

A41EU
Revision 14
Viking Air Limited
SD3-30
SD3-60
SD3-SHERPA
SD3-60 SHERPA
June 28, 2019

This data sheet which is part of Type Certificate No. A41EU prescribes conditions and limitations under which the product for which the Type Certificate was issued, meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder Record	Shorts Brothers PLC transferred A41EU to Viking Air Limited June on 28, 2019 Shorts Brothers Limited transferred A41EU to Shorts Brothers PLC on February 16, 1988
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Engines.
(See Note 10)

2 Pratt & Whitney, Aircraft of Canada Limited, PT6A-45A
Reduction Gear Ratio: 0.0568 : 1
or
2 Pratt & Whitney Aircraft of Canada Limited PT6A-45B
Reduction Gear Ratio: 0.0568 : 1
or
2 Pratt & Whitney Aircraft of Canada Limited PT6A-45R
Reduction Gear Ratio: 0.0568 : 1

<u>American</u>	<u>British</u>
ASTM D1655-70	
Jet A	NONE
Jet B	NONE
Jet A-1	Def. Standard 91-87
MIL-T-5624L	
JP-4	Def. Standard 91-87
JP-5	Def. Standard 91-87
MIL-T83133A	
JP-8	Def. Standard 91-87
For fuel additives see NOTE 4.	

<u>RATINGS</u>	<u>SHP</u>	<u>JET THRUST</u>	<u>AIR INLET TEMPERATURE</u>
<u>PT6A-45A:</u>			
Takeoff (dry) (5 min.)	1173	136 lb.	to 46°F
Takeoff (wet) (5 min.)	1173	136 lb.	to 69°F
Maximum Continuous	1020	127 lb.	to 79°F
Reverse	900	-	to 59°F

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I. Model SD 3-30 Variant 200 (Transport Category Aircraft) (cont'd)

<u>RATINGS</u>	<u>SHp</u>	<u>JET THRUST</u>	<u>AIR INLET TEMPERATURE</u>
<u>PT6A-45B:</u>			
Takeoff (dry) (5 min.)	1173	140 lb	to 52°F
Takeoff (wet) (5 min.)	1173	140 lb.	to 84°F
Maximum Continuous	1020	127 lb.	to 84°F
Reverse	900	-	to 59°F
<u>PT6A-45R:</u>			
Takeoff (5 min.)	1197	141 lb.	to 73°F
Alternate Takeoff (5 min.)	1173	140 lb.	to 52°F
Maximum Continuous	1020	127 lb.	to 92°F
Reverse	900	-	to 59°F

Engine Limits.Inter Turbine Temperature:

	<u>PT6A-45A</u>	<u>PT6A-45B</u>	<u>PT6A-45R</u>
Takeoff (dry or wet)	800°C(1472°F)	800°C(1472°F)	-
Takeoff	-	-	845°C(1553°F)
Alternate Takeoff	-	-	800°C(1472°F)
Maximum Continuous	800°C(1472°F)	800°C(1472°F)	812°C(1494°F)
Starting Transient (5 sec)	1000°C(1832°F)	1000°C(1832°F)	1000°C(1832°F)
Transient	850°C(1562°F)	850°C(1562°F)	900°C(1652°F)

Speed Limits - Gas Generator:

Maximum Takeoff (5 min.)	104%(39,000)	104%(39,000)	104%(39,000)
Maximum Continuous	104%(39,000)	104%(39,000)	104%(39,000)
Maximum Transient (20 sec.)	104%(39,000)	104%(39,000)	104%(39,000)

Speed Limits - Propeller - RPM: *

Maximum Permissible	1685	1695	1695
Maximum Transient	1870	1870	1870
Maximum Reverse	1650	1650	1650
Minimum Flight	1200	1200	1200

For other engine limits refer to NOTE 11 or to engine TCDS Number E4EA.

* Ground operation at stabilized speed between 1,170 and 1,400 RPM is prohibited.

Propeller and Propeller Limits.

2 Hartzell HC-B5MP-3A reversible propeller.

Blades: 5, model M10282AB + 6

Diameter limits: *

Maximum	111 inches
Minimum allowable for repairs	110.7 inches

* No further reduction permitted, without aircraft performance penalty.

Pitch setting at 30 in. radius station.

Ground Fine	+ 4
Flight Fine	+ 21°
Feathered	89°
Full Reverse	- 1°

(Reverse thrust authorized for Ground Maneuvering only).

For other propeller limits refer to propeller Type Certificate Data Sheet No. P44GL

Spinner: Hartzell D-3434-8

Propeller Deicer: B.F. Goodrich 451601-7

Governors: Woodward 8210-009 or 8210-209

I. Model SD 3-30 Variant 200 (Transport Category Aircraft) (cont'd)Airspeed Limits.

	Speed Knots IAS	Speed MPH IAS
V _{MO} (Maximum Operating Speed)	198	228
V _A (Maneuvering Speed) (Linear variation between points)	13,000 lb 22,900 lb	13,000 lb 22,900 lb
	121 157	139 181
V MCA * (Minimum Control Speed Takeoff Climb)	77 (4° flaps) 77 (8° flaps) 76 (15° flaps)	89 (4° flaps) 89 (8° flaps) 88 (15° flaps)
V MCG * (Minimum Control Speed on or near ground)	76	88
V _{FE} * (Wing Flaps Extended)	(4°)(8°)(15°)(35°) 148 148 138 125	(4°)(8°)(15°)(35°) 170 170 159 144
V _{LE} * (Landing Gear Extended Speed)	161	185
V _{LO} (Landing Gear Operating Speed)	148	170

* See NOTE 7

Center of Gravity
(C.G.) Range

C.G. Limit	Landing Gear Extended Takeoff and Landing		Landing Gear Retracted Enroute	
	Aft of Datum (in.)	% SMC	Aft of Datum (in.)	% SMC
Forward Limit at 16,500 lb	29.85	16.0	27.89	13.3
Forward Limit at Maximum Landing Weight (See NOTES 6, 8 & 12)	30.72	17.2	28.76	14.5
Forward Limit at Maximum Takeoff Weight (See NOTES 6, 8 & 12)	30.80	17.3	28.83	14.6
Aft Limit all Weights	43.67	35.0	45.78	37.9
Landing Gear Retraction moment change	+4,000 in. lb.			

Datum.

The C.G. datum is at fuselage station 200 on the center line of aircraft and is marked on the underside of the fuselage.

Standard Mean Chord.
(SMC)

Length: 72.72 in.
The leading edge of SMC is 18.215 in. aft of datum (Sta. 200).

Leveling Means.

For determination of the center of gravity the aircraft should be brought to datum horizontal attitude. This is checked horizontally using a clinometer with a straight edge placed on pegs inserted in the holes in the two leveling plates on the fuselage port side at Sta. 212 and Sta. 291.12.

The lateral level is checked using the two floor seat rails at the front spar frame in the passenger compartment.

I. Model SD 3-30 Variant 200 (Transport Category Aircraft) (cont'd)Maximum Weights. *

Maximum Ramp Weight: 22,100 lb.
 Maximum Takeoff Weight: 22,000 lb.
 Maximum Landing Weight: 21,700 lb.
 *See NOTES 6, 8 & 12 for increased weight limitations.

Minimum Crew.

The minimum flight crew is two pilots.

Maximum Passengers.

39 As limited by FAR 25 Emergency Exit Requirements.
 30 As limited by approved seating arrangement.

Baggage Compartments

Class D modified to meet the requirements of FAR 121.314(c) when Short Brothers Mod P4816 is embodied. See NOTE 60

Maximum Baggage.

Baggage must be loaded in accordance with the approved Weight and Balance Manual Ref. SD3/WB/200.

Maximum Cargo Load.

Cargo must be loaded in accordance with the approved Weight and Balance Manual Ref. SD3/WB/200.
 See Note 19 for operational limitations.

Fuel Capacity.

Volume, weight, and balance arm of fuel for each tank assuming there are 6.662 lbs per U.S. Gallon of fuel (0.8 SG).

	<u>U.S. Gal.</u>	<u>Weight lb.</u>	<u>Arm about C.G. Datum (in.)</u>	
			<u>Forward</u>	<u>Aft</u>
<u>Usable</u>				
Forward tank	288.2	1920		28.33
Aft tank	<u>288.2</u>	<u>1920</u>		98.33
Total usable in tank	576.4	3840		35.00
<u>Unusable</u>				
Forward tank	2.2	14.7		
Aft tank	<u>2.0</u>	<u>13.3</u>		
Total	4.2	28.00		

Total Capacity 580.6 U.S. Gal.

See NOTE 1(b). For increased fuel capacities, refer to Note 18.

Oil Capacity.

Volume, weight, and balance arm of engine oil.

	<u>U.S. Gal</u>	<u>Weight lb.</u>	<u>Arm about C.G. Datum (in.)</u>	
			<u>Forward</u>	<u>Aft</u>
<u>Usable</u>				
Left tank	1.5	11.5		14
Right tank	<u>1.5</u>	<u>11.5</u>		14
Total	3.0	23.0		14
<u>Unusable</u>				
Left tank	.55	4.0		-
Right tank	.55	4.0		-
System	<u>2.90</u>	<u>21.0</u>		-
Total	4.00	29.0		

Total Capacity 7.0 U.S. Gal.

See NOTE 1 (c)

I. Model SD 3-30 Variant 200 (Transport Category Aircraft) (cont'd)Maximum Operating Altitude. 20,000 ft.

<u>Control Surface Movements.</u>	Elevator	25 ½° ± 1° up	14 ½° ± ½° down
	Elevator trim tab	9° ± ½° up	14 ½° ± ½° down
	Rudder	29° ± 1° left	29° ± 1° right
	Left rudder trim tab	13 ½° ± ½° left	13 ¼° ± ¾° right
	Right rudder trim tab	22 ½° ± 1° left	22 ½° ± 1° right
	Left aileron	22 ¾° ± ¼° up	13 ¼° ± ¼° down
	Right aileron	23 ¾° ± ¼° up	12 ¾° ± ¼° down
	Aileron trim tab	13° ± ½° up	13° ± ½° down

NOTE: Aileron reflex 1 ¼° ± ¼°

The above angles are all measured from the neutral position.

