SUPPLEMENT N048
TO THE AIRPLANE FLIGHT MANUAL
DA 40 NG

OPERATION IN THE UKRAINE

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Signature : M. Reichel PCM GA

Stamp : European Aviation Safety Agency Certification General Aviation

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This airplane must be operated in compliance with the information and limitations contained in this supplement and the basic Airplane Flight Manual.

AIRCRAFT INDUSTRIES GMBH
N.A. OTTO-STR. 5
A-2700 WIENER NEUSTADT
AUSTRIA

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0.1 RECORD OF REVISIONS

Rev. No.	Reason	Chap-ter	Page(s)	Date of Revision	Approval Note	Date of Approval	Date Inserted	Signature

0.2 LIST OF EFFECTIVE PAGES

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1. GENERAL

No change.

2. OPERATING LIMITATIONS

2.11 OPERATING ALTITUDE

Flight level under IFR must not exceed 4200m (13780ft).

NOTE

For flights at altitudes above 3600 m (11811 ft) the crew must use oxygen equipment. Flights between 3000 m (9842 ft) and 3600 m (11811 ft) altitude without oxygen equipment for the crew are limited to a maximum of 30 minutes.

For airplane operation above 3000 m (9842 ft) for more than 30 minutes, oxygen supply must be provided for at least one passenger.

The maximum permitted airfield elevation is 3050m (10000ft) altitude.

2.16 OTHER LIMITATIONS

2.16.1 TEMPERATURE

- The airplane may only be operated when its temperature prior to operation is not less than -20 °C (-4 °F) and the outside air temperature on ground is not higher than 45 °C (113 °F).
- With the airplane cold soaked and its temperature below -20 °C (-4 °F) the use of an external pre-heater for the engine and pilot compartment prior to operation is mandatory.

2.16.8 RUNWAY SURFACE

Take-off and landing operations must be conducted on dry or wet paved surfaces or dry grass surfaces with a maximum grass height of 10 centimeters.

If OÄM 40-334 is installed:

Take-off and landing on dry or wet paved surfaces or dry or wet unpaved surface with minimum soil strength of 6 kg/cm² are permitted.

2.16.9 AIRSPACE

Flights are only permitted along routes with continuous VHF coverage.

3. EMERGENCY PROCEDURES

3.1 INTRODUCTION

3.1.1 GENERAL

NOTE

If possible switch on the landing lights during emergency landings.

3.10 FAILURES IN THE CONTROLS SYSTEM

3.10.1 DISCONNECTED OR JAMMED CONTROLS

Disconnected or Jammed Rudder

With a disconnected rudder adequate directional control can be achieved by using ailerons.

During approach use a glide path as shallow as possible and extend the pattern to achieve a long final.

During landing the airplane may turn initially in opposite direction of aileron use. Avoid bank angles exceeding 20° during the pattern and 10° on final approach.

During crosswind landings it is necessary to lower the wing into the wind. Before correcting the crab for runway heading, consider the yaw effect when changing the bank.

A change in power may lead to yaw movement (increase power will lead to left turn; decrease power will lead to right turn).

Disconnected or Jammed Ailerons

Adequate lateral control can be achieved by using the rudder.

During approach use a glide path as shallow as possible and extend the pattern to achieve a long final.

During landing the airplane has to be controlled with use of rudder.

Avoid bank angles exceeding 20° during the pattern and 10° on final approach.

During crosswind landings it is necessary to crab into the wind. Directional changes prior touchdown may cause a wing lift and must be conducted carefully.

Disconnected Elevator

Adequate pitch control can be achieved by using the elevator trim and engine power. The flap setting has to be chosen in accordance to weight, balance and power and shall be established in the very beginning of the final approach.

During approach use a glide path as shallow as possible and extend the pattern to achieve a long final.

During landing expect the airplane to pitch down when reducing power. Correct with elevator trim prior touch down and reduce power slowly. Avoid aggressive power changes during the approach.

Jammed Elevator

Adequate pitch control can be achieved by using engine power and the elevator trim in opposite sense whereas the main pitch control will be achieved with power and the effectiveness of trim is reduced.

With jammed elevator the airplane must be landed in the flaps up position.

During approach use a glide path as shallow as possible and extend the pattern to achieve a long final.

