



703 Carrell Street • Tomball TX 77375

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Alberth Aviation Lavatory Service Cart LC1616



GENERAL INFORMATION & OPERATING INSTRUCTIONS

SECTION 1 - DESCRIPTION

General

The LC1616 is a self-contained mobile cart designed for servicing the lavatory facilities of corporate and business aircraft. The LC1616 tanks are made of heavy-duty, rotationally molded plastic, and the chassis and tow-bar are powder coated steel. The fill & flush pumping systems consist of an easy-to operate heavy duty hand pumps. The LC1616 includes all required hoses and fittings to service any applicable aircraft. It is designed for light towing by hand or vehicle (under 15 MPH).



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Major Components

A. Chassis

The chassis is constructed of powder coated 1x2 steel. The steering unit consists of a two wheel tow truck attached to a 36" tow bar with friction braking when in the upright position. The rear axles are welded to the frame for additional strength. The running gear consists of steel rims, replaceable 5/8" bearings, and pneumatic 4 ply rubber tires.

B. Tank Assemblies

The fill and waste tanks are constructed of rotationally molded polyethylene. The translucent tanks allow operators to view the fluid level in each tank. The tanks have no seams and are UV-protected. The waste tank capacity is 16 US Gallons, and the fill/flush tank capacity is 16 US gallons. The fill tank features a threaded 6" fill port, and a dome vent per FDA requirements. The steel frame construction in the waste tank area slopes from front-to-back as to help with the removal of waste, via the rear hand pump.

C. Pumping System

The LC1616 features Two Guzzler 2600 hand pumps for the fill/waste tanks (4 strokes to the gallon). The 9' fill hose is clear helicoil reinforced 1" hose. The fill coupler is a 1" anodized aluminum general aviation coupler, which will fit all aircraft. The coupler comes installed on the fill hose, and features a plug attached to the head plate to prevent leaking when not in use. There is a drain-back valve on the fill hose near the hand pump to allow fill fluid to flow back into the fill tank before disconnecting the fill coupler from the aircraft, thus preventing those annoying blue water spills. An optional in-line digital flow meter can be added to the fill hose for monitoring the volume of fill fluid pumped into the aircraft.

D. Hoses & Fittings

The LC1616 is equipped with an 8' long by 4.125" diameter dump hose of translucent blue urethane or black and orange rubber wrapped with a crushproof internal nylon helix coil. The aircraft end of the hose features a 4" waste coupler, which is secured to the cart head plate when not in use. The LC1616 is equipped with a 6' long by 2" diameter black waste hose with a cuff fitting on the end for insertion into a toilet or dedicated sewage dump port. Alberth Aviation is the only lavatory service cart on the market with a waste pump and waste hose to prevent splashing during waste removal. Most other carts have a simple dump valve that is prone to splashing.

SECTION 2 - OPERATION

A. General

Operation of the Alberth Aviation LC1616 Lavatory Service Cart is fairly simple. The following recommendations are made for the operation of the unit. Refer to your company policies for their specific procedures in the operation of ground support equipment.

B. Pre-operational Check

Walk around the unit and make a visual inspection, paying particular attention to the following:

- Check general condition of unit
- Note the condition of tires and wheels.
- Make sure all hoses are secure.
- Make sure waste tank lid and fill tank port are closed and secure.
- Check the waste dump hose
- Check fluid level of fill tank.*



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C. Towing

1. Pull unit to aircraft at a safe speed under 15 mph.
2. Position unit so that rear of cart is adjacent to aircraft service point and such that no sharp kinks will be in waste or flush hose when attached to the aircraft.

