



A Mahindra Aerospace Company

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Issue 4

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Service Letter

SUBJECT:

Limitations for Surveillance Configuration

APPLICABILITY:

All GA8 and GA8-TC 320 aircraft

AMENDMENTS:

Issue 2: New Part Numbers for LH & RH Workstations included

Issue 3: Figures 1 and 2 updated. Procedure to clarify limitations for Workstation hood added. New Part Numbers for Camera Frame installation. Electrical load limits updated.

Issue 4: Limitations for Camera Frame updated

BACKGROUND:

The versatility of the GA8 Airvan means that the aircraft can be used for a multitude of functions, one of which is the ability for it to be used as a Surveillance aircraft. There are a number of different factory options that can be incorporated onto the aircraft depending on the extent of surveillance to be carried out. The options provide the flexibility of installing various types of role equipment onto the framework provided by GippsAero via these options.

This Service Letter addresses some of the Limitations applicable on any role equipment that the operators of the aircraft wish to install onto the Workstations (GA8-251031-011, GA8-251031-013, GA-000454-011 & GA-000454-012), Equipment Rack (GA8-251031-015) and the Camera Frame installation (GA-000420-001 and GA-000475-003). These limitations are intended as a guideline to the operator's engineers and the final installation and certification of role equipment to the aircraft structure is the responsibility of the installer.

LIMITATIONS:

Workstation

The following Generic Limitations are applicable to the installation of any role equipment onto the workstation.

1. Total empty weight of workstation (base & hood) 26 lb (12 kg) (approx. including fasteners)
2. Max equipment dimensions (Hood) 22H X 19W X 11.5D (approx. internal dimensions of the hood in inches - equipment should not protrude outside the frame)
3. Max equipment dimensions (Base) 23H X 19W X 18D (approx. internal dimensions of the frame in inches - equipment should not protrude outside the frame)
4. Max total weight (Hood) Calculate the centre of gravity (CG) position of the equipment installed in the Workstation hood with respect to height from the fuselage floor. Refer to the shaded area of Figure 2 for acceptable combined mass vs CG height combinations.

5. Max total weight (Base and Hood)

Maximum total weight of the role equipment allowed on the workstation is dependent upon the position of the equipment's overall centre of gravity (CG) position with respect to height from the fuselage floor. Refer to Figure 2 for Mass CG position vs height combination. Any equipment installation with an overall mass CG position and height combination below the curve is acceptable.

6. Electrical Load

The electrical load limits applicable to any role equipment to be installed onto the workstation are the responsibility of the party certifying the electrical design of the role equipment / system. GippsAero bears no responsibility for electrical certification of equipment using this workstation.

