DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A62EU
Revision 4
DORNIER SEASTAR
Seastar CD2
March 2, 2007

TYPE CERTIFICATE DATA SHEET No. A62EU

This data sheet which is part of Type Certificate No. A62EU 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	Dornier Seastar Gmbh & Co KG Schloss Seefeld D-82229 Seefeld Germany
Type Certificate Ownership Record	Dornier Composite Aircraft GmbH & Co. KG SEASTAR Division Flugplatz Oberpfaffenhofen D-8031 Wessling Federal Republic of Germany

Model. SEASTAR CD2, certified on June 10, 1991.

General Operation.

The aircraft SEASTAR CD2 is a twin engine, amphibious (incl. salt water environmental), cantilever, high wing aircraft associated with unpressurized fuselage and float sponsons integrally attached to the main hull, one on each side. The airframe is almost entirely constructed of composite materials, using glass fiber, carbon fiber and rigid cellular foam.

Characteristics.

Engines.

Two Pratt & Whitney Canada, Inc., PT6A-135A Turboprop engine are tandem mounted on the center line on top of the wing.

Fuel.

Listed in the POH (Pilot's Operating Handbook), Section 2, Page 2-6.

Engine Limits.

Take Off/Max. Continuous Power	650 shp
Max. Cruise/Max. Climb Power	500 shp

Propellers.

McCauley 4-blade, constant-speed, full feathering reversible, hydraulically-actuated and auto-feathering propellers.

- front type: 4HFR34C760/95DA, diameter: 2.40 m 7.87 ft
- aft type: 4HFR34C761/L95DZ, diameter: 2.35 m 7.71 ft

Pitch range:

Front propeller, at 30 inch/76.2 cm station:

Low pitch:	15.5º ± 0.2
Pitch range:	15.5º -85º42' to 86º
Feather:	85º42' ± 0.2
Reverse pitch:	-9º ± 0.2

Rear propeller, at 30 inch/76.2 cm station:

Low pitch:	16.0º ± 0.2

Pitch range: 16.0º -83º48' to 86º
Feather: 83º48' ± 0.2
Reverse pitch: -9º ± 0.2

Propeller Limits.

Propeller rpm (const. speed) 1900 rpm (at 650 shp)
No life limited parts
Propeller ground idle rpm for continuous operation between 700 and 1100 propeller rpm is prohibited.

Airspeed Limits.

		EAS (m/s)	KEAS	KCAS*1)
Max. Maneuvering Speed	V_A	72.02	140	140
Max. Gear Extended Speed	V_{LE}/V_{LO}	77.16	150	150
Flap Extended Speeds				
Flap Settings 20º	V_{F20}	72.02	140	140
30º	V_{F30}	66.87	130	130
40º	V_{F40}/V_{FE}	61.73	120	120
Stalling Speeds (4600 kg)				
Flap Settings UP	V_{S1}	40.12	78	78
40º	V_{S0}	33.44	65	65
Design Cruising Speed	V_{C} *2)	92.59	180	182
Max. Speed in Level Flight	V_H	92.08	179	180
Max. Diving Speed	V_D	115.72	225	227
Design Speed for Max. Gust Intensity	V_B	70.98	138	138
Max. Operating Speed	V_{MO}	92.08	179	180

*1) *Is considered for the certification height of 15000 ft.*
For speeds up to 150 kts: EAS = CAS.
*2) *Increased only for design purposes.*

Center of Gravity.

The center of gravity (CG) location is permitted to vary within the following forward and aft limits.

Forward limit:
Up to 4600 kg (10141 lbs) 18% MAC
(QE 5152)
Aft limit:
Up to 4600 kg (10141 lbs) 32 % MAC
(QE 5407)

CG limits are given as percentage to the mean aerodynamic chord (MAC = 1.825 m).

The center of gravity range location in the vertical plane is depending on take off weight and is permitted to vary with the following limits:
Max.: HE2752
Min.: HE2212

Empty Weight C.G. Range. None

Datum. See C.G. Range.

Leveling Means. Reference of water level at water line 1750. Four marked inserts of fuselage (two LH, two RH) at station 2000 and station 7800.

Maximum Weights.