Flaps inner and outer:

Nominal - 0° Enroute, all engines operating. *

8° Down - Enroute, one engine inoperative. *

Takeoff and discontinued approach. *

15° Down - Takeoff and approach. *

35° Down - Landing.

For details of flap setting tolerances refer to the approved
Maintenance Manual Doc. SD3/MM/200 Chapter 27.

* See NOTE 7

II. Model SD3-60, VARIANT 200 (TRANSPORT CATEGORY AIRCRAFT), approved October 29, 1982.

Engines. 2 Pratt and Whitney of Canada Limited PT6A-65R
Reduction Gear Ratio 0.0568: 1;
or 2 Pratt and Whitney of Canada Limited PT6A-65AR
Reduction Gear Ratio 0.0568: 1
or 2 Pratt and Whitney of Canada Limited PT6A-67R
Reduction Gear Ratio 0.0568: 1.

Fuel. Specifications, latest issued may be used.

<u>American</u>	<u>British</u>
ASTM D1655-70	
Jet A	NONE
Jet B	NONE
Jet A-1	Def Stan 91-87
MIL-T-5624L	
JP4	Def Stan 91-87
JP5	Def Stan 91-87
MIL-T-83133A	
JP8	Def Stan 91-87

Engine Ratings. Static, sea level, International Standard Atmospheric conditions.
No bleed extraction or accessory loads, compressor intake screen installed.

PT6A-65R	SHP	JET THRUST	AIR INLET TEMPERATURE
Take-off (5 min)	1376	209 lb.	to 82°F
Alternate take-off (5 min)	1230	195 lb.	to 76°F
Maximum Continuous	1173	189 lb.	to 84°F *
Reverse	900		to 59°F

* See Note 14.

II. Model SD3-60, VARIANT 200 (TRANSPORT CATEGORY AIRCRAFT) (cont'd)

PT6A-65AR	SHP	JET THRUST	AIR INLET TEMPERATURE
Take-off (5 min)	1424	214 lb.	to 82°F
Alternate take-off (5 min)	1230	195 lb.	to 84°F
Maximum Continuous	1220	194 lb.	to 101°F
Reverse	900		to 59°F

PT6A-67R	SHP	JET THRUST	AIR INLET TEMPERATURE
Take-off (5 min)	1424	212 lb.	to 99°F
Alternate take-off (5 min)	1281	192 lb.	to 91°F
Max. Continuous	1220	184 lb.	to 119°F
Reverse	900		

Inter Turbine Temperature.

	PT6A-65R	PT6A-65AR	PT6A-67R
Take-off (5 min)	845°C(1553°F)	855°C(1571°F)	855°C(1571°F)
Alternate take-off (5 min)	810°C(1490°F)	820°C(1508°F)	825°C(1517°F)
Maximum Continuous	810°C(1490°F)*	840°C(1544°F)	840°C(1544°F)
Starting Transient (5 sec)	1000°C(1832°F)	1000°C(1832°F)	1000°C(1832°F)
Transient (20 sec)	870°C(1598°F)	870°C(1598°F)	870°C(1598°F)

* See NOTE 14

Speed Limits - Gas Generator

Maximum Take-off (5 min)	104% (39,000)
Maximum Continuous	104% (39,000)
Maximum Transient	104% (39,000)

Speed Limits - Propeller RPM

Maximum Permissible	1700 (Up to 150 knots IAS) 1450 (Above 150 knots IAS)
Maximum Transient	1870
Maximum Reverse	1650
Minimum Flight	1200

For other engine limits refer to Engine TCDS No. E4EA for PT6A-65R and -65AR engines and TCDS No. E26NE for PT6A-67R engines.

Engine Ratings. (Continued).

Ground operations using Hartzell HC-B5MP-3C propellers at stabilized speeds between 400 and 900 PRPM and 1170 and 1400 PRPM is prohibited.

Ground operations using Hartzell HC-A6A-3 propellers at stabilized speeds between 500 and 950 PRPM and 1250 and 1450 PRPM is prohibited.

Propeller and Propeller Limits.

Propeller:	HC-B5MP-3C	HC-A6A-3
No of Blades:	5, Model M10876ASK	6, Model A10460E or A10460K(See NOTE 53)
Max Diameter:	111.0 inches	108.0 inches
Min Diameter:	110.7 inches *	107.875 inches *

* No further reduction permitted.

Pitch Setting (42 inch radius)

Ground Fine	: -5°±30'	-10°±30'
Flight Fine	: +16.5°±12'	+12.5°±12'
Feathered	: +79°±30'	75.5°±30'
Full Reverse	: -11±30'	-16°±30'

For other propeller limits refer to propeller TCDS No. P44GL or P14N for HC-B5MP-3C and HC-A6A-3, respectively.

II. Model SD3-60, VARIANT 200 (TRANSPORT CATEGORY AIRCRAFT) (cont'd)Propeller and Propeller Limits

Spinner : Hartzell D-3434-8 D-5311
 Propeller De-Icer: 4E-2595-7
 Governors : Woodward 8210-049 8210-190

Airspeed Limits

	SPEED KNOTS IAS		SPEED MPH IAS	
V _{MO} (Maximum Operating Speed)	196		226	
V _A (Maneuvering Speed) (Linear variation between points)	16000 lb. 129	26000 lb. 159	16000 lb. 148	26000 lb. 183
	26453 lb. 160	27100 lb. 158	26453 lb. 184	27100 lb. 182
V _{MCA} (Minimum Control Speed Take-off climb)	83 (5° flaps) 82 (15° flaps)		95.6 (5° flaps) 94.4 (15° flaps)	
V _{MCG} (Minimum Control Speed on or near ground)	83 (5° flaps) 82 (15° flaps)		95.6 (5° flaps) 94.4 (15° flaps)	
V _{FE} (Wing Flaps Extended)	(5°) (15°) (30°) 150 145 135		(5°) (15°) (30°) 172.7 167.0 155.5	
V _{LE} (Landing Gear Extended Speed)	162		186	
V _{LO} (Landing Gear Operating Speed)	150		173	

Center of Gravity.
(C.G. Range)

C.G. Limit	Take-off and Landing		En Route	
	Inches about Trim Datum	% SMC	Inches about Trim Datum	% SMC
Forward limit up to 16500 lb	-5.15 (fwd)	16.0	-7.33 (fwd)	13.0
Forward limit at 20000 lb	-	-	-7.33 (fwd)	13.0
*Forward limit at max land- ing weight	-3.62 (fwd)	18.10	-	-
*Forward limit at max take- off weight	-3.57 (fwd)	18.17	-5.65 (fwd)	15.31
Aft limit up to 19000 lb	+8.30 (aft)	34.5	+10.85 (aft)	38.0
Aft limit at 24,000 lb	+9.39 (aft)	36.0	+12.30 (aft)	40.0
Aft limit at max take-off weight	+9.39 (aft)	36.0	+12.30 (aft)	40.0
Landing gear retraction moment change	+6000 in. lb			

* See NOTES 15 and 23 for Increased Weight Limitations.

Trim Datum.

This is a vertical line located at fuselage Station 271.

Standard Mean Chord (SMC)

Length : 72.72 inches
 Leading Edge : Station 254.215

Leveling Means.

For determination of the center of gravity the aircraft should be brought to datum horizontal attitude. This is checked horizontally using a clinometer with a straight edge placed on pegs inserted in the holes in the two leveling plates on the fuselage left side at Sta. 255 and Sta. 335. The lateral level is checked using the two floor seat rails at the front spar frames in the passenger compartment.

Maximum Weights.

*Maximum Ramp Weight : 26100 lb
 Maximum Take-off Weight : 26000 lb
 Maximum Landing Weight : 25700 lb
 See NOTES 15 and 23 for Increase Weight Limitations.

II. Model SD3-60, VARIANT 200 (TRANSPORT CATEGORY AIRCRAFT) (cont'd)Minimum Crew.

The minimum flight crew is two pilots.

Maximum Passengers.

39 As limited by FAR 25 Emergency Exit Requirements.
 39 As limited by approved seating arrangement.

Baggage Compartments

Class D modified to meet the requirements of FAR121.314(c) when Short Brothers Mod A8703 is embodied. See NOTE 60

Maximum Baggage.

Baggage must be loaded with the approved Weight and Balance Manual Ref. 360/WBM/200.

Fuel Capacity.

Volume, weight, and balance arm of fuel for each tank, assuming there are 6.662 lbs per US Gallon of Fuel (0.8 SG).

	U.S. Gal	Weight lb.	Arm About Trim Datum (in.)	
<u>Usable</u>	<u>Forward</u>		<u>Aft</u>	
Forward tank	288.2	1920	63.33	
Aft tank	<u>288.2</u>	<u>1920</u>		<u>63.33</u>
Total usable in tanks	576.4	3840	-	-
<u>Unusable</u>				
Forward tank	2.5	16.7		
Aft tank	<u>2.2</u>	<u>15.3</u>		
Total	4.7	32.0		
Total Capacity See NOTE 1(b)	581.1 U.S. Gal.			

Oil Capacity.

	U.S. Gal.	Weight lb.	Arm About Trim Datum (in.)	
<u>Usable</u>	<u>Forward</u>		<u>Aft</u>	
Left tank	1.5	11.5	21	-
Right tank	<u>1.5</u>	<u>11.5</u>	<u>21</u>	-
Total	3.0	23.0	21	
<u>Unusable</u>				
Left tank	.55	4.0		
Right tank	.55	4.0		
System	<u>2.90</u>	<u>21.0</u>		
Total	4.00	29.0		
Total Capacity See NOTE 1 (c)	7.0 U.S. Gal.			

Maximum Operating Altitude.

20,000 ft.

Control Surface Movements.

