

SUPPLEMENTAL AIRPLANE MAINTENANCE MANUAL

DA 62

HMoD SURVEY STAR CONFIGURATION

This Supplemental AMM is approved and is valid in conjunction with the basic Airplane Maintenance Manual (AMM).

The limitations and information contained herein either supplement or in case of conflict, override those in the AMM.

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This document must be carried in the Airplane Maintenance Manual (AMM) at all times. It describes the maintenance procedures.

The technical information contained in this document has been approved under the authority of DOA ref. EASA.21J.052.

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FOREWORD

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Any occurrence related to this DEO shall be reported in writing to the address above or submitted to E-Mail airworthiness-austria@diamondaircraft.com.

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CHAPTER 03

GENERAL DESCRIPTION OF THE AIRPLANE

1. Description

The DA 62 can be equipped with optional mission equipment that allows the aircraft to be used for law enforcement, surveillance, border control and search & rescue. The equipment as part of this DEO consists of an Airborne Laser Scanner System (together with two medium format camera installed in the nose), and a large format mapping camera on the camera hatch in the cabin.

This supplemental AMM provides instructions for Continued Airworthiness related to this DEO.

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CHAPTER 05
TIME LIMITS AND MAINTENANCE CHECKS
Section 05-28-50
Maintenance Checklist DA 62 Airframe

1. Exterior of the Fuselage

F. HMoD Survey Star Configuration

Note: You must also do the applicable maintenance work described in Supplemental AMM M30.

		Interval					
	Inspection Items, HMoD Survey Star Configuration	100	200	1000	2000	Time	Initials
1.	Check all cables for improper connection and incorrect routing.	X	X	X	X		
2.	Check all cables for chafing.	X	X	X	X		
3.	Check attachment of Airborne Laser Scanner, Medium Format Cameras, GPS Splitter and Internal Measurement Unit (IMU/GNSS): – Check for loose or missing fasteners. – Check mounting brackets for cracks and deformation.	X	X	X	X		
4.	Check equipment installed in the rear baggage compartment for improper or insecure mounting and for loose or missing fasteners: – iX Controller – Power Distribution/ Ethernet Box – LTE/ 5G Router	X	X	X	X		

		Interval					
	Inspection Items, HMoD Survey Star Configuration	100	200	1000	2000	Time	Initials
5.	Check equipment installed in the cabin and operator middle console for improper or insecure mounting and for loose or missing fasteners: – Pilot Display – Left Hand Operator Display – Right Hand Operator Display – Middle Operator Display – Mission PC – Laser Safety Box – USB Switch – Gyro Stabilization Mount – Ultracam Eagle	X	X	X	X		
6.	Check equipment installed in the nose baggage compartment for improper or insecure mounting and for loose or missing fasteners: – Nose Power/ LAN/ SDI Box – Control Unit (AP+)	X	X	X	X		
7.	Check Antennas on Equipment Wiring Installation Duct, Nose Fuselage, Fuselage Cabin Top and Fuselage Belly for insecure attachment and defective sealant.	X	X	X	X		

CHAPTER 11
PLACARDS AND MARKINGS
Section 11-30
Interior Placards and Markings

1. General

Install the corresponding placard in the LH & RH Nose baggage compartment:

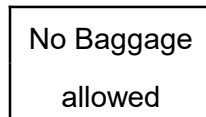


Figure 1: Placard in Nose Baggage Compartments (LH and RH)

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CHAPTER 24
ELECTRICAL POWER
Section 24-81-00
HMoD Survey Star Configuration

1. General

The Mission Equipment part of the HMoD Survey Star Configuration is supplied with power from the Mission Power Panel, which is installed on the RH side in the rear baggage compartment.

2. Overview Electrical Loads

For an overview of the electrical power consumption of the HMoD Survey Star Configuration refer to the Supplemental AFM D54, Section 7.10.

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CHAPTER 25
EQUIPMENT / FURNISHINGS
Section 25-70-32
HMoD Survey Star Configuration

1. Description of the Components

Mission Management System

The Mission Management System Consists of the following main components:

- The Mission PC.
- The LH Operator Display.
- The RH Operator Display.
- The Middle Operator Display.
- The Pilot Display.
- The LTE/ 5G Router.
- The USB Switch.
- The Amplified GPS Splitter.
- Four Cellular Broadband Blade Antennas.
- AMSS/ GPS Antenna.

The LTE/ 5G router is located in the Rear Baggage Compartment, the GPS Splitter is in the WX Multi-Purpose Nose while the displays, the Mission PC and the USB Switch are installed in the cabin. The Blade Antennas are installed on the Wiring Duct. The AMSS/ GPS is installed on the Fuselage Cabin Top.

These components allow for control and monitoring of other Mission Systems, along with allowing internet access for the system.

RIEGL - Airborne Laser Scanner System

The Airborne Laser Scanner System consists of the following main components:

- The Airborne Laser Scanner.
- The Laser Safety Box.
- The Power Distribution/ Ethernet Box.

- The Control Unit (AP+).
- The Internal Measurement Unit (IMU/ GNSS).
- The iX Controller.
- Two Medium Format Cameras.
- The AMSS/ GPS Antenna.

This system allows for high efficiency mapping at different altitudes. The Power Distribution/ Ethernet Box and iX Controller are located in the Rear Baggage Compartment. The Airborne Laser Scanner, the IMU, the two Medium Format Cameras and the AMSS/ GPS Antenna are located in/ on the WX Multi-Purpose Nose. The Control Unit (AP+) is installed in the Nose Baggage Compartment. The Laser Safety Box is installed in the Cabin.

VEXCEL - UltraCam System

The UltraCam System consists of the following main components:

- The UltraCam Eagle 4.1.
- The Gyro Stabilization Mount GSM 4000.

Both components are located in the Cabin and allow the airplane to record mapping-grade images.

Maintenance Practices

1. General

Any replacement of the mission equipment, installed as part of this DEO, requires a reevaluation of the new installed equipment according to Supplemental Airplane Maintenance Manual DA 62, Installation Instructions for Module STC-62- 001-M30, Doc. No. 7.02.25-M30 and Installation Instructions for Module STC-62- 001-M50, Doc. No. 7.02.25-M50.

2. Remove/Install Procedures

Additional Mission Equipment may be removed separately, assumed that affected Mission Bus Circuit breaker is disengaged and secured, and affected Mission Bus is identified as “inop” with a Placard on the Mission bus switch panel.

Aircraft W&B and AFM Equipment List has to be corrected after each Removal/Installation of the additional Mission equipment.

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CHAPTER 92
WIRING DIAGRAMS

1. General

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Wiring, System	M054-9225-00-01_EPA	-	2

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