

Specifications

Weight:

1,600 lb rigged

Engine:

18-hp Briggs & Stratton, twin cylinder, air cooled, electric start; remote fuel tank

Transmission:

Sundstrand series 15 hydrostat

Axle:

Dana Spicer GT-20 with 72-tooth spur gear

Skyline & Mainline Drums:

800 ft of 1/4-inch cable
0- to 2,000-lb line pull
0 to 400 fpm line speed

Mainline Clutch:

Dog type

Brakes:

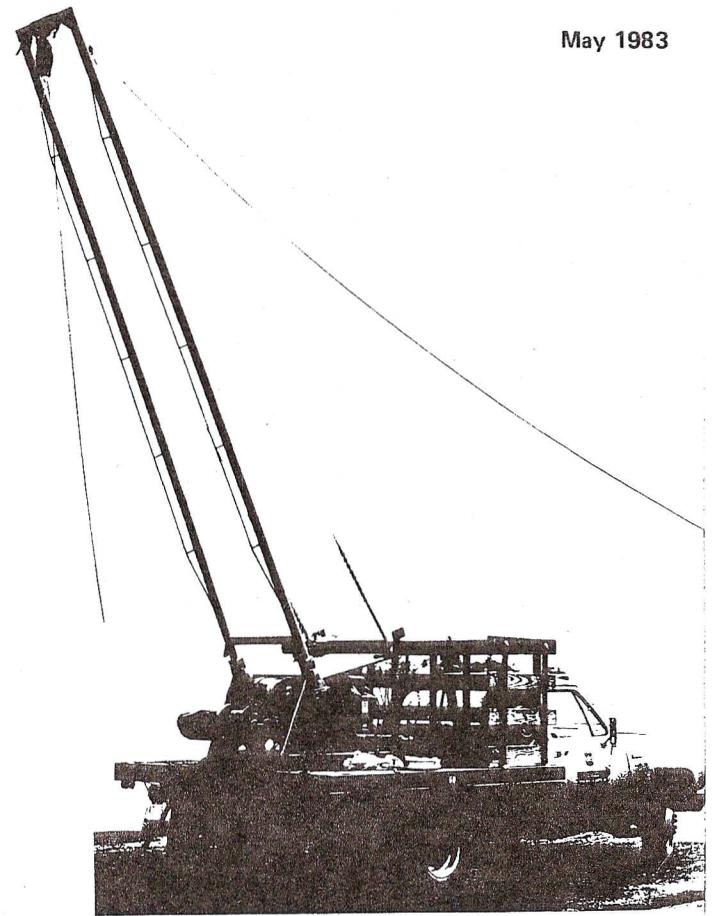
Band type, mechanically operated,
12-3/5-inch diameter

Boom:

2-1/2-inch pipe A-frame, 17-1/2 ft long,
180° fairlead swivel, manually raised and lowered

Controls:

15-ft mechanical push/pull cable



Bitterroot Miniyarder

For further information, write:

USDA Forest Service
Equipment Development Center
Bldg. 1, Fort Missoula
Missoula, MT 59801



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Equipment Development Center
Missoula, Montana 59801

About the Bitterroot Miniyarder

The Bitterroot Miniyarder is a lightweight, compact, two-drum skyline yarder. It is designed to remove light slash, thinnings, and small stems, where terrain and soils limit conventional ground skidding.

This miniyarder is capable of pulling 2,000-pound loads at 160 feet per minute. Line speeds vary with load. Maximum line speed is 400 feet per minute. Hydrostatic drive allows the operator to use maximum engine horsepower by balancing line speed with pull on every turn for the most efficient operation.

At 1,600 pounds fully rigged, the Bitterroot Miniyarder easily mounts in a 3/4-ton pickup truck or on a trailer. It is light enough to be transported by helicopter. This small yarder can be put on skids and towed over rough terrain or self-skidded. It also can be mounted on tracks and propel itself.

The Missoula Equipment Development Center (MEDC) developed this miniyarder for the Bitterroot National Forest. Forest personnel wanted a small machine to remove residues that create a fire hazard and make them available for firewood. The Bitterroot Miniyarder is proving that small materials can be yarded economically.

A simple, rugged design allows regular forest crews to operate and maintain this miniyarder. Lightweight cable and easy set up minimize workload.

Currently, Bitterroot Miniyarders are operating in the Western States, Alaska, and the Southeast. The Alaska unit is designed to be disassembled and transported by small airplane or riverboat to remote areas.

Parts and materials for a fully rigged Bitterroot Miniyarder cost about \$7,500. Fabrication drawings are available from MEDC. Request drawing MEDC-718.

Where small stems and light slash need to be removed to reduce the fire hazard or increase the wood supply, the Bitterroot Miniyarder can do the job economically with little damage to the residual stand.

Features

- Can be built in small shops.
- Uses many commercial parts.
- Rugged, low-maintenance design.
- Compact, lightweight, easily mounted on 3/4-ton pickup, trailer, skids, or tracks.
- Helicopter transportable.
- Rapid, simple set up.
- Easily operated by regular forest crews.
- Lightweight cable reduces crew workload.
- Hydrostat lets operator use maximum engine horsepower on every turn by balancing line speed with pull for top efficiency.
- Mechanical controls permit simple, dependable operation.
- Remote controls improve safety and operator view of operation.
- Double drum with independent brakes; mainline clutch for free wheel operation.
- Fairlead has double block sheave with roller bearings and swivel.
- Adjustable angle A-frame boom.
- Live skyline.
- Fuel-efficient engine.
- Yarding distances of up to 800 feet.