Elevator	22° ± ½° up - ¼° down	12° + 0°
Elevator trim	7° ± 1 ¼° up	13° ± 1 ¼° down
Rudder	21° ± ½° to left and right	
Rudder trim tab	2 ¼° ± ¼° biased to left with rudder and trimmer control neutral	
Ailerons	12° ± ¾° to left and right from biased position 27 ¾° ± ¼° up	14 ¾° ± ¼° down
Ailerons Trim Tab	8 ½° ± ½° up	8 ½° ± ½° down
NOTE:	* Both ailerons drooped 3° ± ¼° with control wheel neutral.	

The aileron angles are all measured from the 3° drooped position.
 All other angles are measured from the neutral position.

II. Model SD3-60, VARIANT 200 (TRANSPORT CATEGORY AIRCRAFT) (cont'd)

Flaps inner and outer	Nominal - Enroute, all engine operating	0
	Down - Enroute, one engine inoperative	5°
	Take-off and discontinued approach	*5°
	Down - Take off and approach	15°
	Down - Landing	30°

For details of flap setting tolerances, refer to the Maintenance Manual. Doc. Ref. 360/MM.

*5° not used for take-off with PT6A-65AR and PT6A-67R engines aircraft.

See NOTE 24 for aircraft with Aileron droop deleted.

III. Model SD3-SHERPA Variant 200 (Mod. K2009) (Transport Category Aircraft) approved August 30, 1990.Engines.

2 Pratt & Whitney, Aircraft of Canada Limited, PT6A-65AR
Reduction Gear Ratio: 0.0568 : 1

Fuel.

Specifications, latest issued may be used.

<u>American</u>	<u>British</u>
ASTM D1655-70	
JET A	NONE
JET B	NONE
JET A-1	Def Stan 91-87
MIL-T-5624L	
JP4	Def Stan 91-87
JP5	Def Stan 91-87
MIL-T-83133A	
JP8	Def Stan 91-87

For fuel additives see NOTE 4.

Engine Rating.

Static, sea level, International Standard Atmospheric conditions. No bleed extraction or accessory loads, compressor intake screen installed.

<u>PT6A-65AR</u>	<u>SHP</u>	<u>JET THRUST</u>	<u>AIR INLET TEMP</u>
Take-off (5 min)	1424	214 lb.	to 82°F
Alternative Takeoff (5 min)	1230	195 lb.	to 84°F
Maximum Continuous	1220	194 lb.	to 101°F
Reverse	900	-	to 59°F

Engine Limits.Interturbine Temperature

	<u>PT6A-65AR</u>
Take-off (5 min)	855°C (1571°F)
Alternate take-off (5 min)	820°C (1508°F)
Maximum Continuous	840°C (1544°F)
Starting Transient (5 sec)	1000°C (1832°F)
Transient (20 sec)	870°C (1598°F)

Speed Limits - Gas Generator

Maximum Take-off (5 min)	104% (39,000)
Maximum Continuous	104% (39,000)
Maximum Transient	104% (39,000)

Speed Limits - Propeller RPM

Maximum Permissible	1700 (Up to 150 knots IAS) 1450 (Above 150 knots IAS)
Maximum Transient (20 sec)	1870
Maximum Reverse	1650
Minimum Flight	1200

III. Model SD3-SHERPA Variant 200 (Mod. K2009) (Transport Category Aircraft) (cont'd)Engine Limits

For other engine limits refer to Engine TCDS No. E4EA.
Ground operations using Hartzell HC-B5MP-3C propellers at stabilized speeds between 400 and 900 PRPM and 1170 and 1400 PRPM is prohibited.

Propeller and Propeller Limits.

2 Hartzell HC-B5MP-3C reversible propellers.

Propeller : HC-B5MP-3C
Blades : 5, Model M10876ASK
Max Diameter : 111.0 inches
Min Diameter : 110.7 inches*

* No further reduction permitted.

PITCH SETTING 42 inch radius

Ground Fine : $-5^{\circ} \pm 30'$

Flight Fine : $+12^{\circ} \pm 30'$

Feathered: $+79^{\circ} \pm 30'$

Full Reverse : $-11^{\circ} \pm 30'$

(Reverse thrust authorized for ground maneuvering only)

other propeller limits refer to propeller TCDS No. P44GL.

Spinner Assembly : Hartzell D-3434-8
Propeller Deicer : Goodrich 4E-2595-7
Governors : Woodward 8210-049

Airspeed Limits.

	<u>Speed Knots IAS</u>		<u>Speed MPH IAS</u>	
V _{MO} (Max Operating Speed)	196		226	
V _A (Maneuvering Speed) (Linear variation between points)	15700 lb	25600 lb	15700 lb	25600 lb
	124	161	143	185.7
V _{MCA} (Minimum Control Speed takeoff climb)	80 (10° flaps)		93.3 (10° flaps)	
	80 (15° flaps)		92.3 (15° flaps)	
V _{MCG} (Minimum Control Speed on or near ground)	80		92.3	
V _{FE} (Wing Flaps Extended)	(5°) (10°) (15°) (35°)		(5°) (10°) (15°) (35°)	
	150 145 140 130		173 167.2 161.5 149.9	
V _{LE} (Landing Gear Extended Speed)	160		184.5	
V _{LO} (Landing Gear Operating Speed)	150		173	

Center of Gravity. (C.G. Range)

C.G. LIMIT	TAKE-OFF & LANDING		EN ROUTE	
	Inches about Trim Datum	% SMC	Inches about Trim Datum	% SMC
Forward limit up to 16 500 lbs (7485 kg)	29.85 Aft	16.00	27.89 Aft	13.30
Forward limit at 22,900 lbs (10115 kg)	30.95 Aft	17.51	29.01 Aft	14.84
Forward limit at max landing weight	33.77 Aft	21.39	29.37 Aft	15.34
Forward limit at max	34.41 Aft	22.27	29.45 Aft	15.45
Aft limit at all weights	43.67 Aft	35.00	45.78 Aft	37.90

III. Model SD3-SHERPA Variant 200 (Mod. K2009) (Transport Category Aircraft) (cont'd)

Datum. This is located at fuselage Station 200 on the center line of the aircraft and is marked by a datum plate on the underside of the aircraft.

Standard Mean Chord (SMC). Length : 72.72 inches
Leading Edge : Station 218.21

Leveling Means. For determination of the center of gravity the aircraft should be brought to datum horizontal attitude. This is checked horizontally using a clinometer with a straight edge placed on pegs inserted in the holes in the two leveling plates on the fuselage left side at Sta. 212 and Sta. 291.12. The lateral level is checked using the two floor seat rails at the front spar frame in the passenger compartment.

Maximum Weights. Maximum Ramp Weight : 25,700 lb
Maximum Take-off Weight : 25,600 lb
Maximum Landing Weight : 25,100 lb

Minimum Crew. The minimum flight crew is two pilots.

Maximum Passengers. 39 As limited by FAR 25 Emergency Exit Requirements 30 As limited by approved seating arrangement.

Baggage Compartment Class D

Maximum Baggage. Baggage must be loaded in accordance with the approved Weight and Balance Manual Ref. SD3 SHERPA/WB.

Maximum Cargo Load. Cargo must be loaded in accordance with the approved Weight and Balance Manual Ref. SD3 SHERPA/WB.

Fuel Capacity. Volume, weight and balance arm of fuel for each tank assuming there are 6.5 lbs per US Gallon of fuel. (0.78 SG)

	U.S. Gal	Weight lb.	Arm About Datum (in.) Forward	Aft
<u>Usable</u>				
Forward tank	336	2184		22
Aft tank	<u>336</u>	<u>2184</u>		122
Total usable in tanks	672	4368		
Systems and Sumps	2.3	15		39
Total Usable	674.3	4383		
<u>Unusable</u>				
Forward tank	2.2	14.3		
Aft tank	<u>2.2</u>	<u>14.3</u>		
	4.4	28.6		
Total Capacity	678.7 U.S. Gallons			
See NOTE 1(b)				

<u>Oil Capacity.</u>	U.S. Gal.	Weight lb.	Arm About Datum (in)	
			Forward	Aft
<u>Usable</u>				
Left tank	1.5	11.5	21	-
Right tank	<u>1.5</u>	<u>11.5</u>	<u>21</u>	-
TOTAL	3.0	23.0	21	
<u>Unusable</u>				
Left tank	0.55	4.0		
Right tank	0.55	4.0		
System	<u>2.90</u>	<u>21.0</u>		
TOTAL	4.00	29.0		
Total oil capacity				7.0 US gals
See NOTE 1 (c)				

III. Model SD3-SHERPA Variant 200 (Mod. K2009) (Transport Category Aircraft) (cont'd)Maximum Operating Altitude. 20,000 ft.

<u>Control Surface Movements.</u>	Elevator	22° ± ½° up - 1°	14 ½° ± ½° down
	Elevator trim tab	9° ± 1° up	14 ½° ± 1° down
	Rudder	29° ± 1° left	29° ± 1° right
	Left rudder trim tab	13 ½° ± 1° left	13 ½° ± 1° right
	Right rudder trim tab	22° ± 1 ½° left	22 ½° ± 1 ½° right
	Left aileron	22 ¾° ± ½° up	13 ¼° ± ½° down
	Right aileron	23 ¾° ± ½° up	12 ¾° ± ½° down
	Aileron Trim tab	13° ± 1° up	13° ± 1° down
	NOTE: Aileron reflex: 1 ¼° ± ¼° up		
	The above angles are all measured from the neutral position.		

Flaps inner and outer:

Nominal Designation

0° flaps	Flaps retracted
5° flaps	Single engine en-route
10° flaps	Take-off, preliminary approach and discontinued approach
15° flaps	Take-off, approach and landing
35° flaps	Landing

For details of flap setting tolerances refer to Maintenance Manual Ref. SD3 SHERPA/MM.

IV. Model SD3-60 SHERPA Variant 200 (Mod K6001) (Transport Category Aircraft) approved April 19, 1996

Engines. 2 Pratt & Whitney Aircraft of Canada Limited, PT6A-65AR
Reduction Gear Ratio: 0.0568 : 1

Fuel. Specifications, latest issue may be used.

