MECHANIZED EQUIPMENT
FOR
FIRE AND FUELS OPERATIONS

2009

WITH

CONTRACTOR DIRECTORY

Idaho, Montana, Oregon, Washington

by

Valerie Jaffe and Stephen “Obie” O’Brien

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Why use mechanized equipment on fires and fuel operations?

The forest products industry has steadily replaced manual methods with mechanical means to accomplish tasks in the woods. Federal and state agency land managers currently seek to duplicate these improvements in cost efficiency and worker safety in its fire and fuels program.

Photo by Jacob Ware ©

Hazard Trees

Contracted mechanized forestry equipment provides these advantages to Incident Management Teams and land managers:

- Access to a motivated, woods savvy, highly skilled labor force with their own specialized equipment.
- As a "force multiplier" for crews and other fire resources, increasing their mutual capabilities, efficiency and safety.
- Allows other resources (aerial, engine, crew) to concentrate on tasks in areas where machinery is prohibited.
- Expands operational capabilities:
  - Safer, night-time fireline construction, when most fire activity decreases.
  - Faster, safer indirect and contingency fireline construction.
  - More opportunities for direct line on fires too dangerous for hand crews.
  - Safer methods of hazardous tree removal and brush clearing.
  - Expanded, 24-hour ground-based water delivery; beyond the reach of engines and tenders, and during hours when use of aircraft is prohibited.

Photo by Jacob Ware ©

Night Operations

ACKNOWLEDGEMENTS

Production costs for this year's edition were covered by these organizations and individuals:

Montana Logging Association (MLA)

Founded in 1976, MLA serves and represents Montanans who work in our state's logging industry. The non-profit organization works to ensure the state's renewable forests provide opportunity for generations to come. MLA offers group health insurance and workers' compensation plans, and professional development programs such as the Accredited Logging Professional, Professional Log Hauler and Safety Services. The staff represent member interests during state legislative sessions and to Montana's congressional delegation in Washington D.C.

2224 Montana Hwy 35, PO Box 1716, Kalispell, MT 59903, 406-752-3168; www.logging.org
Contact: Keith Olson

Associated Oregon Loggers (AOL)

AOL develops timber harvest professionalism by providing continuing education for loggers, and promotes sustainable Oregon forests. The non-profit organization provides business services specifically tailored for the contract logger and related businesses. To maintain an acceptable supply of timber from all landowner sources, AOL works through all possible avenues and communicates facts about the logging industry to the public. The staff works to build and maintain support for the industry by bringing reason and practicality to those regulatory issues that confront contract loggers.

AOL, PO Box 12339, Salem OR 97309; www.oregonloggers.org
Contact: Jim Geisinger

Northern Rockies Wildfire Contractors Association (NRWCA)

NRWCA promotes communication between federal, state, local agencies and its members. The organization creates public awareness of wildfire contractors and their vital link to governmental agencies. NRWCA supports member businesses by promoting work opportunities, sharing technology, and collaborating to solve common problems within the industry.

NRWCA, PO Box 958, Belgrade MT 59752; www.nrwca.com
Contact: Rick Grady

Montana Community Development Corporation (MCDC)

MCDC fosters a resilient economy. Since 1989, MCDC has served hundreds of entrepreneurs with loans, consulting and training. The businesses created by MCDC clients help sustain their local communities and provide jobs in Western Montana. The Small Wood Utilization and TimberNetworks draw on all of MCDC's resources to help create business opportunities with new wood products while helping to reduce hazardous fuel loads in Montana forests.

110 E. Broadway, 2nd Floor, Missoula, MT 59802. 406-728-9234, 888-745-5601; www. mtcdc.org
Contact: Craig Rawlings

TimberWest Magazine

Since 1975, each issue of TimberWest has been packed with valuable job stories on successful mechanized harvesting, wood processing techniques and equipment. Also inside you'll find timely information on legislation, industry news, annual events, people profiles and products reviews.

TimberWest Publications, PO Box 610, Edmonds, WA 98020; www.forestnet.com
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Many other individuals volunteered their time and expertise toward the completion of this document: mechanized equipment contractors, equipment manufacturers and distributors, agency personnel from federal, state, and local government. Diane Mettler, Sheila Ringdahl, Sonda Tibke, Lori Huseby, Dave Christenson and Craig Rawlings were instrumental in completing essential clerical, layout and internet delivery of the document.

As in the 1st Edition of this book, excerpts and images from the Big Iron Guidebook (J.Steele, et al, 2004) and Mechanized Fire Equipment CD (San Dimas Technology& Development Center, 2005) are included.

Reviewers and equipment specialists have generously provided valuable comments and suggestions. They include, but are not limited to current and retired personnel from state and federal agencies across the Pacific Northwest and Northern Rockies.

Special thanks are extended to Rex Mann, Pete Peterson, Dave Larsen, Dean Blomquist, Steve Martin, Marc Finney, Scott Kuehn, Jim Steele, Linda Rock, George Custer, John Shotzberger, Wally Bennett, Tony Willett, Dave Clay, Kevin Erickson, Bob Rummer, Jason Butler, Matt Eberlein, Keigh Smiley, Dave Clay, Dave McCann, Tim Droegmiller, Ray Ekland.

The alternative (to proactive forest management) is we will ultimately manage our public forests with wildfire.

Kevin Ryan, Research Fire Ecologist
USFS-Intermountain Fire Sciences Lab, Missoula, MT

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INTRODUCTION

In the hands of experienced operators, logging equipment can increase operational safety while reducing costs of initial attack, suppression, and post-fire rehab. As partners, equipment contractors can help to achieve land and fire management objectives while protecting both natural resources and property under emergency and project conditions.

In 2008, a booklet of the same title was published for the Montana Dozer Boss Workshop. This 2009 edition is another collaborative project between agency and forest industry, and offers operational recommendations, equipment profiles, and a directory of contractors from the Northwest and Northern Rocky Mountains.

Realistic training is the foundation for improving field operations. This second edition builds upon the first as a training guidebook and dispatching aid. Readers interested in the 2008 edition can still view and download it online (http://www.wildfirelessons.net/documents/MEFFO.pdf). Here, we continue work started in the 2002 Big Iron Use Guide to serve the need for a training tool, guidebook and handy reference document.

"Mechanized equipment is the most over-looked, under-utilized, and misunderstood firefighting resource."

George Custer,
Incident Commander
National Incident Management Team (NIMO), 2008

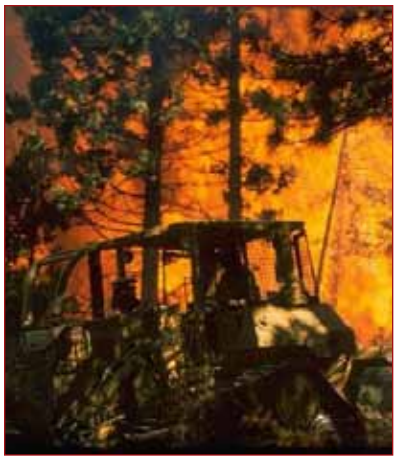
This edition includes a directory of experienced equipment operators with government contracts available for fire season and fuels project hire. Contractor invitations were structured to gather a representative directory of machines available in each agency equipment acquisition area of the Pacific Northwest (USFS, Region 6) and Northern Rockies (USFS, Region 1) regions of the United States.

"I recommend the Agency's Dozer Boss Manual be re-written and named Mechanized Equipment Boss Manual."

Dave Larsen
Northern Rockies Type 1 Incident Commander (USFS, Retired 2009)

Equipment categories include twelve common types of forestry equipment: dozers, pumpercats, wheeled and tracked skidders, feller bunchers, harvesters, forwarders, skidgines, super-skidgines, excavators, shovels, and mulchers. As safety is paramount among the many sound reasons for deploying mechanized resources, machines with Operator Protection Systems (OPS), Falling-Object and Roll-Over Protection Systems (FOPS and ROPS) are highlighted.

Copies of this document will be distributed to agency fire and land managers, including Incident Management Teams nationwide and dispatching centers in the West.



Julie Cart and Bettina Boxall, Los Angeles Times Staff Writers, reported in July 2008 that, "It costs up to $14,000 a day to keep an air tanker on call and as much as $4,200 per hour to put it in the air. Heavy-duty helicopters, the workhorses of aerial firefighting, can cost $32,000 a day on standby, plus $6,300 per hour of flight time."

"The idea that you could burn 400,000 acres in a single fire in Arizona would have been considered lunacy 15 years ago," says Kirk Rowdabaugh, Ariz. State Forester. "The idea that you could burn 10,000 acres in a single day in Arizona - nobody ever would have contemplated that. You can do that in a bad afternoon now."

TimberWest Magazine,
Sep-Oct, 2008

C.Scott Miller blogs about forestry and biomass issues, including examples where thinning forests works to spare forest resources at minimal cost. "Through a series of photographs Ron Vineyard of the Eagle Lake Ranger District of the Lassen National Forest showed how the 2002 Cone Fire in Northern California extinguished itself within about 20 yards of its entry into the mechanically thinned zone. Their studies place the cost of suppressing a fire in an unthinned forest at $1,726/acre. The cost of mechanically thinning a forest with an underburn is approximately $204 per acre." (http://biostock.blogspot.com/search/label/forestry)

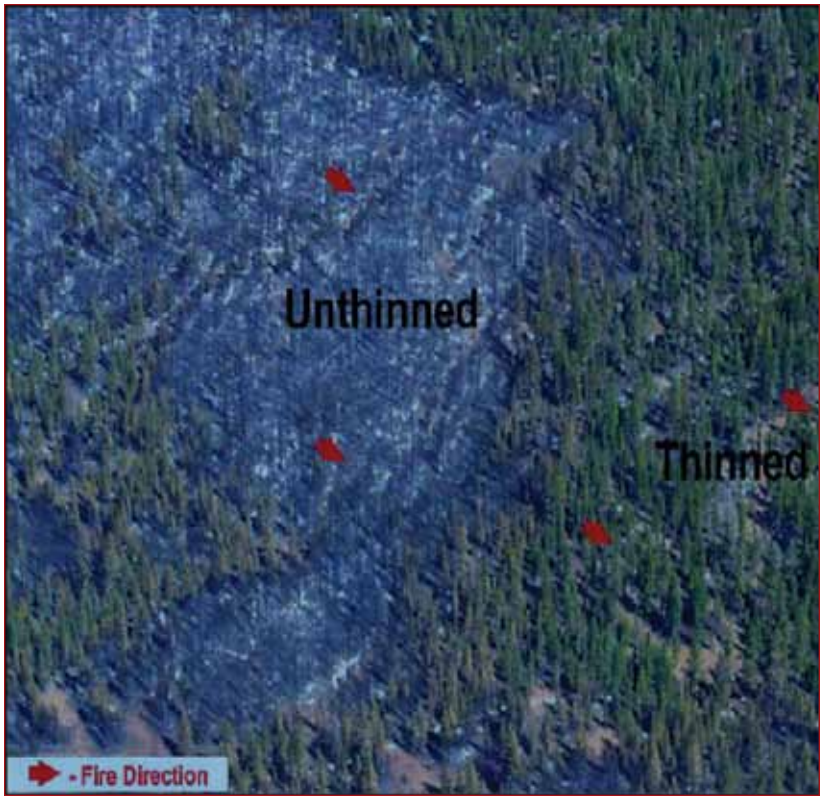
SECTION 1: LESSONS LEARNED

MECHANIZED FIRE EQUIPMENT HISTORY

Fire suppression operations are increasingly large and costly.[1] Regardless of the causes, operational strategies must adapt to changing circumstances and offer viable alternatives to protect valued natural and human-made resources.

Use of logging equipment was at one time a primary response tool for extinguishing fire starts. Since the mid-1970s, the role of hand crews and aviation has broadened, while use of heavy equipment has declined. Equipment managers and contractor numbers have likewise declined. There are fewer individuals with the knowledge and field skills to effectively apply the full range of logging equipment to the fireline.

For the past thirty years, forestry equipment designs have improved to increase operational safety and production in all phases of vegetation clearing, handling and dirt work. Newer machine designs continue to replace less efficient and more risky manual methods. They also make it possible to operate on more difficult and steeper ground. In most cases, these increases in efficiency and safety also reduce site impacts, while helping to minimize suppression costs and losses to wildfire. Advantages of using heavy forestry equipment have come a long way when compared to the previous fire suppression machine era of only dozers.

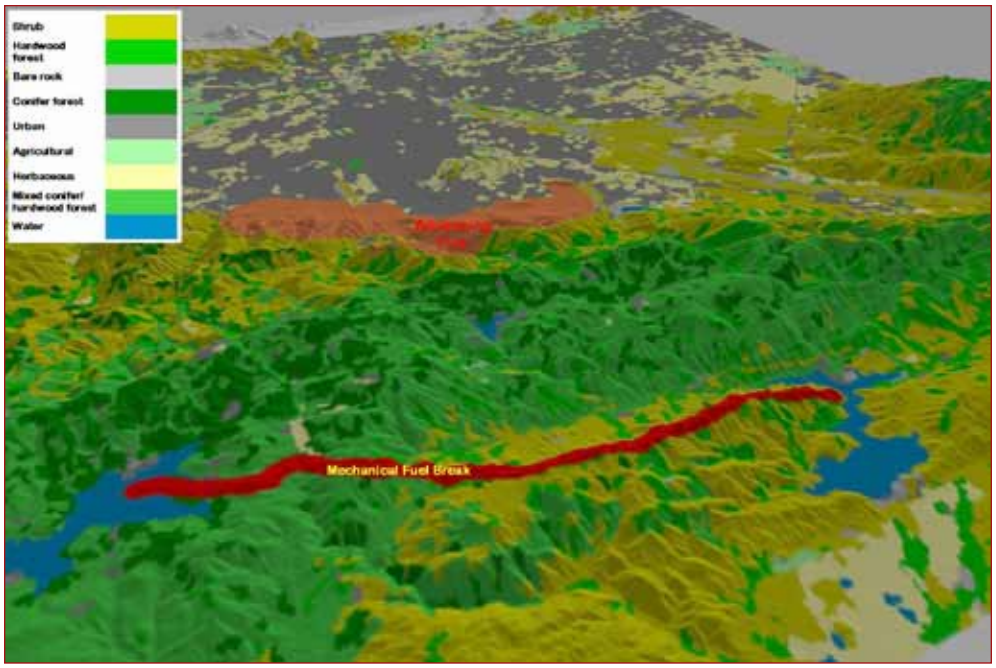


PRE-INCIDENT OPERATIONS – FUELS REDUCTION AND FUELBREAKS

Mechanized shaded fuelbreak, St. Maries, ID

"Fuelbreaks are not designed to stop fires but to allow suppression forces a higher probability of successfully attacking a wildland fire." according to the Canada's Wildland Fire Operations Research Group.[2] Firebreaks, as opposed to pre-incident fuelbreaks, are a reactive measure during wildfires for suppression; whereas, fuelbreaks are a proactive program to affect fire behavior in anticipation of a future fire.
"The effectiveness of a fuelbreak depends not only on its design characteristics but also on the behaviour of fires approaching it. Such behaviour is strongly determined by fuel spatial pattern in the adjacent areas and any thinning beyond the fuelbreak will improve its effectiveness and is, therefore, highly recommended. Consequently, fuel treatments in adjacent lands would determine fuelbreak width and canopy alteration therein."[3]

The Herger-Feinstein Quincy Library Group in California can attest to effectiveness of fuelbreaks. Their latest report claims the installed system of Defensive Fire Protection Zones (DFPZ), i.e. fuelbreaks across the large landscape area, were instrumental in containing the Rich Fire at the Kingsbury Rush DFPZ …in 2008…. "Fire officials stated that if the DFPZ had not been there the fire would have been thousands of acres larger and cost considerably more to suppress."[4]



Mechanized fuelbreak connecting natural fire barriers (water bodies) installed to control fire spread from mountainside.

Ray Goodrich (Lenore, ID) contracted with the Nez Perce Indian Reservation to use his Linkbelt loader with a boom-mounted mulching head to reduce ladder fuels.

Under the National Fire Plan, hazardous fuels reduction projects are tracked and documented by region with before and after conditions.[5] The library of successful project examples across many vegetation types is sound promotion for beneficial, preventative, and least-expensive land stewardship. Whether used to protect municipal watersheds, or to abate spread of tree disease, mechanized methods of reducing hazardous forest fuels are often the most cost-effective and less risky options for reducing catastrophic fire damage.

Reducing hazardous forest fuels under non-emergency conditions has many advantages over emergency incident decision-making. Fuels treatment projects, similar to effective fire suppression operations, include the use of mechanized equipment choices to work at strategic locations and at an effective scale.[6] Since the 1970s fuels projects in California have included installation of contingency firelines (i.e. shaded fuel breaks) and improvements for equipment access and prescribed burning preparations.

"Firelines are like real estate… it's about location, location, location; and timing."

Dave Larsen
Northern Rockies Type 1 Incident Commander ,USFS (Retired 2009)

"The governors of Idaho, Oregon, Washington and Wyoming had stood at the same [in-woods demo] site …pondering how forest thinning bills will get paid in the absence of commodity income such as sawlogs, wood pulp or chips."