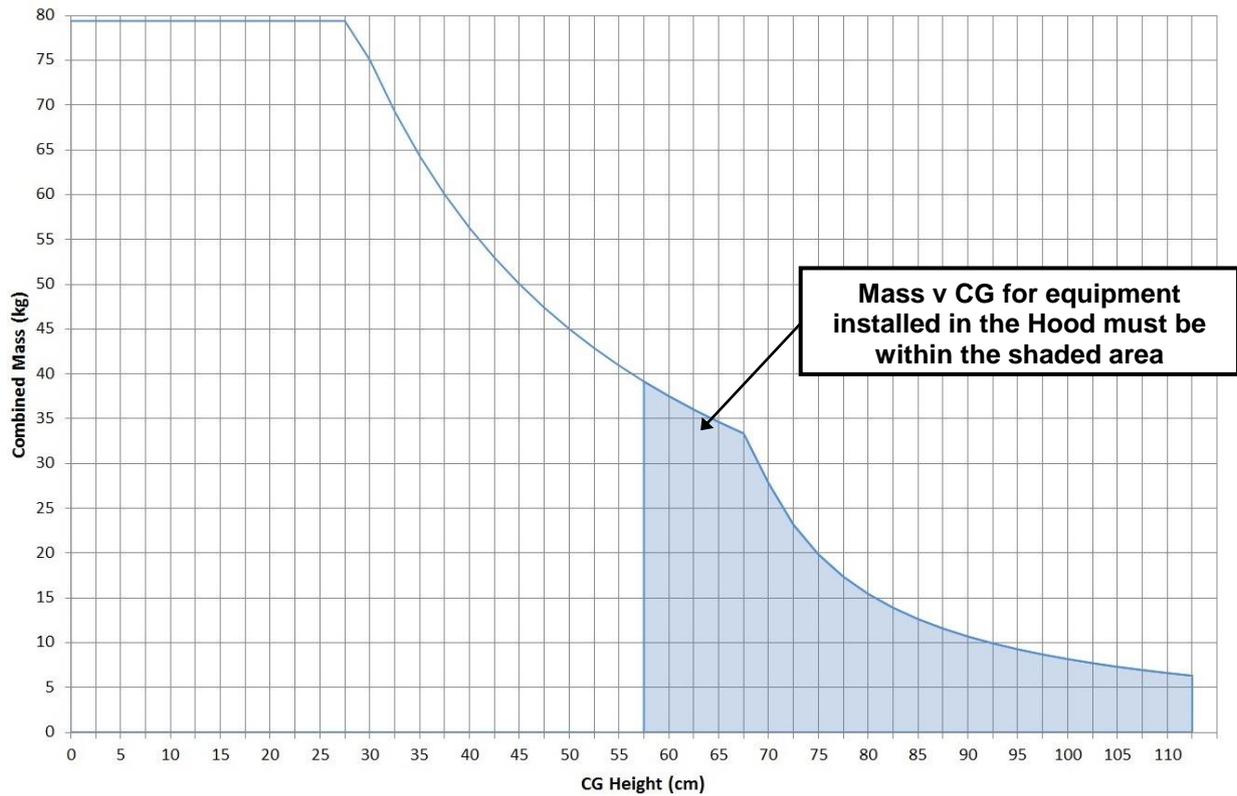


Figure 1: Workstation Mass CG Position vs Height

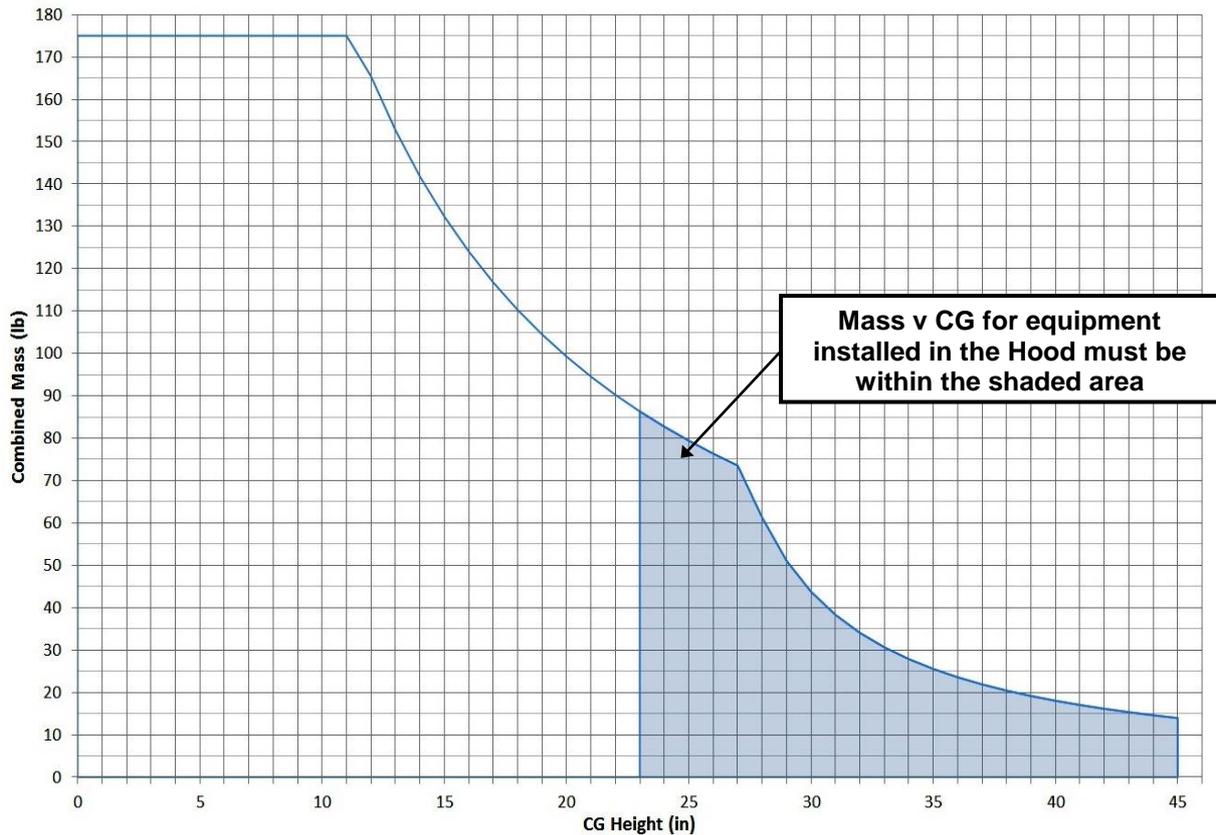


Figure 2: Workstation Mass CG Position vs Height – cont.

Equipment Rack

The following Generic Limitations are applicable to the installation of any role equipment onto the rack.

1. Total empty weight of equipment rack 20 lb (9 kg)
(approx. including fasteners)

2. Max equipment dimensions 19H X 15W X 11D

3. Max total weight Maximum total weight of the role equipment allowed on the rack is dependent upon the position of the equipment's centre of gravity (CG) position with respect to height from the fuselage floor. Refer to Figure 3 for Mass CG position vs height combination. Any equipment installation with an overall mass CG position and height combination below the curve is acceptable.

4. Max weight per shelf 43.52 lb (19.74 kg)

5. Electrical Load The electrical load limits applicable to any role equipment to be installed onto the workstation are the responsibility of the party certifying the electrical design of the role equipment / system. GippsAero bears no responsibility for electrical certification of equipment using this workstation.