<u>American</u>	<u>British</u>
ASTM D1655-70	
Jet A	NONE
Jet B	NONE
Jet A-1	Def Stan 91-87
MIL-T-5624L	
JP4	Def Stan 91-87
JP5	Def Stan 91-87
MIL-T-83133A	
JP8	Def Stan 91-87

For fuel additives see NOTE 4.

Engine Ratings. Static, sea level, International Standard Atmospheric conditions. No bleed extraction or accessory loads, compressor intake screen installed.

<u>PT6A-65AR</u>	<u>SHP</u>	<u>JET THRUST</u>	<u>AIR INLET TEMP</u>
Takeoff (5 min.)	1424	214 lb.	to 82°F
Alternate takeoff (5 min)	1230	195 lb.	to 84°F
Maximum Continuous	1220	194 lb.	to 101°F
Reverse	900	-	to 59°F

IV. Model SD3-60 SHERPA Variant 200 (Mod K6001) (Transport Category Aircraft) (cont'd)Engine Limits.Interturbine TemperaturePT6A-65AR

Take-off (5 min)	855°C (1571°F)
Alternate Takeoff (5 min)	820°C (1508°F)
Maximum Continuous	840°C (1544°F)
Starting Transient (5 sec)	1000°C (1832°F)
Transient (20 sec)	870°C (1598°F)

Speed Limits - Gas Generator

Maximum Take-off (5 min)	104% (39,000)
Maximum Continuous	104% (39,000)
Maximum Transient	104% (39,000)

Speed Limits - Propeller RPM

Maximum Permissible	1700 (Up to 150 knots IAS) 1450 (Above 150 knots IAS)
Maximum Transient (20 sec)	1870
Maximum Reverse	1650
Minimum Flight	1200

For other engine limits refer to Engine TCDS No. E4EA.

Ground operations using Hartzell HC-B5MP-3C propellers at stabilized speeds between 400 and 900 PRPM and 1170 and 1400 PRPM is prohibited.

Propeller and Propeller Limits.

2 Hartzell HC-B5MP-3C reversible propellers

Propeller :	HC-B5MP-3C
Blades :	5, Model M10876ASK
Max Diameter	111.0 inches
Min Diameter	110.7 inches *
* No further reduction permitted.	

PITCH SETTING 42 inch radius

Ground Fine	-5° ± 30'
Flight Fine	+12° ± 30'
Feathered	+79° ± 30'
Full Reverse	-11° ± 30'

(Reverse thrust authorized for ground maneuvering only)

For other propeller limits refer to propeller TCDS No. P44GL.

Spinner	:	Hartzell D-3434-8
Propeller De-Icer	:	Goodrich 4E-2595-7
Governors	:	Woodward 8210-049

Airspeed Limits.

	<u>Speed Knots IAS</u>				<u>Speed MPH IAS</u>			
V _{MO} (Maximum Operating Speed)	196				226			
V _A (Maneuvering Speed)	15700 lb 25600 lb				15700 lb 25600 lb			
(Linear variation between points)	126 163				145.3 188			
V _{MCA} (Minimum Control Speed	80 (10° flaps)				93.3 (10° flaps)			
Takeoff Climb)	80 (15° flaps)				92.3 (15° flaps)			
V _{MCG} *(Minimum Control Speed on or near ground)	80				92.3			
V _{FE} * (Wing Flaps Extended)	(5°)	(10°)	(15°)	(35°)	(5°)	(10°)	(15°)	(35°)
	150	150	140	135	173	173	161.1	155.8
V _{LE} * (Landing Gear Extended Speed)	160				184.5			
V _{LO} (Landing Gear Operating Speed)	150				173			

IV. Model SD3-60 SHERPA Variant 200 (Mod K6001) (Transport Category Aircraft) (cont'd)Center of Gravity (C.G. Range).

C.G. LIMIT	TAKE-OFF & LANDING		EN-ROUTE	
	Inches about Trim Datum	% SMC	Inches About Trim Datum	% SMC
Forward limit up to 16 500 lbs (7485 kg)	29.85 Aft	16.00	27.89 Aft	13.30
Forward limit at 22900 lbs (10115 kg)	30.95 Aft	17.51	29.01 Aft	14.84
Forward limit at max landing weight	33.77 Aft	21.39	29.37 Aft	15.34
Forward limit at max take off weight	34.41 Aft	22.27	29.45 Aft	15.45
Aft limit at all weights	43.67 Aft	35.00	45.78 Aft	37.90

Datum.

This is located at fuselage Station 200 on the center line of the aircraft and is marked by a datum plate on the underside of the aircraft.

Standard Mean Chord (SMC)

Length: 72.72 in
Leading Edge: Station 218.21

Leveling Means.

For determination of the center of gravity the aircraft should be brought to datum horizontal attitude. This is checked horizontally using a clinometer with a straight edge placed on pegs inserted in the holes in the two leveling plates on the fuselage left side at Sta. 212 and Sta. 291.12. The lateral level is checked using the two floor seat rails at the front spar frame in the passenger compartment.

Maximum Weights.

Maximum Ramp Weight: 25,700 lb
Maximum Takeoff Weight: 25,600 lb
Maximum Landing Weight: 25,100 lb

Minimum Crew.

The minimum flight crew is two pilots.

Maximum Passengers.

39 As limited by FAR 25 Emergency Exit Requirements
30 As limited by approved seating arrangement

Baggage Compartment

Class D

Maximum Baggage.

Baggage must be loaded in accordance with the approved Weight and Balance Manual Ref. SD3-60 SHERPA/WB.

Maximum Cargo Load.

Cargo must be loaded in accordance with the approved Weight and Balance Manual Ref. SD3-60 SHERPA/WB.

Fuel Capacity.

Volume, weight and balance arm of fuel for each tank assuming there are 6.5 lbs per US Gallon of fuel.

	U.S. Gal.	Weight lb.	Arm about Datum (in)	
			Forward	Aft
<u>Usable</u>				
Forward tank	336	2184	22	
Aft tank	<u>336</u>	<u>2184</u>		122
Total usable in tank	672	4368		
Systems and Sumps	2.3		15	
Total Usable	674.3	4383		
<u>Unusable</u>				
Forward tank	2.2	14.3		
Aft tank	<u>2.2</u>	<u>14.3</u>		
	4.4	28.6		
Total Capacity	678.7 U.S. Gal			
See NOTE 1(b).				

IV. Model SD3-60 SHERPA Variant 200 (Mod K6001) (Transport Category Aircraft) (cont'd)

<u>Oil Capacity.</u>	U.S. Gal.	Weight lb.	Arm about Datum (in)	
			Forward	Aft
<u>Usable</u>				
Left tank	1.5	11.5	21	-
Right tank	<u>1.5</u>	<u>11.5</u>	<u>21</u>	-
Total	3.0	23.0	21	
<u>Unusable</u>				
Left tank	0.55	4.0		
Right tank	0.55	4.0		
System	<u>2.90</u>	<u>21.0</u>		
TOTAL	4.00	29.0		

Total oil capacity 7.0 U.S. Gal
See NOTE 1(c)

Maximum Operating Altitude. 20,000 ft.

<u>Control Surface Movements.</u>	Elevator	22° ± ½ up - 1°	14 ½° ± ½° down
	Elevator trim tab	9° ± 1° up	14 ½° ± 1° down
	Rudder	29° ± 1° left	29° ± 1° right
	Left rudder trim tab	13 ½° ± 1° left	13 ½° ± 1° right
	Right rudder trim tab	22° ± 1½° left	22 ½° ± 1 ½° right
	Left aileron	22 ¾° ± ½° up	13 ¼° ± ½° down
	Right aileron	23 ¾° ± ½° up	12 ¾° ± ½° down
	Aileron Trim tab	13° ± 1° up	13° ± 1° down
	NOTE: Aileron reflex: 1¼° ± ¼° up		
	The above angles are all measured from the neutral position.		

Flaps inner and outer:

Nominal Designation

0° flaps	Flaps retracted
5° flaps	Single engine en-route
10° flaps	Take-off, preliminary approach and discontinued approach
15° flaps	Take-off, approach and landing
35° flaps	Landing

For details of flap setting tolerances refer to the Maintenance Manual Ref. SD3-60 SHERPA/MM

DATA PERTINENT TO ALL MODELS.

Serial Numbers Eligible. The United Kingdom (CAA) Certificate of Airworthiness for Export, endorsed as noted under "Import Requirements" below must be submitted for each individual aircraft for which application for certification is made.

- Import Requirements.
- The FAA can issue a U.S. airworthiness certificate based on a National Aviation Authority Export Certificate of Airworthiness (Export C of A) signed by a representative of the United Kingdom on behalf of the European Community. The Export C of A should contain the following statement: "The aircraft covered by this certificate has been examined, tested, and found to conform with Type Design approved under U.S. Type Certificated No. A41EU and be in a condition for safe operation.
 - The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).

Transition Statement.

The United Kingdom's Civil Aviation Authority (CAA) originally type certificated the SD3-30, SD3-60, SD3-Sherpa, and SD3-60 Sherpa Airplanes under its type certificate Number BA11. The FAA validated these products under U.S. Type Certificate Number A41EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of the United Kingdom.

Certification Basis.SD3-30 Airplanes:

FAR 21.29, FAR 25, effective February 1, 1965 including amendments 25-1 through 25-30 and Special Conditions No. 25-70-EU-22 dated June 8, 1976; with amendment No. 1 thereto, dated June 11, 1976; plus FAR 25, amendments 25-31 through 25-34 elected by the applicant, except FAR 25.807 as amended by amendment 25-32.

Compliance with the following optional requirements has been established:

- Ditching provisions 25.801 (overwater operations can be approved when the aircraft has been equipped and installation has been approved according to FAR 25.801).
- Ice protection provisions 25.1419 (See NOTE 9).

Compliance has been shown with FAR 36 effective December 1, 1969 including amendments as follows:-

- 1) 36-1 for airplanes with P&WA Model PT6A-45A engines and takeoff weight of 22,000 pounds.
- 2) 36-6 for airplanes with P&WA Model PT6A-45A engines and takeoff weight of 22,400 pounds.
- 3) 36-8 for airplanes with P&WA Model PT6A-45B engines and takeoff weight of 22,600 pounds
- 4) 36-9 for airplanes with P&WA Model PT6A-45R engines and takeoff weight of 22,900 pounds.