Barbara Joyner,
Capital Press, June 16, 2002

"Hazardous forest fuels reduction projects must be designed to work under the most extreme wildfire conditions."

Marc Finney,
Research Fire Ecologist

According to Hulsey and Ripley's Net Cost Approach, the state of Washington found that the benefits of treating medium to high risk stands exceeded treatment costs by $1,000-2,000/acre.[7] These projects may also provide equipment pre-staging opportunities in fire-prone areas, in the event of area wildfire starts.

State, federal, and tribal land managers in the West have active fuels reduction programs that use mechanized equipment; but, are they of a sufficient landscape scale to make practical use of fire for ecological restoration?

Wherever land managers are proactively addressing problems of unhealthy forests and dangerous fuel loads, mechanization offers opportunities for effective agency, industry, and community cooperation with at least local beneficial results.

"We work to prevent wildfires, or at least reduce damages. Like the fuels reduction project we did for the Wyoming BLM from 2004-2006 in the Newcastle Fire Defense Zone. The Newcastle Field Office told us that the treated area was looking good, and in 2006 a fire dropped to the ground when it reached the edge of our unit because we removed the ladder fuels."

Cecil Swaggart, Logger
Swaggart Enterprises, Inc.,
Ritter, OR

Mobile yarder for fuels reduction on steep slopes around Idaho City, ID, on the Boise National Forest

Photo Point #6 - Before
North Roslyn Fuelbreak, WA

Photo Point #6 - After

ESSENTIAL TRAINING

Realistic field training with mechanized equipment is essential for project and incident personnel. Classroom training alone cannot substitute for live in-woods teaching opportunities with the wide variety of modern equipment types found in the woods today.

Agencies can certainly expect cooperation with private industry to supply machines, operators and instructors for in-woods demonstrations and workshops. Pre-incident field training with heavy equipment is the best preparation for incident operations.

- To work in the woods, fire personnel must train in the woods.
- To work at night, firefighters must train at night.
- To work effectively with operating machines, agency employees need to train live with operating machines in the field.

Which would you rather have over your head in a snag patch on a windy day, a hardhat, a truck cab or a dozer canopy with sweeps?"

Pete Peterson, USFS Northwest Oregon Incident Management Team/Trainer (retired)

"More line officers and resource advisors should go to this workshop. This class is very progressive; looking to the future of equipment on the fireline and showed how we can do better work with less impact. What I learned will make me more efficient. The instructors were top-notch!"

Matt Weakland, BLM, Dozer Boss Trainee. (reference to the 2008 Dozer Boss training, Helena, Montana) TimberWest Magazine, May-Jun, 2008

Such was the case in 2008, for which the 1st edition of this book was created as a field training guidebook. The expanded weeklong Dozer Boss S-232 workshop held in Montana was conducted as a cooperative workshop with local logging contractors, Montana Department of Natural Resources (MT-DNRC) and Helena National Forest. It was a precedent-setting training opportunity including 20 machines with operators and 9 instructors working with 37 students under realistic day-shift and night-shift conditions. The machines operated as two mechanized task forces on two separate divisions.

Agency and industry worked with equipment operators to create machine access, build fireline, thin forest canopy and perform rehab tasks on Montana State Land. The work had a dual purpose of preparing the site for prescribed fire treatment the following year.

The dozer boss trainees came from seven western states. Instructors and contractors came from four northwest states and multiple agencies (USFS, BIA, BLM, USPS, State, County, City). The workshop also served as an instructional opportunity for Northern Rockies Incident Management Teams (IMTs, Type 1 and 2), agency land managers and Montana State Legislators to see 20 machines (12 equipment types) building and rehabilitating fireline under day and night operations.

AGENCY EQUIPMENT POSITIONS

Dozer Boss (DOZB)

This position ensures that a dozer has been properly inspected, signed up, and the operator is qualified. Position responsibilities include tactical use and safety precautions required for effective dozer operation. Dozer Bosses use compass, GPS and clinometer to scout ahead (in daylight for day/night operations) and flag fireline or safety zone construction locations. They communicate directly with the machine operator and give instructions as to hazards, fireline location and standards. DOZB is a single resource position and can be filled by agency or casual hire (AD) personnel.

Dozer Boss Tool Kit
clinometer
fence pliers
flagging
light sticks
waterproof camera with batteries
topographic and slope map
color copies of area stereo photos
field stereoscope
covers for resource photos
GPS
2 walkie talkies
strobe lights

Equipment Task Force and Strike Team Leaders

Task Force and Strike Team Leaders are responsible for the direction of multiple machines. They report to the Division Supervisor and are responsible for performing tactical missions. They work through Dozer Bosses to direct the equipment.

Equipment Inspectors

Equipment Inspectors conduct inspections of contract equipment offered under the NRCG Area Equipment Solicitation, and hired under the NRCG Chapter 20 Requirements. The Equipment Inspection Team will inspect equipment assigned to incidents and assure they meet all agency, solicitation, and Chapter 20 requirements.

Inspectors assist in contract administration, equipment specifications matters, and documentation of inspections. Although not yet a requirement, it is good practice for the inspector to establish a photo record of initial and final inspections of incident machines.

The complete position description is available online from the NRCG website (http://www.fs.fed.us/r1/fire/nrcg/Committees/Business/supplements/NR_Equipment_Inspector_pd.pdf).

"We accomplished our (tactical) objectives due to the heavy use of equipment and lack of crew resources." said Wally Bennett, Northern Rockies Incident Commander, based in Northwest Montana. His Type 1 Incident Management Team took over the Chippy Creek Fire (MT 2007), where mechanized equipment played a significant role in containing the acres burned. [ref Chippy Creek Summary]

When asked for his advice to other fire managers, Wally noted, "The bigger issue in many (incident) cases was our ability to order and receive qualified Dozer Bosses to put with the equipment. I would say to other IC's, and Operations Sections that in today's fire environment and especially with the lack of needed crew and aviation resources on many occasions, heavy equipment use needs to be a priority consideration to meet tactical objectives. And, when in doubt order a Technical Specialist that can advise the team of the right combination of equipment to accomplish their objectives."

Northern Rockies Heavy Equipment Technical Specialist (HETS)

In 2008, the Northern Rockies Coordinating Group (NRCG) created the Heavy Equipment Technical Specialist (HETS) position. HETS personnel are resources for providing mechanized equipment technical assistance to Incident Command Teams (ICT) and Agency Administrators. This position acts as a liaison between local forest industry resources and the Agency Administrator and Incident Commander.

"On the third day of red flag weather, a 3-machine task force (D5 Hi-track dozer in lead, Timbco with hot saw head, and a John Deere combo skidder/skidgine with 400 gallon water tank) put in 2.5 miles of direct and indirect line, snagging hazardous trees and clearing 1-2 tree length-wide critical sections in 5 hours in steep, heavily forested terrain."

S.A. O'Brien, HETS/
Task Force Leader
Bear Gulch Fire, near
Townsend, Montana, 2008

HETS must know the capabilities, limitations, cost, and potential site affects of heavy equipment to be used in various fuel types, soil types, and terrain. This technical specialist knows equipment operation standards, transportation requirements, and assists in safe, efficient use of the contracted resources by helping incident operations, logistics, and planning staff. The complete position description is available online from the NRCG website (http://www.fs.fed.us/r1/fire/nrcg/Committees/Business/supplements/NR_Heavy_Equip_Tech_Spec_pd.pdf).

Mechanized fireline, MT 2003

Tips from the field…

An effective dozer boss needs to work ahead of the equipment with which he/she is assigned. A thorough size-up of slopes, riparian habitat, conservation areas, stream crossings, and fuel types will ensure efficiency in operations, effective line construction, and better decisions for the landscape.

- Take responsibility for mapping fire suppression construction activities and follow up to ensure these efforts make the big board. If something you see on the ground doesn't make sense for suppression strategy or will cause irreparable harm to the resource, find an alternative.
- Consider what the future holds for his/her machine and its transport. Anticipate well in advance what your low-boy needs may be as well as the logistics of turning the truck around and its route of travel.
- Accommodate safety and contain costs. Make a daily assessment of your 'on fire' transport needs for heavy equipment. If action on the ground is hot and heavy there is probably a need for plenty of low boys. During mop-up there does not need to be a truck for every piece of equipment on the fire.
- During night operations, check all lights on heavy equipment including safety lights and working lights before the start of the operational period. Anticipate your needs and order trailer mounted light towers as needed.
- Identify and make visible improvements on the ground including survey monuments, culverts, utilities, and fences. Carry a camera and a GPS unit to assist your documentation and mapping efforts.

K.Smiley,
Forester/Resource Advisor
Tally Ranger District,
Flathead National Forest

"…the dozers were really struggling on the rocky steep terrain. With his feller buncher, Larry moved to the front and put in the fire line. Alvin followed with his masticator (mulcher) to knock down brush along the fire line."

LTL Forestry
Brushy Creek Fire, 2007, MT

Minimal impact in riparian area achieved by laying logs and brush down for tracking over.

Photo by Jacob Ware ©

RISK REDUCTION AND SAFETY

Working with logging equipment is potentially dangerous, and each machine hired for fire and fuels jobs must be outfitted with operator protection systems (OPS/FOPS/ROPS). Equipment safety design and skills of each operator are what make each piece of equipment function safely. Field conditions may require less or more operator skills and experience; so, confirm their training and work record. Match operational plans with machine capabilities. Use the correct tool for the tasks it was designed to accomplish.

FOPS	Falling Objects Protection System (canopy)
ROPS	Roll Over Protection System (cage)
OPS	Operator Protection System (screens, doors, enclosed cab)

Night lighting, especially 360° on machines is another common safety feature that allows for assertively building fireline at night when most fires lay down. This translates to reduced risks of overhead hazards and fire hazards to crews. Enclosed cabs also protect the operator's lungs and hearing. Climate controlled cabs reduce operator fatigue. While line building production using machines working night or day can be significantly greater and less expensive than hand crews, safety is the primary advantage.

In the 2006 Evergreen Magazine issue, Ring of Fire, Dave Skinner notes E.D. Hovee & Company, reported in its Baseline Forest Growth and Mortality Assessment, 2005,

"(Tree) mortality is substantially higher on public lands than private lands in western and eastern Oregon. On federal lands, mortality far exceeds harvest removals on both sides of the Cascades (with) adverse implications for forest health and risk of uncharacteristically intense forest fire."

"Establish good escape routes and safety zones for all the equipment, and give them plenty of time to get there if things don't go quite as planned. …be ready to move the equipment in a hurry and have lots of room."

Dave Clay
Timber Management
Assistant/Division Supervisor
Tally RD, Flathead NF, MT

Photo by Jacob Ware ©

Fragile snag would prove fatal to a manual faller; but, FOPS on this feller buncher protected the operator from injury.

OCCUPATIONAL SAFETY REGULATIONS

Federal Occupational Safety and Health Administration (OSHA):
Regulations (Standards – 29 CFR Logging Operations 1910.266)

General OSHA machine safety requirements

- All machines and vehicles must be maintained in a serviceable condition as determined by inspection at the beginning of each work shift. Those with defects or damage affecting their safe operation must not be used. [1910.266(f)(1)(i) and (ii) and 1910.266(g)(1) and (g)(2)]
- Each machine cab must have a second means of exiting, with walking and working surfaces having slip resistant surfaces which are kept free of material that may result in fire, slipping or falling. [1910.266(f)(5)(i) - (iv)]
- The engine exhaust pipes must be effectively muffled and be located to direct the exhaust away from the operator, guarded or mounted to protect employees from contact, and equipped with spark arresters. [1910.266(f)(6)(i) thru (iii)]
- Guards must be in place at all times the machine is in operation to protect employees from exposed moving parts of the machine and flying debris from the operation of the machine. [19100.266(f)(8)(i) thru (iii)]
- Seats, securely fastened to the vehicle, and seat belts must be used by persons operating and riding in or on machines and vehicles. [1910.266(g)(6) and 1910.0266(f)(2)(viii)]
- Vehicles used to transport employees off public roads or to perform logging operations must meet applicable requirements for machines. [1910.266(g)(7)]

OSHA operational requirements

- Machines must be operated so no hazards are created to employees or equipment. [1910.266(f)(2)(vii)]
- Before leaving a machine, the operator must secure it by applying the parking brake or brake lock, placing the transmission in park position, placing each moving element to the ground position, and discharging the pressure or stored energy in the moving elements. [1910.266(f)(2)(x)(A), (B), and (C) and 1910.266(f)(2)(xi)]

Protective structures for operators

There are three primary hazards for in-woods equipment operators addressed by features of the cab structure: machine rollover, falling objects, and poking or cab penetrations by limbs or trees. The Society of Automotive Engineers (SAE) has developed performance criteria for the design of forest machine cabs.

For example, the SAE criteria for

- Operator Protection System (OPS) against poking hazards (cab screening or windows) must resist a 2” diameter object forced into the cab with 4000 lbs of force.
- Falling Object Protection System (FOPS) states that the cab roof must be able to stop a 10” diameter object that weighs 500 lbs falling from 20 ft above the cab.
- Rollover Operator Protection System (ROPS) have to be able to support the dynamic loading of the whole machine in a rollover event.

Federal OSHA has adopted some of the SAE standards as requirements for forest machines. Because the current version of the OSHA standard was developed in the mid-90's there are different requirements for machines manufactured prior to 1995.

The Logging Safety Standard requires logging machines manufactured after 1996 to have cabs that are certified to SAE ROPS and FOPS requirements. In addition, new machines must have a fully enclosed cab with openings no larger than 2" in the smallest dimension. There are additional details in the OSHA standard; check the actual document for specifics.

Finally, OSHA treats swing machines (machines that have an upper structure that can rotate 360° with a boom) differently. Because of the belief that the boom provides some protection to the operator cab, OSHA excluded swing machines from the general requirement for ROPS. USFS, Region 1 requires additional front window guarding on swing machines.

<table>
<tr><th>Mfg Date</th><th>OPS</th><th>Swing?</th><th>ROPS</th><th>FOPS</th></tr>
<tr><td rowspan="2">Prior to 8/96</td><td rowspan="2">Must meet 4 OSHA reqs; allows open doors.</td><td>Yes</td><td>None req</td><td>None req</td></tr>
<tr><td>No</td><td colspan="2">If placed into service after Feb 1995 must have some form of FOPS and ROPS</td></tr>
<tr><td rowspan="2">After 8/96</td><td rowspan="2">Must be fully enclosed cab with doors. <2" mesh or other solid material.</td><td>Yes</td><td>None req</td><td>None req</td></tr>
<tr><td>No</td><td colspan="2">Must have an SAE-certified ROPS/FOPS structure. Look for a label in the cab.</td></tr>
</table>

Table 1. OPS / FOPS / ROPS Standards for Logging Machines[8]

Additional Machines Information: Currently, only the State of Oregon Safety Code addresses wildland fire suppression and prescribed fire operations.

Oregon OSHA Forestry Standards- Division 7-N, Wildland Fire Suppression and Prescribed Fire, [437-007-1340-1345, OAR 437-007-0935 (1) and (2)]

"The use of mechanized equipment brings a level of built in safety that manual methods do not have, primarily due to fatigue. If a machine is kept within its design capabilities, both safety and efficiency are worked into the operation."

Jim Steele, Wildland Fire Specialist/Trainer, Arlee, MT

Safety tips from the field…

"Logistics of traffic associated with logging equipment, lowboys, maintenance vehicles and dust control can create a safety hazard. Plan ahead to separate crew traffic from lowboy traffic on narrow roads whenever and wherever possible. For example, off-shift equipment to and from firelines before normal crew transport. Get heavy machines out of camp and working ahead of crew personnel on the line."

Dave Clay
Timber Management Assistant/Division Supervisor
Tally RD, Flathead NF, MT

"Critical access and escape roads and trails can be made safer using mechanized equipment to brush and snag out ahead of crew transports. Assign felling and skidding, or excavator and skidgine task forces to trip and remove hazard trees along roads. Routine, early morning mechanized patrols along road segments passing through burned areas can avoid dangerous accidents to personnel and prevent enroute delays."

Jim Steele
Fire Safety Consultant, Arlee, MT

"Dozer bosses and mechanized task force leaders can leave camp early and be briefed either by radio or by Operations overhead when they arrive on the line. This way, machines are out ahead of crews and separated from personnel at roadways, drop points and on the line. Make arrangements before hand with Operations planners and Division Supervisors."

Dave McCann
Timber Sale Administrator/Dozer Boss
Helena NF, MT

Roadside mulching to increase travel route visibility and reduce ladder fuels.

MECHANIZED STRATEGIES AND TACTICS

Equipment task efficiency is the goal of modern equipment design. Working in tandem or task force, machines can offer enhanced capabilities during all phases of fire suppression (initial and extended) and rehab. Fire operations today have more equipment types and models to choose from than ever before. Selecting from the wide array of machines is not a simple task, especially when terrain is rough and the dispatching system is over-extended. Choices are affected by availability, access, maneuverability, timing, soil and vegetation impacts, night and reclamation capabilities.

