

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

A20EU  
Revision 11  
FOKKER  
Fellowship  
F.28 Mark 1000  
F.28 Mark 2000  
F.28 Mark 3000  
F.28 Mark 4000  
F.28 Mark 0100  
F.28 Mark 0070  
  
May 28, 1997

TYPE CERTIFICATE DATA SHEET No. A20EU

This data sheet which is a part of Type Certificate No. A20EU 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.                      FOKKER SERVICES  
P.O. Box 75047  
Schiphol, The Netherlands

**I. FOKKER Fellowship, Model F.28, Mark 1000 (Transport Aircraft), approved 24 March 1969.**

Engines.    2 Rolls-Royce Two Shaft Bypass Jet Engines: Spey Mk 555-15.

When modified in accordance with RLD approved Fokker F.28 Service Bulletin No. 71-9: Spey Mk 555-15N.  
(See NOTE 7 regarding intermixing of engines).

Fuel.    Eligible engine fuels are listed in Rolls-Royce Operating Instructions, Document No. F-Sp2-F, Appendix 2.

Engine Limits.

Conditions	Thrust (lbs)	RPM %		TGT (°C)	Time Limit
		HP	LP		
Max. Takeoff	9850	101.0	108.5	520	5 minutes
Max. Continuous	9470	98.5	108.5	490	Unrestricted
Starting and Relight		-	-	540	2 seconds
Max. Overspeed		104.5	115.5	-	20 seconds
Max. Overtemp.				540	20 seconds

Oil.    See relevant Rolls-Royce Operating Instructions Manual.

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**I. FOKKER Fellowship, Model F.28, Mark 1000** (cont'd)

<u>Oil Temperature Limits.</u>	Max. 15 min.	120°C
	Max. unrestricted	100°C

Bleed Air. For max. bleed air extraction from the engine refer to FAA Engine Type Certificate Data Sheet E2EU.

APU Type. Garrett AiResearch GICP 36-4(A).

Fuel. Eligible APU fuels are listed in Garrett AiResearch Document, Model Specification GICP-36-4(A) SC-5754.

APU Limits.

Conditions	Max. RPM (%)	Max. TGT (°C)
Start	-	705
Transient 10 sec.	110	705
Sustained	105	650

Airspeed Limits (IAS).

$V_{MO}$  (Maximum Operating)  
 Sea level 331 kts  
 10,000 ft 336 kts  
 20,000 ft 343 kts  
 20,840 ft 344 kts  
 Straight line variation between points.

$M_{MO}$  20,840 ft  $M = .75$

$V_A$  (Maneuvering)  
 See RLD-approved Airplane Flight Manual.

$V_{FE}$  (Flap Extension)  
 Flap Setting

25°	200 knots IAS up to 15,000 ft 180 knots IAS up to 20,000 ft
42°	160 knots IAS up to 20,000 ft

For airplane serial numbers 11042 and subsequent or when modified in accordance with RLD-approved Fokker F.28 Service Bulletin 51-5:

42°	165 knots IAS up to 20,000 ft
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$V_{LO}$  (Landing Gear Operation)  
 200 knots IAS up to 15,000 ft  
 180 knots IAS up to 20,000 ft

$V_{LE}$  (Landing Gear Extended)  
 200 knots IAS up to 15,000 ft  
 180 knots IAS up to 20,000 ft

Maximum speed when wheel doors are retracted by means of winch -

During Retraction	150 knots IAS 25° flap 140 knots IAS 42° flap
Retracted	180 knots IAS 25° flap 155 knots IAS 42° flap

Maximum Landing, Taxi and Flare-out Lights

Extended Speed:  $V_{MO}/M_{MO}$

**I. FOKKER Fellowship, Model F.28, Mark 1000** (cont'd)

Center of Gravity (C.G.)  
Range.

Landing Gear Extended:

Gross Weight Lbs.	FORWARD		AFT	
	Inches aft of datum	% MAC	Inches aft of datum	% MAC
56,700	452.71	20.01	470.65	33.00
53,000 and lower	451.33	19.00	470.65	33.00

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 57-1:

Gross Weight Lbs.	FORWARD		AFT	
	Inches aft of datum	% MAC	Inches aft of datum	% MAC
62,000	454.60	21.37	470.65	33.00
54,500 and lower	451.33	19.00	470.65	33.00

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 55-4:

Gross Weight Lbs.	FORWARD		AFT	
	Inches aft of datum	% MAC	Inches aft of datum	% MAC
63,000	453.90	20.87	473.41	35.00
54,200 and lower	449.95	18.00	473.41	35.00

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 51-5:

Gross Weight Lbs.	FORWARD		AFT	
	Inches aft of datum	% MAC	Inches aft of datum	% MAC
65,000	451.43	19.07	473.41	35.00
60,800 and lower	449.95	18.00	473.41	35.00

Straight line variation between points given.  
Gear retraction moment is 5833 in-lbs, nose down.

Maximum Weight.

Takeoff	56,700 lb
Landing	54,000 lb
Zero fuel	46,650 lb

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 57-1:

Takeoff	62,000 lb
Landing	54,000 lb
Zero fuel	47,900 lb

**I. FOKKER Fellowship, Model F.28, Mark 1000** (cont'd)**Maximum Weight** (cont'd)

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 55-4:

Takeoff	63,000 lb
Landing	54,000 lb
Zero fuel	47,900 lb

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 55-9, Revision 1:

Takeoff	63,000 lb
Landing	54,000 lb
Zero fuel	49,900 lb

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 51-5:

Takeoff	65,000 lb
Landing	59,000 lb
Zero fuel	54,500 lb

**Minimum Crew.**

2 (pilot and copilot).

**Maximum Passengers.**

65 (See NOTE 5).

**Maximum Baggage**

Compartment	Station (in.)		Capacity (cu. ft.)	Max. Floor Loading	Arm (in.)
	From	To			
Forward Belly	165.4	369.7	241.0	75 lb/sq ft or 250 lb/ft	267.6
Aft Belly	525.4	666.7	136.0	75 lb/sq ft or 250 lb/ft	594.1
Rear Cabin	632.5	671.8	80.0	75 lb/sq ft 450 lb/ft	656.1

**Forward Belly Compartment**

Max. structural	Comp. 1	1118
Capacity (lb)	Comp. 2	1394
	Comp. 3	<u>1103</u>
	TOTAL	3615

**Aft Belly Compartment**

Max. structural	Comp. 4	810
Capacity (lb)	Comp. 5	1230
	TOTAL	2040

**Rear Cabin Baggage Compartment**

Max. Structural Capacity (lb) 1065

**Fuel Capacity.**

Usable fuel (See NOTE 1 for unusable fuel).

Location	Volume (U.S. Gal.)	Weight (lb)	Arm (in.)
Left Wing	1286.5	8491	470.93
Right Wing	1286.5	8491	470.93
Total	2573.0	16982	

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 28-12:

Center Wing Tank	872.0	5755	429.94
All Tanks Total	3445.0	22737	460.55

Fuel weight based upon fuel density of 6.6. lb/U.S. Gal.

**I. FOKKER Fellowship, Model F.28, Mark 1000** (cont'd)

Oil Capacity. Usable oil (See NOTE 1 for unusable oil).

<u>Location</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>Arm (in.)</u>
Each engine	3.6	27.86	639.8
Total	7.2	55.72	

Oil weight based upon oil density of 7.74 lb/U.S. Gal.

Maximum Operating Altitude. 25,000 ft. (See NOTE 6).

Equipment. The basic required equipment as prescribed in the applicable airworthiness and operating regulations must be installed in the airplane for certification. In addition, the following items of equipment are required:

- Stick shaker, pre-stall warning, reference FOKKER Drawing A40265
- Audible stall warning, reference FOKKER Drawing A40265
- RLD-approved Airplane Flight Manual.

**II. Fokker Fellowship, Model F.28, Mark 4000 (Transport Category) approved 27 June 1980.**

The F.28 Mk 4000 is similar to the Mk 1000 except for a wingspan extension of 60 inches, a fuselage stretch of 57 inches in front of and 30 inches aft of the wing, and two overwing emergency exits on both sides.

Engines. 2 Rolls-Royce Two Shaft Bypass Jet Engines: Spey Mk 555-15H

When modified in accordance with RLD approved FOKKER F.28 Service Bulletin No. 71-8:  
Spey Mk. 555-15P  
(See NOTE 7 regarding intermixing of engines)

Fuel. Eligible engine fuels are listed in Rolls-Royce Operating Instructions, Document No. F-Sp2-F, Appendix 2.

Engine Limits.

Conditions	Thrust (lbs)	RPM %		TGT (°C)	Time Limit
		HP	LP		
Max. Takeoff	9900	102.5	109.5	565	5 minutes
Max. Continuous	9520	98.5	108.5	520	Unrestricted
Starting and Relight		-	-	570	2 seconds
Max. Overspeed		105.5	115.5	-	20 seconds
Max. Overtemp.				585	20 seconds

Oil. (See relevant Rolls-Royce Operating Instructions Manual).

Oil Temperature Limits. Max. 15 min. 120°C  
Max. unrestricted 100°C

Bleed Air. For max. bleed air extraction from the engine refer to FAA Engine Type Certificate Data Sheet E2EU.

APU Type. Garrett AiResearch GTCP 36-4(A).

Fuel. Eligible APU fuels are listed in Garrett AiResearch Document, Model Specification GTCP-36-4(A) SC-5754.

**II. Fokker Fellowship, Model F.28, Mark 4000** (cont'd)APU Limits.

Conditions	Max. RPM (%)	Max. TGT (°C)
Start	-	705
Transient 10 sec.	110	705
Sustained	105	650

Airspeed Limits (IAS). $V_{MO}$  (Maximum Operating)

Sea level	331 kts
10,000 ft	336 kts
20,000 ft	343 kts
20,840 ft	344 kts

Straight line variation between points.

$M_{MO}$  20,840 ft and above  $M = .75$

 $V_A$  (Maneuvering)

See RLD-approved Airplane Flight Manual.

 $V_{FE}$  (Flap Extension)

Flap Setting

25° 200 knots IAS up to 15,000 ft  
180 knots IAS up to 20,000 ft

42° 165 knots IAS up to 20,000 ft

 $V_{LO}$  (Landing Gear Operation)

200 knots IAS up to 15,000 ft  
180 knots IAS up to 20,000 ft

 $V_{LE}$  (Landing Gear Extended)

200 knots IAS up to 15,000 ft  
180 knots IAS up to 20,000 ft

Maximum speed when wheel doors are retracted by means of winch -

During Retraction 155 knots IAS 25° flap  
140 knots IAS 42° flap

Retracted 180 knots IAS 25° flap  
155 knots IAS 42° flap

Maximum Landing, Taxi and Flare-out Lights

Extended Speed:  $V_{MO}/M_{MO}$

**II. Fokker Fellowship, Model F.28, Mark 4000** (cont'd)Center of Gravity (C.G.)

Landing Gear Extended:

Range.