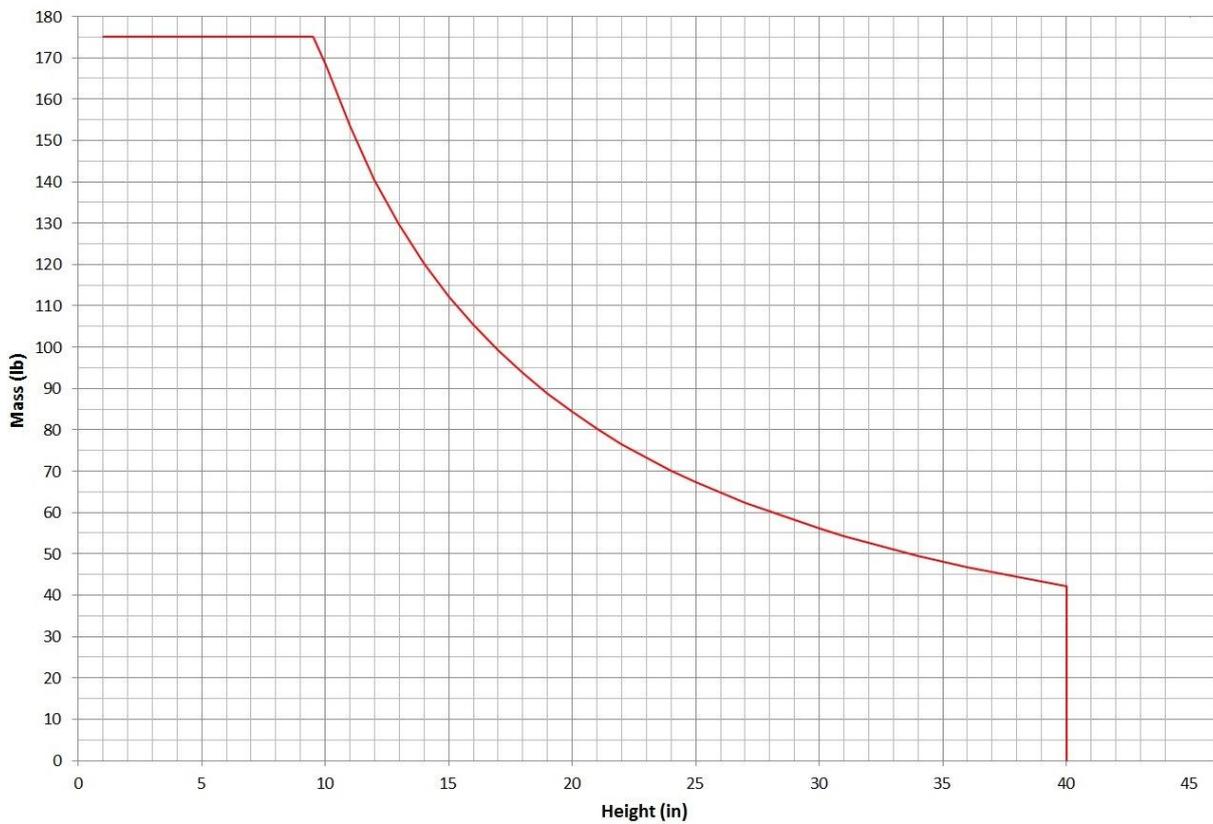
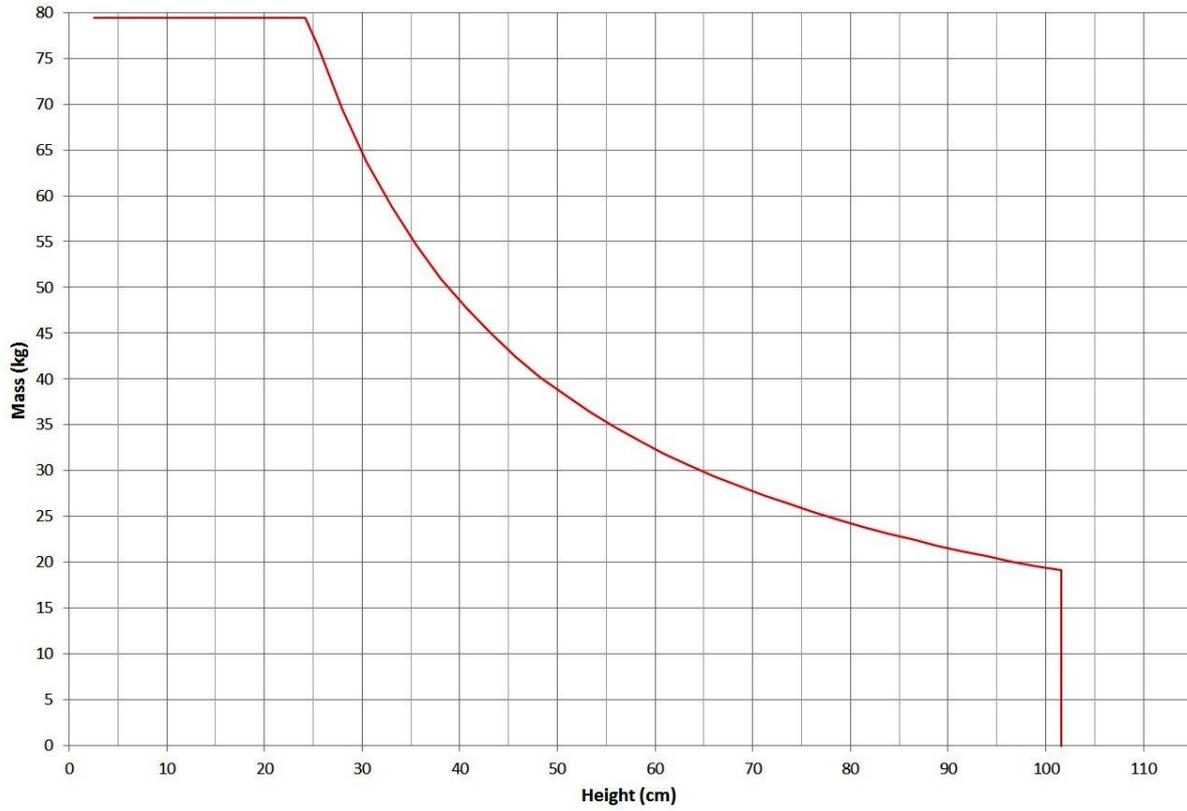


Figure 3: Equipment Rack Mass CG Position vs Height

Camera Frame

The following Limitations are applicable to the attachment of any camera or special mission equipment to the mounting plate of Camera Frame Welded Axle/Gimbal Assembly as delivered by GippsAero, and before the installation of any spacers or adapter plates, either from the equipment OEM or locally fabricated.

