

PUTTING YOUR BOAT UP FOR WINTER

As winter's approach is signaled by cooling temperatures and you contemplate the end of another paddling season, it's time to take some steps to help your canoe winter over as safely as possible. This is particularly important with Royalex™ canoes with wood gunwales if you live in a region that experiences sub-freezing winter temperatures.

Royalex canoes stored in sub-freezing temperatures can be subject to cold cracks. Cold cracks occur as the hull materials contracts upon exposure to cold temperatures. If shrinkage is severe enough, vertical stress fractures can occur at the screws securing gunwale to hull. Contraction in cold temperatures is an inherent reaction in Royalex hulls and has challenged the manufacturer of Royalex and canoe molders since the material was introduced in the mid '70s. It is NOT regarded as a warrantable defect in material.

Just as no one can control Mother Nature, it's also very difficult to guarantee that cold cracks will not occur, short of storing the boat in a heated space. Over the years, Mad River has developed a process that will minimize the likelihood of the occurrence of cold cracks. Our current recommendations are based on procedures used by an outfitter in Canada's Northwest Territories who has used wood railed Mad River canoes for nearly 30 years and has had less than 5 cold cracked canoes in that time despite having to store his boats out of doors in harsher conditions than most of us will ever experience. We strongly recommend you take the following steps to make sure your canoe is healthy and ready for spring paddling.

Royalex canoes with vinyl or aluminum gunwales are less susceptible to cold cracking and cold cracking is not an issue with composite Kevlar® or fiberglass canoes with wood gunwales. It is not necessary to loosen/remove wood gunwales from composite canoes, though all wood gunwales should be treated with Gunwale Guard oil before putting boat up for winter. Cold cracking is not an issue with polyethylene canoes with vinyl gunwales. All hulls should be treated with a UV protectant such as 303 prior to being stored for winter. Inside or under-roof storage is recommended for all canoes.

COLD CRACK PROTECTION (ROYALEX CANOES WITH WOOD GUNWALES)

- 1) Store the canoe hull up on evenly spaced saw horses or supports. For best results, use a broad support surface such as nailing a 1x4 to top of support to broaden load bearing surface. Indoor storage, heated or not is preferred.
- 2) Back out all gunwale screws EXCEPT for the center 3 on each side of hull. Store screws in a container next to canoe to make spring re-assembly easy.
- 3) You do not need to remove the screws securing the decks or carry handles to your gunwales.
- 4) Slide a spacer such as a length of 1x2 between hull and gunwales. Position just past the carry handles.
- 5) Thoroughly oil the gunwales while separated from hull with Mad River Gunwale Guard. "Dry" or saturated gunwales are a major contributing factor to cold cracks. Moisture in a dry gunwale will expand when freezing, causing the gunwale to expand while the hull is reacting to the cold in the opposite direction by contracting. As you might imagine, this is not a good situation. Take advantage of the gunwales being removed from the hull to thoroughly oil the interior surface of the gunwale which normally rests against the hull.
- 6) If your gunwales are dry (indicated by a grayish finish), allow to dry for several days under cover before oiling. Applying coat of oil over a gunwale that has absorbed moisture will not allow the moisture to escape, resulting in potential expansion due to entrapped moisture expanding when freezing.
- 7) Avoid bumping or moving your canoe during cold temperatures.
- 8) In spring, re-oil gunwales before reattaching to hull using original hardware.