Gross Weight Lbs.	FORWARD		AFT	
	Inches aft of datum	% MAC	Inches aft of datum	% MAC
73,000	506.30	15.54	519.13	25.00
71,000	505.16	14.70	523.46	28.20
68,000			525.91	30.00
64,000	502.16	12.50	525.91	30.00
62,350	501.50	12.00		
57,500 & and lower	501.50	12.00	530.00	33.00

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 51-18:

Gross Weight Lbs.	FORWARD		AFT	
	Inches aft of datum	% MAC	Inches aft of datum	% MAC
73,000	503.81	13.71	519.13	25.00
71,000			523.46	28.20
69,500	502.36	12.66	524.69	29.10
68,000			525.91	30.00
66,870	501.50	12.00		
62,000	501.50	12.00	530.00	33.00
and lower				

Straight line variation between points.

Gear retraction moment is 5833 in-lb., nose down.

Maximum Weight.

Takeoff	71,000 lb
Landing	64,000 lb
Zero fuel	57,500 lb

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 51-15:

Takeoff	73,000 lb
Landing	64,000 lb
Zero fuel	57,500 lb

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 51-17:

Takeoff	73,000 lb
Landing	65,800 lb
Zero fuel	57,500 lb

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 51-18:

Takeoff	73,000 lb
Landing	69,500 lb
Zero fuel	62,000 lb

**II. Fokker Fellowship, Model F.28, Mark 4000** (cont'd)Minimum Crew. 2 (pilot and copilot).Maximum Passengers. 85 (See NOTE 5).Maximum Baggage

Compartment	Station (in.)		Capacity (cu. ft.)	Max. Floor Loading	Arm (in.)
	From	To			
Forward Belly	165.4	426.7	308.0	75 lb/sq ft or 250 lb/ft	295.9
Aft Belly	582.4	753.7	171.3	75 lb/sq ft or 250 lb/ft	665.1
Rear Cabin	719.5	758.9	80.0	75 lb/sq ft 450 lb/ft	743.1

<u>Forward Belly Compartment</u>			<u>Aft Belly Compartment</u>		
Max. structural	Comp. 1	1118	Max. structural	Comp. 5	1340
Capacity (lb)	Comp. 2	1394	Capacity (lb)	Comp. 6	<u>1230</u>
	Comp. 3	1394		TOTAL	2570
	Comp. 4	<u>714</u>			
	TOTAL	4620			

Rear Cabin Baggage Compartment

Max. Structural Capacity (lb) 1065

Fuel Capacity.

Usable fuel (See NOTE 1 for unusable fuel).

<u>Location</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>Arm (in.)</u>
Left Wing	1286.5	8491	527.93
Right Wing	1286.5	8491	527.93
TOTAL	2573.0	16982	

Total usable fuel by pressure fueling is 2546.7 U.S. Gal.

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 28-12:

Center Wing Tank	872.0	5755	486.94
All Tanks Total	3445.0	22737	517.55

Fuel weight based upon fuel density of 6.6. lb/U.S. Gal.

Oil Capacity.

Usable oil (See NOTE 1 for unusable oil).

<u>Location</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>Arm (in.)</u>
Each engine	3.6	27.86	726.8
Total	7.2	55.72	

Oil weight based upon oil density of 7.74 lb/U.S. Gal.

Maximum Operating Altitude.

25,000 ft. (See NOTE 6).

Equipment.

The basic required equipment as prescribed in the applicable airworthiness and operating regulations must be installed in the airplane for certification. In addition, the following items of equipment are required:

- Stick shaker, pre-stall warning, reference FOKKER Drawing A40265
- Audible stall warning, reference FOKKER Drawing A40265
- Two nickel cadmium batteries, reference FOKKER Drawing A43250
- RLD-approved Airplane Flight Manual.

### III. FOKKER Fellowship, Model F.28 Mark 3000 (Transport Category) Approved 12 November 1982.

The F.28 Mk 3000 is similar to the Mk 1000 except for a wingspan extension of 60 inches.

#### Engines.

2 Rolls-Royce Two Shaft Bypass Jet Engines: Spey Mk 555-15H.

#### Fuel.

Eligible engine fuels are listed in Rolls-Royce Operating Instructions, Document No. F-Sp2-F, Appendix 2.

#### Engine Limits.

Conditions	Thrust (lbs)	RPM %		TGT (°C)	Time Limit
		HP	LP		
Max. Takeoff	9900	102.5	109.5	565	5 minutes
Max. Continuous	9520	98.5	108.5	520	Unrestricted
Starting and Relight		-	-	570	2 seconds
Max. Overspeed		105.5	115.5	-	20 seconds
Max. Overtemp.				585	20 seconds

#### Oil.

See relevant Rolls-Royce Operating Instructions Manual.

#### Oil Temperature Limits.

Max. 15 min. 120°C  
Max. unrestricted 100°C

#### Bleed Air.

For max. bleed air extract from the engine refer to FAA Engine Type Certificate Data Sheet E2EU.

#### APU Type.

Garret AiResearch GTCP 36-4(A).

#### Fuel.

Eligible APU fuels are listed in Garrett AiResearch Document, Model Specification GTCP-36-4(A) SC-5754.

#### APU Limits.

Conditions	Max. RPM (%)	Max. TGT (°C)
Start	-	705
Transient 10 sec.	110	705
Sustained	105	650

#### Airspeed Limits (APU).

$V_{MO}$  (Maximum Operating)  
Sea level 331 kts  
10,000 ft 336 kts  
20,000 ft 343 kts  
20,840 ft 344 kts

Straight line variation between points.

$M_{MO}$  20,840 ft and above  $M = .75$

$V_A$  (Maneuvering)  
See RLD-approved Airplane Flight Manual.

$V_{FE}$  (Flap Extension)  
Flap Setting

25°	200 knots IAS up to 15,000 ft
	180 knots IAS up to 20,000 ft
42°	165 knots IAS up to 20,000 ft

**III. FOKKER Fellowship, Model F.28 Mark 3000** (cont'd)

Airspeed Limits (APU). (cont'd)

V<sub>LO</sub> (Landing Gear Operation)

200 knots IAS up to 15,000 ft  
180 knots IAS up to 20,000 ft

V<sub>LE</sub> (Landing Gear Extended)

200 knots IAS up to 15,000 ft  
180 knots IAS up to 20,000 ft

Maximum speed when wheel doors are retracted by means of winch -

During Retraction            150 knots IAS 25° flap  
   140 knots IAS 42° flap

Retracted                        180 knots IAS 25° flap  
   155 knots IAS 42° flap

Maximum Landing, Taxi and Flare-out Lights

Extended Speed:            V<sub>MO</sub>/M<sub>MO</sub>

Center of Gravity (C.G.)  
Range.

Landing Gear Extended:

Gross Weight Lbs.	FORWARD		AFT	
	Inches aft of datum	% MAC	Inches aft of datum	% MAC
73,000	452.95	18.26	466.85	28.50
71,000	451.33	17.20	470.94	31.50
68,500			474.34	34.00
64,000	448.38	14.88	474.34	34.00
61,650	447.59	14.30		
56,000	447.59	14.30	475.69	35.00
and lower				

Straight line variation between points. Gear retraction moment is 5833 in-lb, nose down.

Maximum Weight.

Takeoff                        73,000 lb  
Landing                        64,000 lb  
Zero fuel                       56,000 lb

Minimum Crew.

2 (pilot and copilot).

Maximum Passengers.

65 (See NOTE 5).

Maximum Baggage.

Compartment	Station (in.)		Capacity (Cu. ft)	Max. Floor Loading	C.G. Location (in)
	From	To			
Forward Belly	165.4	369.7	241.0	75 lb/sq ft and	267.6
Aft Belly	525.4	666.7	136.0	250 lb/ft	594.1
Rear Cabin Baggage Compt.	632.5	671.9	80.0	75 lb/sq ft & 450 lb/ft	656.1

**III. FOKKER Fellowship, Model F.28 Mark 3000** (cont'd)

<u>Maximum Baggage</u>	<u>Forward Belly Compartment</u>			<u>Aft Belly Compartment</u>		
		Max. structural Capacity (lb)	Comp. 1 Comp. 2 Comp. 3 TOTAL	1118 1394 <u>1103</u> 3615	Max. structural Capacity (lb)	Comp. 4 Comp. 5 TOTAL

Rear Cabin Baggage Compartment

Max. Structural Capacity (lb) 1065

Fuel Capacity.

Usable fuel (See NOTE 1 for unusable fuel).

<u>Location</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>Arm (in.)</u>
Left Wing	1286.5	8491	470.93
Right Wing	1286.5	8491	470.93
Total	2573.0	16982	

Total usable fuel by pressure fueling is 2546.7 U.S. Gal.

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 28-12:

Center Wing Tank	872.0	5755	429.94
All Tanks Total	3445.0	22737	460.55

Fuel weight based upon fuel density of 6.6. lb/U.S. Gal.

Oil Capacity.

Usable oil (See NOTE 1 for unusable oil).

<u>Location</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>Arm (in.)</u>
Each engine	3.6	27.86	639.8
Total	7.2	55.72	

Oil weight based upon oil density of 7.74 lb/U.S. Gal.

Maximum Operating Altitude.

25,000 ft. (See NOTE 4).

Equipment.

The basic required equipment as prescribed in the applicable airworthiness and operating regulations must be installed in the airplane for certification. In addition, the following items of equipment are required:

- Stick shaker, pre-stall warning, reference FOKKER Drawing A40265
- Audible stall warning, reference FOKKER Drawing A40265
- Two nickel cadmium batteries, reference FOKKER Drawing A43250
- RLD-approved Airplane Flight Manual.

**IV. FOKKER Fellowship, Model F.28 Mark 2000 (Transport Category) approved 29 October 1986.**

The Mk 2000 is basically a Mk 1000, with a fuselage stretch of 57 inch in front of and 30 inch aft of the wing.

Engines.

2 Rolls-Royce Two Shaft Bypass Jet Engines: Spey Mk 555-15.

When modified in accordance with RLD approved Fokker F.28 Service Bulletin No. 71-9: Spey Mk 555-15N.  
(See NOTE 7 regarding intermixing of engines).

Fuel.

Eligible engine fuels are listed in Rolls-Royce Operating Instructions, Document No. F-Sp2-F, Appendix 2.

**IV. FOKKER Fellowship, Model F.28 Mark 2000** (cont'd)Engine Limits.

Conditions	Thrust (lbs)	RPM %		TGT (°C)	Time Limit
		HP	LP		
Max. Takeoff	9850	101.0	108.5	520	5 minutes
Max. Continuous	9470	98.5	108.5	490	Unrestricted
Starting and Relight		-	-	540	2 seconds
Max. Overspeed		104.5	115.5	-	20 seconds
Max. Overtemp.				540	20 seconds

Oil.

