

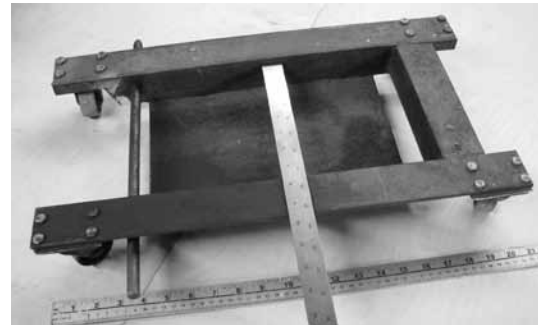
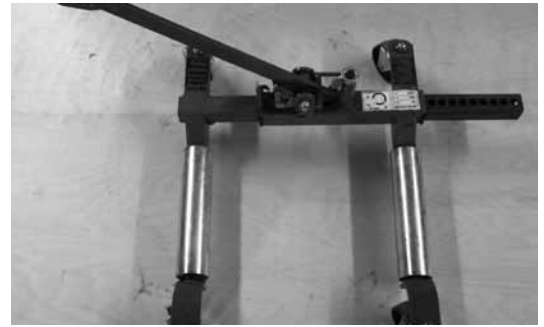
AIRCRAFT DOLLIES

HANGARING A PLANE for the winter is expensive but usually necessary. The cost can be reduced if several planes can be crammed together into a hangar but it is sometimes difficult to make them move sideways. A set of dollies for each plane can make it a lot easier to pack the planes in. In most cases it is desirable to have all casters full-swivelling.

Furniture dollies are available cheaply at Princess Auto, usually under \$20 each, and sometimes as little as \$10 when on special. It will be necessary to screw one or two lengths of 2 x 4 lengthwise under each dolly to take the load that will be placed centrally on the deck. Chocks may be made by splitting some 2 x 4's diagonally and screwing them down to

the deck. Furniture dollies will have a deck height of about 5 inches so it will be necessary to jack each wheel up to get the dollies underneath. For safety it might be advisable to tie each wheel down to its dolly, or block it in laterally with short sections of 2 x 4's, just in case.

Squeeze dollies are sold at Harbor Freight and at some automobile enthusiast shops. These have two long rollers that flank the wheel, and the operator then pumps the jack handle with his foot, causing the rollers to approach each other until the wheel has been lifted clear of the floor. These dollies are sized for automotive tires so some aircraft tires will just barely clear the floor unless they are pumped to a high pressure. If your plane has wheel pants you



Above: Furniture dollies can become aircraft dollies if reinforced. Top right, At minimum a pair of screwed down chocks, and perhaps lateral blocks or a tiedown; a squeeze dolly; A shop-fabricated low floor dolly. Second from bottom, the low floor makes it easy to roll the tire up onto this dolly; while CTC dollies (right) have a 4 inch high lip.



Jimmy Kennedy's hangar requires that the plane be pushed in sideways. The ramps hinge down for loading / unloading.


had better check the height of their lower edges.

Shop made dollies are very good but wait until there is a sale on casters. This unit uses swiveling casters with a 2-1/2" height. The side rails are made from 21 inch lengths of 2 inch steel angle, with the ends cut away to allow the casters to swivel. The 1/8 plate base base is 7-1/2" x 13 and the retaining rod is 13-1/2" from the opposite face of the dolly. The dolly shown has been welded but it could easily have been riveted or bolted together from steel or aluminum angles and plate. The advantage of these dollies is that the parking surface is only 1/2 inch off the floor, making it easy to roll the tire onto the dolly.

There are other wheel dollies available, some with a

half-round form that the wheel drops into, and four swiveling casters for support. These require jacking up about 4 inches, but they do keep the wheel in place longitudinally and laterally. Again, if your plane has wheel pants, check the height of their lower edges. Canadian Tire carries wheel dollies, and Christmas season means that a lot of automotive products will be on sale.

For a hangar with a dirt or gravel floor none of these dollies are very useful. However RAA member Jimmy Kennedy designed and built a triangular rolling airframe dolly that uses wheelbarrow wheels. His requirement was to be able to roll his two ultralights sideways into his narrow fabric Quonset hangar that has a gravel floor.

Each dolly is specific to its plane's landing gear, and is made from three 8 foot lengths of 2 inch square tubing, welded together into a triangle with reinforcing plates at the corners. Three-quarter inch rods are welded to these corner plates to become the axles, and parallelism is important here. The main gear parking pads and the hinged ramps are made from steel angle and plate, and the round tubing tail support can be telescoped. The large wheels accommodate the grass parking area and the gravel hangar floor, and the occasional nudge ensures that the dolly remains headed in the right direction. 

COPA *is* personal aviation

Join now and support aviation in Canada today!



Canadian Owners and Pilots Association

207 - 75 Albert Street,
Ottawa, ON,
K1P 5E7

Tel.: 613-236-4901,
Fax: 613-236-8646

E-mail:
copa@copanational.org

Web site:
www.copanational.org