5. Engines:

Fitted with Dowty Rotol propellers:

TPE 331-12UA-701H (Modification 8001)
or TPE 331-12UAR-701H (Modifications 8020, 8112, 8127)
or TPE 331-12UAR-703H (Modification 8132)
or TPE 331-12UAR-705H (Modification 8161)
or TPE 331-12UAR-707H (Modification 8163)
or TPE 331-12UHR-701H (Modification 8205A or B)
or TPE 331-12UHR-703H (Modification 8205A or B)

Fitted with McCauley propellers:

TPE 331-12UAR-702H (Modification MOD 8135)
or TPE 331-12UAR-704H (Modification 8138)
or TPE 331-12UAR-706H (Modification 8162)
or TPE 331-12UAR-708H (Modification 8164)
or TPE 331-12UHR-702H (Modifications 8205A or B)
or TPE 331-12UHR-704H (Modifications 8205A or B)

Note: Both engines must have the same model and part number.

Engine Limits:

	Shaft Horse Power (SHP)	**Propeller Shaft Speed (RPM)**	**Exhaust Gas Temperature (EGT) Single Red Line (ºC)**
Takeoff	1020	1591	650 *
Maximum Continuous	1020	1591	650 *
Starting	-	-	770

* - 660 ºC for aircraft incorporating modification 8191.

For detailed engine limitations, see HP.4 Series Aircraft Flight Manuals and relevant Engine Type Certificate Data Sheet.

6. Auxiliary Power Unit (APU): Not applicable.

7. Propellers:

2 Dowty Rotol Type (c)R.333/4-82-F/12 (4 blades)

Propeller Limits:

	Pitch Angles at Section J-J Setting Line	Tolerance
Start Locks	- 1º 45'	+ 0º 30'
Flight Idle	+ 9º 00'	+ 0º 30'
Feathered	+ 82º 20'	± 0º 20'
Reverse	- 13º 00'	+ 0º 30'

or

2 McCauley Type 4HFR34C653/L106FA (4 blades) – Reference Modification 8133.

Propeller Limits:

	Pitch Angles at Section J-J Setting Line	Tolerance
Start Locks	+ 9º 00'	± 0º 24'
Flight Idle	+ 15º 45'	± 0º 06'
Feathered	+ 88º 00'	± 0º 30'
Reverse	- 4º 00'	± 0º 24'

For detailed propeller limitations see HP.4 Series Aircraft Flight Manuals and relevant Propeller Type Certificate Data Sheet.

8. Fluids (Fuel/Oil/Additives):

For details of approved fuels, oils and additives see HP.4 Series Aircraft Flight Manuals.

9. Fluid Capacities:

9.1 Fuel Capacity:

Fuel Capacity	UK Gal	US Gal	litres	kg	lb
Usable	406	488	1846	1477	3256
Unusable	4	5	18	14	32
Total	410	493	1864	1491	3287

Note: Conversion of 0.8 kg/litre.

9.2 Oil Capacity:

Each engine and oil tank combined:
15.14 litres
3.34 UK gallons
4.0 U.S. gallons

10. Air Speeds: Refer to HP.4 Series Aircraft Flight Manuals.

11. Maximum Operating Altitude: 25,000 feet.

12. All Weather Capability: Category 1

13. Maximum Weights:

Basic Maximum Weights:

Condition	Maximum Weight (kg)	Maximum Weight (lb)
Taxi and Ramp	7,400	16,314
Take-off	7,350	16,204
Landing	7,080	15,609
Zero Fuel	6,500	14,330

Post Modification 8177 or 8218:

Condition	Maximum Weight (kg)	Maximum Weight (lb)
Taxi and Ramp	7,400	16,314
Take-off	7,350	16,204
Landing	7,080	15,609
Zero Fuel	6,736	14,850