See relevant Rolls-Royce Operating Instructions Manual.

Oil Temperature Limits.

Max. 15 min. 120°C  
 Max. unrestricted 100°C

Bleed Air.

For max. bleed air extraction from the engine refer to FAA Engine Type Certificate Data Sheet E2EU.

APU Type.

Garrett AiResearch GTCP 36-4(A).

Fuel.

Eligible APU fuels are listed in Garrett AiResearch Document, Model Specification GTCP-36-4(A) SC-5754.

APU Limits.

Conditions	Max. RPM (%)	Max. TGT (°C)
Start	-	705
Transient 10 sec.	110	705
Sustained	105	650

Airspeed Limits (IAS). $V_{MO}$  (Maximum Operating)

Sea level	331 kts
10,000 ft	336 kts
20,000 ft	343 kts
20,840 ft	344 kts

Straight line variation between points.

 $M_{MO}$  20,840 ft and above  $M = .75$  $V_A$  (Maneuvering)

See RLD-approved Airplane Flight Manual.

 $V_{FE}$  (Flap Extension)

## Flap Setting

25°	200 knots IAS up to 15,000 ft 180 knots IAS up to 20,000 ft
42°	165 knots IAS up to 20,000 ft

For airplane serial numbers 11042 and subsequent or when modified in accordance with RLD-approved Fokker F.28 Service Bulletin 51-5:

42°	165 knots IAS up to 20,000 ft
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 $V_{LO}$  (Landing Gear Operation)

200 knots IAS up to 15,000 ft 180 knots IAS up to 20,000 ft
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**IV. FOKKER Fellowship, Model F.28 Mark 2000** (cont'd)

V<sub>LE</sub> (Landing Gear Extended)  
 200 knots IAS up to 15,000 ft  
 180 knots IAS up to 20,000 ft

Maximum speed when wheel doors are retracted by means of winch -

During Retraction            150 knots IAS 25° flap  
    140 knots IAS 42° flap

Retracted                        180 knots IAS 25° flap  
    155 knots IAS 42° flap

Maximum Landing, Taxi and Flare-out Lights

Extended Speed:                V<sub>MO</sub>/M<sub>MO</sub>

Center of Gravity (C.G.) Range.

Landing Gear Extended:

Gross Weight Lbs.	FORWARD		AFT	
	Inches aft of datum	% MAC	Inches aft of datum	% MAC
65,000	504.95	16.55	523.51	30.00
64,000			530.41	35.00
59,400	502.81	15.00	530.41	35.00
and lower	502.81	15.00	530.41	35.00

The FORWARD C.G. limits for weights between 65,000 lb and 59,500 lb shall be interpolated linearly.

The AFT C.G. limits for weights between 65,000 lb and 64,000 lb shall be interpolated linearly.

**LANDING GEAR EXTENDED**

Gross Weight Lbs.	FORWARD		AFT	
	Inches aft of datum	% MAC	Inches aft of datum	% MAC
65,000	503.77	15.70	533.17	37.00
59,400	501.42	14.00	533.17	37.00
and lower	501.42	14.00	533.17	37.00

The C.G. limits for weights between 65,000 lb and 59,400 lb. shall be interpolated linearly.

Gear retraction moment is 5833 in. lb. nose down.

Maximum Weight.                      Takeoff                            65,000 lb  
    Landing                            59,000 lb  
    Zero fuel                        54,500 lb

Minimum Crew.                        2 (pilot and copilot).

Maximum Passengers.                79 (See NOTE 5).

**IV. FOKKER Fellowship, Model F.28 Mark 2000** (cont'd)Maximum Baggage.

Compartment	Station (in.)		Capacity (Cu. ft)	Max. Floor Loading	C.G. Lo- cation (in)
	From	To			
Forward Belly	165.4	426.7	308.0	75 lb/sq ft and	259.9
Aft Belly	582.4	753.7	171.3	250 lb/ft	665.1
Rear Cabin Baggage Compt.	719.5	758.9	80.0	75 lb/sq ft and 450 lb/ft	743.1

Maximum BaggageForward Belly Compartment

Max. structural	Comp. 1	1118
Capacity (lb)	Comp. 2	1394
	Comp. 3	1394
	Comp. 4	<u>714</u>
	TOTAL	4620

Aft Belly Compartment

Max. structural	Comp. 5	1340
Capacity (lb)	Comp. 6	<u>1230</u>
	TOTAL	2570

Rear Cabin Baggage Compartment

Max. Structural Capacity (lb) 1065

Fuel Capacity.

Usable fuel (See NOTE 1 for unusable fuel).

<u>Location</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>Arm (in.)</u>
Left Wing	1286.5	8491	470.93
Right Wing	1286.5	8491	470.93
Total	2573.0	16982	

When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 28-12:

Center Wing Tank	872.0	5755	429.94
All Tanks Total	3445.0	22737	460.55

Fuel weight based upon fuel density of 6.6. lb/U.S. Gal.

Oil Capacity.

Usable oil (See NOTE 1 for unusable oil).

<u>Location</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>Arm (in.)</u>
Each engine	3.6	27.86	726.8
Total	7.2	55.72	

Oil weight based upon oil density of 7.74 lb/U.S. Gal.

Maximum Operating Altitude.

25,000 ft. (See NOTE 4).

Equipment.

The basic required equipment as prescribed in the applicable airworthiness and operating regulations must be installed in the airplane for certification. In addition, the following items of equipment are required:

- Stick shaker, pre-stall warning, reference FOKKER Drawing A40265
- Audible stall warning, reference FOKKER Drawing A40265
- RLD-approved Airplane Flight Manual.

**OTHER DATA PERTINENT TO MODELS F.28 MARK 1000, 2000, 3000 AND 4000:**Datum.

Tip of aircraft nose section, Station 0.  
87.4 inches forward of front leveling pin.

MAC.Mk 1000:

138.03 inches (leading edge of MAC is 425.10 inches aft of datum).

Mk 2000:

138.03 inches (leading edge of MAC is 482.10 inches aft of datum).

Mk 3000:

135.75 inches (leading edge of MAC is 428.18 inches aft of datum).

Mk 4000:

135.75 inches (leading edge of MAC is 485.19 inches aft of datum).

Leveling Means.

- Two leveling pins mounted on the righthand side of the nosewheel bay at station 2434 and at station 3462.
- The forward end of each seat rail (station 4875).
- Two brackets mounted behind the rear pressure bulkhead at station 18024 on the Mk 1000 and 3000, and at station 20234 on the Mk 4000/Mk 2000.
- For optical leveling two red marked protruding rivets are mounted on both sides of the fuselage on the outer skin; one at station 4960 and one at station 14350 on the Mk 1000 and 3000; one at station 4960 and one at station 16560 on the Mk 4000 and Mk 2000.

Control Surface Movements.

<u>Surface</u>	<u>Travel</u>	
Elevator	Up	25°
	Down	15°
Rudder	Left	33°
	Right	33°
Ailerons	Up	20°
	Down	20°
Flaps (total)		42°
Lift Dumpers		60°
Speedbrakes		60°
Stabilizer	Up	2°30'
	Down	8°20'

Service Information.

Information essential to the proper maintenance of the aircraft is given in:

Instructions for Continued Airworthiness consisting of:

- Aircraft Maintenance Manual, Chapter 05-10 "Airworthiness Limitations Section" (RLD approved) see Note 1 below
- Structural Repair Manual (RLD approved)
- MRB document (RLD and FAA approved)
- Maintenance Planning Document
- Service Bulletins (RLD approved)
- Service Letters
- Special Instructions (RLD approved)

Service bulletins, structural repair manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is Dutch Airworthiness Authority (RLD) approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

**OTHER DATA PERTINENT TO MODELS F.28 MARK 1000, 2000, 3000 AND 4000:** (cont'd)Certification basis for Models F.28, Mark 1000, 2000, 3000 and 4000:

FAR 21.29; FAR 25 effective 1 February 1965 including Amendments 25-1 through 25-11, and 25-14.

Special Conditions notified in FAA letter dated 30 November 1967 to the RLD, Kingdom of the Netherlands.

Special retroactive requirements of Amendment 25-15 (Sections 25.2(a) and (b)).

The Netherlands Code for Airworthiness of Transport Category Aircraft, dated March 1967, plus FAR 25.473, 25.479, 25.485, and 25.1011 plus the Special Conditions notified in FAA letter to the RLD dated 30 November 1967, were found to provide a level of safety equivalent to FAR 25 effective 1 February 1965 plus Amendments 25-1 through 25-10, to enable certification under the provisions of FAR 21.29 (a)(1)(ii).

Compliance has been shown with :

- SFAR 27, Amendments 27-1 through 27-3 (Fuel Venting) by incorporation of Rolls-Royce Modification 5338 for the Mk 4000.
- SFAR 27, Amendments 27-1 through 27-4 (Fuel Venting) by incorporation of Rolls-Royce Modification 5338 for the MK 3000 and Mk 2000.
- FAR Part 36, Amendment 36-1: Mk 1000 and Mk 2000.
- FAR Part 36, Amendment 36-1 through 36-8: Mk 4000 and 3000.
- FAR Part 36, Amendment 36-1 through 36-12: Mk 4000 equipped with Rolls-Royce RB 183 Mk. 555-15P engines.

Certification with the ditching provisions of FAR 25.801 has not been requested by Fokker, BV. If overwater operation is to be approved, compliance with FAR 25.801 must be demonstrated.

Compliance with the optional requirements of FAR 25.1419, Icing Protection has been established.

Compliance with the following requirements which were not required based on the effective application date in accordance with FAR 21.17(c)(2) was elected by the manufacturer in accordance with FAR 21.17(d):

- FAR 25, Amendments 25-12, 25-13, 25-16 through 25-20
- FAR 25, Powerplant requirements, applicable to the APU installation, including Amendments 25-1 through 25-20.

In addition, for the Mk 4000, Mk 3000 and Mk 2000

- FAR 25, Amendment 25-21 and 25-22
- FAR 25, Amendment 25-24 if SFENA horizon 701-15-V4 has been installed
- FAR 25, Amendments 25-25, 25-28 through 25-31
- Sections 25.803(e)(1) and (e)(2); 25.811(d)(1), (d)(2), and (d)(3); 25.812(a), (c), (d), (e), (f), (g)(1), (g)(2); and 25.813(c) as amended by Amendments 25-32
- FAR 25, Amendments 25-33, 25-34, and 25-37
- FAR 25, Amendment 25-35 if Engine Rotor System Unbalance is installed
- Section 25.1353 as amended by Amendments 25-41 and 25-42

Type Certificate A20EU, issued 24 March 1969 for the Mk 1000 and amended 27 June 1980 for the Mk.4000, 12 November 1982 for the Mk.3000 and 29 October 1986 for the Mk.2000. Effective Date of Application for Type Certificate per FAR 21.17(c)(2): 28 October 1966.