"This guide book will look at machines that can clip, snip, prune, skid, haul, bunch, pile, yard, saw, chew, push, dig, scrape, scratch, dump, slosh, squirt, and plow. In some cases, there may be a newly designed machine that can do most of these actions. The tactical key is knowing what you want to occur, where, and for how long. Anticipating your needs will definitely facilitate the ordering and mobilization phase particularly if the equipment has to do interstate travel. "

Jim Steele, et al.
Big Iron Guidebook, 2004

Mechanized fireline with seven years re-growth. Cave Gulch Fire 2000

FIRE TASK / MACHINE TYPE	Feller Bunchers & Harvesters	Rubber Tired Skidder & Grapple Cable	Dozer & Tracked Skidders	SoftTracks/KMC	Excavators & Tracked Shovel Log Loaders	Forwarders & Super Skidgines	Skidgines (Tracked, Rubber-tired)	Mulchers/Masticators	Road Grader/ Motor Patrol
Tree Felling/Snagging	•	•	•	•	•		•	•	
Brush Cutting	•				•			•	
Tree or Log Skidding		•	•	•	•	•	•		
Pruning					•			•	
Log Bunching	•	•	•	•	•		•		
Log Stacking		•	•	•	•	•	•		
Fireline/Fuelbreak Construction	•	•	•	•	•	•	•	•	•
Water Hauling			•			•	•		
Water Use						•	•		
Emergency Vehicle Recovery		•	•	•	•	•	•		•
Site Rehab	•	•	•	•	•	•		•	•
Road Work			•		•	•			•
Night Operations	•	•	•	•	•	•	•	•	•

Table 2. Types of machines used for various fire tasks.

Effective Mechanized Fireline and Fuelbreak Strategies

A fuelbreak added to the roadway, used as fireline, created an adequate opening in the canopy to facilitate burning operations.

Mechanized Fireline (Feller Bunchers, Grapple Skidders, Excavators), Chippy Creek Fire, MT 2007

Mechanized Fireline
Cave Gulch Fire, MT 2000

Mechanized Task Force:
4 Dozers (D7, D6s, D5)
1 Feller Buncher

- 1-3 blades wide, plus 1 tree-length clipped and pushed into the green with the D5
- Production rate: 3.5 miles of line in 2.5 days + 0.5 night
- Retardant dropped on green side
- No burning operations or crews on the fireline during this operation due to timing and un-available resources
- Machines were staged (unmanned) at anchor point in meadow (at bottom of slope). Allowed rapid re-deployment after fire reached the line to pick up slops.

Results: 9 slops, all caught with combination aerial bucket drops and machine lined within 4 hours.

EQUIPMENT STRIKE TEAMS AND TASK FORCES

Equipment teams of complimentary machines, directed in proper series, expand tactical options and strategies. The following sample scenarios from the Big Iron Use Guide (J. Steele, et al, 2004) illustrate mechanized operational opportunities matched with good machine options.

Incident Command System (ICS) strike teams include two like machines for safety, and to reduce impacts of breakdowns on time-critical tasks. ICS task forces are made of different machine types.

Fireline construction where shrubs comprise the majority of the tree understory pose an important threat as ladder fuels and contribute significantly to fire spread. Consider using some kind of brush cutter or mulcher ahead of 1-2 feller bunchers. Follow this with a couple skidders with swing grapples.

Fireline construction in light fuels can occur in several ways that include small dozers, rubber tire skidders using their blades, excavators, or mulchers. Can also rely on soil exposure caused from whole tree bundles, clipped and built by feller bunchers and skidded by grapple skidder. Mulchers can process slash into the soil.

On steep terrain, or where light hand tactics are desired, a control minimal width fuel break may be constructed using tracked feller bunchers, a tracked skidder to remove trees, and an excavator to put in fireline.

Open stands or where there is abundance of old growth, disease or snags, the fireline can be constructed using a shovel or excavator with thumb followed by a feller buncher that removes hazard trees and snags. The feller buncher can also cut apart log jackpots that are close to the fireline and pose a threat that will later be mopped up.

Strike Teams and Task Forces (cont.)

Fuel breaks and shaded fuel breaks can be constructed as mentioned above, and then improved for holding or major burnout operations using boom-mounted mulchers to treat shrubs and litter, as well as prune trees 20-30 feet up their boles.

Newly constructed firelines can be worked with crews supported by track, wheel, or soft-track skidgines. They provide water support through mobile hot spotting and mop up, hose lays, refilling crew bladder bags, or mobile attack on running surface fires beyond engine accessibility. Their light duty blades can also move or reposition downed trees and scratch in line.

Skidgines can be supported with excavators for holding and improving fireline. They can also be used to support crews during mop up in heavy fuels, as well as initial attack on spot fires. Both of these pieces of equipment are good for backing up burnout operations. Excavators are also good to follow dozers and improve their fireline by breaking up and sorting through the berms of dirt and slash.

Combining aerial water delivery to Type 1 skidgines (super-skidgines) increases the efficiency of ground-based water availability compared to air bucket drops by eliminating empty skidgine refill cycles and increasing ground and ladder-fuel water delivery.

Super-skidgines, wheeled skidgines, soft-track skidgines and pumpercats can extend water delivery to crews beyond the reach of engines and tenders. They can operate at night, when aerial delivery is not possible. In pairs, they are also good for patrolling line, between engines on roads and a super-skidgine acting as on off-road tender.

Mechanized taskforce (Feller Buncher, Skidder)
Boulder River Fire, MT 2003

MECHANIZED TASK FORCE CONFIGURATIONS

Task forces (mix of machines) listed by terrain/vegetation/task:

Gentle ground (<35% slope), forested with maximum root collar diameter <32", traditional pioneering and clearing vegetation for a fireline.

- 1 dozer strike team (one larger dozer with winch, one smaller), or 1 dozer and 1 shovel
- 2 feller bunchers with high-speed "hotsaw" heads
- 1-2 rubber-tired skidders
- 2 mulchers
- 2 skidgines
- 1 super-skidgine






Steep ground (35-55% slope), forested with maximum collar diameter <24", traditional fireline construction.

- 2 large dozers with winch or excavators with dozer blade
- 1 high track dozer or excavator
- 2 steep-slope feller bunchers with hot saw heads
- 2 boom-mounted mulchers
- 1-2 tracked skidders
- 2 pumpercats or soft track skidgines






Steep ground (>55 uphill, <75% slope), forested with big timber, traditional fireline construction.

- 2 large dozers with winch or large excavators with dozer blade
- 2-5 hand faller pairs

Wildland Urban Interface (WUI) fuelbreak construction

- 1 large dozer with winch or large shovel with large cable
- 1 smaller dozer with 6-way blade or small excavator
- 1-2 feller bunchers with intermittent heads, bar saws or harvesters
- 1-2 boom-mounted with horizontal shaft mulching head, or substitute a horizontal strip mulcher for a boom-mounted

If gentle ground, 2 skidgines; if steep and broken, 2 soft-track skidgines.
If a long way to water, add a super-skidgine working on a trail.
If material needs to be moved, either skidders or forwarders.
If paved access, switch to rubber tires or tracks

Brush vegetation
- 1 large dozer with winch and brush blade, or large shovel with large cable
- 1 smaller dozer
- 2-4 mulchers, Rubber tired for gentle, boom for steep
- 2 skidgines for patrolling line

Grassy vegetation
- 1 medium dozer with winch
- 1-2 road graders
- 1-2 wheeled muchers
- 2-4 skidgines or off-road engines

Good holding task force (excavator, super-skidgine, soft-track skidgine)

Mechanized equipment gives the Incident Commander options: 1) to take back the night as a time for aggressive fire fighting, 2) can act as a force multiplier when mixed with other resources (especially crews), 3) can be 'light on the land' when compared to dozer-only fireline or the many more acres burnt."

Rex Mann,
USFS Timber, Wildlife,
Fire Staff Officer/National Area
Commander (retired)

"Order two, if you need to get through. Always account for potential breakdowns."

Old Dozer Boss

EQUIPMENT ORDERING AND SELECTION CONSIDERATIONS

The following provides an initial set of criteria for equipment selection.

- Scope of the work (line building, patrolling, snagging)
- Time frame opportunity or need for night-time operations
- Area(s) affected, and potentially affected
- Tandem and complimentary machine availability. (refer to previous pages)
- Type of terrain and vegetation
- Size of forest fuels
- Reclamation required
- Remoteness of worksite area
- Hand crews support (water and hose delivery, crew and supplies transport)
- Property type and inclusions (WUI, structures, private, public)
- Area access and road conditions
- Equipment extraction and transport options
- Nighttime lighting options
- Available information (slope class, vegetation, and ownership maps, photos, local hazards, water sources)
- Presence and hazard of danger trees (snags, spiketops, windthrown, widow-makers)

"Remember, specifications for machine speed and operable slope are based on perfect conditions. There are many variables to consider when planning for equipment. For example, changes in vertical and side slope, embedded rocks, and soil types. Equipment managers need to set realistic expectations based on actual ground conditions."

John Shotzberger
Timber Sale Administrator/
Division Supervisor
Libby Unit, Montana DNRC

Knowing how to distinguish machine attachments and their functions improves ordering the correct item. Equipment nomenclature varies by region, and is not always covered by agency dispatch terminology. Therefore, using the photos in this book can assist in communications between line, camp, and dispatch.

Bar saw

High speed disc saw

When ordering felling machines, specify the type of cutting head and maximum size of vegetation to cut. Cutting attachments in the Mountain West are commonly boom mounted. Drive-to-tree carrier-mounted feller bunchers do exist, and are common in the South. Generally harvesters use bar saws, run intermittently, and are safer around crews and houses. High speed disc saws (hot saws) run continuously and might throw debris; but, they can lift, place and bunch bundles of stems. Know what you want the machine to do when ordering.

Combining equipment orders for individual machines into strike teams or task forces presents opportunities for both agencies and contractors to increase efficiency and reduce fire suppression costs.

Example: a felling machine, a skidding machine, a skidgine and a dozer are ordered. This task force configuration mimics the staffing and efficiency of a typical mechanized whole-tree logging side. When one contractor provides a task force of machines, it reduces the contractor's cost and increases safety by having crew members familiar with working together.

SPECIALIZED EQUIPMENT APPLICATIONS

Wildland-Urban Interface (WUI)

Populated forest areas create a conundrum for firefighters. Site access is generally better, while protection of private property can be highly complex and an expense multiplier. Fire protection is best accomplished as a preventative measure, when it can be executed without haste site damage and costs are minimized.

There are no standard equipment guidelines for WUI fuels reduction or fire suppression operations, as property development varies widely. Both large and small machines can prove effective depending on circumstances. Empathy for landowner concerns is more easily accommodated prior to an emergency.

Steel tracks with grousers, tire chains, and track bands damage pavement. Rubber tires, rubber tracks, smaller and lighter machines may be better suited for moving over pavement and curbs.

"We are very grateful for the professionalism, skill and efficiency of all involved (in removing beetle-killed trees). The quality of the work was absolutely beyond our expectations, and the empathy, kindness and understanding of how traumatic this dramatic change in the landscape was for us made this experience one we will always remember very positively."

D.Longdon, Helena Independent Record, May 4, 2009
Referenced work done by Northwest Management, Inc. and Mountain Fire Mitigation, LLC. Helena, Montana

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Equipment ordering must take into account the overall terrain, as the logic of deploying equipment to "lookout situation" areas instead of defensible ridges may be folly.

Dean Blomquist,
USFS Timber Sale Administrator (retired)/Division Supervisor

"WUI residents often envision defensible space to be like a highway or utility powerline, which is farthest from what we try to explain. As a landowner they have the control to dictate how that fire will react when it gets there."

Matt Eberlein, Washington Department of Natural Resources Communication, 2009

Foam Application

Hazardous Tree Removal

Where trees become a hazard by falling onto access routes, work areas, along powerlines, campgrounds, or in WUIs, equipment size and maneuverability must be balanced with required urgency.

Early morning patrols by mechanical felling machines, shovels, dozers, or excavators can reduce hazard materials and trees from blocking fire crew buses, travel between drop points, and other incident related traffic. Boom mulchers reduce driving hazards by mulching brush along travel routes, increasing visibility along roadsides.

Insect damage claims millions of acres in the western states, increasing fire risk and falling tree hazards.

Public access hazards

Road clearing for sight distance.

Site Safety and Protecting Historic Cabin, Helena NF, MT

Hazard tree, too fragile for manual felling without injury can also be pushed over.

SECTION 2: MACHINE CATEGORIES AND PROFILES

Mechanized equipment categories are based primarily on carrier type:

- Dozers / Tracked Skidders / Pumpercats
- Excavators / Shovels / Log Loaders
- Forwarders / Super-Skidgines
- Wheeled Skidders / Skidgines
- Softtrack Skidders /Skidgines
- Felling Machines
- Mulchers

Most are commonly found working in the woods today. These general categories, and a few hybrid and unique machines are described in upcoming sections using example machine profiles. The profiles show variety within machine categories and the wide distribution of available equipment across the Northwest and Northern Rocky Mountains. Agency contracting and current dispatch designations are noted to assist ordering. Note: Equipment designations are still evolving toward universal national designations.

Each machine may have distinct features that improve or customize its capabilities; if not factory installed, logger ingenuity most often applies. Opportunities to select for distinguishing features within an equipment category are limited under fire suppression conditions; so, be very specific when ordering. Fuels reduction projects can plan for more contractor discretion, as long as project objectives and agency standards are met.

Machines with like features in a category may also perform differently, depending on the operator's talent and experience. Fire personnel require training and experience to correctly assess their task objectives, machine capabilities and limitations, and to assign the correct tool for the right place and job. Existing agency information such as GIS-generated slope maps, aerial photos, stand data, and local knowledge of soils, terrain and hazards are critical in making informed equipment selections and division assignments.

Hiring and use of local operators and equipment provides non-local Incident Command Teams with valuable information. Often, local operators have modified their machines to work best under local conditions. Local contractor knowledge of ground and vegetation conditions have proven invaluable; particularly those lessons learned from previous local fire incidents and existing fuels treatments.

Many individuals affecting fire management and fuels reduction are not familiar with the broad range of modern forestry equipment options. This is particularly true with Incident Command Teams brought in from out-of-state. Likewise, many agency managers are unfamiliar with machine limitations, capabilities, costs, and site impacts. Most equipment owners appreciate being asked and are pleased to show you what they can do.

DOZERS, TRACKED SKIDDERS, PUMPERCATS

DOZER

TRACKED SKIDDER

PUMPERCAT

Dozers (Bulldozers, Tractors, CATs) are the most widely recognized mechanized fire-fighting tool across North America. They are built for pushing soil or clearing vegetation with their blade. Most contractors have dozers for road building. Add a pin-on brush rake/blade for piling brush and slash. The winch or a length of cable is for retrieving overturned machines or stuck vehicles. Mount ripper teeth on the rear and they rip rock or help anchor the machine. Dozers are the primary machine when agency fire personnel refer to heavy equipment.

Tracked skidders are dozers rigged with chokers/winch or a grapple, and are designed for skidding trees and logs. **Pumpercats** are dozers with a water tank, pump and live hose reel. They function as a tracked skidgine. Both configurations still have fully functioning blades. All three are mounted on rigid steel tracks with grousers (cleats) to ensure good traction. Dozers are stable, powerful, moderately fast and versatile.

The agency types dozers: Type 1 (largest/most powerful), and Type 3 (smallest). Regions within the agency have similar, yet not equal typing criteria.

According to the inter-agency Fireline Handbook, dozers are limited to a maximum of 75% downhill slope and 55% uphill.[9] Common forestry practices are that tracked skidders have an operational ground slope limit between 40-50%, depending on other site factors. Dozers are used to access ground too steep or rough for wheeled machines. The most critical terrain hazards for dozers are side slopes over 40%, rock, unstable soils, wet areas, and boulders.

Dozers with angle and 6-way blades are used to cut firelines, pioneer trails and push over snags. Dozer fireline construction production rates are listed in the inter-agency fireline handbook, including comparative up and down slope production rates.[10] Most mechanized task forces include a large dozer for quick line pioneering, safety zone construction, and assistance with machine breakdowns. Dozers have faster track speed than tracked excavator-type machines for emergency escape.

DOZER ATTACHMENTS – BLADES, GRAPPLES, CABLE WINCH & ARCH, RIPPERS

BLADES TYPES

U-Blade

Angle Blade

Brush Blade

6-Way Blade

GRAPPLES (fixed, swing boom), CABLE WINCH & ARCH, RIPPERS

Rippers

Cable Winch & Arch

Swing Boom Grapple

Fixed Boom Grapple

OPERATOR PROTECTION SYSTEMS - TREE SWEEPS AND GUARDING

Enclosed cab FOPS/ROPS, sweeps, screens

FOPS / ROPS, sweeps and partial screens

Extended FOPS/ROPS, sweeps and partial screens

Enclosed cab FOPS/ROPS, sweeps and screens

Havillah Lumber/
Smith Timber

Mike or Bonnie Smith
PO Box 109
Tonasket, Wa 98855
509-486-4650
509-679-9853
509-486-4650 fax (Phone first)
bsmith@nvinet.com
SmithTimber@Synthasite.com

Dispatch Wenatchee, WA

Tracked Skidder, Cable, Type 3

Specifications: 1995 CAT D-5C, Dozer, (FWHP-90)

Attachments:
Forestry sweeper guards, FOPS/ROPS cab, logging arch/winch combo, lights, side claws on 6-way blade

Transport: 20T International Ramp Truck

Sun Mountain Logging

Rex Anderson
PO Box 389
Deer Lodge, MT 59722
406-560-0389
406-846-3799
406-846-3714 fax
majesticmtnlogging@
hotmail.com
www.sunmtnlumber.com

Dispatch Dillon, MT

Dozer, Type 1

Specifications: 1997 Caterpillar D7R, 240 hp, operating weight 57,056 lbs

Attachments:
6-Way adjustable U-Blade, rippers, ROPS, canopy with sweeps, enclosed cab, lights.