14. Centre of Gravity Range: Refer to HP.4 Series Aircraft Flight Manuals.

15. Datum: Refer to Weight and Balance Manual

16. Standard Mean Chord (SMC): Refer to Weight and Balance Manual

17. Levelling Means: Refer to Weight and Balance Manual

18. Minimum Flight Crew: Two (Pilot and Co-pilot) for all types of flight

19. Maximum Seating Capacity (including crew): 21

20. Emergency Exits:

Location	Type	Size	
		mm	inches
1. One Passenger Entry Door - Left Side (Aft Cabin)	Type I	1295 x 864	51 X 34
2. One Overwing Emergency Exit - Right Side	Type III	914 X 599	36 X 22
3. One Overwing Emergency Exit - Left Side	Type IV	660 X 483	26 X 19

21. Baggage/Cargo Compartments:

Location	Class	Max Allowable Load	
		kg	lb
Baggage Bay	(See Note 1)	315	695
Baggage Pod (See Note 2)	(See Note 1)	205	453

Note 1: The certification basis of the aircraft pre-dates the introduction of cargo and baggage compartment classifications.

Note 2: An optional baggage pod can be fitted to the underside of the fuselage centre section (Mod. JK3339A refers)

Or as otherwise placarded on the airplane.

22. Wheels and Tyres:

Landing Gear: Hydraulically retractable tricycle
Track: 5.94m (19ft 6in)
Wheelbase: 4.6m (15ft 1in)

Nosegear: 2 wheels per unit
Tyres: 6.00 - 6 (Ply Rating 6) (Actual Plies 4)
6.00 - 6 (Ply Rating 8) (Actual Plies 4)
17.25 x 6.25 - 6 (Ply Rating 8) (Actual Plies 6)
Maximum Tyre Pressure: As stated in the Aircraft Maintenance Manual

Maingear: 1 wheel per unit
Tyres: 28 x 9.00 - 12 (Ply Rating 8) (Actual Plies 6)
28 x 9.00 - 12 (Ply Rating 12) (Actual Plies 8)
Maximum Tyre Pressures: As stated in the Aircraft Maintenance Manual

IV <u>Operating and Service Instructions</u>

The following publications provide the necessary information to enable the subject aircraft to be operated and maintained satisfactorily:

1. Aircraft Flight Manual: HP.4 Series
2. Manufacturers Operations Manual: SA.4-3100/MOM/-
3. Maintenance Schedule: SA.4-3100/MS/2
4. Manufacturers Maintenance Manual: SA.4-3100/AMM/-
5. Structural Repair Manual: SA.4-3100/SRM/1
6. Wiring Diagram Manual: SA.4-3100/WM/-
7. Illustrated Parts Catalogue: SA.4-3100/IPC/1
8. Weight and Balance Manual: SA.4-3100/WBM/-
9. Master Minimum Equipment List: SA.4-3100/MMEL/01
10. Component Maintenance Manual: SA.4-3100/CMM/-
11. Manufacturers Service Bulletins approved under the authority of CAA UK Approval DAI/9386/92 or DAI/1011/55 or JAA JAR 21 Approval CAA.JA.02034 or EASA Part 21 Approval EASA.21J.047.

Note: Airworthiness Limitations and Certification Maintenance Requirements are listed in the Manufacturers Maintenance Manual, Chapter 5.

V. Notes

1. Cabin Interior and Seating Configurations must be approved.

2. Jetstream Series 3200 aircraft were allocated Model Numbers according to the certificating authority of the State of Registry. The following table includes all the Models together with the applicable AFM reference:

Model Number	Airworthiness Authority	AFM
3201	FAA (USA)	HP.4.16
3202	CAA (UK)	HP.4.17
3206	DGAC (France)	HP.4.16
3207	ACAA (Australia)	HP.4.19
3212	TCAG (Canada)	HP.4.18
3216	FOCA (Switzerland)	HP.4.17
3217	JCAB (Japan)	HP.4.20

SECTION 4: CHANGE RECORD

Issue 1	1st May 2009	Initial issue by EASA for administrative reasons at the request of the TC holder. Replaces CAA TCDS BA15. No changes from the CAA TCDS are introduced.
Issue 2	30th September 2009	Administrative change (date and format) upon formal issue of an EASA Type Certificate. No changes in content from Issue 1.
Issue 3	15th January 2015	Front Page, List of Effective Pages deleted. Section 1, item 1, Data Sheet No., "(replacing UK CAA BA 15)" added Section 2, sub section IV, item 2, editorial change to correct document title and reference.