**V. Fokker Model F.28 Mark 0100 (Transport Category) approved April 21, 1989.**

The F.28 Mk0100 (based on the Mk4000) will have two high by-pass ratio engines with thrust reversers; extensive use of composites; increased fuselage length by 18.83 feet with plugs forward and aft of the wing; increased wing span by 9.8 feet; increased wing chord and improved aerodynamics with extended leading and trailing edges; increased horizontal stabilizer span by 4.6 feet; new flaps; larger ailerons; strengthened landing gear with new wheels and brakes; increased passenger count from 85 to 109 in the basic version; increased maximum weights; advanced digital electronic flight deck with integrated flight management system; autopilot/flight director, including CAT III autoland capability, and thrust management system; electronic flight instrument displays and full ARINC avionics.

Engine.

Two Rolls-Royce Two Shaft High Bypass Ratio Jet Engines with Thrust Reversers: TAY 620-15 or TAY 650-15.

Fuel Specification.

Eligible engine fuels are listed in RLD approved Airplane Flight Manual.

Fuel Capacity.

Usable fuel (See NOTE 1 for unusable fuel)  
Configuration with center wing bag tanks (Standard).

LOCATION	Volume (US Gal)	Weight (lb)	Arm (in)
Wing tanks	2557	17073	672.0
Center tanks	830	5540	631.2
Total	3387	22611	662.0

Total usable fuel by pressure fueling is 3345 US gal. Fuel weight based upon fuel density of 6.6 lb/US Gal. (0.8 kg/l)

Above mentioned table is applicable to an aircraft with the standard bag tank configuration. From a/c s/n 11442 and up an integral center wing was introduced. For this configuration the following table is applicable:

LOCATION	Volume (US Gal)	Weight (lb)	Arm (in)
Wing tanks	2547	17002	671.7
Center tanks	984	6570	630.4
Total	3531	23572	660.2

Total Usable Fuel by pressure fueling is 3547 U.S. Gal.  
Fuel weight is based upon fuel density of 6.6 lb/U.S. Gal (0.8 kg/l)

Oil Specifications.

Refer to RLD approved Airplane Flight Manual.

Oil Capacity.

Usable oil (See NOTE 1 for unusable oil)

Location	Volume (US Gal)	Weight (lb)	Arm (in)
Each engine	1.3	11.0	945.5
Total	2.6	22.0	945.5

Oil weight based upon oil density of 7.74 lb/US gal.

**V. Fokker Model F.28 Mark 0100 (Transport Category)** (cont'd)

Oil Pressure Limits. Minimum acceptance for flight: Takeoff 30 psi  
 Minimum to complete flight: Low idle to 78% N<sub>2</sub> :  
 16 psi rising to 25  
 psi at Max Continuous  
 following a straight  
 line relationship.

Oil Temperature Limits. Minimum for starting : minus 50° C  
 Minimum before increasing power : minus 30° C  
 Maximum (unrestricted) : plus 105° C  
 Maximum (15 minutes) transient : plus 120° C

Fuel Temperature Limits. The limits for the Tay 650-15 engine are:  
 Maximum (unrestricted) : plus 95° C  
 Maximum (15 minutes) transient : plus 130° C

The limits for the Tay 620-15 engine are:  
 Maximum (unrestricted) : plus 90° C  
 Maximum (15 minutes) transient : plus 120° C

Bleed Air. For maximum bleed air extraction from the engine refer to FAA Engine Type Certificate Data Sheet No. E25NE.

Engine Limits.  
TAY 620-15

Condition	N <sub>1</sub> %	N <sub>2</sub> %	MAX TGT °C	Time Limit
During starts	-	-	700	Momentary (not exceeding 2 seconds)
During relights	-	-	780	
<u>Max Take-off</u>	96.5	103.5	800	<u>5 minutes</u>
<u>Max Continuous</u>	96.5	100.5	735	<u>Unrestricted</u>
<u>Max Overspeed</u>	99.3	106.6	-	<u>20 seconds</u>
<u>Max Overtemperature</u>	-	-	820	<u>20 seconds</u>
<u>Low Idle (Min)</u>	-	47.9	-	<u>Unrestricted</u>

*Note: This is a minimum below which N<sub>2</sub>% should not fall.*

Engine Limits.  
TAY 650-15

Condition	N <sub>1</sub> %	N <sub>2</sub> %	MAX TGT °C	Time Limit
During starts	-	-	740	Momentary (not exceeding 2 seconds)
during relights	-	-	780	
<u>Max Take-off</u>	95.5	103.5	850	<u>5 minutes</u>
<u>Max Continuous</u>	95.5	100.5	795	<u>Unrestricted</u>
<u>Max Overspeed</u>	98.3	106.6	-	<u>20 seconds</u>
<u>Max Overtemperature</u>	-	-	870	<u>20 seconds</u>
<u>Low Idle (Min)</u>	-	47.9	-	<u>Unrestricted</u>

*Note: This is a minimum below which N<sub>2</sub>% should not fall.*

**NOTE 1.:** 100 per cent N<sub>1</sub> = 8.393 rpm

100 per cent N<sub>2</sub> = 12.136 rpm

**NOTE 2.:** To avoid high fan blade stresses, stabilized ground operation in the N<sub>1</sub> rpm range of 62 to 80 per cent is not permitted with a static airplane and wind velocities in excess of 15 kts.

**V. Fokker Model F.28 Mark 0100 (Transport Category)** (cont'd)

Thrust Reverser Limits. See RLD approved Airplane Flight Manual.

APU Type. Garrett GTCP 36-150 (R) and GTCP 36-150 (RR)

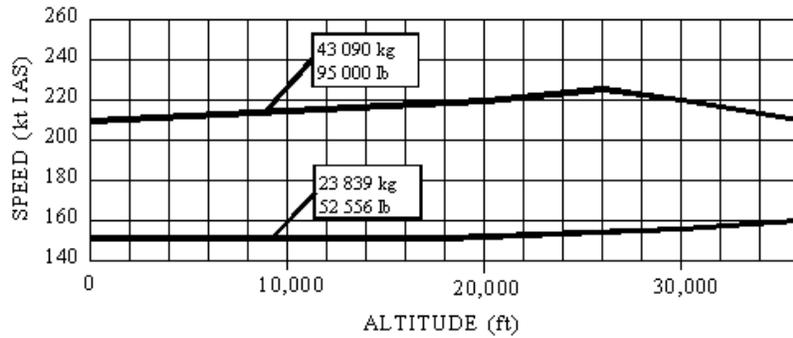
APU Fuels. Eligible APU fuels are listed in the RLD approved Airplane Flight Manual.

Airspeed Limits (IAS).

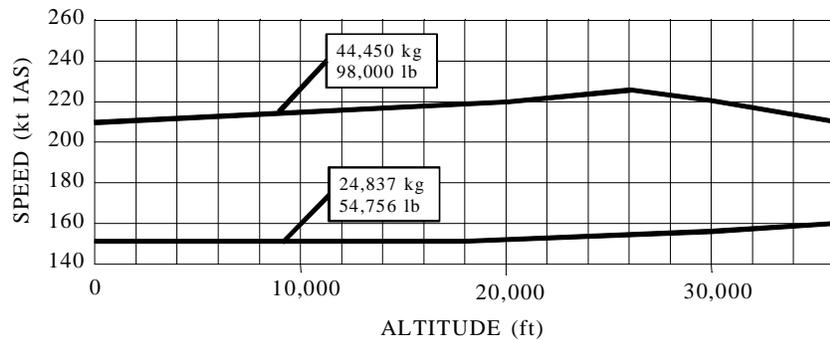
$V_{mo}/M_{mo}$  Maximum operating limit speed 320 kts / M 0.75  
For S/N 11276 and up  $M_{MO}$  increased to: M 0.77

$V_A$  Maximum design maneuvering speed:

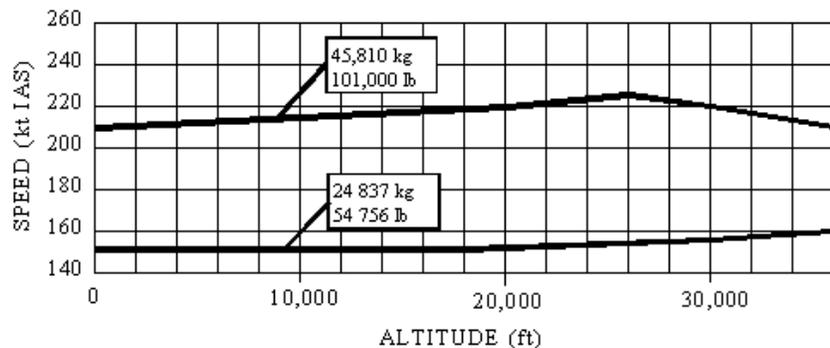
Airspeed Limits ( $V_A$  -F.28 Mk0100)  
95,000 lb:



When modified in accordance with RLD approved Service Bulletin F100-51-001:  
98,000 lb.



When modified in accordance with RLD approved Fokker modification ECR 91408:  
101,000 lb.



Full application of rudder and aileron controls, as well as maneuvers that involve angle of attack near the stall, should be confined to speeds below  $V_A$

**V. Fokker Model F.28 Mark 0100 (Transport Category)** (cont'd)

$V_{RA}/M_{RA}$  Rough air speed: 250 kts/ M 0.65

$V_{FE}$  Maximum flap extended speed:  
 flaps at 8° : 250 kts/ M 0.50  
 15° and 25° : 220 kts/ M 0.45  
 42° : 180 kts/ M 0.36

Maximum flap extended altitude: 20,000 ft

$V_{LO}/V_{LE}$  Maximum Landing gear extended and operating speed: 200 kts.  
 Maximum Landing gear extended altitude: 25,000 ft.  
 Maximum Lift dumper extension speed: 170 kts.

Maximum Operating Altitude. 35,000 ft.

Maximum Weights.