Compliance with SFAR 27 has been shown.

Equivalent safety in lieu of compliance with FAR 25.773(b)(2)(i) has been established. Type Certificate A41EU issued June 18, 1976.

Date of Application for Type Certificate: November 12, 1971.

Certification Basis (Continued).SD3-60 Airplanes.

FAR 21.29 United Kingdom Certification Basis as defined in CAA TCDS No. BA11, plus FAA additional validation requirements (AVR's) as defined in paper project No. CT184EU dated October 31, 1973. This is equivalent to FAR Part 25, effective February 1, 1965 including amendments 25-1 through 25-34, plus FAR 25.1351 as amended by amendment 25-41. FAA Special Conditions No. 25-70-EU-22 dated June 8, 1976 with amendment No. 1 thereto dated June 11, 1976.

FAR Part 36, effective December 1, 1969 including amendments 36-1 through 36-12. SFAR 27 effective January 1, 1975.

Equivalent safety in lieu of compliance with FAR 25.773(b)(2)(i) has been established.

The following additional FAA requirements have been voluntarily complied with:

FAR 25.785	to	Amendment	51	Standard
FAR 25.812	"	"	46	"
FAR 25.851	"	"	54	"
FAR 25.853	"	"	51	"
FAR 25.1326	"	"	43	"
FAR 25.1351	"	"	41	"
FAR 25.1411	"	"	53	"
FAR 25.1457	"	"	41	"
FAR 25.1459	"	"	41	"

- Ditching Provisions 25.801 (Overwater operations can be approved when the airplane has been equipped and installation has been approved according to

FAR 25.801).

- Ice protection provisions 25.1419.

Type Certificate A41EU amended October 29, 1982.

SD3 SHERPA (Mod K2009) Airplanes:

FAR 21.29 United Kingdom Certification Basis as defined in CAA TCDS No. BA11, plus FAA additional validation requirements (AVR's) as listed below.

FAR Part 25, effective February 1, 1965 as amended by Amendments 25-1 through 25-35, 25-37 through 25-39, 25-43, 25-44, 25-47, 25-49 through 25-53, 25-55, 25-56, 25-58 through 25-63, 25-66 and 25-67 except for paragraphs .1019 and .1305, 25-40 except for paragraphs .1093 and .1145, 25-41 except for paragraphs .1353, 25-42 except for paragraphs .109, .177, .181, .255, .703, 25-45 except for paragraph .571 25-46 except for paragraphs .331, .351, .361, .629, .773, .1329, .1416, 25-48 except for paragraphs .735, 25-54 except for paragraphs .305, .783, .1529, 25-57 except for paragraphs .997, .1093, 25-64 except for paragraphs .561, .562, .785, 25-65 except for paragraphs .1457, .1459.

Certification Basis (Continued).

Part 36 of the Federal Aviation Regulations as amended by Amendment 36-1 through the latest Amendment 36-17, which was in effect at time of TC and

SFAR 27 as amended by Amendments 27-1 through the latest Amendments 27-6 in effect at the time of TC and

Any exemptions petitioned for by the applicant and granted by the Federal Aviation Administration.

Short Brothers has elected to show compliance with the following optional requirements in the TC basis.

- Ditching provisions Section 25.801 (overwater operations can be approved when the aircraft is equipped and installation is approved in accordance with Section 25.801).

- Ice protection provisions Section 25.1419.

Type Certificate A41EU amended August 30, 1990.

SD3-60 SHERPA (Mod K6001) Airplanes:

FAR 21.29 United Kingdom Certification Basis as defined in CAA TCDS No. BA11, plus FAA additional validation requirements (AVR's) as listed below:

FAR Part 25, effective February 1, 1965 as amended by Amendments 25-1 through 25-35, 25-37 through 25-39, 25-43, 25-44, 25-47, 25-49 through 25-53, 25-55, 25-56, 25-58 through 25-60 and 25-62 through 25-63, 25-69 and 25-67 except for paragraphs .1019 and .1305, 25-40 except for paragraphs .1145, 25-41 except for paragraphs .1353, 25-42 except for paragraphs .109, .177, .181, .255, .703, 25-45 except for paragraphs .571, 25-46 except for paragraphs .331, .351, .361, .629, .773, .1329, .1416, 25-48 except for paragraphs .735, 25-54 except for paragraphs .305, .783, .1529, 25-57 except for paragraphs .997 25-61 (See Note 58)

25-64 except for paragraphs .561, .562, .785,
25-65 except for paragraphs .1457, .1459,
25-66 (See Note 58), and

FAR 25.1419, Amendment 25-72, ice protection (airframe)
FAR 25.801, Amendment 25-72, Ditching provisions (overwater operations can be approved when the aircraft is equipped and installation is approved in accordance with Section 25.801), and Part 36 of the Federal Aviation Regulations as amended by Amendment 36-1 through the latest Amendment 36-20, which was in effect at time of TC and FAR 34 Subpart B effective 10 September 1990, and

FAA Special Condition No. 25-70-EU-22, (Engine Ignition System & Operation Without Normal Electrical Power), dated June 8, 1976, with Amendment No. 1 (Special Flight & Propulsion Conditions), thereto dated June 11, 1976, and

Equivalent safety in lieu of compliance with FAR 25.773 (b)(2)(i), (Pilot Compartment View, Precipitation Conditions), which has been established.

Any exemptions petitioned for by the applicant and granted by the Federal Aviation Administration.

Type Certificate A41EU amended 19 April 1996.

Equipment.

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification. In addition the following items of equipment are required:

For SD3-30 airplanes, documents No. SBH 3.3 and SBH 3.6 are the approved, basic airplane Flight Manuals. When a specific Short Brothers CMC Mod. XXXX is incorporated on a Model SD3-30 variant 200 airplane the approved supplement of particular amendment (P/-), associated with the modification, as listed herein, must be incorporated into the appropriate basic document.

CMC MOD.	SEE NOTE	MODEL OF ENGINE INSTALLED	AIRPLANE BASIC NO.	FLIGHT MANUAL AND SUPPLEMENT OR AMENDMENT NO
5192	6	PT6A-45A PT6A-45B	SBH 3.3 SBH 3.3	P/1 P/1, P/8, P/9, P/11, P/12
5423	7	PT6A-45A PT6A-45B PT6A-45R	SBH 3.3 SBH 3.3 SBH 3.6	SUPP. 6 P/8, P/11, P/12 -
5600	8	PT6A-45A PT6A-45B PT6A-45R	SBH 3.3 SBH 3.3 SBH 3.6	P/1, P/5 P/1, P/5, P/8, P/11, P/12 P/1
5539	9	PT6A-45A PT6A-45B	SBH 3.3 SBH 3.3 SBH 3.6	P/3, P/4, P/7 P/10, S/14, P/3, P/7, P/8, P/11, P/10, P/12 S/12, S/14 P/15
5656 ONLY	10A	PT6A-45B	SBH 3.3	P/1, P/8, P/9, P/11, P/12
5600 5656	8 10A	PT6A-45B	SBH 3.3	P/1, P/5, P/8, P/11, P/12
5600 6031	8 10B	PT6A-45R	SBH 3.6	P/1
6031 6036	10B 12	PT6A-45R	SBH 3.6	-
6504	17	PT6A-45R	SBH 3.6	P/8, P/6

CMC MOD.	SEE NOTE	MODEL OF ENGINE INSTALLED	AIRPLANE BASIC NO.	FLIGHT MANUAL AND SUPPLEMENT OR AMENDMENT NO
6689 6867	<u>18</u>	PT6A-45R	SBH 3.6	P/7
6700	19	PT6A-45R	SBH 3.6	P/6
5952 6786	<u>21</u>	PT6A-45R	SBH 3.6	S/9
4731	<u>35</u>	PT6A-45A PT6A-45B PT6A-45R	SBH 3.3 SBH 3.3 SBH 3.6	P/15 P/15 P/11
4751	<u>39</u>	PT6A-45A PT6A-45B PT6A-45R	SBH 3.3 SBH 3.3 SBH 3.6	P/16, P/17 P/16, P/17 P/12, P/13
6910 6946	<u>40</u>	PT6A-45R	SBH 3.6	P/9
5763	<u>41</u>	PT6A-45A PT6A-45B PT6A-45R	SBH 3.3 SBH 3.3 SBH 3.6	SUPP 11 SUPP 11 SUPP 3
4778	<u>59</u>	PT6A-45A PT6A-45B PT6A-45R	SBH 3.3 SBH 3.3 SBH 3.6	P/18 P/18 P/14
4816	60	PT6A-45R	SBH 3.6	P/16
4817	<u>61</u>	PT6A-45A PT6A-45B PT6A-45R	SBH 3.3 SBH 3.3 SBH 3.6	P/19 P/19 P/17
4818	<u>63</u>	PT6A-45A PT6A-45B PT6A-45R	SBH 3.3 SBH 3.3 SBH 3.6	P/20 P/20 P/18
4820	<u>62</u>	PT6A-45A PT6A-45B PT6A-45R	SBH 3.3 SBH 3.3 SBH 3.6	P/21 P/21 P/19
4825	64	PT6A-45R	SBH 3.6	SUPP 15

For SD3-60 airplanes Documents No. SB.4.3, SB 4.6 and SB 4.8 are the approved basic Flight Manuals.

When a specific Short Brothers CMC Mod XXXX is incorporated on a model SD3-60 Variant 200 airplane, the approved supplement or particular amendment (P/-), associated with the modification, as listed herein, must be incorporated into the appropriate basic document.