During landing expect the airplane to pitch down when reducing power. Correct with elevator trim prior touch down and reduce power slowly. Avoid aggressive power changes during the approach.

4A. NORMAL OPERATING PROCEDURES

4A.5 CHECKLISTS FOR NORMAL OPERATING PROCEDURES

4A.5.7 TAKE OFF

NOTE

In strong crosswinds steering can augmented by use of the toe brakes. It should be noted, however, that this method increases the take-off roll, and should not generally be used.

Upon take-off the application of aileron control into the wind to maintain wings level and rudder to maintain directional control may be required.

4A.5.9 CRUISE

NOTE

Operation over water beyond the maximum glide distance (see 5.3.14 - GLIDE) is not advisable with a single engine airplane.

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4A.5.12 LANDING APPROACH

NOTE

During landing in crosswind conditions, immediately prior to touchdown, lower upwind wing and align the fuselage with the runway by use of rudder. During rollout, hold aileron control into the wind and maintain directional control with rudder and brakes.

4B. ABNORMAL OPERATING PROCEDURES

No change.

5. PERFORMANCE

5.3. PERFORMANCE TABLES AND DIAGRAMS

5.3.7 TAKE-OFF DISTANCE

For operation from unpaved surfaces the NOTES of the basic AFM are replaced by the following:

NOTE

For take-off from dry unpaved runways with a soil strength of 9.5 kg/cm² or more, the following corrections must be taken into account, compared to paved runways (typical values).

- Grass up to 5 cm (2 in) long: 5% increase in take-off-roll.

- Grass up to 10 cm (4 in) long: 10% increase in take-off roll.

- Grass longer than 10 cm (4 in): at least 30% increase in take-off roll.

NOTE

For wet grass, an additional 10% increase in take-off ground roll must be taken into account.

NOTE

For take-off from dry or wet unpaved runways with a soil strength between 7 kg/cm² and 9.5 kg/cm², an 50% increase in take-off roll must be taken into account.

NOTE

For take-off from dry or wet unpaved runways with a soil strength between 6 kg/cm² and 7 kg/cm², an 90% increase in take-off roll must be taken into account.

NOTE

An uphill slope of 2% (2 m per 100 m or 2 ft per 100 ft) results in an increase in the take-off distance of approximately 17%. The effect on the take-off roll can be greater.

5.3.11 LANDING DISTANCE - FLAPS LDG

NOTE

In order to calculate the required operational landing distances for dry surfaces, increase the landing distance by:

- 67 % for basic airfields
- 43 % for diversion airfields

In order to calculate the required operational landing distances for wet surfaces, increase the landing distance by:

- 92 % for basic airfields
- 64% for diversion airfields

5.3.12 LANDING DISTANCE - ABNORMAL FLAP POSITION

NOTE

In order to calculate the required operational landing distances for dry surfaces, increase the landing distance by:

- 67 % for basic airfields
- 43 % for diversion airfields

In order to calculate the required operational landing distances for wet surfaces, increase the landing distance by:

- 92 % for basic airfields
- 64% for diversion airfields

5.3.15 APPROVED NOISE DATA

NOTE

The certificated noise levels for the Diamond DA 40 NG comply with noise levels limits specified in ICAO Annex 16, Volume 1, Chapter 10.

MTOW [kg]	Propeller	Additional Modifications	Take Off dB(A)	
			Actual [dB(A)]	Max. Allowable [dB(A)]
1280	MTV-6-R/190-69	Silencer: Diamond Aircraft D44-7806-20-00_()	71.5	82.5
1280	MTV-6-R/190-69	Silencer: Diamond Aircraft D44-7806-10-00_()	74.5	82.5
1280	MTV-6-R/190-69	Silencer: Diamond Aircraft D44-7806-10-00_() and OÄM 40-334 (large tyres and 1280 kg landing mass) carried out	75.3	82.5
1280	MTV-6-R/190-69	Silencer: Diamond Aircraft D44-7806-20-00_() and OÄM 40-334 (large tyres and 1280 kg landing mass) carried out	72.1	82.5

6. MASS AND BALANCE

No change.

7. DESCRIPTION OF THE AIRPLANE AND ITS SYSTEMS

No change.

8. AIRPLANE HANDLING, CARE AND MAINTENANCE

No change.

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