Transport: lowboys available

AC Logging

Alan Conover
300 Riverside Dr
Dillon, MT 59725
406-925-1392
406-683-4570
Aclogging1@hotmail.com

Dispatch: Dillon, MT

Dozer / Tracked Skidder, Grapple, Type 2

Specifications: 1991 D5H Dozer

Attachments:
ROPS, enclosed cab; sweep guards, 6-Way blade, winch, fixed boom grapple and lights

Transport: 40 T detachable or 35T beavertail lowboys

Mark Rector

Mark Rector
PO Box 336
Powers, OR 97466
541-439-4901
541-439-3591

Dispatch: Medford, OR

Pumpercat / Dozer / Tracked Skidder, Cable, Type 2

Specifications: D7 CAT Dozer, 175 hp, with adjustable angle blade

Attachments:
removable mounted 1500 gal water tank, 18 hp pump, live hose reel, foam unit, lights, winch.

Note: The tank is equipped with supports. It can be lowered on the fire ground to support the tank, leaving HydroCat free to move about without the tank. Trailing can be done with or without the tank mounted on the cat.

Western Reclamation, LLC

Ken Verley
Willie Peck (Manager)
506 Quartz Loop
Superior, MT 59872
406-822-4544
406-239-8074 c (Ken)
406-822-2536 c (Willie)
406-822-4546 fax
kdv@blackfoot.net

Dispatch: Missoula, MT

Pumpercat / Dozer, Type 2

Specifications: 1998 CAT D5M Dozer, 110 hp, 30,000 lb, enclosed cab

Attachments: 250 gal water tank, 6-way blade, lights

Transport: lowboy

Danielson Logging, Inc

Robert Danielson
17637 Hwy 5
St. Maries, ID 83861
208-245-5818
208-245-7742 fax
danielsonshop@gmail.com

Dispatch: St. Maries, ID

Dozer /Tracked Skidder/Grapple, Region 1 Type 1/Region 6 Type 2

Specifications: 2007 CAT 527 Track skidder, 166 hp , FOPS/ROPS/OPS , sweep guards

Attachments: Lights, swing boom grapple, 6-way blade

Transport: lowboy

WHEEL SKIDDERS AND SKIDGINES

Wheel Skidder

Skidgine

Wheel or Rubber Tire Skidders (RTS) are the most common machines to drag (skid) logs, or felled trees off the line. **Wheel or Rubber Tire Skidgines** are RTS with generally a 200+ gallon tank, pump and live reel, or water cannon mounted on them. Regions 1 and 6 both type wheeled skidders and skidgines based upon flywheel horsepower.

Tires make wheel skidders and skidgines faster than tracked (dozers), soft-tracks, and track banded vehicles (forwarders). They are better suited to patrolling firelines or covering greater distances to find water. They are also the most terrain limited. In western logging operations RT skidders are usually limited to maximum ground slopes between 35-45% favorable, and adverse slopes half that given the same load. Both machine types are articulated; so, they work well in tight stands or on narrow trails.

Both machine types have light duty blades for pushing brush, slash and light earth moving. They can also be used for putting in quick scratchlines. Rubber tires make them more stable on slide rock than tracked machines. RTS and skidgines are often fitted with tire chains to increase traction. Note: If these are advisable for your situation this is a dispatch request item.

RT skidders use one of three skidding attachment methods: 1) Cable winches, with an arch and chokers, 2) Grapples (large fixed or smaller swing boom) or 3) both. **Cable Skidders** are useful for reaching from the machine to trees, or to reach brush beyond the normal 8-15 ft reach of grapple skidders. These are generally older or are used in country with bigger trees, and generally carry 80 ft of bull-line on the winch. This cable setup requires the operator to leave the cab, or a second person (hooker).

Grapple Skidders are usually paired with mechanized felling operations. The felling machine bundles the stems in a position for the grapple to grab. The operator need not get out of the machine to attach the trees to be skidded. This is the most common skidder type found in the West.

Wheeled Skidgines come with two types of tanks, fixed or detachable. Fixed tanks are attached to the body of the machine and are not easily removed. Wheeled skidgines with detachable tanks use the skidding attachment method (cable or grapple) to attach the tank assembly. These machines are very versatile, as they can quickly attach or detach their tank assemble, and switch from skidgine to skidder, or back, in a matter of minutes. This versatility makes it a great second machine for initial attack on gentle terrain.

DS Jr., Inc

Dave Sheets Jr.
Janice Grosfield
Drawer D
Drummond, MT 59832
406-544-0555
406-240-7053
406-288-0085 fax
sheetstrucking@hotmail.com

Dispatch: Dillon, MT

Rubber Tire Skidder / Skidgine, Type1

Specifications: 2008 John Deere 648G ; 185 hp; dual function grapple, FOPS/ROPS/OPS; full brush guarded; back-up alarm; independent fire suppression system, light duty blade

Attachments: 9' blade, winch, lights, quick attack 405gal water tank with hitch setup for skidder/ skidgines conversion within ½ hour, tire chains

Transport: Contractor provided; 3-axle tilt bed or larger lowboy, i.e. single and double drop

Note: Detachable gray tank attached to yellow grapple

Drake Logging, Inc

Dave Drake
111 Olson Court
Columbia Falls, MT 59912
406-261-8222
406-862-8222
406-862-8222 fax
drkgln@hotmail.com

Dispatch: Missoula, MT

Rubber Tire Skidder, R1 Type 1 / R6 Type 2

Specifications: 2008 John Deere, Model 648 H skidder, 185 hp, 30,625 lbs operating weight, light duty blade, FOPS/ROPS/OPS

Attachments: 9 ft blade, continuous rotating grapple, tire chains, pressurized water system for extinguishing small fires, lights

Havillah Lumber/ Smith Timber

Mike and Bonnie Smith
PO Box 109
Tonasket, WA 98855
509-486-4650
509-679-9853
509-486-4650 fax
bsmith@nvinet.com
SmithTimber@Synthasite.com

Dispatch: Wenatchee, WA

Rubber Tire Skidder, R1 Type 1 / R6 Type 2

Specifications: 1990 Clark Ranger F-666,148 hp, Rubber Tire Skidder with light duty blade , FOPS/ ROPS, partial screened cab, light-duty blade

Attachments: Attached 400 gal water tank/ hydraulic pump/ live hose reel, winch

Note: Tire chains on request

Tom Davis Livestock Inc

Paul Davis
46008 Alvord Ranch Ln.
Princeton, OR 97721
541-495-2240
541-495-2243
541-589-2123 c
208-475-6023 fax
alvordranch@gmail.com

Dispatch: John Day, OR

Rubber Tired Skidgine, Region 1 Type 1 / R6 Type 2

Specifications: Clark 668 Rubber Tire Skidgine, light duty blade, enclosed cab, sweeps

Attachments: Attached 840 gal, hydraulic pump, live reel, cab controlled water cannon, rear water bar for dust abatement

FELLER BUNCHERS AND HARVESTERS

The biggest changes in forestry operations over the last three decades have been the invention and widespread use of mechanized felling machines. These machines have reduced the exposure of loggers to the most dangerous job in the woods (i.e. greatest US fatality rate per 1000 workers, manual tree felling, based upon OSHA data).

Mechanized felling has also been widely adopted by loggers because of the speed (1-3 trees/min), and efficiency created by positioning the stems for pickup by the skidder. All mechanized felling machines can move a tree after it is felled. This repositioning of a felled tree is not possible with manual felling.

Felling machines, with operators inside protected cabs and equipped with 360° lighting, routinely log at night.

There are two common types of mechanized felling methods:

1) Feller-bunching - where the tree is grabbed, felled and is placed on the ground
2) Directional felling with harvester (dangle) heads – where the tree is grabbed, felled and the butt end of the tree while still secured is guided to the ground.

Feller Buncher

Feller bunchers, depending on the head, can handle trees up to 28" diameter on the butt with a single cut. Larger wood <40" diameter can be felled with double cutting techniques but only on gentle ground.

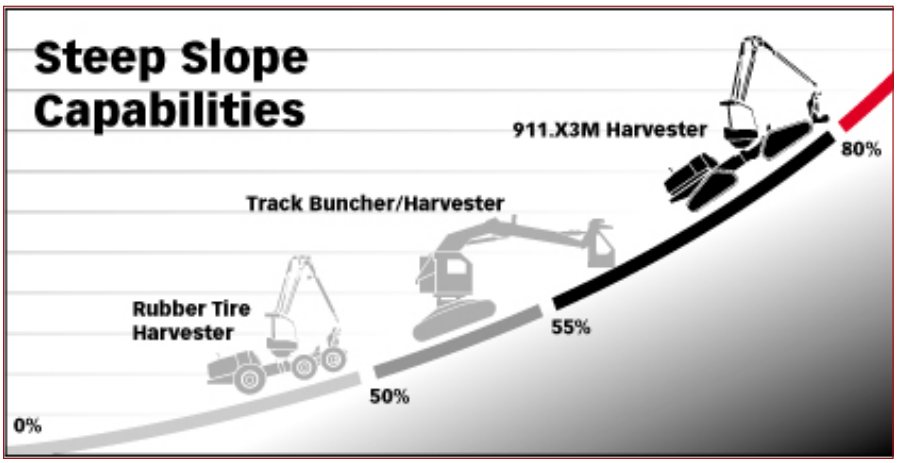
In the mountainous West, feller bunchers are commonly track mounted with the felling head attached to a short boom (24 ft). For steep slopes (40-55%) the machine has a self-leveling cab (36°). For gentler slopes (25-40%) there are excavator/shovel mounted carriers, with longer (30-50 ft) booms. For flat ground (<25% slope) they can be mounted on 3 or 4-wheel rubber tired drive-to-tree machines, common in the South. Felling heads with continuous high speed disc saws (commonly called "hot saw" heads) can fell multiple stems at a time. Those having rotational heads can cut in horizontal or vertical positions. Buncher heads have accumulator arms to build multi-stem bundles.

Harvesters are both track-mounted for steep ground (35-55%) or rubber tired with steel track bands for gentler ground (<40%). Newer machines are currently designed for cutting on up to 80% slopes. Most harvesters have intermittent boom-mounted bar saw cutting heads (dangle head), which both fell, delimb and buck trees. They are designed to cut one stem at a time, and the bar chain only moves when activated. Harvester heads are lighter than feller buncher heads, and the booms are generally lighter and longer (24-33 ft). Harvester heads can be used in both the vertical and horizontal positions; useful for cutting downed logs, and jack-strawed timber.

Dangle Head

Rubber Tire Harvester

A new class of harvester heads designed for larger wood (up to 34" diam.) is being mounted on large excavator and shovel carriers. This is in response to the rising cost, safety risk and a lack of availability of large wood manual fallers.



FELLER BUNCHER AND HARVESTER TASKS

Felling machines are best suited for quick line clearing and opening up wide sky space in accordance with the long-standing fireline width rule:

1 ½ times as wide as the height of the dominant fuel[11]

Thus, in 100 ft tall timber the fireline width to successfully reduce fire spread from convection and radiation heat would be 150 ft. As a rule, at 100-150 stems felled/hour, or approximately 4 acres cleared a day, for a 150 ft wide fireline one feller buncher can clear about 1200 ft of line in 10 hrs (2400 ft if double shifted, or by adding another machine). At a modest 50 ft wide fireline canopy opening, one machine could clear the recommended open space for approximately 3500 ft in 10 hours (or 7000 ft/double shift day).

If lowboy access is available felling machines can be useful for initial attack, as they can fell trees and clear fireline space around small fires during the first night when manual felling options are too risky. Hot saw equipped machines can also rapidly mow down undergrowth and ladder fuel vegetation. These machines have integrated light systems that provide wide area illumination.

The daily patrolling and dropping of burned, burning or hazard trees by felling machines along travel roads reduces the risk of injury to incident personnel, and later to the general public using forest roads. This critical task is made safer by feller bunchers. Combined with a shovel, rubber-tired skidder, or dozer they can complete daily removal operations along all roads carrying incident traffic before buses leave camp for their drop points. This reduces the danger of trees falling on personnel; especially through burned-out areas where fire within old, decayed, or damaged trees (particularly fir, cedar) may burn through and fall unexpectedly.

4-Wheel drive-to-tree feller buncher

Feller bunchers and harvesters can also make mop-up and rehab safer and faster assisting hand crews, reducing the need for manual felling and bucking. They can cut, grab and reposition jack-strawed timber, cut out and spread burning piles.

FELLING SAFETY

Mechanical felling of trees allows for safely dropping limb-bound trees from tight canopies and danger trees hazardous to crews passing through the area. Mechanical felling of burnt or burning trees also eliminates the risk to manual fallers from overturned stumps, and to injuries from rapid release of brush, branches and poles under tension, or falling, burning tree parts.

The common "hot saw" heads are high speed continuously rotating metal discs with cutter teeth. They can propel rocks, chips or metal from broken teeth many hundreds of feet with lethal force. Even at 300 ft (the warning stay back distance posted on the machine booms) thrown objects have pierced through truck door panels.

Crews and more than one machine do not mix safely. It is not practical for the machine operator to perform their task and keep track of nearby personnel. The enclosed cab that protects the operator and the 360° boom rotation on mounted swing machines makes it critical to only approach a machine after the operator is aware of your presence. This is best done by radio, phone, or flagging/strobe light signals. Swing machines do not have a safe approach path.

The high-speed rotation of the hot saw disc (200+ mph) can start fires by friction on stumps, clogged vegetation in the shroud, rubbing on the saw, or sparks due to metal striking rock. Machines can be ordered with fire prevention systems mounted in the boom, or with intermittent, bar saw or shear type felling heads. The most common precaution is to have skidgines or a quick water source nearby the felling machines.

Generally these track carrier 360°rotational swing machines have slow track speeds (8-9 mph). They will be the slowest machine in a task force in case of emergency escape. Keep this in mind when putting together different types of machines and estimating time back to safe zones.

Road snagging

Hazard tree felling

Photo by Jacob Ware ©

Kelly Logging Inc

Jerry P. Kelly
PO Box 16067
Missoula, MT 59808
406-251-4600
406-240-2292 c
406-251-3317
Kellytrees@aol.com

Dispatch: Missoula, MT

Feller Bunchers, Steep Slope (2), Type 1

Specifications: (2) Timberjack 608L Feller Bunchers, 241 hp, self-leveling cabs, 28 ft boom reach

Attachments: 20" high speed disc hot saw feller bunching heads, lights, FOPS/OPS

Transport: company lowboys

Bear Mountain Cutters Inc

Doug Korevaar
PO Box 38
Leavenworth, WA 98826
or
PO Box 354
Bay Center, WA 98527
503-812-5454 c
dkorevaar7@msn.com

Dispatch: Wenatchee, WA

Feller Bunchers (2) , Type 2

Specifications: (2) Kobelco 200 and 210, tracked excavators with 32 ft booms, enclosed cab

Attachments: 33" and 28" bar saw feller head with buncher arms, lights

Flanagan Quality Contracting

Dale Flanagan
8940 Sharptail Lane
Missoula, MT 59808
406-239-4031
406-531-7323
406-549-9881 fax
dale.flanagan@Yahoo.com

Dispatch: Missoula, MT

Harvester, Steep Slope, Type 1

Specifications: 2003 Timberjack 608L tracked harvester, 241 hp, 60,000 lbs operating weight, 30 ft reach, FOPS/OPS, self-leveling cab

Attachments: Waratah 470 dangle harvester head for 24" maximum stem diameter, lights

Miller Timber Services, Inc.

Dan Mace
PO Box 638
Philomath, OR 97370
541- 929-2840
541-740-4338
541-929-4489 Fax
dan@millertimber.com
www.millertimber.com

Dispatch: Eugene, OR

Harvester

Specifications: 2005 Ponsse Ergo Harvester, 250 hp, weight: 34,170, 32 ft boom reach, enclosed cab

Attachments: Harvester Head (Ponsse H73T) for tree diameters: up to 27.5 in, 280 degree rotation for cutting and processing in horizontal and vertical positions, lights

Transport: Company owned/operated lowboys

Danielson Logging, Inc

Robert Danielson
17637 Hwy 5
St. Maries, ID 83861
208-245-5818
208-245-7742
danielsonshop@gmail.com

Dispatch: St. Maries, ID

Feller Buncher, Steep Slope (5), Type 1

Specifications: (5) 2006/2005/2004/2003/1994 Timbco 445, 24 ft boom, self-leveling cab, FOPS/OPS

Attachments: 28 in capacity "hot saw" feller bunching heads, lights

Transport: 18 ft bed (50T, 16 ft bed (40 T) lowboys

Quartz Logging, Inc.