CMC MOD .	SEE NOTE	MODEL OF ENGINE INSTALLED	AIRPLANE BASIC NO.	FLIGHT MANUAL AND SUPPLEMENT OR AMENDMENT NO.
7260	14	PT6A-65R	SB.4.3	P/4
7544	15	PT6A-65R PT6A-65AR	SB.4.3 SB.4.6	P/9, P/4 -
7543	16	PT6A-65AR	SB.4.6	
7734	22	PT6A-65AR PT6A-67R	SB.4.6 SB.4.8	P/7, P/9 -
7914	20	PT6A-65AR	SB.4.6	P/1
A8096	23	PT6A-67R	SB.4.8	-
A8064	24	PT6A-67R	SB.4.8	
A8077	25	PT6A-67R	SB.4.8	
A8059	26	PT6A-67R	SB.4.8	
7784	27	PT6A-67R	SB.4.8	
A8062	28	PT6A-67R	SB.4.8	

CMC MOD .	SEE NOTE	MODEL OF ENGINE INSTALLED	AIRPLANE BASIC NO.	FLIGHT MANUAL AND SUPPLEMENT OR AMENDMENT NO.
A8310	29	PT6A-67R	SB.4.8	P/1
A8123	30	PT6A-67R	SB.4.8	P/6 SUPP NO. 10
A8283	31	PT6A-67R	SB.4.8	SUPP NO 11
A8268	32	PT6A-67R	SB.4.8	P/3
A8320	33	PT6A-67R	SB.4.8	P/4
A8428	34	PT6A-67R	SB.4.8	P/5
A8286	36	PT6A-67R	SB.4.8	P/10
7264	<u>43</u>	PT6A-65R PT6A-65AR PT6A-67R	SB 4.3 SB 4.6 SB 4.8	P/6 - -
7114	<u>44</u>	PT6A-65R PT6A-65AR PT6A-67R	SB 4.3 SB 4.6 SB 4.8	P/8 - -
7985	45	PT6A-65R	SB 4.3	P/11
7767	<u>46</u>	PT6A-65R PT6A-65AR	SB 4.3 SB 4.6	P/15 P/4
8243	<u>35</u>	PT6A-65R PT6A-65AR PT6A-67R	SB 4.3 SB 4.6 SB 4.8	P/18 P/11 P/8
8611	<u>39</u>	PT6A-65R PT6A-65AR PT6A-67R	SB 4.3 SB 4.6 SB 4.8	P/19, P/20 P/12, P/13 P/14, P/15
7986	47	PT6A-65AR	SB 4.6	P/2
7583	<u>48</u>	PT6A-65AR PT6A-67R	SB 4.6 SB 4.8	P/3 -
7479	<u>49</u>	PT6A-65R PT6A-65AR	SB 4.3 SB 4.6	P/17 P/10
8574	50	PT6A-67R	SB 4.8	P/9
8575	<u>51</u>	PT6A-65R PT6A-65AR PT6A-67R	SB 4.3 SB 4.6 SB 4.8	P/21 P/14 P/12
8633	<u>59</u>	PT6A-65R PT6A-65AR PT6A-67R	SB 4.3 SB 4.6 SB 4.8	P/22 P/15 P/13
8703	<u>60</u>	PT6A-65AR PT6A-67R	SB 4.6 SB 4.8	P/17/ P/21
8700	<u>61</u>	PT6A-65R PT6A-65AR PT6A-67R	SB 4.3 SB 4.6 SB 4.8	P/31 P/18 P/18
8707	<u>63</u>	PT6A-65R PT6A-65AR PT6A-67R	SB 4.3 SB 4.6 SB 4.8	P/32 P/20 P/19
8709	<u>62</u>	PT6A-65R PT6A-65AR PT6A-67R	SB 4.3 SB 4.6 SB 4.8	P/33 P/21 P/20

For SD3 SHERPA airplanes Document No. SB. 5.2 is the approved basic Flight Manual.

When a specification Shorts Brothers CMC Mod XXXX is incorporated on a model SD3 Sherpa Variant 200 airplane, the approved supplement or particular amendment (P/-), associated with the modification, as listed herein, must be incorporated into the basic document.

CMC MOD	SEE NOTE	MODEL OF ENGINE INSTALLED	AIRPLANE BASIC NO.	FLIGHT MANUAL AND SUPPLEMENT OR AMENDMENT NO.
K2098	37	PT6A-65AR	SB.5.2	P/1
-	38	PT6A-65AR	SB.5.2	SUPP No 11
K2061	42	PT6A-65AR	SB.5.2	SUPP No 2 or 13
K2161	52	PT6A-65AR	SB.5.2	SUPP No 14
K2219	59	PT6A-65AR	SB.5.2	P/2
K2242	61	PT6A-65AR	SB.5.2	P/4
K2245	63	PT6A-65AR	SB.5.2	P/5
K2247	62	PT6A-65AR	SB.5.2	P/6

For SD3-60 SHERPA airplanes Document No SB 6.2 is the approved basic Flight Manual. When a specific Short Brothers CMC Mod XXXX is incorporated on a Model SD3-60 Sherpa Variant 200 airplane, the approved supplement or particular amendment (P/-), associated with the modification, as listed herein, must be incorporated into the basic document.

CMC MOD	SEE NOTE	MODEL OF ENGINE INSTALLED	AIRPLANE BASIC NO.	FLIGHT MANUAL AND SUPPLEMENT OR AMENDMENT NO.
-	54	PT6A-65AR	SB 6.2	SUPP NO 11
K 6033	55	PT6A-65AR	SB 6.2	SUPP NO 1
K 6043	56	PT6A-65AR	SB 6.2	SUPP NO 12
	57	PT6A-65AR	SB 6.2	BASIC
-	59	PT6A-65AR	SB 6.2	BASIC
K6112	61	PT6A-65AR	SB 6.2	P/2
K6115	63	PT6A-65AR	SB 6.2	P/3
K6117	62	PT6A-65AR	SB 6.2	P/4

Service Information.

Each of the documents listed below that contain a statement that it is approved by the European Aviation Safety Agency (EASA) – or for approvals made before September 28, 2003 – by the United Kingdom are accepted by the FAA and are considered FAA approved. Additionally, approvals issued by Short Brothers PLC under the authority of EASA approved Design Organization EASA.21J.068 – or for approval made before September 28, 2003 – under the authority of Bombardier Aerospace Shorts Approval Number DAI /1665/40 or CAA.JA.02246 are considered FAA approved. These approvals pertain to the type design only.

Shorts Service bulletins,
Structural repair manuals,
Vendor manuals,
Aircraft flight manuals,
Repair instructions,
Overhaul and maintenance manuals.

Note: Design changes that are contained in Shorts Service Bulletins and that are classified as Level 1 Major in accordance with either the US/UK or US/EASA Bilateral Aviation Safety Agreement Implementation Procedures for Airworthiness must be approved by the FAA.

NOTES.

NOTE 1.

- (a) Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions when necessary must be in each aircraft at the time of original certification.
- (b) Unusable fuel and system oil and all hydraulic fluid, must be included in the certified empty weight.
- (c) System oil is the amount of oil required to fill the oil system and tanks up to its normal level.

Dipstick readings calibrated in U.S. quarts indicate the quantity required to fill the tank to normal level, i.e. 1 U.S. quart (0.833 Imperial quarts) below maximum level.

NOTE 2.

All placards required in the limitations section of the FAA-approved Airplane Flight Manual must be installed.

NOTE 3.

- (a) The service life limits for airplane structural parts which are fatigue critical are listed in Chapter 5 of the approved Maintenance Manual Document Ref. SD3/MM/200 for Model SD3-30, Chapter 5 of the approved Maintenance Manual Document Ref. 360/MM for Model SD3-60 and Chapter 5 of the approved Maintenance Manual Document Ref SD3 SHERPA/MM for Model SD3 Sherpa and Chapter 5 of the approved Maintenance Manual Document Ref SD3-60 Sherpa/AMM and must be replaced as indicated herein.
- (b) The engine life limited parts are listed in the P&WA CL Engine Service Bulletin Nos. 1002, 3002 and 4002 as revised.
- (c) The engine life limited parts for the 65 series engines are listed in P&WC Engine Service Bulletin Nos. 13002 and 13003 as revised.

NOTE 4.

Fuel Additives

Only the following additives may be used with the specified fuels.

<u>U.S.A.</u>	<u>CANADA</u>	<u>U.K.</u>
MIL-I-27686E3-GP-526a	Def Stan 68-252	

provided that the concentration does not exceed 0.15% by volume.

NOTE 5.

Methanol/Water for SD3-30 airplanes incorporating the -45A and -45B engines, the approved methanol water for use in this particular installation is to the latest approved issue of the following specifications:

<u>U.S.A.</u>	<u>CANADA</u>	<u>U.K.</u>
Shell methanol/Water mixture 45/55/0	CPW-328	Def Stan 68-253

The methanol/Water mixture shall be in the ratio of 45% methanol 55% water when both fluids are at 15.6°C.

For Methanol/Water limitations and operating procedures, refer to approved Airplane Flight Manual.

NOTE 6.

SD3-30 airplanes incorporating Short Brothers CMC Mod. 5192* may be operated at the following maximum weights:

Maximum ramp weight	22,500 lb
Maximum takeoff weight	22,400 lb
Maximum landing weight	22,100 lb

* Refer to Equipment in this data sheet for airplane flight manual required.

Forward C.G. Limits:

The following revised forward C.G. limits must be observed when operating at the above weights:

	<u>T.O. & Landing</u>		<u>Enroute</u>	
	<u>Landing Gear Extended</u>		<u>Landing Gear Retracted</u>	
	Aft of Datum	% SMC	Aft of Datum	% SMC
	(in)		(in)	
Forward Limit At Maximum:				
Landing Weight	30.80	17.3	28.83	14.6
Take-off Weight	30.87	17.4	28.90	14.7

All other CG limits are unchanged.

NOTE 7. Airplanes incorporating Short Brothers CMC Mod 5423* have an additional flap setting of 4°. This setting may be used for takeoff and enroute one engine inoperative flight.
* Refer to Equipment for Airplane Flight Manual required.