The limitation for the special mission equipment's mass is published as a moment it imparts about the centreline of the Welded Axle Assembly. This can be determined by the information provided in Figure 5.

1. Max Equipment Mass 106 lb (48 kg)
2. Max Equipment Dimensions 15.5H X 18.5W X 15.5D
3. Max Equipment Moment 1019 in.lb (115 Nm)

4. Electrical Load

The electrical load limits applicable to any role equipment to be installed onto the workstation are the responsibility of the party certifying the electrical design of the role equipment / system. GippsAero bears no responsibility for electrical certification of equipment using this workstation.

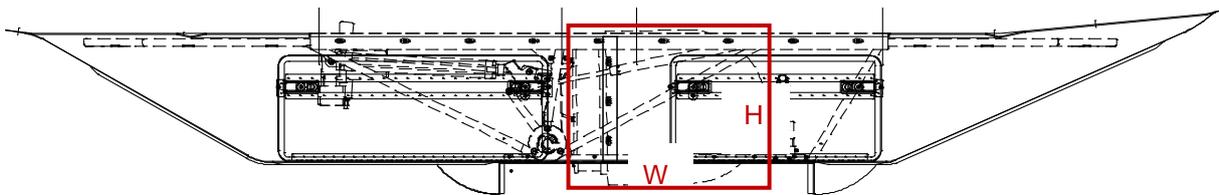


Figure 4: Camera Dimensions

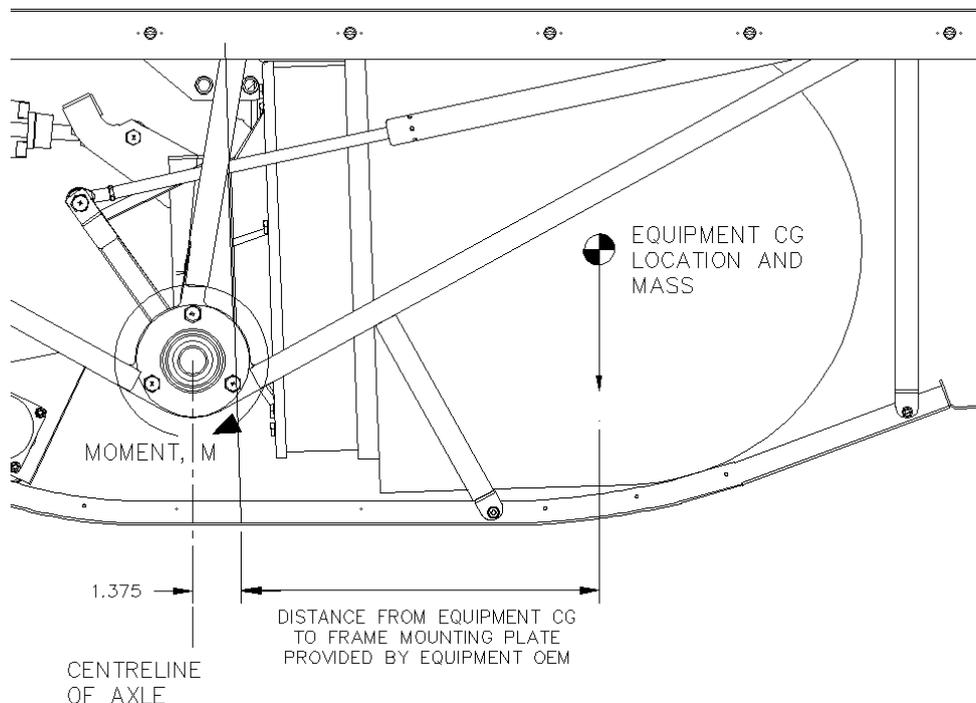


Figure 5: Equipment Moment Calculation

SUPPORT

Should you require any further information please contact our Customer Support Department:

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