



Personal Backpacks for Carrying a Chain Saw

Bob Beckley, Project Leader

Forest Service recreation, trail, and fire crews have expressed a need for a safe and efficient method to transport chain saws from their vehicles to the field. Crews routinely cross streams, traverse rugged, mountainous country, or hike miles to reach the job site.

Traditionally, field crews have carried the saw by hand or have wrapped their safety chaps around the bar before carrying the saw over their shoulder. Both these methods pose safety hazards. All or part of the saw chain or bumper spikes (also known as saw dogs) are exposed and could injure the worker.

Product Identification and Testing

The Missoula Technology and Development Center (MTDC) was asked to develop or find a commercially available chain saw backpack.

After reviewing the needs and safety concerns of field crews and chain saw operators, MTDC conducted an international search for backpacks designed to transport a chain saw.

Through our market search, MTDC purchased and field-tested chain saw backpacks from Australia and the United States. After testing the commercially available designs during the field season of 2000, the center identified two chain saw backpacks that are durable enough to meet the needs of field crews.

Frontline Safety Gear

The MacKenzie “Mack” chain saw backpack (figures 1a and b), manufactured by Frontline Safety Gear of Cook, MN, is designed to carry the engine low with the bar pointing up. The weight of the saw rides on the individual’s hips. The pack is made of Cordura nylon fabric and is designed to carry both full- and half-wrap handlebars. The Mack pack has two large



Figure 1a—MacKenzie “Mack” chain saw pack by Frontline Safety Gear (back view).



Figure 1b—MacKenzie “Mack” chain saw pack by Frontline Safety Gear (side view).

pockets designed to hold a fire shelter and a tool kit. Two additional side pockets will hold 32-ounce Nalgene water bottles or Sigg-type fuel bottles. Additional D-rings and webbing allow other tools or equipment to be secured to the pack. The pack (available in red or green) has a padded back and hip belt. Custom colors may be available by special request through the manufacturer.

The Mack chain saw backpack can also be purchased with a supplemental piggyback gear pack. This personal gear pack can be attached to the main chain saw backpack with Fastex buckles or carried separately.

The price for chain saw backpacks through Frontline Safety Gear was \$295 for the saw pack and \$45 for the piggyback gear bag in June 2001. For further information, contact the manufacturer at:

Frontline Safety Gear
P.O. Box 188
Cook, MN 55723
Phone: 515-738-2363
Web site: <http://www.flsafetygear.com>

Epperson Mountaineering

Epperson Mountaineering in Libby, MT, manufactures a chain saw backpack that is designed to carry the chain saw engine high with the bar pointing down (figures 2a and b). The bright orange pack is made of Cordura nylon fabric. The bar fits in a removable padded sleeve that can be secured to the chain saw handle. This feature allows the saw to be carried safely after it has been removed from the pack. The Epperson pack has a large interior compartment for personal gear, chain saw chaps, and related equipment. Three vented exterior compartments are designed for 32-ounce Nalgene water bottles or Sigg-type fuel bottles. The pack also has a Velcro bottom compartment designed to fit a fire shelter. The pack has a padded back support system, as well as padded hip and shoulder straps. Other chain saw backpack designs are being tested and may be available in the future (figure 3).



Figure 2a—Epperson Mountaineering chain saw pack (back view).



Figure 2b—Epperson Mountaineering chain saw pack (side view).



Figure 3—Chain saw bar in removable sleeve of the Epperson Mountaineering chain saw backpack.

The cost of the Epperson chain saw backpack was \$130 in June 2001. For further information, contact the manufacturer at:

Epperson Mountaineering
 206 Mineral Ave.
 Libby, MT 59923
 Phone: 406-293-8720 or 888-722-5629
 Fax: 406-293-8722
 E-mail: emte@libby.org
 Web site: <http://www.emte.com>

Conclusions

Both the Epperson and the Frontline chain saw backpacks are well constructed and should provide years of dependable service.

The main concern identified by MTDC is the possibility that either pack could be contaminated by fuel and oil from the saw or the fuel and oil containers. Operators may wish to carry fuel and oil in 2-in-1 style containers rather than placing Sigg-type fuel bottles in the pack. Operators should be aware of the health and safety problems a contaminated pack presents.

About the Author...

Bob Beckley received a bachelor's degree in political science from the University of Montana in 1982. He began his Forest Service career as a timber technician on the Nez Perce National Forest. Bob was

a smokejumper when he came to the Missoula Technology and Development Center in 1990 to work as a videographer, photographer, and project leader.

Library Card

Beckley, Bob. 2001. Backpacks for carrying a chain saw. Tech Tip 0123-2334-MTDC. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. 4 p.

Describes field tests of backpacks designed to carry chain saws. Two models were found to be satisfactory for field use: the MacKenzie "Mack" chain saw backpack manufactured by Frontline Safety Gear of Cook, MN, and the Epperson chain saw backpack manufactured by Epperson Mountaineering in Libby, MT. The main concern identified by the Missoula Technology and Development Center was the possibility that either pack would be contaminated by fuel and oil from the saw or the fuel and oil containers.

Keywords: equipment, equipment evaluations, fire fighting, firefighting, packs, trail construction

Additional single copies of this document may be ordered from:

USDA Forest Service
Missoula Technology and Development Center
5785 Highway 10 W
Missoula, MT 59808
Phone: 406-329-3978
Fax: 406-329-3719
E-mail: wo_mtdc_pubs@fs.fed.us

For additional technical information, contact Bob Beckley at the Center's address.

Phone: 406-329-3996
Fax: 406-329-3719
Lotus Notes: Bob Beckley/VO/USDAFS
E-mail: bbeckley@fs.fed.us

Electronic copies of MTDC's documents are available on the Forest Service's FSWeb Intranet at:

<http://fsweb.mtdc.wo.fs.fed.us>