Kevin Donally
322 William Lloyd Ln.
Superior, MT 59872
406-822-4889
406-822-2336 c
406-822-4889 fax
donallys@blackfoot.net

Dispatch: Missoula, MT

Feller Buncher, Steep Slope, Type 1

Specifications: 2001 Timbco T445D Feller Buncher, FOPS/OPS, 24 ft boom, self-leveling cab

Attachments: 22 inch Quadco "hot saw" (high speed disc saw) head, lights

Transport: double drop lowboy

EXCAVATORS, SHOVELS (HOES), TRACKED LOG LOADERS

Excavators, shovels (hoes), and tracked log loaders are tracked machines with 360° rotating (swing) capabilities that have a boom. Different attachments can be placed on the end of the boom (buckets, rakes, felling heads, processing heads, log grapples or tongs).

TYPES

Generally, excavators are built with buckets for earthwork. Thumbs or clam grapples allow operators to grab and pick up rocks or vegetation. Tracked log loaders, a common machine on logging sides, have log grapples mounted on the ends of their booms for picking up logs, slash and vegetation debris. A special class of log loaders, commonly found in very steep ground and designed to handle large logs are called shovels or hoes. They are built to travel off trail, cross country with beefed-up undercarriages, higher clearance, and aggressive tracks. They are built to lift, heel and swing large logs or whole trees.

Shovel (Hoe)

Another newer specialty class of 360°swing boom machines, popular in the Northern Rockies, are combination mid-size excavators (40,000 lbs, 120 hp class) with a permanently fixed 6-way dozer blade. These are sometimes referred to as dozavators. They combine the boom attached versatility of an excavator and the blading capability of a dozer. The blade allows additional stability for these machines to work on steep slopes and broken terrain.

Both regions type all the above machines as excavators, and according to machine weight and flywheel horse power (FWHP). Region 1 requires a bucket with thumb or clamshell bucket, and forestry cab guarding.

Excavator with bucket and thumb

TASKS

These machines are versatile based upon the attachment ordered. For digging fireline, especially narrow, rocky or broken terrain, buckets with thumbs are a good machine/attachment combination. Matched up with a lead dozer, the excavator can dress the line and pull slash, deadfall, ladder fuels, and brush away from the fireline edge. Excavators with bucket and thumb are excellent for initial attack as first machine on scene. Equipped with lights they can build line or increase access for engines through the night.

In areas of large timber (Old Growth), jack-strawed downed logs, the excavator or shovel can pick up and position vegetation, clearing a path for the dozer or another excavator to dig a line with minimal damage to the rest of the stand.

Equipped with powered clam buckets or brush grapples excavators can prune ladder fuels, pull and pile small trees and underbrush away from leave trees, fences, powerpoles, and in WUI's around houses with less chance of damaging the improvements.

Due to the boom reach capabilities (25-50 ft), these machines can reach into sensitive areas to remove vegetation or scratchline without disturbing sensitive sites or short inaccessible, steep areas. This is useful around water, riparian and houses with buried septic tanks.

Teamed with manual timber fallers these machines can assist with felling problem trees. Due to the larger boom reach it can reach in where other machines can't get close. This is useful along powerline and around structures.

LIMITATIONS

Cross-slope travel is generally limited to 35% for all these types of machines. However, excavators with aggressive track grousers, especially shovels made for off-trail travel, can take on much steeper slopes (especially in broken ground where trails can be located and the machine can reach onto the steeper ground). Experienced operators can work 50% slopes. For dozer blade equipped machines many operators specialize in working 40-65% ground, and can go beyond that; but, this is not within common machine use limits.

ATTACHMENTS

Clamshell (or Clam) bucket

Bucket with thumb

Brush grapple

Log grapple

SAFETY

Federal OSHA-logging regulations do not require roll over protection (ROPS) for excavator 360° swing machines with booms. The presence of the boom is presently considered to reduce the risk of catastrophic machine roll over. OPS are required, and are available as operator cab guarding, enclosed cab window and screening systems. However, rollovers can happen.

Where necessary, mechanized equipment (dozers, excavators) can open, close, replace , or repair damaged bridge structures, stream crossings and roads.

EQUIPMENT PROFILES – EXCAVATORS AND SHOVELS

Blackfoot Reforestation

Art Wear
Sam Smith
11960 Buffalo Speedway
Missoula, MT 59832
406-542-7480 c (Art)
406-240-9508 c (Sam)
406-542-7480 fax
teewear@msn.com
samjulie@q.com

Dispatch: Missoula, MT

Steep-slope Excavator (3)

Specifications: 2007 Kobelco ED 190, 112 hp, 25 ft boom reach, enclosed cab with screens, Type 2
2005 Kobelco ED 150, 94 hp, 25 ft boom reach, enclosed cab with screens, Type 3

Attachments: 11 ft 6-way dozer/stabilizer blade, bucket with thumb, lights

Transport: lowboys provide

TBC Timber, Inc

Paul Tisher
Paul Brown
PO Box 1490
Libby, MT 59923-1490
406-283-1915
406-293-7536
406-293-7596 fax

Dispatch: Libby, MT

Steep-slope Excavator / Feller Buncher / Harvester

Specifications: (2) 2000 Timbco T445D Excavator with self-leveling cab, 24 ft boom
(1) 2003 Timbco T445D Excavator with self-leveling cab, 24 ft boom

Attachments: a bucket with thumb (pictured), 22” hot saw head or harvester head, lights

Transport: lowboys provided

Note: Quick attachments allow carrier to be configured as a feller buncher, harvester, and/or steep-slope excavator. One machine serving different roles during different phases on an incident (i.e. suppression, rehab).

Timberlake Landworks and Excavation

Mike Wilson
Caleb Bonny
PO Box 645
Lakeside, MT 59922
406-844-3965
406-249-1604 c (Mike)
406-471-8170 c (Caleb)
406-844-3965 fax
mike@timberlakelandworks.com

Dispatch: Missoula, MT

Excavator, R1 Type 2, R6 Type 3

Specifications: 2007 John Deere 160C LC, 28 ft boom reach, 36,000 lbs, 109 hp, enclosed cab, screening, FOPS/OPS

Attachments: bucket with thumb and log grapple (both pictured)

Transport: lowboys

John F Richmond Contracting Inc

John Richmond
P.O. Box 27
Bly OR 97622
541-891-0745

Dispatch: Lakeview, OR

Excavator, Type 3

Specifications: CAT 315L excavator, 17 ft boom reach, 99 hp, 37,000 lbs, enclosed cab

Attachments: bucket with thumb (pictured)

Transport: lowboy

EQUIPMENT PROFILES – EXCAVATORS (cont.)

ALM, LLC

Alan McDonald
310 Gosney X Rd.
Columbia Falls, MT 59912
406-249-9387 c
406-892-4780 h
Alm.llc@hotmail.com

Dispatch: Kalispell, MT

Steep-slope Excavator, Type 3

Specifications: 2006 John Deere, Model 135-C. 25,000 lbs, 81-110 hp, 27 ft boom, enclosed cab, screens, FOPS/OPS

Attachments: quick attach bucket and thumb, Rotobec rotating power grapple, Hyd rock breaker, 10-ft 6-way dozer blade, fully guarded.

Transport: Lowboy

LTL Enterprises LLC dba LTL Forestry

Larry and Sheree Roberts
45 Willow Drive
Kalispell, MT 59901
406-756-6214
406-253-9368 c Larry
406-261-5773 c Sheree
406-756-0177 fax
smalldetails@bresnan.net

Dispatch: Kalispell, MT

Excavator

Specifications: 2001 Caterpillar Excavator 318B LN, 115 hp, 41,000 lbs operating weight, 30 ft boom, enclosed cab, FOPS, screens

Attachments: Winch - 200 feet of line, Huldins 550 Super Cut Saw - attached to the power clam grapple; 2004 IMAC Power Clam Grapple - 360 degree full articulating grapple

Transport: Company trucks and lowboys

MULCHERS (MASTICATORS)

Mulchers, also known as masticators, are described by carrier type and mulching head shaft orientation. All mulchers are designed to knockdown, break, chew, or grind woody material at the stump. Carbide tipped teeth can incorporate the material into the soil.

Mulchers can be used on many types of terrain and vegetation, generally sub-merchantable size timber, dead vegetation and brush. They are good tools for WUI's where burning is risky and moving vegetation off-site leaves site impacts or there is no dumping site. Both work best in light to moderate fuel loads.

Boom-mounted mulcher

TYPES

Boom-mounted mulchers are rubber tire or track mounted excavator type 360° swing machines with the mulcher head mounted on the boom. These are maneuverable and can reach areas inaccessible to carrier-mounted mulchers. Generally they are most efficient on material <10 inch in diameter. Boom-mounted mulchers come in all sizes, and can operate on much steeper ground, up to 70% depending on carrier design, operator skill and site factors effecting traction. On gentle ground a boom mulcher can mulch 3-5 acres of 15 year old PP saplings in an 8 hour day.

Carrier-mounted mulcher

Carrier-mounted mulching heads, commonly called strip mulchers, are mounted directly to the machine's frame or tool attachment bar. Given the same size these are more powerful and faster than boom-mounted mulchers. They can mulch through downed material up to 30" diameter. They can knock down and mulch rows of 12" pine as fast as a a firefighter can walk. Most can travel at speeds approaching wheeled skidders (12-15 mph). **Strip mulchers** can operate on slopes up to 40%, depending on site conditions, and design (wheeled, tracked rubber or steel).

TASKS

Primarily mulchers are used as hazardous fuels reduction equipment. They are faster and safer than manual chop, lop and scatter options. Boom-mulchers can also reach up and prune branches on trees beyond the height of fire crews. These machines can handle both gentle and steeper slopes. Boom-mounted mulchers are often used under powerlines to chop down and set back vegetation regrowth.

Boom-mounted mulchers are excellent machines for reducing driving hazards due to short sight distances on roads. Mulching back saplings and brush increases sight distances for drivers and improves dust dispersal. Most large fire incidents must contend with these problems.

Either type of mulcher, paired with a mechanized felling machine in a task force can increase fireline or fuelbreak construction for both machines. Depending on the mix of larger trees, downed wood, seedlings, saplings, poles and underbrush, the mulcher can handle the smaller diameter material, making it easier for the felling machines to locate tree root collars and position their cutting heads for felling. Where the timber is thicker and less brushy the felling machine can lead and the mulcher thins ladder fuel and underbrush adjacent to and in the

fireline. This can reduce the need for multiple passes with a dozer digging down to mineral soil, lowering site rehabilitation costs and reducing soil disturbance.

The Canadians are presently looking at using mulchers to build firelines in light fuel, fine soil conditions.[12] This method is both faster than dozers, can be safer than handline, and reduces site impacts. Less site impacts, where most of the root structure is left in place, greatly reduces the need and cost of line site reclamation.

ATTACHMENTS

Most **strip mulchers** use 5-8 ft wide horizontal shaft spinning drums or cylinders with various types of teeth attached; carbide tips if ground disturbance or incorporating vegetation into the soil is desired.

Boom-mounted mulchers can have either horizontal or vertical shaft spinning heads. Some heads are built with a thumb for grabbing and lifting logs and vegetation.

SAFETY

Boom mulchers are more dangerous around crews due to the potential height of the mulching head, and because the vertical shaft (spinning disc) heads discharge chips and loose rocks in all directions unless shrouded, similar to a rotor lawnmower.

Strip mulchers throw their discharge down onto the ground below the head; but, due to the speed and power of these machines they do not mix well operating close to crews.

EQUIPMENT PROFILES – MULCHERS

C. Richard Nordstrom

C.Richard (Dick) Nordstrom
208-682-2660
208-661-9524 c
Jay Nordstrom,
foreman/operator
404 Klette Rd
Kingston, ID 83839
208-755-0345 c
208-682-2660 fax
nordstrom@imbris.net
nordstromfuelsreduction.com

Dispatch: Coeur d' Alene, ID

Boom-Mounted Mulcher (2), R1 Type 1/ R6 Type 2

Specifications: 2003 CAT 322C FM excavator, 168 hp, 33 ft boom, 80,000 lbs, enclosed cab, FOPS/OPS
2001 CAT 322 BL excavator, 161 hp, 33 ft boom, 60,000 lbs

Attachments: vertical shaft mulching head with 270 degree rotation, powered by 150 hp auxiliary engine hydraulic thumb, lights

Transport: 80,000 lb machine 11.6 ft wide seven axle lowboy required

Get'er Done Wiest, LLC

Gary Wiest
Sharon (admin)
561 Wiest Rd
Brady, MT 59416
406-753-2393
406-753-2393 c
406-753-2395 fax
wiest@3riversdbs.net
www.geterdoneboys.com

Dispatch: Great Falls, MT

Carrier-Mounted Strip Mulcher (2), Type 1

Specifications: (2) Gyro-Trak 25XP, 23,500 lbs, 260 hp, nylon/poly tracks reinforced with steel crosslinks, FOPS/ROPS.

Attachments: cutter head (8 ft cutting width):, planar fixed-tooth head, 6 lights, forestry sweeper guards, Lexan windows, 15K lb. winch

Transport: company trucks and trailers

Fire Solutions, Inc

Levi Cheff
PO Box 16988
Missoula, MT 59808
406-239-2810
406-721-3151 fax
levifiresolutions@yahoo.com

Dispatch: Missoula, MT

Steep-slope Boom-Mounted Mulcher, Type 3

Specifications: 2007 Kobelco ED150, 94 hp, 6-way dozer blade, 28 ft boom, 35,720 lbs operating weight, enclosed cab, FOPS/OPS, screens

Attachments: bucket with thumb; 480SX vertical shaft mulching head with rotating shroud, lights

Transport: 35 T lowboy and tractor

Bear Mountain Cutters Inc.

Doug Korevaar
PO Box 38
Leavenworth, WA 98826
or PO Box 354
Bay Center, WA 98527
503-812-5454 c
dkorevaar7@msn.com

Dispatch: Wenatchee, WA

Rubber Tire Excavator Boom-Mounted Mulcher, Type 2

Specifications: Rubber tire mounted Samsung 210 excavator, enclosed cab, 45 ft boom reach

Attachments: blade, forestry guards, lights, rotating disc, vertical shaft mulching head with thumb

Transport: 30, 50, and 60 T lowboy trailers

Note: Rubber tire mounted allows travel on paved roads (see photo).

Rick Oliver Contracting

Rick Oliver
PO Box 892
Plains, MT 59859
406-826-4430
406-544-7571
406-531-0035

Dispatch: Missoula, MT

Strip Mulcher

Specifications: 2008 Fecon FTX 140 hp, steel tracks; forestry package, enclosed cab

Attachments: 7 ft horizontal shaft, mulching head with push bar

Transport: Truck and trailer

Tough Go Logging, Inc.

James J. Stupack
Jennie M. Stupack
695 Lore Lake Rd.
Kalispell, MT. 59901
406-257-7141
406-253-2227 James
406-253-1944 Jennie
406-257-0204 fax
toughgoturf@centurytel.net

Dispatch: Missoula, MT

Boom-Mounted Mulcher (2), Type 2

Specifications: 2006 and 2007 Hitachi ZX200 LC-5 tracked excavator, 150 hp, 30 ft boom, enclosed cab with forestry guards.

Attachments: 6 ft horizontal shaft mulching head, 90% wrist rotation, lights

SOFTTRACK SKIDGINES AND SKIDDERS

Soft Track machines are used in the woods for both their speed and slope stability capabilities. Their "soft track" carrier design combines the traction and power of conventional rigid steel tracks with the speed of rubber tracked and tired machines.

Soft track (above), Rigid track (below)

These carriers are now only manufactured by one company in British Columbia, Canada. Due to their unique capabilities, several wildfire contractors in the Northwest maintain them primarily for fire suppression. They may not be found in other parts of the country.

TYPES

The most common type of soft track machine on fires is rigged as a skidgine, pump with live reel and fixed tank. Less common are soft track skidders, which can be found having attachments of a winch/arch combination, fixed grapple, or swing boom grapple.

Soft track skidder

LIMITATIONS

Soft tracks are built to handle 60% adverse and favorable slopes, where site conditions allow. Their side-slope capability is similar to a Type 2 dozer (35-40%). The high speed steel tracks have low-ground pressure, but are not designed for use on pavement.

The cabs may not be fully enclosed, but are designed with FOPS and ROPS. Older models (manufactured before August 1996) may meet OSHA operator protection requirements even though they lack cab doors. Newer models (after 1996) must have fully enclosed cabs that include doors.[13]

ATTACHMENTS

Some soft track skidgines have water cannons, allowing the operator to control the water direction from within the machine cab. Soft track skidgines come with tanks sized from 300-1500 gallons.

TASKS

As Skidgines, they are capable of moving water over rough terrain faster and with greater stability than any other skidgine type. They are best used as a quick patrol machine; but, share the same capabilities as other skidgines. The light duty blade can be used to scratch in fire line, push over small to medium sized hazard trees, and push slash, logs and brush.

They are also excellent for towing or assisting stuck vehicles, using wire rope and climbing capability. Their climbing ability makes them a good choice for delivering materials or retrieving gear, as support to crews in rough terrain.

