

WHEELS AND BRAKES - DESCRIPTION AND OPERATION

1. Description and Operation

- A. Main wheels are fabricated of aluminum and are designed to be used with tires and tubes. Each main wheel consists of two wheel halves, two bearing cones, two bearing cups, two grease seals, brake disc assembly and snap rings. The wheel halves are secured together with bolts, washers and nuts. A hole in one wheel half is provided for installation of a valve stem. Standard on Models 208 and 208 Cargomaster are 6.50 X 10, 8-ply- rated tube tires; 8.50 X 10, 8-ply-rated tube tires are optional on Model 208, 208 Cargomaster and standard on Model 208B and 208B Super Cargomaster. The 29.11 X 10, 10-ply-rated tube tires are optional on the 208B Passenger. The wheel rotates on two bearing cones. Bearing cups are shrunk-fit into the wheel half hub. Bearings are protected against dirt, moisture, contamination, and loss of lubricant by a bearing seal. The wheel is secured to the axle with a washer, nut, and cotter pin.
- B. The nose wheel is fabricated of magnesium and is designed to be used with a tire and tube. The nose wheel consists of two wheel halves, two bearing cones, two bearing cups, two grease seals, and snap rings. Wheel halves are secured together with bolts, washers, and nuts. A hole in one wheel half is provided for installation of a valve stem. Standard on Models 208 and 208 Cargomaster are 6.50 X 8, 8-ply-rated tube tires; 22 X 8.00 X 8, 6-ply- rated tube tires are optional on Model 208, 208 Cargomaster and standard on Model 208B. The wheel is free-rolling on an independent axle and is used to steer the airplane on the ground by means of the nose wheel steering system.
- C. The brakes are hydraulically operated and are designed to use MIL- H-5606 hydraulic fluid. The brake consists of a magnesium housing containing four pistons, an inlet port, bleeder port, torque plate, backplates, pressure plate, shims and anchor bolt. The brake assembly is held together with bolts, washers, and nuts.
- (1) Airplanes 208B5000 and On have a brake return spring installed to give additional brake return force.
- D. Two brake master cylinders are installed, one for each brake. Master cylinders are located forward of the pilot's rudder pedals. Each brake master cylinder consists of a piston, ring, packing, spring and cylinder.
- E. The brake system reservoir is located in the engine compartment on the lower left corner of the firewall.
- F. A parking brake system is provided, consisting of a parking brake valve, located under the floor beneath the pilot's rudder pedals; lines from the valve to the master cylinders and brake cylinders; a flexible control wire and a parking brake control knob, located on the lower left instrument panel.