Max. Ramp Weight	4650 kg	10251 lbs
Max. Take-Off Weight	4600 kg	10141 lbs
Max. Landing Weight: Land	4500 kg	9920 lbs
Max. Landing Weight: Water	4600 kg	10141 lbs
Min. Design Weight	2900 kg	6339 lbs

Minimum Crew. 1 Pilot

Number of Seats. Maximum 12

Max. Weight in Baggage Area. 180 kg (397 lbs) in rear baggage area between station 7900 and 8600.

Max. Fuel Capacity. 1387 kg (3058 lbs) (usable = 458 gal)

Oil Capacity. Total oil capacity per engine: 14 U.S. Quarts (13.25 Liters)

Control Surface Movements.

Flaps Deflection Positions:	0º/20º/30º/40º
Aileron Deflection:	-23.5º/ +9.5º
Elevator Deflection:	-30º/ +20º
Rudder Deflection:	-30º/ +30º

DATA APPLICABLE FOR ALL MODELS.

Serial Nos. Eligible. S/N 1003 and following S/Ns (see Import Requirements).

Type Certification Basis. The type certification basis for the Dornier Seastar Model CD2 airplane is as follows: Part 21 of the Federal Aviation Regulations (FAR), § 21.29; Part 23 of the FAR, effective February 1, 1965, including amendments 23-1 through 23-34; Special Federal Aviation Regulation (SFAR) No. 27, effective February 1, 1974, as amended by amendments 27-1 through 27-8; Part 36 of the FAR, effective December 1, 1969, as amended by amendments 36-1 through amendment 36-18.
(Docket No. 061CE, Special Conditions 23-ACE-44)
Special Conditions; Dornier Seastar CD2 Series Airplanes
and Exemptions for FAR Part 23 Amdt. 34 §23.807(d)(1) and §23.807(d)(1)(i)

The Luftfahrt Bundesamt originally type certificated this aircraft under its type certificate Number 2065. The FAA validated this product under U.S. Type Certificate Number A62EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of Germany.

Import Requirements. This aircraft is not eligible for operations in the United States. Please contact the FAA, Small Airplane Directorate at Kansas City, Missouri for additional information.

Equipment. Basic required equipment as prescribed in the applicable airworthiness

regulations (see "Certification Basis") must be installed in the aircraft for certification.

Service Information

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before September 28, 2003 – by the Luftfahrt Bundesamt.

- Service bulletins,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

The FAA accepts such documents and considers them FAA-approved unless one of the following conditions exists:

- The documents change the limitations, performance, or procedures of the FAA approved manuals; or

- The documents make an acoustical or emissions changes to this product's U.S. type certificate as defined in 14 CFR § 21.93.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.

NOTES

NOTE 1.

Weight and Balance
Current weight and balance data together with a list of equipment included in the certificated empty weight, and loading instructions, must be provided for each aircraft at the time of original certification.

NOTE 2.

Placards
All placards listed in the approved Airplane Flight Manual must be installed in the appropriate locations. Each airplane has to be supplied with a placard that specifies the kind of operations to which the operation of the individual airplane is limited by its installed equipment.
The following placard must be displayed on the instrument panel in full view of the pilot:

"OPERATIONAL LIMITS
The marking and placards installed in this airplane contain operating limitations which must be complied with when operating this airplane in the commuter category. Other limitations which must be compiled with when operating this airplane in this category are contained in the:
PILOT'S OPERATIONS HANDBOOK and LBA APPROVED AIRPLANE FLIGHT MANUAL."
"No acrobatic maneuvers including pins, approved."

NOTE 3.

Airworthiness Limitations
Chapter 05 of the SEASTAR CD2 Airplane Maintenance Manual, specifies mandatory replacement times, structural inspection intervals, and related structural procedures, and operation checks for continuous airworthiness. This also fulfills the requirements of 14 CFR Sections 21.29, 43.16 and 91.403 of

FAA Regulations.
The Airworthiness Limitation Section 05-05-00 may not be changed without FAA-approval.

NOTE 4. Operations Limitations
Type Approval is applied for parts of equipment and installations that are required for VFR/night operation only.
Flight under known icing conditions is prohibited.

NOTE 5. Life Limits.
Service Life Limited components airframe: 30,000 flight hours.
Every 3,600 flight hours the "Significant Structural Items Inspection" and prior to 30,000 flight hours the "Airframe Major Inspection" must be performed. This may provide the necessary clearance for further flight.

NOTE 6. Painting
White is the only permitted color for the aircraft frame. Changing the color and the thickness of the coat is only permissible after prior approval by the manufacturer.

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