Jon Greenup Logging

Jon P. Greenup
60071 Hanna Arbuckle Rd
Heppner, OR 97836
503-793-9414
541-969-6885
503-630-2595 fax
greenupent@rconnects.com

Dispatch: Pendelton, OR

Soft Track Skidgine, Type 1

Specifications: 1978 FMC soft -track skidgine, 2-way blade

Attachments: 1500 gallon tank, pump, reel, lights

Transport: Trucks and trailers

Upper Valley Contracting

James Kruckeberg
11716 N. 55 E.
Idaho Falls, ID 83401
208-390-9506
208-313-2058
208-523-9506 fax
upper_valley_contracting@
hotmail.com

Dispatch: Idaho Falls, ID

Soft Track Skidgine, Type 1

Specifications: KMC Model 2100 soft-track skidgine. 200 HP, 6-way blade, FOPS/ROPS/OPS, cab with doors and screens

Attachments: 1300 Gal water tank, 18 HP pump, power hose reel, foam mixing unit, hoses, fittings.

Transport: Company 3-axle tilt bed trailer

EQUIPMENT PROFILES – SOFT TRACKS (cont.)

Soft Track Attack

Larry Covey
540 Elk Haven Rd
Troy, MT 59935
(406) 295-5770
(406) 295-5771 Fax
softtrackattack@hotmail.com
softtrackattack.com

Dispatch: Libby, MT

Soft Track Skidgine (6), Type 1

Specifications: 1977 FMC CA-210 soft -track skidgine, 210 hp, FOPS/ROPS, fire curtains, enclosed cab

Attachments: 1500 gal tank, pump, 2 hose reels, blade, lights, remote control water cannon

Transport: Lowboys

Skidgine task force chasing spot fires, off road, off trail, MT 2003

SUPER-SKIDGINES / FORWARDERS

Log Forwarders are the most recently developed ground based log moving machines. They are designed to self-load and unload with an attached light duty boom, and carry their load like a truck. Forwarders do not skid (drag) their load. The load is carried, minimizing site impacts. They come in 4/6/8 wheel configurations and are sized from 8-20 Ton hauling capacity.

The machines where designed to run fast (12-15 mph, unloaded). They run on rubber tires, allowing them to work off paved roads. Be mindful of road load limits. To maximize flotation and traction the tires usually come equipped with chains or steel track bands. When ordering, dispatch will need to know if the forwarder must have chains and/or track bands.

The normal design load length for forwarders is for logs or trees less then 25 ft long. Recently, operators and manufactures have modified forwarders to carry slash and brush. One Montana operator (CET Technologies Inc) has equipped his to load and off-load steel trash bins for hauling chips.

Log Forwarders are popular where the forest products industry uses Cut-To-Length logging (CTL), forwarders are matched with harvesters to perform stand thinning. This includes most of western areas of US Forest Service Region 1 and 6.

Super-Skidgines are Log Forwarders with detachable, baffled tanks placed between the log bunks. They are the largest ground based off-road water hauler available (1000-3000 gal). They are the only mechanized machinery with a history of refilling from aerial bucket drops. They have been used on fires in Montana since 2000.

TYPES

Both Regions 1 and 6 type Super-skidgines as Type 1 Skidgines, based on horsepower and water handling capacity. Note agency fire specifications for certified tank design and attachment inspection.

LIMITATIONS

Due to the high center of gravity, they are the most limited off-road machine based upon side slope (<12%). Due to the long and wide wheel bases, they are very stable up and downhill (maximum favorable slope 40%, and adverse 30%). They are articulated and the operator's seat or cab rotates; so, the machine is capable of going forward and backward without having

Aerial bucket remote water delivery

to turn around if the operator's vision is unobstructed by the tank or on a steep slope.

The larger, 6-8 wheel forwarder/Super-skidgines require 12-14 ft trail width for passage, and lowboy transport to fires. Due to high speed road gears they can move quickly to a fire once off-loaded (unlike slower tracked machines) and can serve large areas far from water sources.

ATTACHMENTS

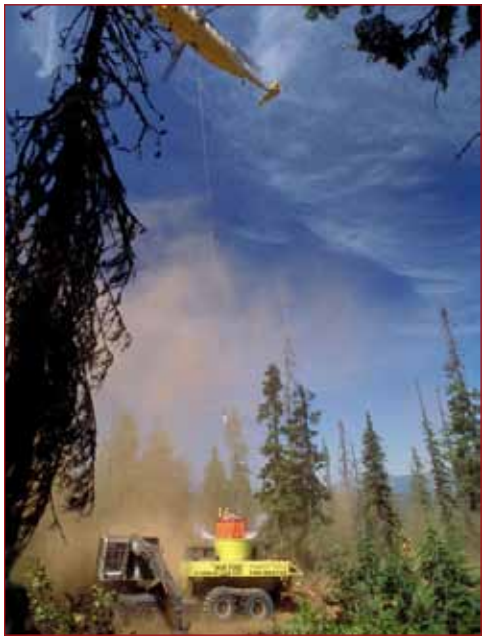
Most forwarder/super-skidgines come with a boom and log grapple for self loading logs and assisting with tank attachment/detachment. They usually have a light-duty blade for stability. The boom also can feature a water cannon or harvester saw head.

Super-skidgine

Most forwarders have light packages to allow full nighttime operations. Most log forwarder operators regularly work at night during the short winter days.

The tanks on super-skidgines come equipped with live reel(s), foam units and are self-drafting. Some tanks are built low and afford the operator a more stable machine, clearer view and a large platform for hauling and retrieving fireline materials. Other tanks are built up and have hoppers on top for aerial bucket refilling of the forwarder tank (previously called Proteus).

TASKS



Air to ground refill

Super-skidgines are primarily used for delivering a large water supply to remote areas beyond the reach of engines and tenders. They are used to transfer water from roadside tenders to gravity and pressurized hose systems, porta-tanks and act as trailside water tenders for more agile smaller skidgines (RT, soft track) and pumpercats.

They are popular for mop-up, as the log grapple can be used to help re-position logs and pull apart brush piles for crews. Water cannon equipped, it can knock down flareups and fire in tree tops. The light duty blade is used as a safety brake and can also roll logs, dig out hotspots and push over small hazard trees.

Without a tank log forwarders can haul logs, tops and brush quickly over the ground with minimal site impacts. Its boom does not require any manual or other machine assistance to load or unload.

SAFETY

These are large machines and when used around crews both the crew and the operator and dozer boss most be mindful of accident potential; especially pushed over trees or rolling rocks from traveling on ridges above crews.

Depending on the site these machines are best kept to prepared road, trails and firelines. If dozers are available they can reduce trail side slope to <12% and clear rocks and high stumps to allow faster super-skidgine/forwarder travel.

Roll-off bins for hauling slash and chips. CET Technologies Inc, Florence, MT

EQUIPMENT PROFILES – FORWARDERS AND SUPER-SKIDGINES

Mote Lumber

Doug Mote
PO Box 6938
Helena, MT 59604
406-439-1632
406-458-5949 fax
dogon@intch.com

Dispatch: Helena, MT

Forwarder, 13 Ton

Specifications: 2007 Ponsse Wisent forwarder, 174 hp, 13 Ton, 6-wheel drive, FOPS,/ROPS, ISO compliant safety cabin, crane reach 33 ft, top speed 17 mph

Attachments: available bucking saw attachment for grapple, lights, steel track bands and chains

Note: Hauling a load of tops and slash

Equipment Technology

Bill Jones
PO Box 326
Lolo, MT 59847
(406) 360 6007 c
(406) 273 2302
(406) 273-3333 fax
billjonesz@yahoo.com

Dispatch: Missoula, MT

20 Ton Forwarder / Super-Skidgine, Type 1

Specifications: TD81 CICERON 20 T, 8-wheel Log Forwarder, 250 hp, enclosed cab

Attachments: 6-way Dozer; monitor and foam; 3000 gal tank helicopter-refillable; auxiliary pump, live reels, and separate trash pump that fills the tank in 13 minutes, lights, track bands

TBC Timber, Inc

Paul Tisher
Paul Brown
PO Box 1490
Libby, MT 59923-1490
406-293-7536
406-293-7596 fax

Dispatch: Libby, MT

Super-Skidgine, Type 1

Specifications: TimberJack 1010, 6-wheel forwarder, 115 hp, 11 T capacity, 24 ft boom, enclosed cab

Attachments: 2500 gal low profile tank, 300 ft live hose reel, end dump, 5" hydrant hookup, boom-mounted water cannon, lights

Woodland Restoration, Inc

Matt Arno
Nathan Arno
PO Box 956
Potomac, MT 59823
406-544-1842
406-244-5858
matt@woodlandrestoration.net
www.woodlandrestoration.net

Dispatch: Missoula, MT

Forwarder

Specifications: Timberjack 1210B, 8-wheel, 15 T capacity, 24 ft boom with log grapple, enclosed cab, FOPS/ROPS

Attachments: steel track bands, lights

EQUIPMENT INNOVATIONS

Equipment innovations for fire and fuels work are not hard to find. Adoption of these new tools may be slow; but, new equipment trials regularly occur in the Northwest USA and in western Canada.

High Volume Sprinkler Protection System Setup Kootenay Complex, Vermillion Pass, Canada, 2003

Marble Canyon Campground - Successful Protection with High Volume Sprinkler System - Kootenay Fire Complex

Noteworthy Canadian applications of large-scale sprinkler systems required heavy equipment to setup 6" line and pumps along fire-lines. Installation of these water delivery systems has effectively protected structures and national park facilities. They have been used for indirect lines and supported burnout operations.

Vermillion Pass - After

Machine-built drop point, safety zone. MT 2007

MISCELLANEOUS EQUIPMENT

This chapter contains machines that do not fit well into an existing agency dispatch category. All have been used on incidents or vegetation treatment projects on public lands. Due to their recent development or unique application for forest operations, these machines are not commonly found or widely distributed.

- John Deere self-loading Slashbundler
- skidsteer wheeled skidgine, remote control
- rubber tracked in-woods chipper, remote control
- 6-wheel harvester mounted self-loading in-woods chipper
- ex-military converted skidgine/cargo and crew hauler/evacuation vehicle
- ex-military converted skidgine/cargo hauler
- off-road articulated truck water tender
- steep-slope walking excavator (spider hoe)
- skyline yarding equipment (excaliner, yoder, yarder, tong tosser)

As with all machines, contact the owners and operators for more detailed capability, limitation, cost and production information.

EQUIPMENT PROFILES – MISCELLANEOUS

John Deere Forestry

Tim West, Equipment
Application Consultant
Bonners Ferry, ID
208-255-8637
309-749-2489 fax
WestTimothyM@JohnDeere.com

Slashbundler

Specifications: John Deere 1490D 8-wheel forwarder with slash bundler and 33 ft boom grapple for self-loading.

Transport: 25' deck lowboy

Note: Popular in Northern Europe working with Cut-to-Length (CTL) harvesting operations. Designed to collect logging slash trailside in the woods or collected on landings. Produces slash bundles (approx 1000 ft per bundle). Bundles are left in woods to dry, stacked at landings or trucked to boilers at co-gen heat/electric generation.
Fuels Projects: Demonstrated on special projects throughout the West; 3 operating commercially

Use: Full-tree utilization, Eliminates in-the-woods burning of slash piles, Eliminates in-woods chipping; Can be used in soft or hard wood stands; Storm damage cleanup; weed-free slash log bundles for site rehab and soil stabilization and woody debris. Allows for long term biomass storage beyond the storage life of wood chips or ground "hog fuel" waste.

Horizon Development, Inc

Steve Bieker
PO Box 296,
Clackamas OR 97015
503-519-0513
503-761-0689
stevebieker@yahoo.com

Remote Control Wheeled Skidgine R1, Type 2

Specifications: Bobcat A300 Rubber Tire Skidsteer Loader/Skidgine, 81 hp, 7992 lbs, enclosed cab

Attachments: 400 gal detachable tank, water monitor, foam, log grapple, loading forks, bucket, 5 ft horizontal axle mulching head, lights

Uses: Fire camp and helispot dust abatement, equipment cleaning, weed wash, remote water source, back burn foam pre-treatment, mop up operation, rehab.

Note: Offers manual or wireless remote control up to 1500 ft

Wildfire Safe, LLC

Chris Walter
Kyle Walter
PO Box 236
509-670-3816
509-630-7738
Manson, WA 98831
wildfiresafe@gmail.com
www.bewildfiresafe.com

Dispatch: Wenatchee, WA

Rubber Tracked In-woods Chipper, Remote Control

Specifications: 2008 Bandit 255XP-HD in-woods disc chipper, 200 hp, rubber tracked CAT 305 carriage, controlled by remote (up to 100 ft).

Attachments: 240 degree rotating discharge chute, winch

Note: 3 mph travel speed, handles 15 in logs, 100 ft maximum discharge distance. Can be matched with mechanized loader for safe loading.

Woodland Restoration, Inc

Matt Arno
Nathan Arno
PO Box 956
Potomac, MT 59823
406-544-1842
406-244-5858
matt@woodlandrestoration.net
www.woodlandrestoration.net

Dispatch: Missoula, MT

Harvester mounted In-woods Chipper

Specifications: Bandit 250XP chipper mounted on 6-wheel Timberjack 1270 harvester carrier with 30 ft boom (215hp, 40,000 lb).

Attachments: Lights, FOPS/ROPS/OPS, log / tree grapple

Transport: lowboy

Notes: 12 in capacity, all functions controlled by operator in the cab. Self-feeding, Slash can be tree length.

Use: Popular in WUI areas and active in Southwestern Montana

Obadiah's Wildfire Fighters

Woody Chain
249 Silver Drive
Troy, MT 59935
800-968-8604
406-295-9490 fax
woody@wildfirefighters.com
www.wildfirefighters.com

Dispatch: Missoula, MT

Atypical Soft-Track Skidgine / Cargo & Crew Hauler / Emergency Evacuation Vehicle

Specifications: Ex-military aircraft aluminum, non-armored personnel carrier M548; head and tail lights, halogen scene lights mounted 360 Deg for night operations; Cab seats 4, fully enclosed and heated. Rear enclosed cargo area adaptable for evacuation seating or placement of stretcher for emergency medical evacuation where other transport options are not available.

Attachments: 20 Ton front mounted winch; 1000 gal (twin 500 gal mixing chambers), hose reels, Roof mounted water cannon, Two 5 hp mixing pumps, slurry application pump, Two 200 ft live reels, foam system, broadcast seeder, Terra Torch (100 gal).

Transport: Company lowboy

Note: Suitable for paved road travel (max 45 mph), amphibious (3.6 mph). Maximum slope 60%, 40% side slope. Operator is owner/builder with at least 5 years firefighting experience.

Artillery Concepts LLC

Marty Schmoker
12220 Spromberg Canyon
Leavenworth, WA 98826
509-548-6445
509-860-7224
509-548-7611 fax
artilery@crcwnet.com

Dispatch: Wenatchee, WA

Atypical Soft Track Skidgine / Cargo Hauler (2)

Specifications: Ex-military aircraft aluminum, armored personnel carrier M113-A2; lights, Rear enclosed cargo area. Roof mounted water monitor. Steel tracks with rubber pads. Includes all components of type 6 engine. Internal 400 gal water tank.

Attachments: live reel, pump

Transport: Company 4-axle flatbed trailer

Note: Suitable for paved road travel (max 45 mph). Maximum slope 60%, 40% side slope.

Enhanced Forest Management Inc.

Dyrk Krueger
380 Joseph Drive
Corvallis, MT. 59828
406-961-8324 h
406-369-4466 c (Dyrk)
406-369-0432 c (Erin)
406-961-8325 fax
efminc@msn.com

Dispatch: Missoula, MT

Walking Excavator (Spyder Hoe), Type 3

Specifications: Schaeff HS40 D 4-legged walking excavator, 26 ft extendable boom

Attachments: 24 in wide bucket, hydraulic thumb, winch (for anchoring)

Transport: tilt deck or lowboy trailer

Note: Designed for unlimited slope applications using winch for anchoring machine. Capable of going where no other forestry machine can reach.

Excaliner / Excavator

Specifications: 1997 Hyundai 210 LC-3, 142 hp, tracked swing excavator, forestry guarding enclosed cab, 30 ft boom

Attachments: excaliner package with 2 drums (skyline, mainline), motorized carriage, boom-mounted fairlead blocks, bucket with thumb

Note: Multi-function tracked swing machine, off-road travel capability, 800 ft yarding distance, for steep, broken ground, does not require machine guylines. With bucket attached, can build its own trail.

Tiger Trucking Inc

Mickey Mumau
511 Hwy 20 E
Colville, WA 99114
509-684-5757
509-684-3526
509-684-9099 fax
tigertrucking.com

Dispatch: Wenatchee, WA

Off-road Water Tender

Specifications: 6-wheel drive (rear swinging bogie tandem wheels) rubber tires, articulated chassis off-road truck, enclosed cab, light duty stability blade

Attachments: 3500 gal water tank, pumps, live reel, top mount remote control monitor, full drafting capability, Class A & B foam, dust abatement water bars (side and rear), backup video camera.

