



703 Carrell Street • Tomball TX 77375

Phone: 832.934.0055 • Fax: 832.934.0011

## Alberth Aviation Bottled Potable Water Service Cart WC20



### General Information and Operating Instructions

#### Section 1 - Description

##### General

The WC20 is a self-contained mobile cart designed for servicing the potable water facilities of corporate and business aircraft. The fill & suction pumping system consist of an easy-to operate heavy duty 4.5 GPM pump. The WC20 includes all required hoses and fittings to service any applicable aircraft. It is designed for light towing by hand or vehicle (under 15 MPH).

##### 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. 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 inner tube tires.

###### B. Pumping System

The WC20 features one 4.5 GPM 12V pump. The 12' fill hose is clear nylon-braid-reinforced 3/4" hose. The fill coupler is a 3/4" 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 pump cover to prevent leaking when not in use.



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## C. Battery & Charging System

The WC20 is equipped with a 12v automotive battery. The battery charger is a 6amp 12v 3 stage automatic non trickle. When the charger is attached to your battery and plugged into a standard 110v outlet, the red and green LED's let you know the unit is recharging and maintaining your battery. The unit is shipped with the battery disconnected. To connect the battery, look under the cover near the electrical plug under the stainless cover and attach the male and female plugs.

## Section 2 - Operation

### A. General

Operation of the Alberth Aviation WC20 Potable Water 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 suction cup is not touching the floor

### C. Towing

1. Pull unit to aircraft at a safe speed.
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. Load 5 gallon bottles into WC20; do not remove seals until needed.
2. Attach water cup hose male end to female quick disconnect on stainless steel cover, make sure it connects securely.
3. Insert water cup hose fill end into unsealed water bottle, using moderate pressure, and press down urethane cup until snug. Do not apply excessive force that may damage the urethane.
4. Insert fill hose female quick disconnect onto male end on stainless steel cover, make sure it connects securely.
5. Attach fill hose 3/4" water coupler securely to aircraft.
6. Turn ball valve on fill line to the closed position and turn toggle switch on stainless steel cover to the "on" position.
7. The WC20 will pump water from the water bottle through the stainless cover equipment and out the fill line.
8. The water pump is pressure activated, and will turn off at 40 psi. This feature allows the operator to turn on the pump, and tank the hose end inside the cabin if necessary to operate the pump using only the ball valve. (Note, for aircraft models requiring 45 psi to open the fill port, a 45 psi pressure switch is available for an additional charge)
9. The water pump operates at 4.5 gpm.
10. Fill aircraft water tank with appropriate amount of water.
11. When aircraft flush tank is filled, turn off ball valve and turn toggle switch to "off" position:
  - a. Remove fill coupler fitting from aircraft.
  - b. Return fill hose to the stowed position by mounting to the stainless steel cover stow pin.
  - c. Reset flow meter (if applicable). (An inline digital water flow meter is available for additional charge)
12. Make sure that all hoses and fittings are secure and that there are no obstructions around unit before pulling away.



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13. The battery will pump approximately 1000 gallons between charges. The pumping will become audibly weaker as the battery reaches this point. At this point the WC20 should be plugged in until the trickle charger indicates a full charge. The trickle charger will indicate a red light for charging and both a red and green light when fully charged.

## Section 3 - Specifications

### Dimensions:

Length overall: 47 inches

Height: 22 inches

Width: 26 inches

Weight (empty): 100 lbs.

Shipping information: Palletized & shrink-wrapped, 45" x 40" x 30", 150 lbs.

## Maintenance

### Section 1 - Servicing

#### A. General

Servicing the Alberth Aviation WC20 Potable Water Service Cart can be accomplished with standard mechanical hand tools. All work should be performed in accordance with standard shop practices.

#### B. Chassis

The chassis is made from steel and requires no maintenance. Any part of the WC20 structure that becomes damaged should be replaced or repaired.

#### C. Plumbing System

The pump, 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. The plumbing system should be disinfected according to a schedule. This can be accomplished by transferring a bleach or disinfectant solution between two empty water bottles.

#### D. Pump

The Flojet Diaphragm pump is maintenance free but can be inspected if needed.

#### E. 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 12 months. The wheel bearings should be greased monthly using the grease fitting in the hub. A common wheel bearing grease should be used.

#### Replacement Parts

***Please visit [www.alberthaviation.com](http://www.alberthaviation.com) to order parts and for pictures and descriptions of the above replacement parts.***