NOTE 8. SD3-30 airplanes incorporating Short Brothers CMC Mod. 5600* may be operated at the following maximum weights:
Maximum ramp weight 22,700 lb
Maximum takeoff weight 22,600 lb
Maximum landing weight 22,300 lb
* Refer to Equipment in this data sheet for Airplane Flight Manual required.

Forward C.G. limits:

The following revised forward C.G. limits must be observed when operating at the above weights:

	<u>T.O & Landing</u>		<u>Enroute</u>	
	<u>Landing Gear Extended</u>		<u>Landing Gear Retracted</u>	
	Aft of Datum	% SMC	Aft of Datum	% SMC
	(in.)		(in.)	
Forward Limit at Maximum:				
Landing Weight	30.85	17.37	28.88	14.67
Take-off Weight	30.92	17.47	28.95	14.77

All other C.G. limits are unchanged.

NOTE 9. SD3-30 airplanes with airframe de-icing provisions removed in accordance with Short Brothers CMC Mod. 5539* are not approved for flight in icing conditions. *Refer to Equipment for Airplane Flight Manual required.

NOTE 10. On SD3-30 Airplanes:

- A. 2 Pratt & Whitney aircraft of Canada Limited Model PT6A-45B engines may be installed in lieu of the Model PT6A-45A engines in accordance with Short Brothers CMC Mod. No. 5656. Short Service Bulletin No. SD3-71-05 and SD3-71-06 refers to this subject.
- B. 2 Pratt & Whitney aircraft of Canada Limited Model PT6A-45R engines may be installed in lieu of the Model PT6A-45A or PT6A-45B engines in accordance with Short Brothers PLC Modification No. 6031. Short Service Bulletin No. SD3-71-1 refers to this subject.

- NOTE 11.
- | | | |
|----|--|---|
| A. | For approved engine oils for SD3-30, SD3-60 and SD3 Sherpa airplanes see P&W Service Bulletin 13001. | |
| B. | Oil Temperature Limits °C
for SD3-30 | Oil Temperature Limits °C
for SD3-60 and SD3 Sherpa. |
| | Minimum -40 | Minimum -40 |
| | Minimum for take-off 20 | Minimum for take-off 20 |
| | Normal operating 60 to 100 | Normal operating 20 to 99 |
| | Maximum (5 min) 104 | Maximum (5 min) 110
(Takeoff) |
| C. | Oil pressure limits (psi)
for SD3-30 | Oil Pressure Limits for
SD3-60 and SD3 Sherpa. |
| | Minimum for takeoff 90 | Minimum for takeoff 90 |
| | Minimum for flight 60 | Minimum for flight 90 |
| | Maximum normal
operating 135 | (Normal)
60 (if torque kept below
2000 lb ft) |
| | Maximum transient during
cold starts 200 | Maximum normal operating 135
Maximum transient 200 |

NOTE 12. SD3-30 airplanes incorporating Short Brothers CMC Mod. 6036* may be operated at the following maximum weights:

Maximum ramp weight	23,000 lb
Maximum takeoff weight	22,900 lb
Maximum landing weight	22,600 lb

* Refer to Equipment in this Data Sheet for Airplane Flight Manual Required.

Forward C.G. Limits:

The following revised forward C.G. limits must be observed when operating at the above weights:

<u>T.O. & Landing</u>		<u>Enroute</u>	
<u>Landing Gear Extended</u>	<u>Landing Gear Retracted</u>		
Aft of Datum (in)	% SMC	Aft of Datum (in)	% SMC
Forward Limit at Maximum:			
Landing Weight 30.90	17.44	28.95	14.77
Take-off Weight 30.95	17.51	29.01	14.84
All other C.G. Limits are unchanged.			

NOTE 13. The Model C23A airplanes are the same as the basic model SD3-30 Variant 200 except for the FAA approved modifications listed in Shorts Brothers Report No. SB/C23A/mods/001 and the deviations from the US Type Design as listed on the Certificate of Airworthiness for Export.

A model C23A airplane is eligible for a US Airworthiness Certificate provided:

- A Certificate of Airworthiness for Export has been issued, and is available for the airplane, by the CAA-UK.
- All deviations listed in the Certificate of Airworthiness for export have been eliminated.
- The maintenance, overhaul and modifications records of each airplane are available, have been reviewed for changes made by the military services that affect the US Type Design of the airplane, and any Modifications, changes of equipment and repairs which affect the Type Design have been approved by the FAA.
- All applicable Airworthiness Directives have been complied with.

- e) A modification nameplate has been installed adjacent to the original nameplate containing the following information:

Modifiers Name _____
 Civil Model SD3-30 Variant 200
 Date of Modification _____

- f) A CAA approved, on behalf of FAA, Airplane Flight Manual applicable to the Model SD3-30 Variant 200 dated _____ has been provided.

NOTE 14. On SD3-60 airplanes incorporating Short Brothers CMC Mod 7260 the Maximum Continuous Engine Rating is available up to a Temperature of 101°F and the Maximum Continuous Inter Turbine Temperature Limit is increased to 835°C (1535°F). All other Engine Ratings and Limits remain unchanged.

NOTE 15. SD3-60 airplanes incorporating Short Brothers CMC Mod 7544* may be operated at the following maximum weights:

Maximum ramp weight 26,553 lb
 Maximum take-off weight 26,453 lb
 Maximum landing weight 26,100 lb

* Refer to Equipment in this data sheet for SD3-60 Airplane Flight Manual required.

Forward C.G. Limits:

The following revised forward C.G. limits must be observed when operating at the above weights.

	<u>T.O. & Landing</u>		<u>Enroute</u>	
	<u>Landing Gear Extended</u>		<u>Landing Gear Retracted</u>	
	Fwd of Datum (in)	% SMC	Fwd of Datum (in)	% SMC
Forward Limit at:				
26,000 lb	-3.57	18.17		
Maximum Landing				
Weight	-3.28	18.57		
Maximum				
Take-off Weight	-2.24	20.00	-5.53	15.48

NOTE 16. On SD3-60 Airplanes:
 2 Pratt and Whitney aircraft of Canada Limited Model PT6A-65AR engines may be installed in lieu of the Model PT6A-65R engines in accordance with Short Brothers PLC Modification 7453. Shorts Service Bulletin No's SD360-51-03 and SD360-71-09 refer to the subject.

NOTE 17. SD3-30 airplanes which have embodied Short Brothers CMC Mod 6700 (Rear Ramp Door) and CMC Mod 6504* may be operated in the Cargo Role using the main cabin compartment as a Class "E" Cargo Compartment.

* Refer to Equipment in this data sheet for the SD3-30 Airplane Flight Manual Required.

NOTE 18. SD3-30 airplanes incorporating Short Brothers CMC Models 6689 (SD3-30)* or 6867 (C23A)* may be operated with the following maximum fuel capacity:

Volume, weight and balance arm of fuel for each tank assuming there are 6.5 lbs per US Gallon of fuel.

	U.S. Gal.	Weight lb.	Arm About C.G. Datum (in.)	
			Forward	Aft
<u>Usable</u>				
Forward Tank	336	2184	22	
Aft Tank	<u>336</u>	<u>2184</u>		122
Total usable in tanks	672	4368		

	U.S. Gal.	Weight lb.	Arm About C.G. Datum (in.)	
			Forward	Aft
Systems and Sumps	2.3	15		39
Total Usable	674.3	4383		
<u>Unusable</u>				
Forward Tank	2.2	14.3		
Aft Tank	<u>2.2</u>	<u>14.3</u>		
	4.4	28.6		

Total Capacity 678.7 U.S. Gallons

See NOTE 1(b).

*Refer to Equipment in this data sheet for the SD3-30 Airplane Flight Manual Required.

NOTE 19. SD3-30 airplanes incorporating Short Brothers CMC Mod 6700* may be operated at the following maximum weights.

Maximum ramp weight	23,000 lbs
Maximum take-off weight	22,900 lbs
Maximum landing weight	22,600 lbs
Maximum Payload	7,000 lbs

Forward CG Limits:

The following revised forward CG limits must be observed when operating at the above weights:

	<u>T.O & Landing</u>		<u>En-Route</u>	
	<u>Landing Gear Extended</u>		<u>Landing Gear Retracted</u>	
	Fwd of Datum (in)	% SMC	Fwd of Datum (in)	% SMC
Forward Limit at Maximum:				
Landing Weight	30.90	17.44	28.95	14.77
Take-off Weight	30.95	17.51	29.01	14.84
All other CG limits are unchanged.				

* Refer to Equipment in this data sheet for the SD3-30 Airplane Flight Manual Required.

NOTE 20. SD3-60 airplanes with airframe de-icing provisions removed in accordance with Short Brothers CMC Mod 7914* are not approved for Flight in icing conditions.

* Refer to Equipment for Airplane Flight Manual required.

NOTE 21. SD3-30 airplanes incorporating Short Brothers CMC Mod 5952 (SD3-30)* or 6786(C23A)* may be operated using a Collins APS-65 Autopilot adhering to the limitation and procedures detailed in the Airplane Flight Manual.

* Refer to Equipment for Airplane Flight Manual required.

NOTE 22. SD3-60 airplanes incorporating Short Brothers CMC Mod 7734* "Installation of a Low Pressure Tire, must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual."

* Refer to Equipment for Airplane Flight Manual required.

NOTE 23. SD3-60 airplanes incorporating Short Brothers CMC Mod A8096 may be operated at the following maximum weights:

Maximum ramp weight 27,200 lbs
 Maximum take-off weight 27,100 lbs
 Maximum landing weight 26,500 lbs

*Refer to Equipment in this data sheet for the SD3-60 Airplane Flight Manual required.