Transport: lowboys under contract to transport

Note: 30 mph max speed

Jon Greenup Logging

Jon P. Greenup
60071 Hanna Arbuckle Rd
Heppner, OR 97836
503-793-9414
541-969-6885
503-630-2595 fax
greenupent@rconnects.com

Dispatch: Pendelton, OR

Skyline Yarder (Yoder) (2), Track-Mounted

Specifications: 1998 CAT 330B track loader mounted swing skyline yarder with extended 45ft boom (2)

Attachments: 1100 ft capacity drums (skyline and mainline), 2 boom-mounted fairlead blocks, motorized carriage, log grapple remains mounted on boom

Note: 1000 ft yarding distance suitable for steep and broken terrain, does not require machine guylines. With log grapple attached, it can double as a log loader or do shovel logging.

Miller Timber Services, Inc

Dan Mace
PO Box 638
Philomath, OR 97370
541- 929-2840
541- 740-4338
541- 929-4489 fax
dan@millertimber.com
www.millertimber.com

Dispatch: Eugene, OR

Skyline Yarder, Tractor-Mounted

Specifications: Koller K300-T Skyline Yarder, Rubber Tire tractor-mounted, 24 ft tower, 2 drums (skyline, mainline)

Attachments: Koller locking carriage

Note: 1200 ft external yarding distance, suitable for steep and broken terrain. Comes with 3-man crew. With tractor mount it can go off road on prepared trails.

Intermountain Forest Technology Corp

Kevin W. Smith
PO Box 10
Clancy, MT 59634
406-933-8000
406-949-0001 c
406-933-8000 fax
smith@3riversdbs.net

Dispatch: Helena, MT

Track Loader, Tong Tosser

Specifications: 1997 CAT 320BL Track Swing Loader, enclosed cab, 28 ft boom

Attachments: Log grapple, 2 high-speed drums / slack kicker (off-road jammer tong tosser)

Note: Allows for logging short (<200 ft), steep slopes below machine access trails or roads with cable and logging tongs. Requires ground crew for attachment and detachment of logs.

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[3] Mooney, C., Fuelbreak effectiveness: state of the knowledge Literature Summary, Wildland Fire Operations Research Group, December 2007 (http://fire.feric.ca/36532008/FuelBreak-LiteratureSummary.htm)

[4] Herger-Feinstein Quincy Library Group, 2009, projects conducted under sections 104-106 Healthy Forest Restoration Act (http://www.qlg.org)

[5] Healthy Forests and Rangelands, project database of success stories for the Healthy Forests and National Fire Plan initiatives (http://www.forestsandrangelands.gov/success/index.cfm).

[6] Finney, M., PhD, Fire Ecologist, USFS-Intermountain Fire Sciences Lab, Missoula, MT

[7] Husley,J. and Ripley, K. Forest Health and Wildfires – A Net Cost Approach to a True Wildfire Protection Program, Washington State Department of Natural Resources, 2006.

[8] Rummer, R.B., PhD, Forest Operations Researcher, Southern Research Station, USFS, 2009

[9] NWCG Fireline Handbook 3, p A-24, National Wildfire Coordinating Group, PMS 410-1, NFES 0065, March 2004

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[12] Thompson, R., Use of Mulchers for Fire Line Construction, presentation, Wildfire Operations Research Centre, FERIC Western Division, Canada, March 15, 2005

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[15] The Vermillion Pass Fireguard, National Parks of Canada, (http://www.bowvalleymountainforum.org/forum/Portals/0/PDF/Vermilion%20Pass%20Fireguard%20FAQ.pdf)

Bielecki, C., and J. Garland. 2004. Incorporating technology: Advancing wildland firefighting with logging machinery. In: Proceedings, Society of American Foresters/Canadian Institute of Forestry Joint Annual Meeting. October 4–8. 2004. 6p.

Bielecki, C., and J. Garland. 2003. Loggers and logging equipment to fight wildland fires: issues and opportunities. Wildland Fire Safety Association of Wildland Fire. www.safetysummit.org and www.millpress.com 3p.

General Information

Wildland Fire Research Operations Group
http://fire.feric.ca

USFS Technology Development Center
http://www.fs.fed.us/t-d/programs/fire

SECTION 3: CONTRACTING PERSPECTIVES

This document is not for instruction on regulations and details of becoming a contractor. If readers are interested in the requirements and steps to becoming a contractor, information is available online under regional coordinating groups and from the nearest natural resource management agency office.

A couple of helpful websites:

Northern Rockies Coordinating Group
http://www.fs.fed.us/r1/fire/nrcg/agree-contract/index.html

Northwest Interagency Coordination Center
http://www.nwccweb.us/index.asp

Planning and training for use of mechanized equipment on incidents is often problematic. This book does not pretend to resolve obstacles and challenges that contractors and agencies face in becoming effective fire and fuels program partners. Mutual awareness of common issues for heavy equipment contractors may improve communication and benefit agencies seeking contractor assistance.

Issues arise during every phase of building the working partnership, i.e. pre-season contracts, inspections, ordering, dispatch, transport, staging, suppression strategies and tactics, equipment boss shortages and training. With an eye toward prevention, the following short list in no particular order acknowledges a few common refrains.

- Inconsistent and incomplete equipment classifications
- Insurmountable computer literacy and access demands for contracting
- Dispatch malfunctions
- Unrealistic expectations of machine/operator by equipment boss
- Unfamiliar with machine/operator capabilities
- No formal agency training for personnel featuring heavy equipment other than dozers
- Unrealistic training for fire operations personnel (no field/night-time training)
- Understanding differences between types of equipment and available attachments
- Not taking advantage of night and early morning as operating hours
- Lack of comparative economic analysis of mechanized equipment use vs. other resources
- Differences between agency suppression goals and objectives
- Aging and retirement of agency personnel with heavy equipment experience
- Insufficient study of actual and comparative equipment site impacts
- Redundant, unnecessary and untimely inspections
- Equipment operator exclusion from fire planning
- Loss of valuable operational hours due to set briefing schedules
- Lack of logistics planning for equipment traffic needs
- Insufficient safety training for personnel working around heavy equipment
- Allow contractors to train for positions in the Incident Command System
- No agency follow-up or formal post-season debriefing or wrap-up meeting with equipment contractors and interagency fire staff to discuss “Lessons Learned”
- Lack of past incident performance ratings in Dispatching

CONTRACTOR DIRECTORY

The 87 contractors listed in this document (of the more than 215 contacted) represent those who offer diversified forestry services. They are caretakers of our renewable forest resources and survivors of the endangered North American forest industry. Largely unrecognized for their skills and contributions, citizens, property owners, and taxpayers alike all suffer from the loss of this essential woods-savvy workforce. Although a small sample of the industry, we can wisely choose to apply their experience and equipment to help prevent and minimize catastrophic wildfires.

As in unhealthy forests, the old adage of not missing it until it's gone applies also to our forest industry. Readers are encouraged to contact the contractors listed in this book, and use their services for pre-incident fuels projects and for fire suppression incidents.

A cool night sets in, taming the wildfire to a slow creep across the ravine. Up through the dark timber, climbs a skidgine, a tracked skidder, and a feller buncher equipped with cab-over headlights, to catch and halt the fire along the ridge before dawn. They have followed the light sticks of a line scout. Their quick work to cut and move dead and dying wood starves another wildfire of its fuel in the safety of night. And the skidgine stages 200 gallons of water for the next morning's hand crew.

Wildfire Column
TimberWest Magazine,
Jan-Feb, 2008

Entries to the directory were invited based on 332 available records of existing contracts with government agencies for fire suppression (i.e. Emergency Equipment Rental Agreements), referrals, and using common business research methods to find contractors providing hazardous forest fuels reduction services. Each contractor has verifiable fire-related experience, although their details were too extensive for inclusion in this edition. All entries are voluntary, and derived from information sent in by each contractor, or shown on agency EERAs.

Reasonable effort was made to assure the information submitted is correct; but, details from each contractor should be verified directly, including the condition of their equipment listed. No judgment or endorsements regarding the quality of each contractor's services are assumed by inclusion in this directory.

Contractors in the directory are based in Montana, Idaho, Oregon, or Washington. They are listed by area agency acquisition zone for convenience, and by company name. Their listing demonstrates the wide variety and broad distribution of mechanized equipment types available to public land managers and incident commanders.

EQUIPMENT CATEGORIES	IDAHO	MONTANA	OREGON	WASHINGTON
DOZER / TRACK SKIDDER / PUMPERCAT (160 machines)				
DOZER	2	11	15	1
DOZER / TRACK SKIDDER	7	44	15	6
DOZER / TRACK SKIDDER / PUMPERCAT	1	2	1	-
DOZER / PUMPERCAT	-	1	-	-
GRADER / FRONT-END LOADER (15 machines)				
GRADER	-	10	3	-
FRONT-END LOADER	-	1	1	-
EXCAVATOR / LOG LOADER (66 machines)				
EXCAVATOR	-	23	9	3
LOG LOADER	-	9	2	-
EXCAVATOR / LOG LOADER	5	11	-	1
EXCAVATOR / LOADER / TONG TOSSER	-	2	-	-
WALKING EXCAVATOR	-	1	-	-
FELLING / MULCHER / CHIPPER (86 machines)				
EXCAVATOR (BOOM) MULCHER	4	5	2	4
FELLER BUNCHER / MULCHER	-	-	1	-
FELLER BUNCHER / EXCAVATOR	-	2	1	-
FELLER BUNCHER	6	24	2	5
EXCAVATOR / HARVESTER	-	-	1	1
HARVESTER	3	9	5	1
STRIP MULCHER	2	3	2	-
IN-WOODS CHIPPER	-	2	-	1
SKYLINE [YODER, YARDER, EXCALINER] (3 machines)	-	-	3	-
PROCESSOR / BUNDLER (13 machines)				
FELLER BUNCHER / PROCESSOR	-	1	-	-
PROCESSOR	3	8	-	-
SLASH BUNDLER	1	-	-	-
SKIDSTEER (21 machines)				
LOADER	-	4	-	-
MULCHER	-	6	4	1
SKIDGINE	-	-	6	-
FORWARDER / SUPER-SKIDGINE / OFF-ROAD TENDER (19 machines)				
FORWARDER	-	5	1	-
FORWARDER / SUPER-SKIDGINE	1	4	1	-
SUPER-SKIDGINE	-	5	-	-
OFF-ROAD TENDER	-	1	-	1
SKIDDER / SKIDGINE (88 machines)				
SKIDDER, WHEEL	2	32	8	5
SKIDGINE, WHEEL	1	9	2	2
SKIDGINE / SKIDDER, WHEEL	-	12	-	-
SKIDGINE, SOFT TRACK	1	7	3	4
EMERGENCY EVAC / SKIDGINE, TRACK	-	1	-	-
STATE TOTAL	39	255	88	36
				EQUIPMENT TOTAL = 418

CONTRACTOR DIRECTORY

IDAHO (8)

Allen's Water Tender Service Inc	Buhl
C Richard Nordstrom	Kingston
Danielson Logging Inc	St. Maries
Darold Stanton Logging Inc	Orofino
John Deere/Tim West	Bonners Ferry
Quick Response Fire & EnvironmentaL LLC	Kooskia
Tim Fuller Logging	Grangeville
Upper Valley Contracting	Idaho Falls

MONTANA (51)

AC Logging	Dillon
ALM LLC	Columbia Falls
Blackfoot Forestry	Missoula
Blackfoot Reforestation	Missoula
Bush Fire Inc	Belgrade
Cat Tracks Inc	Stevensville
C E T Technologies Inc	Florence
D & L Logging	Kalispell
Dave Hoback	Arlee
D'Avis Logging	Helena
Dennison Logging Inc	Kalispell
Doble Enterprises Inc	Rexford
Drake Logging Inc	Columbia Falls
DS Jr Trucking Inc	Drummond
Enhanced Forest Management Inc	Corvallis
Equipment Technology	Lolo
Fire Solutions Inc	Missoula
Flanagan Quality Contracting	Missoula
Flathead Timber	Kalispell
Get'er Done Wiest LLC	Brady
Glacier Line Logging Inc	Kalispell
Grizzly Logging	Kalispell
Hall Wood Processing	Potomac
Hardley Able Logging	Deer Lodge
Intermountain Forest Technology Corp	Clancy
James A Slack Inc	Kalispell
J & M Logging Inc	Ovando
Kelly Logging Inc	Missoula
Low Impact Forestry Inc	Polson
LTL Forestry	Kalispell
McFarland Logging	Clinton
Milner Brothers Logging Inc	Thompson Falls
Mote Lumber	Helena
Obadiah's Wildfire Fighters	Troy
Quartz Logging Inc	Superior
Rick Oliver Contracting	Plains
Riding High Excavation Inc	Eureka
Roper Logging	Hall
Scott's Fire Service Inc	Dillon
Soft Track Attack	Troy
Spencer Logging	Libby
Stoken Logging Inc	Eureka

MONTANA (cont.)

St Onge Logging Inc	Kalispell
Sun Mountain Logging	Deer Lodge
T & N Enterprises	Swan Valley
TBC Timber Inc	Libby
Ten Lakes Forestry & Excavation Inc	Eureka
Timberlake Landworks & Excavation	Lakeside
Tough Go Logging Inc	Kalispell
Western Reclamation LLC	Superior
Woodland Restoration Inc	Potomac

OREGON (18)

ACW, Inc	Hines
Cascade Brush Clearing	Bend
Gary R Wright Contracting Inc	Union
Horizon Development Inc	Clackamas
Mike Hutton	Baker City
Integrated Resource Management	Philomath
James E Woodward Inc	Mitchell
Jeff & Billi Wessel	Bly
John F Richmond Contracting Inc	Bly
Jon Greenup Logging	Heppner
Mark Rector	Powers
Miller Timber Services Inc	Philomath
NW Eco Mulching & Mowing	Bend
O'Rorke Logging	John Day
Siskiyou Logging, dba Inland Timber Company	Cave Junction
Swaggart Enterprises Inc	Ritter
Tom Davis Livestock Inc	Princeton
Warren Partridge Contracting	Bly

WASHINGTON (10)

Artillery Concepts LLC	Leavenworth
Baker Fire LLC	Tum Tum
Bear Mountain Cutters Inc	Leavenworth
Havillah Logging Inc	Tonasket
Havillah Lumber/Smith Timber	Tonasket
Incline Contracting	Monroe
Lite Logging	Leavenworth
Northern Columbia Reforestation LLC	Colville
Tiger Trucking Inc	Colville
Wildfire Safe LLC	Manson

Allen's Water Tender Service, Inc.

John Allen
Yvonne Allen
P.O. Box 661
Buhl, ID 83316
208-863-9579
208-860-1953
208-653-2345
firefoam2003@yahoo.com

Dispatch: Shoshone, ID

Business Detail: EERA in R4, IDIQ fuels reduction contracts: SO Sierra, ID, WY and BLM

Transport: 35T lowboy, 20T tilt-bed

Fires: Many in-state and out-of-state; inquire for details

References: Kole Berrichoia , BLM, 208-384-3406; Ray Aker, USFS, 559-855-5355 EXT 3312

MULCHER, STRIP, WHEEL, FARM TRACTOR

New Holland bi-directional TV 145 farm tractor, enclosed cab

Attachments: 8 ft horizontal shaft, mulching head with tree push bar, 15 ft rotary chopper, 185 gal water tank, pump, 150 ft hard line

EXCAVATOR / MULCHER (2) Type 3

CAT 320 CL, 138 hp Excavator, 18 ft boom, enclosed cab

Attachments: 5 ft mulching head, bucket, thumb

DOZER / MULCHER, STRIP Type 2

CAT D5M high track dozer, enclosed cab, sweep guards

Attachments: 8 ft mulching head, tree push bar, auxiliary motor, 6-way blade, brush rake, rippers, 500 gal, pump, 150 ft hard line

DOZER /TRACK SKIDDER
R 1 Type 1 / R 6 Type 2

1964 CAT D6M, open cab, sweep guards, FOPS

Attachments: 6-way blade, brush rake, logging winch

Danielson Logging, Inc.

Bob Danielson
17637 Hwy 5
St. Maries, ID 83861
208-245-5818
208-245-7742 fax
danielsonshop@gmail.com

Dispatch: St. Maries

Business Detail: State of ID contract

Transport: 2 lowboys: 50T 18 ft, 40T 16 ft

Fires/Fuels Reduction:

Projects: Hayden Lake Park HQ, C0A Tribe Stewardship IPNF, 1988-2008,ID

References:
John Pollard, Fire Manager, St. Joe Forest, 245-4551; Kevin McKale, Potlatch, 245-4146

DOZER / TRACK SKIDDER (4) Type 2

2007/ 06/04/1998 CAT 527 track skidder, FOPS/ROPS/OPS, enclosed cab, sweep guards, 6-way blade

Attachments: swing grapple, lights

STOCK PHOTO

FORWARDER / SUPER-SKIDGINE Type 1

2004 Timberpro 820, 8-wheel forwarder with enclosed cab, FOPS/OPS, 24 ft boom

Attachments: field detachable 1500 gal certified tank, pump, live reel, lights, log grapple, dust water bar

FELLER BUNCHER, STEEP SLOPE (5) Type 1

2006-2003/1994 Timbco 445 tracked feller buncher, self-leveling enclosed cab, FOPS/OPS, 24 ft boom,

Attachments: 24” diameter, high-speed disc (hot saw) cutting head, lights

EXCAVATOR / LOG LOADER (5) Type 3

2004 CAT 320, 30 ft boom, FOPS, enclosed cab
2005 CAT 330, 30 ft boom, FOPS, enclosed cab
2003 Linkbelt 225, 30 ft boom, FOPS, enclosed cab
1995/1998 Komatsu PC200, 30 ft boom, FOPS, enclosed cab

Attachments: log grapples, bucket and thumb, lights

STOCK PHOTO

HARVESTER, STEEP SLOPE (3) Type 1

2006 CAT tracked harvester, self-leveling closed cab, FOPS/OPS, 26 ft boom (2)
1999 Timberjack 1270 tracked harvester, self-leveling closed cab, FOPS/OPS, 24 ft boom

Attachments: 28” diameter harvester head with 360 degree rotation

Danielson Logging, Inc. (cont.)