Max Taxi	weight:	43,320 kg ( 95,500 lbs)
Max Take-off	weight:	43,090 kg ( 95,000 lbs)
Max Landing	weight:	38,780 kg ( 85,500 lbs)
Max Zero Fuel	weight:	35,835 kg ( 79,000 lbs)

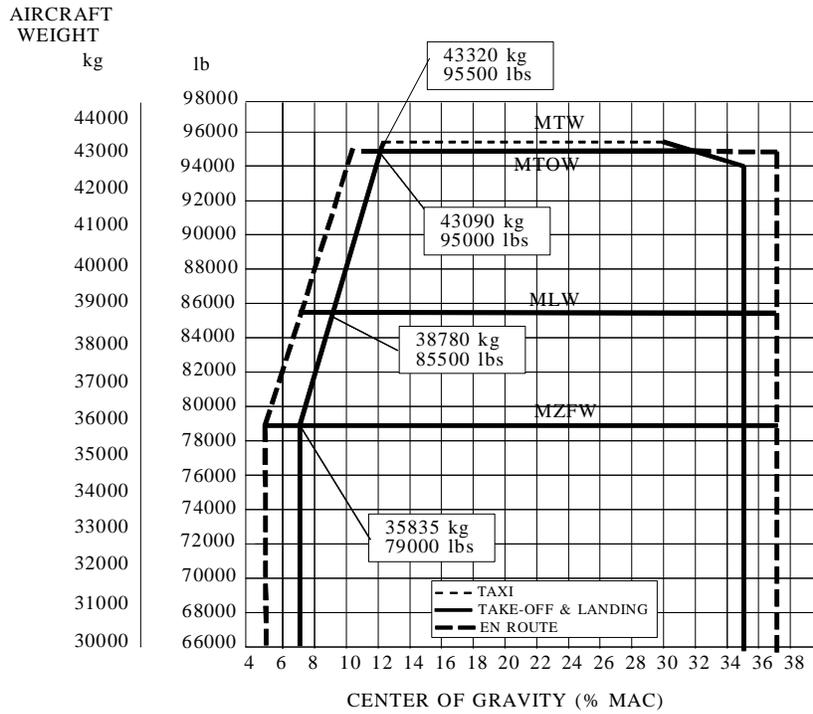
When modified in accordance with RLD approved Service Bulletin  
 No. F100 51-001:

Max Taxi	weight:	44,680 kg ( 98,500 lbs)
Max Take-off	weight:	44,450 kg ( 98,000 lbs)
Max Landing	weight:	39,915 kg ( 88,000 lbs)
Max Zero Fuel	weight:	36,740 kg ( 81,000 lbs)

When modified in accordance with RLD approved Fokker modification  
 ECR 91408:

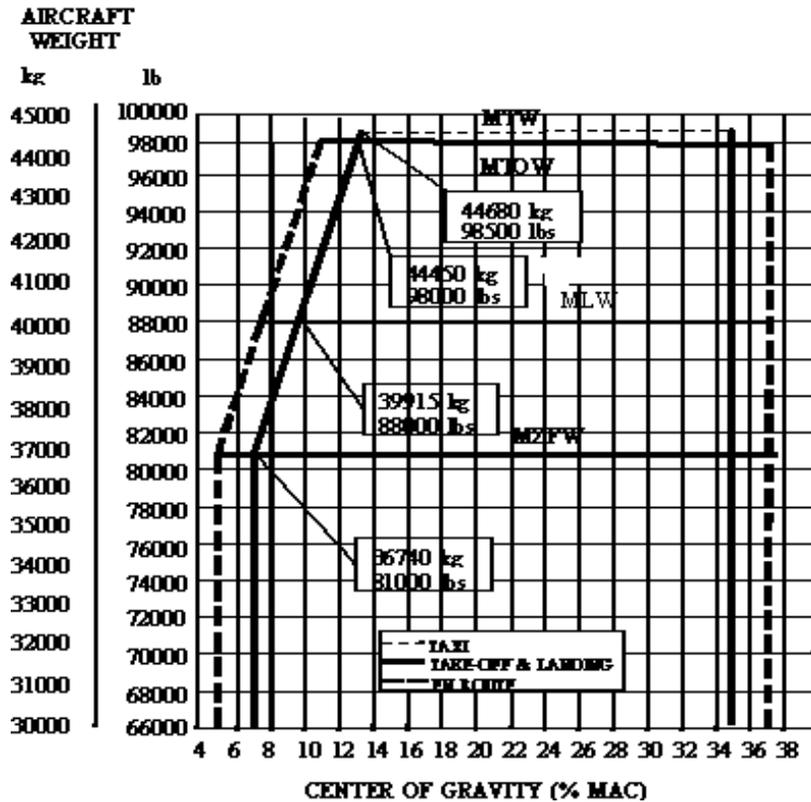
Max Taxi	weight:	46,040 kg (101,500 lbs)
Max Takeoff	weight:	45,810 kg (101,000 lbs)
Max Landing	weight:	39,915 kg ( 88,000 lbs)
Max Zero Fuel	weight:	36,740 kg ( 81,000 lbs)

C.G. Range 95,000 lbs.



When modified in accordance with RLD approved Service Bulletin No. F100 51-001:

98,000 lb. Center of Gravity -F.28 Mk0100



**V. Fokker Model F.28 Mark 0100 (Transport Category)** (cont'd)

**C.G. Range** When modified in accordance with RLD approved Fokker modification ECR 91408: 101,000 lb Center of Gravity -F.28 Mk0100

Contact Fokker or FAA (AFS-610, phone 405/954-6628) for copies of C.G. chart.

**Datum.** The datum referred to is defined as the Fuselage Datum (Station Zero), which is 2434 mm (95.8 inch) forward aft of the front leveling pin. (Tip of the aircraft nose section).

**M.A.C.** The Mean Aerodynamic Cord is 3832.6 mm (12 ft 6.9 inch).

**Leveling Means.** Two leveling pins are installed on RH side of the nose gear bay for checking the longitudinal level of the aircraft.  
Two brackets are installed on the aft wall of the APU compartment for checking the lateral level of the aircraft.

**Minimum Flight Crew.** 2 (Pilot and Co-pilot)

**Maximum Passengers Seating** See Note 5.

**Maximum Baggage.** Refer to the appropriate document "Basic Weight and Balance Information".

<b><u>Control Surface Movements (Max).</u></b>	Elevator	Up	25°	Down	15°
	Rudder	Left	33°	Right	33°
	Aileron	Up	20°	Down	20°
	Flap: single slotted		18°		
	double slotted			42°	
	Liftdumpers		60°		
	Horz. Stabilizers		+ 3° (A/C nose down)		
			-9° (A/C nose up)		
	Speed brakes		60°		

**Equipment.** The basic required equipment as prescribed in the applicable airworthiness regulations must be installed in the aircraft for certification.

- The RLD approved Airplane Flight Manual issued for the applicable aircraft serial number.

**Service Information.** Information essential to the proper maintenance of the aircraft is given in: Instructions for Continued Airworthiness consisting of:

- Aircraft Maintenance Manual, Chapter 05-10 "Airworthiness Limitations Section" (RLD approved) see Note 1 below
- Structural Repair Manual (RLD approved)
- MRB document (RLD and FAA approved)
- Maintenance Planning Document
- Service Bulletins (RLD approved)
- Service Letters

**Note 1:** *The Airworthiness Limitations consist of Certification Maintenance Requirements (CMR's) Airworthiness Limitation Items (ALI's) and Safe Life Limits (SLI's) and are derived from items contained in the following Fokker Engineering Reports:*

For CMR's: Report Numbers SE-473

For ALI's and SLI's: Engineering Report Number RM28-023

Service bulletins, structural repair manuals, aircraft flight manuals, and overhaul and maintenance manuals which contain a statement that the document is Dutch Airworthiness Authority (RLD) approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

**V. Fokker Model F.28 Mark 0100 (Transport Category)** (cont'd)  
Certification Basis for F.28 Mark 0100

1. FAR Part 25 dated February 1, 1965 as amended by Amendments 25-1 through 25-60 effective June 16, 1986, except paragraphs 25.631, 25.801 and those paragraphs affected by Am 25-27 effective March 26, 1984, and except the paragraphs amended as follows:
  - Am 25-23 effective May 8, 1970 - 25.1309 (for modified systems only)
  - Am 25-41 effective September 1, 1977 - 25.109
  - Am 25-54 effective October 14, 1980 - 25.783 (see Note 9)
  - Am 25-72 effective August 20, 1990 - 25.791(d) and (e)
2. FAR Part 36 effective December 1, 1969, as amended through Am 36-16 effective November 22, 1988.
3. SFAR 27 as amended through Am 27-6 effective March 28, 1986.
4. Special condition 25-ANM-14 issued on October 19, 1987 (Lightning Protection for Electronic Devices).
5. Equivalent Level of Safety Findings:
  - 25.729(e)(2) and (e)(3) Landing Gear Warning System
  - 25.811(e)(3) Emergency Exit Markings
  - 25.901(d) APU Installation - Instruments
  - 25.1307(d) Total loss of all cockpit communication
6. Exemptions: none

**VI. Fokker model F.28 Mk0070 (Transport Category) approved, October 14, 1994**

The F.28 Mk0070 model is derived from the F.28 Mk0100 and differs only in the fuselage length being reduced by 4.623 metres (182 inches).

Engine. Two Rolls-Royce Two Shaft High Bypass Ratio Jet Engines with Thrust Reversers: TAY 620-15.

Fuel Specification. Eligible engine fuels are listed in RLD approved Airplane Flight Manual.

Fuel Capacity. Usable fuel (See NOTE 1 for unusable fuel)  
 Standard two tank configuration:

LOCATION	Volume (US Gal)	Weight (lb)	Arm (in)
Wing tanks	2547	17002	575.1

Configuration with optional Integral Center Wing Tank:

LOCATION	Volume (US Gal)	Weight (lb)	Arm (in)
Wing tanks	2547	17002	575.1
Center tanks	984	6570	534.3
Total	3531	23572	565.1

Total usable fuel by pressure fueling for the two tank configuration is 2493 US Gal. Include. ICWT the total usable fuel by pressure fueling is 3547 US Gal. Fuel weight is based upon fuel density of 6.6lb/US Gal. (0.8 kg/l).

Oil Specifications. Refer to RLD approved Airplane Flight Manual.

**VI. Fokker model F.28 Mk0070 (Transport Category)** (cont'd)Oil Capacity.

Usable oil (See NOTE 1 for unusable oil)

Location	Volume (US Gal)	Weight (lb)	Arm (in)
Each engine	1.4	10.9	763.5
Total	2.8	21.8	763.5

Oil weight based upon oil density of 7.74 lb/US gal.

Oil Pressure Limits.

Minimum acceptance for flight:

Take-off 30 psi

Minimum to complete flight:

Low idle to 78% N<sub>2</sub> :

16 psi rising to 25 psi at Max Continuous following a straight line relationship.

Oil Temperature Limits.

Minimum for starting

: minus 50° C

Minimum before increasing power

: minus 30° C

Maximum (unrestricted)

: plus 105° C

Maximum (15 minutes) transient

: plus 120° C

Fuel Temperature Limits.

TAY 620-15

Maximum (unrestricted)

: plus 90° C

Maximum (15 minutes) transient

: plus 120° C

Bleed Air.

For maximum bleed air extraction from the engine refer to FAA Engine Type Certificate Data Sheet No. E25NE.

Engine Limits.