D. Aircraft Servicing

1. Remove the 4" drain coupler from head plate and secure to aircraft.
2. Drain aircraft's waste container tank.
3. Connect the 1" fill coupler to aircraft.
4. Close drain-back valve near pump and begin pumping hand pump – 4 strokes = 1 US Gallon (1 stroke = up AND down).
5. Fill aircraft flush tank with appropriate amount of fluid. Count the strokes to determine the amount of fluid you have pumped into plane. If flow meter is installed, watch the meter to determine the amount of fluid pumped into aircraft you are servicing.
6. When aircraft flush tank is filled:
 - a. Open drain-back valve to allow fluid in hose to return to fill tank.
 - b. Remove fill coupler fitting at aircraft.
 - c. Return fill hose to the stowed position, and close drain-back valve.
 - d. Reset flow meter (if applicable).
7. Remove drain hose from aircraft and replace coupling to head plate.
8. Make sure that all hoses and fittings are secure and that there are no obstructions around unit before pulling away.
9. Waste fluid is now ready to be disposed of properly (either in a toilet or a floor drain)
10. Move LC1616 near a toilet or dedicated sewage dump port and insert the waste hose cuff. A single pump of the waste pump should be sufficient to begin the siphon on the waste tank and thus empty the tank.

***NOTE ON FILL FLUID:** Please carefully follow manufacturer instructions for mixing or diluting lavatory fill fluid or powder. Fill fluid not adequately dissolved or diluted will clog and damage pump and flow meter parts.

IMPORTANT: Always wear proper clothing and protective gloves as required by local code.

SECTION 3 - SPECIFICATIONS

A. Dimensions:

Length overall: 52 inches (107 centimeters)

Height: 28 inches (69 centimeters)

Width: 30 inches (76 centimeters)

Weight (empty): 150 lbs.

Shipping info: Palletized & shrink-wrapped, 54" x 40" x 4", 210 lbs. (114 cm x 102 cm x 76 cm).

B. Capacity:

Waste Tank: 16 U.S. Gallons

Fill/Flush Tank: 16 U.S. Gallons

C. Pumping & Waste System:

Guzzler 2600 Heavy-Duty diaphragm hand pump



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Fill Hose: 1" I.D. helicoil reinforced hose, 9' Long
Fill coupler: 1" short grip anodized aluminum fill coupler
Flow Meter (optional): GPI 01N31GM Digital In-Line meter, 3-30 GPM
Drain Hose: 4.125" I.D. nylon helix-reinforced hose, 8' Long
Drain Coupler: Airlinx composite general aviation straight coupler

Chassis:

Powder coated 1 x 2 steel
Tires\Wheels: steel wheels 10" pneumatic tires, with 5/8" bearings

MAINTENANCE

SECTION 4 - SERVICING

General

Servicing the Alberth Aviation LC1616 lavatory service cart can be accomplished with standard mechanical hand tools. All work should be performed in accordance with standard shop practices.

Chassis and Tanks

The chassis is made from steel and requires no maintenance. The polyethylene tanks should be washed with a mild detergent on a regular basis. The corrosive nature of the chemicals used to service the lavatory systems of aircraft will reduce the life of the unit if regular washing is not completed. Any part of the LC1616 structure that becomes damaged should be replaced or repaired. Replace tanks that are punctured or experience freezing-related cracks.

Plumbing System

The pumps, hoses, and couplings should be inspected for wear, leaks, or other damage. The hoses should be checked for cracks, cuts or other defects that will cause leakage. Those items should be repaired or replaced.

Pumps

The Guzzler 2600 Hand Pumps should be inspected regularly. The rubber diaphragm and flapper valves (on the pump inlet and outlet) should be inspected for cracks or holes, and should be replaced if damaged.

Running gear

The wheels and tires should be inspected daily. Unusual tire wear, cuts, leakage, or missing and damaged fasteners need to be replaced or repaired at once. The wheel bearings should be inspected every six (6) months. The wheel bearings should be greased yearly using the grease fitting in the hub. A common wheel bearing grease should be used.

Replacement Parts

Please visit www.alberthaviation.com to order parts and for pictures and descriptions of the above replacement parts.