

WHITE-WATER-RESCUE THROW BAGS

Draft in progress 2008/03/06 by Doug Poulter

In compliance with Transport Canada regulations requiring kayakers to carry throw ropes. Reference:

http://www.tc.gc.ca/MarineSafety/TP/TP511/boat.htm#Canoes_kayaks_less_6m

"One (1) buoyant heaving line no less than 15 m (49'3") in length"

effective April 2007, the Ottawa River Runners (Inc) kayak club plans to enforce its requirements that all its members:

1. carry rescue throw bags on white water river trips and
2. if engaging in whitewater boating, become skilled in the use of rescue throw bags.

Loose throw ropes present a serious snare potential so for white water not only is floating rope used, but except when thrown, the ropes are kept in bags. Most throw bags on the market typically have a ¼", ⅜" or ½" diameter rope. Victims may have great difficulty holding onto ¼" diameter rope in swiftly flowing water. For kayakers, strength of ⅜" and ½" rope is not an issue, but stretch and bag size can be. Stretch helps absorb shocks and enable swimmers and their rescuers to hold on better, as do diameters of ⅜" or more. High strength ropes have much less stretch. Rope diameters significantly greater than ⅜" typically make the throw bags with adequate rope length too bulky to fit simply behind a kayak seat on one side of the centre foam pillar without excessively deflating a float bag. Most kayakers are unable to throw out a 3/8" rope throw bag beyond 70'. Most rivers that ORR members paddle are wider. A downside of choosing a throw bag with appropriate rope diameter and length, is that the resulting throw bag is so large that it is not secured to the person but in the boat. This means the boater must consciously choose to take the extra moment to remove and replace the bag when getting out to scout rapids.

Bags need to be oversized to the rope they carry to minimize the time needed to stuff the last bit of rope in (so that it flows out freely without tangles). The Harmony model below also has a mouth stiffener ring that holds the bag mouth open while the bag is re-stuffed. The bag is also designed to hold enough water to enable using water as throwing aid to increase accuracy of throws after the 1st throw.

It was with such factors in mind, Doug Poulter approached local retailers for special ORR pricing and specified guidelines of what ORR members will be looking for. He asked retailers below:

Please will you provide pricing, and descriptions of [white water throw] bags you carry, minimally with floating rope at least 3/8" (9mm) in diameter, and ideally ~70', minimally 50' (15m) long.

Because the information made available to the author was incomplete, no samples were provided for destructive testing, and models may change without notice, information and ratings of tables below are subject to revision.

TABLE 1: Net Throw Bag Pricing before tax to those showing proof of ORR membership

Bag \ Retailer	Paddleshack	Bustukah	Trailhead	MEC
HAIL MARY Large Football	????	????	\$54.99 less 10%	
Harmony 70' Free	????	\$49, less 10%		
Level Six DragonFly	\$38.99	????	\$54.95 less 10%	
Level Six DragonFly-Pro ½" *	????	????	\$72.99 less 10%	
North Water Wedge Poly Large 10TB-16	????	\$44 til end of March; thereafter \$60 less 10%	\$79.99 less 10%	\$65
Trailhead 70' x3/8"			\$49.99 less 10%	
Notes	plan to also carry others like from Harmony, Whitewater Research & Safety Institute (WRSI)	Only 6-12 of each left in stock.	With Club bulk purchase discount increases to 20%	No Response
Std Mbr Discount	15%	10% on non-sale items	10%	none

???? = Pricing to be set when stock arrives and retailer's cost known

TABLE 2: Throw Bag Attributes (some not verified) of bags manufacturers claim as having 3/8" diameter ropes:

Attribute \ Bag -some not verified\	WRSI HailMary Large Football	Harmony 3/8"x70' Free	Level Six DragonFly	North Water Wedge Poly 10TB-16	Trailhead 3/8"x 70'
Rope Diameter under load	NO SAMPLE AVAILABLE	5/16" tight weave	NO SAMPLE AVAILABLE	11/16" open weave	NO SAMPLE AVAILABLE
Rope Length	76'	70'	20m=65.6'	70'	70'
Rope Strength lbs	2,000	1,800		1,900	1,800
Rope Colour	yellow w blue thread	Yellow with orange bands	yellow w blue thread	Yellow / Black (barber pole stripes)	
a) Bag durability b) easy stuffing c) stitching	unknown	a) adequate b) very good c)single stitch	unknown	a) adequate b) fair c) single stitch ex- cept dbl @ mouth	a) mesh questionable
Bag length"/girth" squished len/girth		11½→15 / 5 8½ / 2¼	10" / 4" 8" / 3"	12 / 3 → 6 8½ / 2¼→ 4½	
Mass (complete)		944 g	726 g (1.6 lbs)	984 g	
Bag Colour	2 orange / 2 grey grippy coated panels with orange fabric stuff opening	Bright Yellow Very visable	yellow with black length wise stripe, top & bottom	Red with black sides with 2 reflective stripes each ½" wide and 5½" long	Unknown, likely red
Reflective stripe	yes, but thin	no	thin stripe	YES	no
Special Drainage	no	top 1/5 girth fabric mesh	lengthwise strip of mesh	no	middle third molded plastic screen mesh of questionable durability
Can bag hold enough water in bottom to enable using water as throwing aid after initial throw	likely	6mm thick foam float disk in bottom YES	bag has float foam liner no	no bag float material Not Likely - drains out rope exits	
Extra Cost parts to secure to typical kayak seat gear anchor loop	Carabineer or strap	None, middle mounted strap with Fastex like buckle	Carabineer, but only bottom anchor point (strap carry handle)	None, top to bottom strap with Fastex like buckle	None, top to bottom strap with Fastex like buckle
Rope thru bottom	No	Yes	No	Yes	Likely
Estm Performance	2 or possibly 1*	2	5	3	4
Minimum Price	Trailhead \$50	Bustukah \$44.10	Paddleshack \$38.99	Bustukah \$44 til March 31; thereafter \$54	Trailhead \$45

* Mfgr claims HailMary's football shape improves accuracy & gives extra 25% throwing distance. If true, then BEST BUY

Web based descriptions exist for the 1st 4 throw bags at:

- <http://www.whitewaterhelmet.com/throw7638p.asp>
- <http://www.harmonygear.com/70-ft-free-throw-bag>
- http://levelsixinc.com/index.php?page=shop.product_details&flypage=shop.flypage&product_id=146&category_id=17&manufacturer_id=0&option=com_virtuemart&Itemid=1084
- http://www.northwater.com/html/throw_bags.html

Trailhead describes their throw bag

- The rope is Canadian made and tested by Atlantic Braids. The bag is 420 denier with the middle third all mesh. The bottom is a 1" floatation ring and the grip a comfortable plastic for easy throwing

Level Six FireFly-Pro with ½" diameter cord

http://www.levelsixinc.com/index.php?page=shop.product_details&flypage=shop.flypage&product_id=112&category_id=17&manufacturer_id=0&option=com_virtuemart&Itemid=1084&vmcchk=1