TAY 620-15

Condition	N <sub>1</sub> %	N <sub>2</sub> %	MAX TGT °C	Time Limit
During starts	-	-	700	Momentary (not exceeding 2 seconds)
during relights	-	-	780	2 seconds
Max Take-off	96.5	103.5	800	5 minutes
Max Continuous	96.5	100.5	795	Unrestricted
Max Overspeed	99.3	106.6	-	20 seconds
Max Overtemperature	-	-	870	20 seconds
Low Idle (Min)	-	47.9	-	Unrestricted

*Note: This is a minimum below which N<sub>2</sub>% should not fall.*

NOTE 1.: 100 per cent N<sub>1</sub> = 8.393 rpm100 per cent N<sub>2</sub> = 12.136 rpmNOTE 2.: To avoid high fan blade stresses, stabilized ground operation in the N<sub>1</sub> rpm range of 62 to 80 per cent is not permitted with a static airplane and wind velocities in excess of 15 kts.Thrust Reverser Limits.

See RLD approved Airplane Flight Manual.

APU Type.

Only Garrett GTCP 36-150 (RR) is applicable

APU Fuels.

Eligible APU fuels are listed in the RLD approved Airplane Flight Manual.

**VI. Fokker model F.28 Mk0070 (Transport Category)** (cont'd)

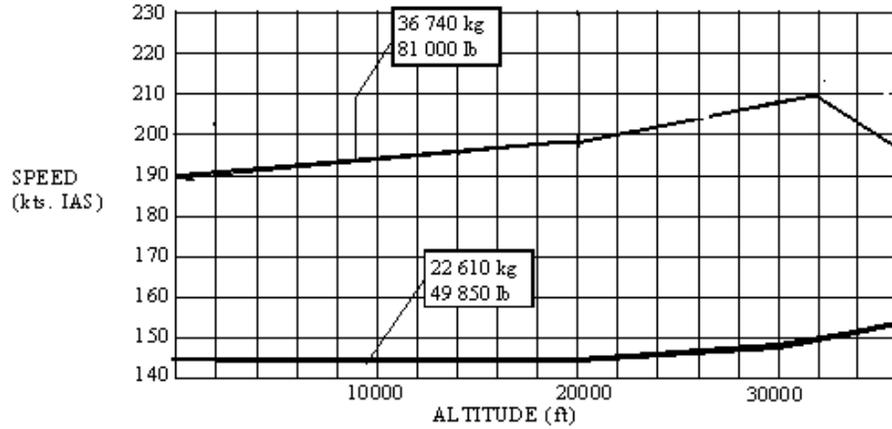
Airspeed Limits (IAS).

$$\frac{V_{mo}}{V_A} / M_{mo}$$

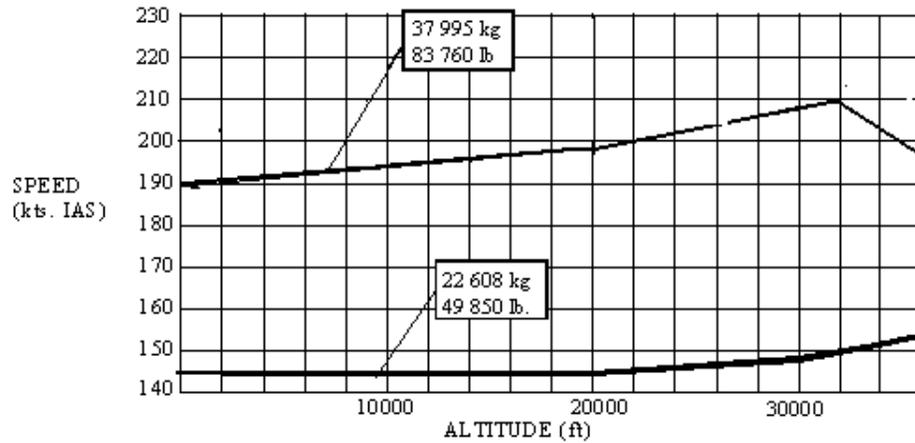
Maximum operating limit speed 320 kts / M 0.77

Maximum design maneuvering speed:

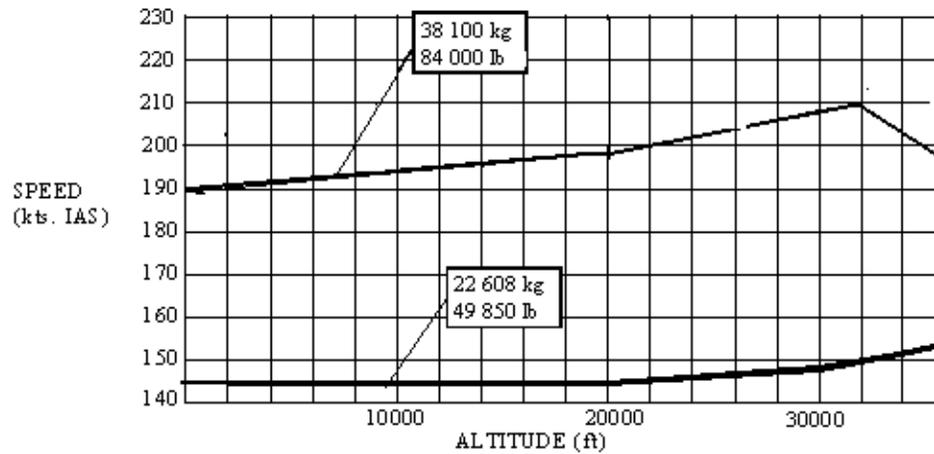
81,000 lb.



83,760 lb.



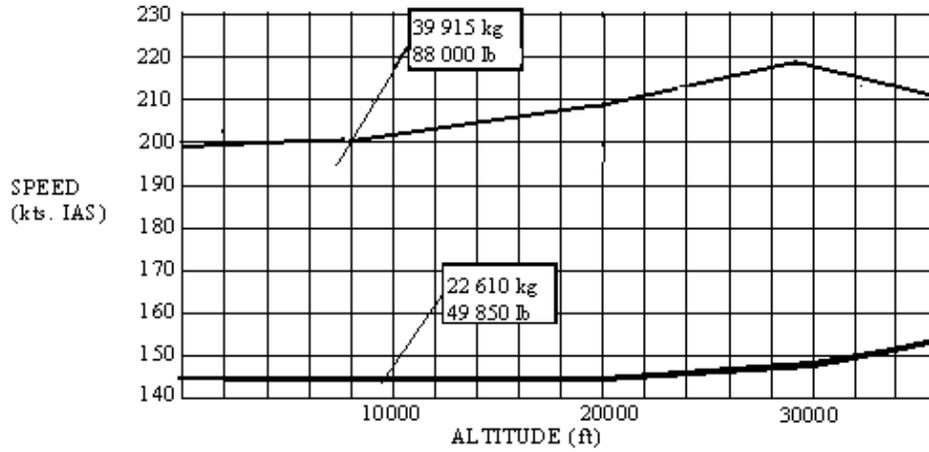
84,000 lbs.



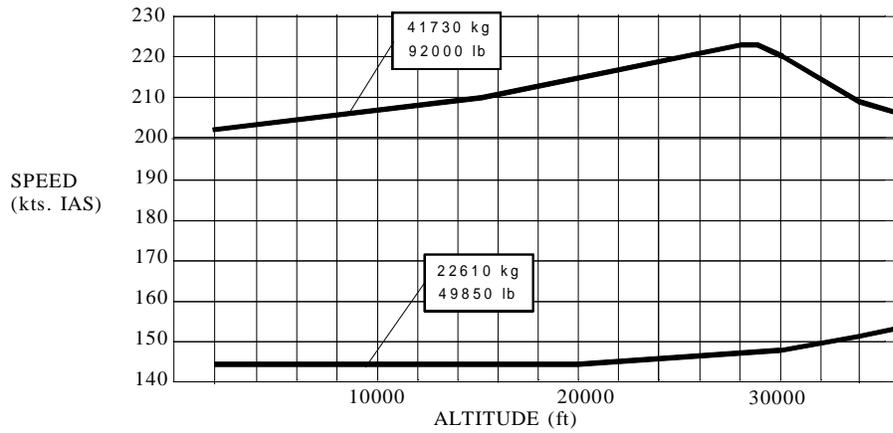
**VI. Fokker model F.28 Mk0070 (Transport Category)** (cont'd)

Airspeed Limits (VA) - F.28 Mk0070

88,000 lbs.



92,000 lbs.



Full application of rudder and aileron controls, as well as maneuvers that involve angle of attack near the stall, should be confined to speeds below  $V_A$

$V_{RA}/M_{RA}$

Rough air speed: 250 kts/ M 0.65

$V_{FE}$

Maximum flap extended speed:  
flaps at

8° : 250 kts/ M 0.50  
15° and 25° : 220 kts/ M 0.45  
42° : 180 kts/ M 0.36

Maximum flap extended altitude: 20,000 ft

$V_{LO}/V_{LE}$

Maximum Landing gear extended and operating speed: 200 kts.

Maximum Landing gear extended altitude: 25,000 ft.

Maximum Lift-dumper extension speed: 170 kts.

Maximum Operating Altitude.

35,000 ft.