Forward CG Limits:

The following revised forward CG limits must be observed when operating at the above weights:

	<u>T.O & Landing</u>		<u>En-Route</u>	
	<u>Landing Gear Extended</u>		<u>Landing Gear Retracted</u>	
	Fwd of Datum (in)	% SMC	Fwd of Datum (in)	% SMC
Forward Limit at:				
Maximum Landing Weight	-2.97(Fwd)	19.0		
Maximum Take-off Weight	-2.24(Fwd)	20.0	-5.35(Fwd)	15.72

NOTE 24. SD3-60 airplanes incorporating Short Brothers CMC Mod A8064 have the following aileron control surfaces movement:

Aileron 27 1/4° ± 1/2° up 14 1/4° ± 1/2° down
 Aileron Trim 8 1/2° ± 1° up 8 1/2° ± 1° down

NOTE 25. On SD3-60 Airplanes:
 2 Pratt and Whitney aircraft of Canada Limited Model PT6A-67R engines may be installed in accordance with Short Brothers PLC CMC Mod No. A8077.
 * Refer to Equipment in this data sheet for the Airplane Flight Manual required.

NOTE 26. On SD3-60 Airplanes:
 2 Hartzell HC-A6A-3/A10460E propellers may be installed in accordance with Short Brothers PLC CMC Mod No *A8059
 * Refer to Equipment in this data sheet for the Airplane Flight Manual required.

NOTE 27. On SD3-60 Airplanes:
 Cambered Struts may be installed in accordance with Short Brothers PLC CMC Mod No. 7784.

NOTE 28. On SD3-60 Airplanes:
 Collins Pro-line 2 Avionics may be installed in accordance with Short Brothers PLC CMC Mod No A8062.

NOTE 29. SD3-60 Airplanes incorporating Short Brothers CMC Modification A8310, "Air conditioning: To introduce Freon Cooling for in flight use", must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
 * Refer to Equipment in this data sheet for the Airplane Flight Manual required.

NOTE 30. SD3-60 Airplanes incorporating Short Brothers CMC Modification A8123, "Installation of a Collins APS-65 Autopilot", must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual. * Refer to Equipment in this data sheet for the Airplane Flight Manual required.

NOTE 31. SD3-60 Airplane incorporating Short Brothers CMC Modification A8123 and A8283 which install a Collins APS65 Autopilot without Yaw Damper installation, must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
 * Refer to Equipment in this data sheet for the Airplane Flight Manual required.

- NOTE 32. SD3-60 Airplanes incorporating Short Brothers CMC Modification A8268, "Electrics: Revised color markings on oil temperatures/pressure gauge" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual required.
- The temperature limits given in Note 11 still apply.
- NOTE 33. SD3-60 Airplanes incorporating Short Brothers CMC Modification A8320, "Electrics: Revised Torque Gauge Markings" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual required.
- NOTE 34. SD3-60 Airplanes incorporating Short Brothers CMC Modification A8428, "To alter the Flight Idle/Flight Fuel Gas Generator Speed on the Engine Limitation Label" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual."
* Refer to Equipment in this data sheet for the Airplane Flight Manual required.
- NOTE 35. SD3-30 Airplanes or SD3-60 Airplanes incorporating Short Brothers CMC Modification No. 4731 or A8243 respectively, "Electrics: Revised Power Source for Pitot Static Heaters", must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual required.
- NOTE 36. SD3-60 Airplanes incorporating Short Brothers CMC Modification A8286, "Electrics: Automatic switch off for emergency lighting" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual required.
- NOTE 37. SD3 Sherpa airplanes that have an IFF Transponder AN/APX 100(V) installed in the nose baggage compartment must not carry cargo exceeding 400 lbs in the nose baggage compartment and must have the appropriate loading limitations placard installed in accordance with the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual required.
- NOTE 38. SD3 Sherpa airplanes that are to be operated with the rear ramp door open in flight must be operated in accordance with the limitations and procedures detailed in Supplement 11 of the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual required.
- NOTE 39. SD3-30 Airplanes or SD3-60 Airplanes incorporating Short Brothers CMC Modification No. 4751 or A8611 respectively "To prevent inadvertent operation of the L.P. fuel levers" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 40. SD3-30 Airplanes incorporating either Short Brothers CMC Modification No. 6910 or 6946 (C-23A) "Introduction of low fuel level warning system" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
*Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 41. SD3-30 Airplanes incorporating Short Brothers CMC Modification No. 5763 "Installation of Collins 562-8F yaw damper" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 42. SD3 Sherpa Airplanes incorporating Short Brothers CMC Modification No. K2061 relating to the introduction of a long range ferry fuel system must be operated in accordance with the limitations and procedures detailed in the appropriate Airplane Flight Manual Supplement No. 2 relates to the two tank installation and Supplement No. 13 relates to the one tank installation.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 43. SD3-60 Airplanes incorporating Short Brothers CMC Modification No. 7264 "To provide indication of propeller heating in the transfer mode" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.

- NOTE 44. SD3-60 Airplanes incorporating Short Brothers CMC Modification No A7114 "Revised illumination of the Fire warning light on the L.P. fuel levers" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 45. SD3-60 Airplanes incorporating Short Brothers CMC Modification No. A7985 "Revised elevator trim indicator markings" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 46. SD3-60 Airplanes incorporating Short Brothers CMC Modification No A7767 "Installation of a low fuel level warning system" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 47. SD3-60 Airplanes incorporating Short Brothers CMC Modification No A7986 "Revised elevator trim indicator markings" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 48. SD3-60 Airplanes incorporating Short Brothers CMC Modification No A7583 "Installation of Safe Flight 796-2 stall warning vane" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 49. SD3-60 Airplanes which have been upgraded by the installation of PT6A-65AR engines under Modification No A7543 (refer to NOTE 16) and which have not incorporated Short Brothers CMC Modification No A7479 "Installation of Graviner Firewire System" or SD3-60 Airplanes with PT6A-65R engines which have incorporated CMC Modification No A7479 must be operated in accordance with the limitations and procedures detailed in the respective Airplane Flight Manual.
* Refer to Equipment in this data sheet for the respective Airplane Flight Manual standard required.
- NOTE 50. SD3-60 Airplanes incorporating Short Brothers CMC Modification No. A8574 "Engine propeller speed tolerance change" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 51. SD3-60 Airplanes incorporating Short Brothers CMC Modification No A8575 "Introduction of Autofeather disarm feature on final approach" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual standard required.
- NOTE 52. SD3 Sherpa Airplanes incorporating Short Brothers CMC Modification No K2161 "Installation of UNS-1A Flight Management System" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual Supplement.
* Refer to Equipment in this data sheet for the Airplane Flight Manual Supplement required.
- NOTE 53. SD3-60 Airplanes using HC-A6A-3 propellers are approved for operation with the following blade models installed.
- A10460E An internal de-icing element only is installed.
 - A10460K An internal de-icing element only is installed.
 - A10460EK An external de-icing element is installed under Hartzell Service Instruction No 187.
- Blade model A10460E must not be intermixed with A10460EK or A10460K models on the same propeller.
- Blade models A10460K and A10460EK may be intermixed on the same propeller as long as their weights (for balance) are compatible.
- NOTE 54. SD3-60 Sherpa Airplanes that are to be operated with the rear ramp door open in flight must be operated in accordance with the limitations and procedures detailed in Supplement 11 of the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual Supplement required.

- NOTE 55. SD3-60 Sherpa Airplanes incorporating Short Brothers CMC Modification No K6033 relating to the introduction of a long range ferry fuel system must be operated in accordance with the limitations and procedures detailed in Supplement No. 1 of the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual Supplement required.
- NOTE 56. SD3-60 Sherpa Airplanes incorporating Short Brothers CMC Modification No K6043 "Installation of UNS-1A Flight Management System" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Supplement Manual.
- NOTE 57. SD3-60 Sherpa airplanes that have an IFF Transponder AN/APX 100(V) installed in the nose baggage compartment must not carry cargo exceeding 400 lbs in the nose baggage compartment and must have the appropriate loading limitations placard installed in accordance with the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual required.
- NOTE 58. SD3-60 Sherpa airplanes (Mod K6001) Certification Basis as defined by this TCDS includes Amendment 25.61 and Amendment 25.66. This requirement is applied to all new furnishings introduced by the modifications for conversion of the aircraft but not applied to the existing furnishings being refitted to the SD3-60 Sherpa aircraft (Mod K6005).
- NOTE 59. SD3-30, SD360 and SD3 Sherpa Airplanes incorporating Short Brothers CMC Modification No. P4778, A8633, and K2219 respectively "Introduction of changes to fire extinguishing point placards" must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
*Refer to Equipment in this data sheet for the Airplane Flight Manual Standard required.
- NOTE 60. SD3-30 and SD3-60 Airplanes incorporating Short Brothers CMC Modification No 4816 and 8703 respectively "Introduction of a Flight Deck operated baggage bay fire suppression system", to meet the requirements of FAR 121.314(c) must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual Standard required.
- NOTE 61. SD3-30, SD360, SD3 Sherpa and SD360 Sherpa Airplanes incorporating Short Brothers CMC Modification No. P4817, A8700 K2242 and K6112 respectively "Introduction of a supplemental pressure caution system in the pneumatic de-icing system" must be operated in accordance with the limitations and procedure detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual Standard required.
- NOTE 62. SD3-30, SD360, SD3 Sherpa and SD360 Sherpa Airplanes incorporating Short Brothers CMC Modification No. P4820, A8709, K2247, and K6117 respectively "Introduction of a modified fire extinguisher adapter" must be operated in accordance with the limitations and procedure detailed in the Airplane Flight Manual NB Supersedes Short Brothers CMC Modifications, P4778, A8633, and K2219 when embodied.
* Refer to Equipment in this data sheet for the Airplane Flight Manual Standard required.
- NOTE 63. SD3-30, SD360, SD3 Sherpa and SD360 Sherpa Airplanes incorporating Short Brothers CMC Modification No. 4818, 8707, K2245 and K6115 respectively "Introduction of an ice vane annunciator on the central warning panel", must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual.
* Refer to Equipment in this data sheet for the Airplane Flight Manual Standard required.
- NOTE 64. SD3-30, Airplanes approved for operating on gravel runways, must be operated in accordance with the limitations and procedures detailed in the Airplane Flight Manual, reference document No. SBH.3.6 Supplement No. 15 "Limitations, Procedures, and information association with gravel runway operations Mod P4825"
* Refer to Equipment in this data sheet for the Airplane Flight Manual Standard required.

.....END.....