DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A8IN
Revision 6
General Atomics AeroTec Systems
Do 27 Q-6

September 28, 2021

TYPE CERTIFICATE DATA SHEET NO. A8IN

This data sheet which is a part of type certificate No. A8IN prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder	General Atomics AeroTec Systems GmbH Claude-Dornier-Strasse 1 D-82234 Wessling Germany
Type Certificate Holder Record:	Dornier-Werke G.m.b.H. Munich, Federal Republic of Germany (See note 4.) transferred TC A8IN to RUAG Aerospace Services on December 1, 2015 RUAG Aerospace Services GmbH transferred TC A8IN to General Atomics AeroTec Systems GmbH on September 28, 2021.

I. Model Do 27 Q-6, 8 PCLM (Normal Category), Approved October 27, 1962

Engine	Lycoming GO-480-B1A6
Fuel	80/87 Minimum grade aviation gasoline
Engine limits	Takeoff (5 minutes), 3400 r.p.m. (270 hp.) For all operations, 3000 rpm (260 hp)
Propellers and propeller limits	Hartzell HC-82X20-1B/10133D-3, HC-A2X20-1/10133D-3, 2-bladed metal Pitch settings at 30 in. station: Low 14.6 degrees, High 31.9 degrees Diameter: Maximum 98 in., Minimum 96 in. No further reduction permitted.

Airspeed limits

Vne (Never exceed)	207 m.p.h. (180 knots)
Vno (Max. structural cruising)	152 m.p.h. (132 knots)
Vp (Maneuvering)	130 m.p.h. (113 knots)
Vfe (Flaps extended)	100 m.p.h. (86 knots)

C.G. range

Weight (lb.)	Fwd. Limit (inches)	Aft Limit (inches)
4080	133.0	140.0
3860	130.4	140.0
2870 and less	127.1	140.0

Straight line variation between points shown.

Empty weight C.G. range	None
Datum	118.11 in. forward of wing leading edge slat
Leveling means	Lower cabin door sill
Maximum weight	4080 lb.
No. of seats	8. (2 at +120.8), (3 at +151.5), (3 at +185.0)
Maximum baggage	132 lb. (+210.6)
Fuel capacity	96 gal. (Two main wing tanks 29 gal. ea.) (+153.1) (Two auxiliary tanks 19 gal. ea.) (+153.1)
Oil capacity	3 gal. (+61.8)

Control surface movements

Wing flaps	Full travel	45 degrees
Outer aileron	Up 21 degrees	Down 20 degrees
Inner aileron	Up 18 degrees	Down 18 degrees
Elevator	Up 28 degrees	Down 23 degrees
Rudder	Right 25 degrees	Left 25 degrees
Stabilizer	Up 9 degrees	Down 4 degrees

Serial Nos. eligible

Only serial 2072 eligible when modified in accordance with note 3. The only other eligible Do 27 Q-6 airplane has been destroyed. The EASA Certificate of Airworthiness for Export endorsed as noted below under "Certification basis" must be submitted for each individual aircraft for which application for certification is made.

No other conversions are allowed, conversion of any other Do 27 model to a Q-6 model is prohibited.

Certification basis

CAR 10. Type Certificate No. A8IN issued October 27, 1962. Application for Type Certificate dated October 27, 1959.

U. S. Civil Air Regulation Part 3, dated May 15, 1956, including Amendments 3-1 through 3-6.

Each aircraft and any replacement parts manufactured in Germany must be designated as "import" and clearly labeled as such in accordance with CAR 10.30.

The Luftfahrt Bundesamt originally type certificated this aircraft under its type certificate Number 514. The FAA validated this product under U.S. Type Certificate Number A8IN. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of Germany.

Equipment

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

(a) Luftfahrt-Bundesamt approved Airplane Flight Manual
(b) Stall warning indicator

Import Requirements

The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Luftfahrt Bundesamt 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 comply with U.S. Civil Air Regulation Part 3 approved under U.S. Type Certificate No. A8IN and to be in a condition for safe operation.'

Refer to the applicable bilateral agreement to verify eligibility for import into the United States of both new and used aircraft based on the scope of the agreement, to identify any required statements by the exporting authority on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, *Airworthiness Certification of Aircraft*, for requirements for issuance of an *airworthiness certificate* for imported aircraft.

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.

NOTE 1. Current weight and balance report including list of equipment in certificated empty weight, and loading instructions, when necessary, must be provided for each aircraft at the time of original certification.

NOTE 2. The following placards must be displayed as indicated:

(a) On the instrument panel in full view of the pilot:
"THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS OF THE AIRPLANE FLIGHT MANUAL. NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED."

"MAX. PERMISSIBLE DIVE SPEED: 180 KNOTS,
MAX. SPEED WITH FLAPS EXTENDED: 86 KNOTS."

"MANEUVERING SPEED: 113 KT."

(b) In cockpit above the doors:
"IN CASE OF EMERGENCY DOORS MAY BE JETTISONED BY ACTUATING DOOR JETTISON HANDLES."
(c) In cabin:
"MAX. LOAD 1210 LB. (550 KG.). ADHERE TO LOADING CHART."
(d) In luggage compartment:
"MAX. LUGGAGE LOAD 132 LB. (60 KG.). ADHERE TO LOADING CHART. STRAP BALLAST. WHEN ON CARGO-TRANSPORT DUTIES, DO NOT LOAD THIS COMPARTMENT."

NOTE 3. DORNIER Model Do 27 Q-5 serial number 2072 only may be converted to a Model Q-6 when the following changes are incorporated:
a. Modification of the cabin (cockpit) floor in accordance with Dornier drawings 27.126-25 and 27.150-21.
b. Installation of a stall warning system in accordance with Dornier drawings 27.836-06, 27.836-07 and 27.836-08.
c. Modification of the primary control systems bellcranks and control surface junctions by securing bolts with castellated nuts and cotter pins.
d. Installation of a protective enclosure for the fuel filter/fuel shutoff valve which complies with FAR 23.1191(h).
e. Addition of a second identification plate stating "CONVERTED TO MODEL Do 27 Q-6" with the date of conversion.
f. Model Do 27 Q-6 Airplane Flight Manual.

NOTE 4. The organization responsible for continued airworthiness is:

RUAG Aerospace Services GmbH
Airfield Oberpfaffenhofen
P.O. Box 1253
D-82231 Wessling
Germany

NOTE 5. Current weight and balance report including list of equipment in certificated empty weight, and loading instructions, when necessary, must be provided for each aircraft at the time of original certification.

.....END.....