**VI. Fokker model F.28 Mk0070 (Transport Category)** (cont'd)

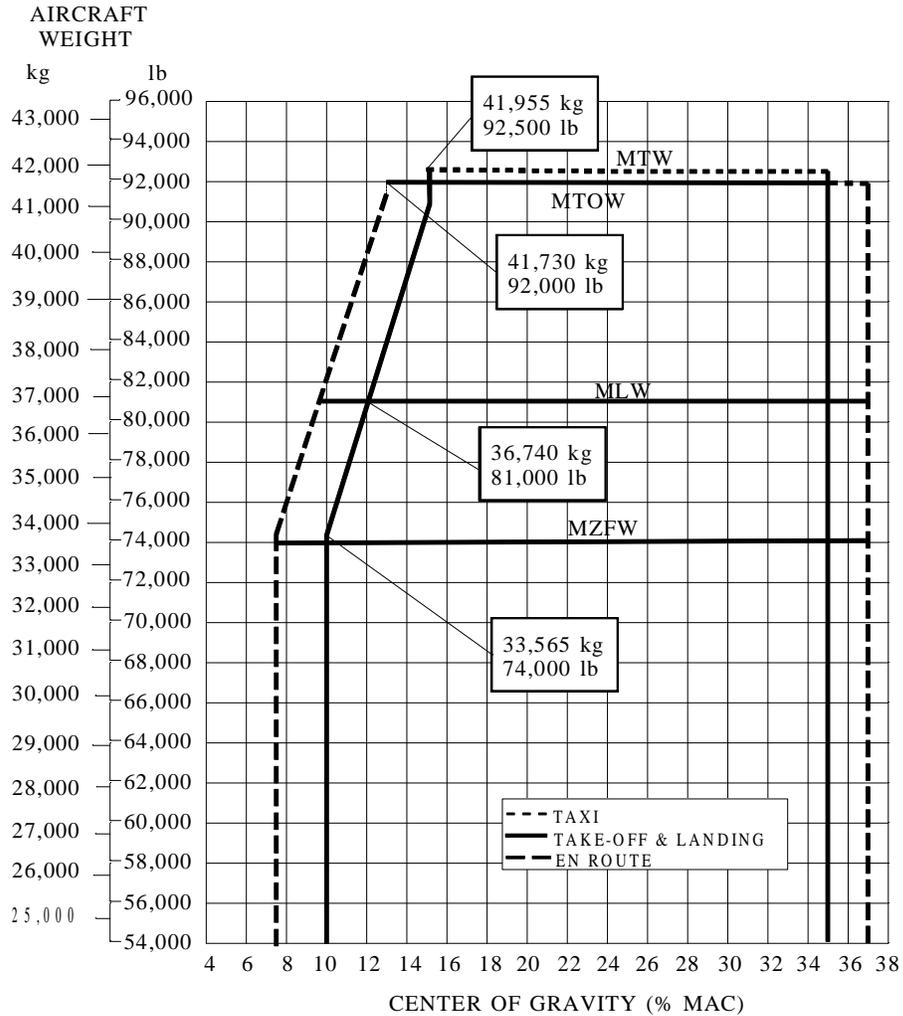
<u>Maximum Weights.</u>	Max Taxi	weight:	36,965 kg (81,500 lbs)
	Max Take-off	weight:	36,740 kg (81,000 lbs)
	Max Landing	weight:	34,020 kg (75,000 lbs)
	Max Zero Fuel	weight:	31,975 kg (70,500 lbs)
	Max Taxi	weight:	38,325 kg (84,500 lbs)
	Max Take-off	weight:	37,995 kg (83,760 lbs)
	Max Landing	weight:	34,020 kg (75,000 lbs)
	Max Zero Fuel	weight:	32,655 kg (72,000 lbs)
	Max Taxi	weight:	38,325 kg (84,500 lbs)
	Max Take-off	weight:	37,995 kg (83,760 lbs)
	Max Landing	weight:	36,740 kg (81,000 lbs)
	Max Zero Fuel	weight:	32,655 kg (72,000 lbs)
	Max Taxi	weight:	38,325 kg (84,500 lbs)
	Max Take-off	weight:	38,100 kg (84,000 lbs)
	Max Landing	weight:	36,740 kg (81,000 lbs)
	Max Zero Fuel	weight:	32,655 kg (72,000 lbs)
	Max Taxi	weight:	40,140 kg (88,500 lbs)
	Max Take-off	weight:	39,915 kg (88,000 lbs)
	Max Landing	weight:	36,740 kg (81,000 lbs)
	Max Zero Fuel	weight:	33,565 kg (74,000 lbs)
	Max Taxi	weight:	41,960 kg (92,500 lbs)
	Max Take-off	weight:	41,730 kg (92,000 lbs)
	Max Landing	weight:	36,740 kg (81,000 lbs)
	Max Zero Fuel	weight:	33,565 kg (74,000 lbs)

C.G Range.

To obtain paper copies of Center of Gravity charts for 81,000 lbs., 83,760 lbs., 83,760 lbs. (with higher MLW), 84,000 lbs., and 88,000 lbs., contact Fokker or FAA, AFS-610 (phone 405/954-6628).

**VI. Fokker model F.28 Mk0070 (Transport Category)** (cont'd)

92,000 lb



Datum.

The datum referred to is defined as the Fuselage Datum (Station Zero), which is 2434 mm (95.8 inch) forward aft of the front leveling pin. (Tip of the aircraft nose section).

M.A.C.

The Mean Aerodynamic Cord is 3832.6 mm (12 ft 6.9 inch).

Leveling Means.

Two leveling pins are installed on RH side of the nose gear bay for checking the longitudinal level of the aircraft.  
Two brackets are installed on the aft wall of the APU compartment for checking the lateral level of the aircraft.

Minimum Flight Crew.

2 (Pilot and Co-pilot)

Maximum Passengers.

See note 5.

Maximum Baggage.

Refer to the appropriate document "Basic Weight and Balance Information".

**VI. Fokker model F.28 Mk0070 (Transport Category)** (cont'd)

<u>Control Surface Movements (Max).</u>	Elevator	Up	25°	Down	15°
	Rudder	Left	33°	Right	33°
	Aileron	Up	20°	Down	20°
	Flap: single slotted		18°		
	double slotted			42°	
	Liftdumpers		60°		
	Horz. Stabilizers		+ 3° (A/C nose down)		
			-10° (A/C nose up)		
	Speed brakes		60°		

Equipment.

The basic required equipment as prescribed in the applicable airworthiness regulations must be installed in the aircraft for certification.

- The RLD approved Airplane Flight Manual issued for the applicable aircraft serial number.

Service Information.

Information essential to the proper maintenance of the aircraft is given in:

Instructions for Continued Airworthiness consisting of:

- Aircraft Maintenance Manual, Chapter 05-10 "Airworthiness Limitations Section" (RLD approved) see Note 1 below
- Structural Repair Manual (RLD approved)
- MRB document (RLD and FAA approved)
- Maintenance Planning Document
- Service Bulletins (RLD approved)
- Service Letters

NOTE 1: The Airworthiness Limitations consist of Certification Maintenance Requirements (CMR's), Airworthiness Limitation Items (ALI's) and Safe Limit Items (SLI's) and are derived from items contained in the following Fokker Reports:

For CMR's: Report Numbers SE-473

For ALI's and SLI's: Engineering Report Number RM-28-023

Service bulletins, structural repair manuals, aircraft flight manuals, and overhaul and maintenance manuals which contain a statement that the document is Dutch Airworthiness Authority (RLD) approved, are accepted by the FAA and are considered FAA approved.

These approvals pertain to the type design only.

Certification Basis for F.28 Mark 0070

1. FAR Part 25 dated February 1, 1965, as amended by Amendments 25-1 through 25-60, except June 16, 1986, except paragraphs 25.631, 25.801, and those paragraphs affected by Am 25-27 effective March 26, 1984, and except the paragraphs amended as follows:
  - Am 25-64 effective June 16, 1988 - 25.562(b),(c)(4), (c)(7) and (c)(8) **(Passenger seats only and not applicable to floor structure and seat tracks.)**
  - Am 25-66 effective September 26, 1988 - 25.20, 25.21, 25.23, 25.25, 25.27, 25.29, 25.31, **25.101 through 25.125, 25.143 through 25.255, and 25.1581 through 25.1587 (see paragraph 6).**
  - Am 25-72 effective August 20, 1990 - 25.365(e), (f), and (g) **(For flight deck internal door), 25.561 (For passenger-flight deck-cargo compartment, and engine mounting), 25.772, 25.783 (see paragraph 6), 25.785, 25.787, 25.789, 25.791, 25.793, 25.803, 25.807, 25.809, 25.810, 25.811 (see paragraph 6), 25.812, 25.813, 25.815, 25.817, 25.851, 25.853, 25.855, 25.857, and 25.869(a)**
  - Am 25-74 effective May 16, 1991 - 25.854
  - Am 25-79 effective September 27, 1993 - 25.811(e)(2)
  - Am 25-80 effective May 3, 1994 - 25.1316
2. FAR Part 36 effective December 1, 1969, as amended through Am 36-20 effective September 16, 1992.
3. FAR Part 34 effective September 10, 1990.
4. **Special Condition 25-ANM-89 issued October 6, 1994** (High Intensity Radiated Fields (HIRF) Protection - electrical systems.
5. Exemptions: None.

6. Equivalent Level of Safety Findings:

**25.101 through 25.125 and 25.1581 through 25.1587**

- **Takeoff and Landing Performance**

**25.143 through 25.255**

- **IG Stall Speed**

§ 25.729(e)(2)&(3)

- Landing Gear Warning System

§ 25.783(e)

- Cargo Door Mechanism-Inspection

§ 25.811(e)(3)

- Emergency Exit Markings

§ 25.901(d)

- APU Installation Instruments

§ 25.1307(d)

- Total Loss of Cockpit Communications

**DATA PERTINENT TO ALL MODELS.**

Serial Numbers Eligible.

The Netherlands Certificate of Airworthiness endorsed as noted under "Import Requirements" below must be submitted for each individual aircraft for which application for certification is made.

Import Requirements.

To be considered eligible for operation in the United States, each aircraft manufactured under this type certificate must be accompanied by a certificate of airworthiness for export or a certifying statement. The certificate of airworthiness or this certifying statement must be endorsed by the exporting foreign civil airworthiness authority which states (in the English language): "This aircraft conforms to its U.S. type design (type certificate number A20EU) and is in a condition for safe operation. All applicable provisions of mandatory service bulletins with which compliance is required on/or before the date of the Certificate of Airworthiness for Export have been incorporated".

U.S. eligible Fokker F.28 Mark 0100 Serial numbers are listed in the latest issue of RLD approved Fokker Report CT-100-020.

U.S. eligible Fokker F.28 Mark 0070 serial numbers are listed in the latest issues of Fokker Report CT-70-017.

Other U.S. eligible F.28 models serial numbers are shown below:

<u>VERSION</u>	<u>S/N</u>	<u>VERSION</u>	<u>S/N</u>
1000	11105	4000	11149 11156
	11017		11152 11159
	11031		11156 11161
	11054		11159 11167
	11075		11161 11168
	11097		11167 11169
	11032		11168 11173
	11035		11169 11181
	11036		11173 11182
	11037		11181 11221
	11043		11182 11222
	11044		11222 11223
	11061		11224 11224
	11063		11226 11226
	11087		11227 11227
	11095		11228 11228
	11096		11229 11229
	11101		11230 11230
	11107		11231 11231
	11016		11233 11233
			11234 11234
			11237 11235
			11238 11236
			11240 11237
			11149 11240
			11152
<u>VERSION</u>	<u>S/N</u>		
3000	11163		

NOTESNote 1.

- (a) Current Weight and Balance Report, including List of Equipment included in the certificated empty weight, interior arrangement and loading instructions must be provided for each aircraft at the time of the original certification.
- (b) The undrainable fuel is that amount of fuel after drainage in accordance with the procedures described in the AFM. The total amount and distribution of unusable fuel is listed in the following table. The highest level of the unusable fuel is the level prescribed by the critical flight conditions as defined in FAR 25.959 and must be included in the aircraft empty weight.

The total unusable fuel is distributed as follows:

A. Mk 1000 and 3000:

Unusable Undrainable Fuel	Volume (U.S. Gal.)	Weight (lb)	(Arm (in.))
Fuel lines	8.97	59.2	
Collector tanks	0.80	5.3	
Main tanks	<u>1.86</u>	<u>12.3</u>	
TOTAL	11.63	76.8	512.2

If Center Wing Tank is installed:

Fuel lines	9.45	62.4	
Collector tanks	0.80	5.3	
Main tanks	1.86	12.3	
Center wing tanks	<u>5.02</u>	<u>33.1</u>	
TOTAL	17.13	113.1	486.7

Fuel lines	0.71	4.7	
Collector tanks	7.68	50.7	
Main tanks	<u>0.74</u>	<u>4.9</u>	
TOTAL	9.13	60.3	426.4

If Center Wing Tank is installed:

Unusable Undrainable Fuel	Volume (U.S. Gal.)	Weight (lb)	(Arm (in.))
Fuel lines	1.33	8.8	
Collector tanks	7.68	50.7	
Main tanks	0.74	4.9	
Center wing tanks	<u>6.62</u>	<u>43.7</u>	
TOTAL	16.37	108.1	425.9

If Center Wing Tank is installed:

The total amount of undrainable fuel is	113.1 lb
The total amount of drainable unusable is	<u>108.0 lb</u>
TOTAL unusable fuel	221.2 lb

This weight must be included in the aircraft empty weight.

B. Mk 4000 and Mk 2000

Unusable Undrainable Fuel	Volume (U.S. Gal.)	Weight (lb)	(Arm (in.))
Fuel lines	9.31	61.4	
Collector tanks	0.80	5.3	
Main tanks	<u>1.86</u>	<u>12.3</u>	
TOTAL	11.97	79.0	577.2

B. Mk 4000 and Mk 2000 (cont'd)

<u>Fuel</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>(Arm (in.))</u>
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If Center Wing Tank is installed:

Fuel lines	9.79	64.6	
Collector tanks	0.80	5.3	
Main tanks	1.86	12.3	
Center wing tanks	<u>5.02</u>	<u>33.1</u>	
TOTAL	17.47	115.3	549.6

Unusable Drainable Fuel

Fuel lines	0.71	4.7	
Collector tanks	7.68	50.7	
Main tanks	<u>0.74</u>	<u>4.9</u>	
TOTAL	9.13	60.3	483.4

If Center Wing Tank is installed:

<u>Fuel</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>(Arm (in.))</u>
Fuel lines	1.33	8.8	
Collector tanks	7.68	50.7	
Main tanks	0.74	4.9	
Center wing tanks	<u>6.62</u>	<u>43.7</u>	
TOTAL	16.37	108.1	482.9

If Center Wing Tank is installed:

The total amount of undrainable fuel is	115.3 lb
The total amount of drainable fuel is	<u>108.1 lb</u>
TOTAL unusable fuel	223.4 lb

This weight must be included in the aircraft empty weight.

C. Mk 0100:

<u>Fuel</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>(Arm (in.))</u>
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Fuel lines	9.7	63.9	
Collector tanks	0.7	4.5	
Main tanks	1.6	10.5	
Center wing tanks	<u>3.7</u>	<u>24.4</u>	
TOTAL	15.7	103.3	700.8

Unusable drainable

<u>Fuel</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>(Arm (in.))</u>
Fuel lines	1.4	8.8	
Collector tanks	10.3	68.8	
Main tanks	negl.	negl.	
Center wing tanks	<u>1.6</u>	<u>10.5</u>	
TOTAL	13.2	87.3	637.8

For a/c with Integral Center Wing Tank

<u>Fuel</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>(Arm (in.))</u>
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Fuel lines	9.7	63.9	
Collector tanks	0.7	4.5	
Main tanks	1.6	10.5	
Center wing tank	<u>1.1</u>	<u>7.0</u>	
TOTAL	13.0	85.9	716.0

C. Mk 0100: (cont'd)

<u>Fuel</u>	<u>Volume (U.S. Gal.)</u>	<u>Weight (lb)</u>	<u>(Arm (in.))</u>
Fuel lines	1.4	8.8	
Collector tanks	10.3	68.8	
Main tanks	negl.	negl.	
Center wing tanks	<u>0.3</u>	<u>1.7</u>	
TOTAL	11.9	78.6	639.7

D. Mk 1000, 2000, 3000 and 4000.

Engine system oil is the total engine oil less the quantity drainable from the tank, which is 29 lb. and must be included in the aircraft empty weight.

The undrainable oil is distributed as follows:

	<u>Volume (U.S. Gal.)</u>		<u>Arm (in.)</u>	
			<u>Weight (lb)</u>	<u>Mk 1000 Mk 2000 Mk 3000 Mk 4000</u>
Each engine	1.8	14.5	646.5	733.5
TOTAL	3.6	29		

Mk 0100

Engine system oil is the total engine oil less the quantity drainable from the tank which is 9.7 lb. and must be included in the aircraft empty weight.

The total undrainable oil is distributed as follows:

	<u>Volume (U.S. Gal.)</u>		<u>Weight (lb)</u>	<u>Arm (in.)</u>
Each engine	1.2	9.7	945.5	
TOTAL	2.4	19.4	945.5	

E. Mk0070 with standard fuel system

<u>Unusable Undrainable Fuel</u>	<u>Volume (U.S.Gal.)</u>		<u>Weight (lb.)</u>	<u>Arm (in.)</u>
Fuel lines	8.7	57.5		
Collector tanks	0.7	4.5		
Main tanks	<u>1.6</u>	<u>10.5</u>		
TOTAL	11.0	72.5		601.1

## Unusable Drainable Fuel

Fuel lines	1.4	8.8		
Collector tanks	10.3	68.8		
Main tanks	<u>negl.</u>	<u>negl.</u>		
TOTAL	11.7	76.8		542.3

Mk0070 with integral center wing tank (optional)

<u>Unusable Undrainable Fuel</u>	<u>Volume (U.S.Gal.)</u>		<u>Weight (lb.)</u>	<u>Arm (in.)</u>
Fuel lines	8.9	58.7		
Collector tanks	0.7	4.5		
Main tanks	1.6	10.5		
Integral center wing tank	<u>1.1</u>	<u>7.0</u>		
TOTAL	12.2	80.6		596.9

## Unusable Drainable Fuel

Fuel lines	1.4	8.8		
Collector tanks	10.3	68.8		
Main tanks	negl.	negl.		
Integral center wing tank	<u>0.3</u>	<u>1.7</u>		
TOTAL	11.9	78.6		542.7

(Undrainable oil): No change except for the arm:

Each engine: 763.5 (in)

Total : 763.5 (in)

Note 2.

- (a) Mk 1000, 2000, 3000 and 4000  
All placards required in the RLD-approved Airplane Flight Manual must be installed in the appropriate locations.
- (b) Mk 0100  
Airplane operation must be in accordance with the RLD approved Airplane Flight Manual. All placards required in either the RLD approved Airplane Flight Manual or the Certification Basis must be installed in the airplane in accordance with the applicable Fokker drawings, as follows:
  - Interior placards: drawings D93200 thru D93399
  - Exterior placards: drawings D85500 thru D85699
  - Cockpit placards: T.N. F.28 -61-037
- (c) The Mk0070 drawing numbers are:  
Interior placards: D932\*\*-(C)  
Exterior placards: D855\*\*-(C)  
Cockpit placards: T.N F.28-61-037

Note 3.

- A. Mk 1000, 2000, 3000 and 4000
  - (a) Required inspections items related to fatigue and the service life limits for aircraft structural parts, which are fatigue critical, are listed in the RLD-approved Fokker F.28 Structural Integrity Program Document No. 28438.
  - (b) The required Maintenance and Inspection to maintain airworthiness based on/involving reliability are presented in RLD-approved Chapter 05-10 of the Fokker Maintenance Manual.
  - (c) Inspection items and service life limits for engine parts are listed in Rolls-Royce NTO No. 50, Spey Maintenance Manual Chapter 5 and Rolls-Royce SB SP.70-1.
- B. Mk 0100, Mk070
  - (a) For the F.28 Mk0100 and the F.28 Mk070 the required structural inspections for damage-tolerant structure and the retirement times for safe-life parts are listed in the RLD approved Chapter 05-10 Airworthiness Limitations Section of the Maintenance Manual. The airworthiness limitations section includes the Certification Maintenance Requirements (CMR's).

Mk0100 only

- (b) Until service bulletin F100-49-007 has been incorporated, inspect and verify operation of the APU flapper check valve and APU inlet temperature sensor at 250 hours intervals.

Note 4.

Mk 1000, 2000, 3000 and 4000 only

If the airplane is operated from unpaved runways, the applicable certified performance information should be incorporated for:

- (a) Mk 1000 and Mk.2000  
RLD-approved Flight Handbook Volume II, Section 11, paragraph 8.
- (b) Mk 3000 and Mk 4000  
RLD-approved Flight Handbook Volume II, Section 9, paragraph 5.

Note 5.

- A. For the approved interior lay-out and maximum passenger, capacity reference Fokker Master Drawings:
- (a) Mk 1000, 2000, 3000 and 4000  
For the RLD approved interior layout refer to Fokker drawings A85001 and A85002 applicable for each aircraft when delivered.
  - (b) For the F.28 Mk.0100 the maximum number of passenger seating capacity demonstrated for emergency evacuation is 109. For the RLD approved interior layout refer to Fokker drawings D85001 thru D85157, W85031, W85032 and W98251 applicable for each aircraft when delivered.
  - (c) For the F.28 Mk.0070 the maximum number of passenger seating capacity demonstrated for emergency evacuation is 79. For the RLD approved interior layout refer to Fokker drawings D85060 thru D85157 approved for each aircraft when delivered.
- B. All replacement seats (crew, passenger, lounge), although they may comply with TSO C39, must also be demonstrated to comply with FAR 25.785 and FAR

25.561.

Other installations such as berths, buffets, compartments, or items of mass which could create a hazard to the safety of passengers and crew must also be demonstrated to meet the same requirements.

- (a) Mk 1000, 2000, 3000 and 4000  
Passenger seats meeting the structural criteria of Fokker Technical Specification TS-28-138 will meet these requirements.
- (b) Mk 0100  
Passenger seats meeting the structural criteria of Fokker Technical Specification TS-100-003 will meet these requirements.
- (c) Mk 070  
Passenger seats meeting the structural criteria of Fokker Technical Specification TS-070-001 will meet these requirements.

Note 6.Mk 1000, 2000, 3000 and 4000 only

- (a) When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 21-12; 30,000 feet.
- (b) When modified in accordance with RLD-approved FOKKER F.28 Service Bulletin 21-16; 35,000 feet.

Note 7.Mk 1000, 2000, 3000 and 4000 only

Combinations of engines which can be intermixed and their applicable limitations are covered in the RLD-approved Flight Manual, which is a part of the F.28 Flight Handbook.

Note 8.

The documents which are approved by the Dutch Airworthiness Authority (RLD) include a statement to that effect. The statement may be interpreted as "FAA approved". This also applies to the documents listed herein under "Service Information" and Note 3.

Note 9.F.28 Mark 0100

For the passenger door with integral stair, compliance has been shown with FAR 25.783, Amdt 25-54, when modified in accordance with RLD approved Service Bulletin F10-52-044 (standard incorporated from a/c s/n 11442 onwards) and RLD approved Service Bulletin F100-53-080 (standard incorporated in a/c s/n 11461, 11462, 11470, 11472, 11473, 11496, 11497, 11500, 11503, 11505, 11509, 11511, 11516 and 11518).

.....END.....