STOCK PHOTO

DOZER (2) Type 3

1991 Case 850D and 1998 CAT dozers, FOPS/ROPS, 6-way blades

Attachments: lights

PROCESSOR (2)

2007 CAT 320C and 2008 CAT 320 tracked swing machine boom processors, enclosed cabs, FOPS/OPS, 30 ft boom

Attachments: 30” diameter dangle head processor, lights

Darold Stanton Logging, Inc.

Darold, Marcie, Cody Stanton
P.O. Box 2564
Orofino, ID 83544
208-476-7576
208-476-4571
208-827-0530 c
208-476-0765 fax
stantons@cebridge.net

Dispatch: Grangeville, ID

Business Detail: EERA, Best Value

Transport: 50T lowboy

Fires: Burnt Flats, Milepost 59, Harper’s Bend, Heaven’s Gate, Blackerby, Chimney Complex, Church Canyon, multiple other fires for Clearwater-Potlatch Timber Protective Association (C-PTPA), Clearwater National Forest, Nez Perce National Forest, Idaho Department of Lands, Orofino and Kamiah

References: Howard Weeks; Nez Perce National Forest: Deborah Wesselius, USFS, Missoula, MT; ID Department of Lands: Bob McKnight

DOZER / TRACK SKIDDER / PUMPER CAT Type 2

CAT TDC 2, Pumper Cat, sweep guards, FOPS/ROPS, partial screened cab, angle blade

Attachments: 450 gal water tank, winch, lights

STOCK PHOTO

SKIDDER, WHEEL Type 2

1988 CAT 518 Skidder, light-duty blade, screened cab, forestry sweeps, FOPS/ROPS

Attachments: grapple, winch, lights

John Deere / Tim West

Tim West
Bonners Ferry, ID
208-255-8637
309-749-2489 fax
WestTimothyM@JohnDeere.com

Business Detail: private and agency contracts

Transport: 25 ft deck lowboy

Note: Popular in Northern Europe working with Cut-to-Length (CTL) harvesting operations. Designed to collect CTL generated slash. Produces slash bundles (approx 1000 ft per bundle). Bundles are left in woods to dry, stacked at landings or trucked to boilers at co-gen heat/electric generation.

Reference: Marvin Nelson, Cornell, MI

IN-WOODS SLASH BUNDLER Miscellaneous equipment

John Deere 1410D, 8-wheel forwarder with slash bundler and 33 ft boom grapple for self-loading. Machine weight 54,000 lb

Use: Full-tree utilization; reduces hazardous fuels; eliminates in-the-woods burning of slash piles; eliminates in-the-woods chipping; can be used in soft or hard wood stands; storm damage cleanup; weed-free slash log bundles for site rehab and soil stabilization and woody debris

Nordstrom, C. Richard

C. Richard (Dick) Nordstrom
208-682-2660
208-661-9524 c
Jay Nordstrom, foreman / operator
404 Klette Road
Kingston, ID 83839
208-755-0345 c
208-682-2660 fax
nordstrom@imbris.net
nordstromfuelsreduction.com

Dispatch: Coeur d' Alene, ID

Business Detail: I-BPA/EERA

Transport: 40T seven-axle lowboy required

Fires: Stone Young Fire Complex; 19 yrs fuels reduction projects for US Government, WA, ID, MT, WY

References: Bob Denner, Russell Graham USFS; John M. Orton USFS

EXCAVATOR / MULCHER (2) R 1 Type 1 / R 6 Type 2

2003 CAT 322CL Excavator-mounted Boom Mulcher, 168 hp, 40T, enclosed cab, FOPS/OPS, 35 ft boom
1998 CAT 322BL Excavator-mounted Boom Mulcher, 161 hp, 40T, enclosed cab, FOPS/OPS, 35 ft boom

Attachments: 150 hp auxiliary engine powered vertical shaft, 270 degree rotation mulching disc, hydraulic thumb, lights

Quick Response Fire and Environmental, LLC

Darren Pickering
P.O. Box 160
Kooskia, ID 83539
208-926-4573
208-935-5302
208-926-4573 fax
pick76@earthlink.net

Dispatch: Grangeville, ID

Business Detail: EERA, Best Value

Transport: 25T lowboy with 30 ft tilt deck

Fires: ID - 2003 Slims, mile post 59 fire, Blackerby 2005, Black Butte 2006, 2007 and Chimney Complex 2007 Church Canyon 2008; CA - Iron Complex 2008

SKIDGINE, WHEEL Type 1

CAT 518 Rubber Tire Skidder, screened cab, forestry sweep guards, FOPS/ROPS, light-duty blade

Attachments: 500 gal tank, pump, live reel, hoses, lights, tire chains

Tim Fuller Logging

Tim Fuller
30207 Rosenkrantz Rd
Lewiston, ID 83501
208-746-5073
208-659-8664 c
208-299-6333 c

Dispatch: Grangeville, ID

Business Detail: EERA

Transport: Company provided, 50T 28 ft deck, 30T 24 ft deck lowboys

Fires: 2005-2007 ID – Chimney Complex, Rattlesnake, Blackberry Complex

References: Rob Pinzer, IDL-Craigmont, ID; Dave Crozer, USFS- Nez-perce NF

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE Type 1

2000 Timbco, self-leveling enclosed cab, FOPS, 24 ft boom

Attachments: 22 in hot saw with 40 degree rotation, ice grousers, lights

STOCK PHOTO

DOZER / TRACK SKIDDER (2) Type 2

1996 CAT D5H, enclosed cab, FOPS/ROPS, sweeps, 6-way blade
Attachments: grapple, lights

1972 CAT D6C, partial screened cab, FOPS/ROPS, sweeps, angle blade
Attachments: skid-winch (60 ft cable), lights

STOCK PHOTO

PROCESSOR / STROKE BOOM DELIMBER

1999 CAT 320 Excavator tracked carrier, 86,000 lbs, enclosed cab, screens, FOPS

Attachments: 32 in max diameter, 50 ft reach, Pierce stroke boom delimbers, lights

STOCK PHOTO

SKIDDER, WHEEL Type 1

1994 CAT 518C Rubber Tire Skidder, full-screened cab, FOPS/ROPS, sweeps, light-duty blade

Attachments: grapple, 100 ft skid winch, lights

Upper Valley Contracting

James Kruckeberg
11716 N 55 E
Idaho Falls, ID 83401
208-390-9506
208-313-2058
208-523-9506 fax
upper_valley_contracting@
hotmail.com

Dispatch: Idaho Falls, ID

Business Detail: EERA

Transport: company 3-axle tilt bed

Fires: 2008, ID, Niebar and
Meadow Creek

SKIDGINE, SOFT TRACK Type 1

KMC Model 2100 Soft Track Skidgine, 200 hp, FOPS/ROPS/OPS, sweeps

Attachments: 1300 gal water tank, 18 hp pump, power hose reel, foam mixing unit, hoses, fittings, 6-way blade, lights

AC Logging

Alan Conover
300 Riverside Dr
Dillon, MT 59725
406-925-1392
406-683-4570
Aclogging1@hotmail.com

Dispatch: Dillon, MT

Business Detail: EERA

Transport: 40T detachable or 35T beavertail lowboys

Fires: Mussingbrod, Sheep Creek, Hidden Lake, Winslow, Craig II, 2005 Mississippi State Fire Plan, Snoshoe, Shultze Saddle, Sand Basin, Clark Canyon, Derby, Jungle, Maur Mountain, McKnight , Meriweather, Pattengail, and Rat Creek

SKIDDER / SKIDGINE, WHEEL Type 1

1995 Timberjack Rubber Tire Skidder, 174 hp, enclosed cab, screens, sweep guards

Attachments: quick attach 430 gal certified tank, live reels, pump, tire chains, lights, dual action grapple

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE Type 1

1989 Timberjack 2520 Tracked Feller Buncher , enclosed self-leveling cab, 24 ft boom

Attachments: 20” high speed disc saw, lights

STOCK PHOTO

DOZER / TRACK SKIDDER Type 2

1991 D5H Dozer, 6-way blade, enclosed cab, forestry guards (screens, sweeps)

Attachments: winch, lights, fixed grapple

MONTANA

ALM, LLC

Alan Mcdonald
310 Gosney X Rd.
Columbia Falls, MT 59912
406-249-9387 c
406-892-4780 h
Alm.llc@hotmail.com

Dispatch: Missoula, MT

Business Detail: EERA

Transport: lowboy

Fires: 2000 Wedge, fuels reduction

References: Paul Wachholz, Wachholz & Company (406-751-4300) Kalispell, MT; Lanny McDonald, Bear Mountain (403-585-9009) Lakeside, MT; Orlee Erickson, Erickson & Son (406-892-2410) Columbia Falls, MT

DOZER / TRACK SKIDDER Type 2

2006 John Deere 650J, XLT (extra long track), 100-199 hp, 6-way blade, enclosed cab, screens, sweeps

Attachments: swing boom grapple, attachable brush blade, lights

EXCAVATOR Type 3

2006 John Deere 135-C, 25,000 lbs, 81-110 hp, 10 ft stability blade, 27 ft boom, full forestry guard

Attachments: quick attach bucket and thumb, rotating power grapple, hydraulic rock breaker

EXCAVATOR Type 3

2007 John Deere 135C, 25,000 lb, 81-110 hp, 10-ft blade, 27 ft boom

Attachments: quick attach bucket and thumb, rotating clamshell grapple, BT hydraulic rock breaker

Blackfoot Forestry

Henry Fassnacht
Ted Hoffmann
1118 Creek Crossing Rd
Missoula, MT 59802
406-542-3352
blackfootforestry@msn.com
jhoffmann@bresnan.net

Dispatch: Missoula, MT

Business Detail: EERA

Transport:

Fires: 2000-2007 MT

References: Scot Kuehn, Tricon Forestry

SKIDDER / SKIDGINE, WHEEL Type 1

648 John Deer Rubber Tire Skidder, enclosed cab, screens and sweep, light-duty blade

Attachments: 340 gal detachable tank, pump, live reel, tire chains, swing grapple, lights

Blackfoot Reforestation

Art Wear
Sam Smith
11960 Buffalo Speedway
Missoula, MT 59832
406-542-7480 c (Art)
406-240-9508 c (Sam)
406-542-7480 fax
teewear@msn.com
samjulie@q.com

Dispatch: Missoula, MT

Business Detail: EERA

Transport: Type 1 and Type 2 low-boys; 30T 3-axle, 25T

Fires: 1991-2009, MT: Initial Attack Lolo NF; Wagon Mountain Initial Attack, Deep Draw, Black Cat, West Fork Butte, Jocko Lakes, I-90 Complex; Fish Creek Complex; Ninemile Complex.

References: Ninemile RD, Laura Ward; Lolo Hot Shots, Steve Karkanen Helena Hot Shots, Fred Thompson, John Waverick Missoula RD

EXCAVATOR (3) Type 1

2006 / 2007 Kobelco ED 190, 25 ft boom reach
2000 Hundai LCM 130, 25 ft boom reach

Attachments: 11 ft 6-way dozer blade, bucket with thumb, lights, ROPS/OPS

STOCK PHOTO

GRADER

1992 John Deere 772BH

Attachments: 14 ft lowboard, ripper, front blade, tire chains

STOCK PHOTO

DOZER / TRACK SKIDDER Type 3

1997 Dresser TD8H, 84 hp, ROPS, partial screened cab
Attachments: 6-way blade, winch (1/2” 100 ft)

Bush Fire, Inc.

Dave Russell
40 Buckskin Road
Belgrade, MT 59714
406-388-5522
406-388-9337 fax
406-539-4700 c
Dave@BushFireInc.com

Dispatch: Bozeman, MT

Business Detail: EERA

Transport: 60T 22 ft deck lowboy; 60T 26 ft deck lowboy

Fires: 1978-2006 MT – Derby, Maud-low-Toston, Canyon

References: Kevin Erickson, USFS, Missoula; Bill Phifer, USFS, Bozeman

STOCK PHOTO

DOZER Type 2

1997 John Deere 750C Dozer, enclosed cab, 6-way blade

Attachments: ripper tooth, lights

SKIDSTEER / MULCHER Type 3

2007 Bobcat Skidsteer S330, 85 hp, enclosed cab, tires with track bands, forestry safety package

Attachments: 5 ft horizontal axle mulcher head, pushbar, bucket with thumb, lights

EXCAVATOR / MULCHER (2) Type 3

2003 CAT 325CL, 204 hp, enclosed cab with forestry guards, 27 ft boom
Attachments: 7 ft horizontal shaft FECON mulcher head, bucket wit thumb, brush grapple

1996 CAT 315L, 110 hp, enclosed cab, 24 ft boom

Attachments: boom-mounted 6 ft horizontal shaft "Bullhog" forestry mulcher head, bucket with thumb

Cat Tracks, Inc.

Robert Lewis
190 Pine Hollow Rd
Stevensville, MT 59870
406-777-1464
406-239-8275
406-777-1464 fax
cattracksinc@gmail.com

Dispatch: Missoula, MT

Business Detail: EERA

Transport: dump truck with 40,000 lb tilt trailer

Fires: 2000 Blodget and Bitterroot Complexes, Hamilton, MT; 2001 Walton Creek; 2003 Big Creek, Black Frog and Fish Creek Complexes

References: Karen Smith, Nez Pierce NF, ID, USFS; Greg Ransier, Bitterroot NF, MT, USFS

EXCAVATOR

2004 Caterpillar 312CL Tracked Excavator, enclosed cab, FOPS, 25 ft boom

Attachments: bucket with thumb, 8 ft dozer blade, full woods guarding

C E T Technologies Inc

Ckye Thomas
P.O. Box 27
5943 Cunningham Ct
Florence, MT 59833
406-531-1326
406-239-2238
ckyethomas@hotmail.com

Dispatch: Hamilton, MT

Business Detail: EERA

Fires/ Fuels Reduction: 2000-2009 MT/OR - Bitterroot NF, Livingston, Missoula, Burns (OR); 2004-2009 Fuels reduction in MT/WA/UT/CO

References: Dana Anderson, USFS, Gallatin NF; Diana Yager, Georgia Pacific Covington, LA.

FELLER BUNCHER / HARVESTER / FORWARDER / SUPER-SKIDGINE Type 1

1999 Timbco 820C 8-wheel Forwarder, enclosed cab, 24 ft boom

Attachments: bin hook, attachable 4000 gal tank, pump, hose reel, 22" hot saw head, 27" harvester/processor head, roll-off chip/slash bin and log bunks

FORWARDER / SUPER-SKIDGINE Type 1

2001 820 E 8-wheel Forwarder, enclosed cab, 24 ft boom

Attachments: attachable 3000 gal water tank, log grapple, log bunks

SKIDSTEER / LOADER

2008 CAT 272, 93 hp rubber-tired with steel track bands, enclosed cab

Attachments: brush grapple, 2.5 yd bucket, road grader, lights

D & L Logging

Doug Wells
1108 Helena Flats
Kalispell, MT 59901
406-756-1104
406-249-1795
406-756-1104 fax
dlwells@bresnan.net

Dispatch: Kalispell, MT

Business Detail: Best Value

Transport: 2000 Freightliner with lowboy, 35T

Fires: MT -Cyclone Ridge 2000, Moose 2001, Crazy Horse 2003, Holland Peak 2006, Browns Meadow (DNRC) 2007, Brush Creek 2007; CA - Lime Complex 2008

SKIDDER / SKIDGINE, WHEEL Type 1

518 CAT Rubber Tire Skidder, enclosed cab, screens, sweep guards, light-duty blade

Attachments: brush rake, grapple, 560 gal detachable water tank, pump, 150 ft hose reel plus 400 ft hoses, tire chains, lights

Dave Hoback

David Hoback
73705 Gray Wolf Dr
Arlee, MT 59821
406-239-5556
406-726-3453
406-726-3453 fax
sdhoback@arlee.net

Dispatch: Missoula, MT

Business Detail: Best Value

Transport: Provided by contractor

Fires: MT - Clear Creek 2000, Sheep creek 2002, Camp crook 2002, DNRC initial attack 2003, Woodchuck 2006, Deep Draw 2006, Ashley Lake 2006, Pistol Creek 2006, Garceau 2007, Jocko lakes 2007, Ovando 2007, Lime creek 2008 CA

References: Jim Steele 406-726-3723, Ron Sweney 406-676-2550

SKIDGINE, WHEEL R1 Type 1 / R6 Type 3

Cat 518 Rubber Tire Skidder, 130 hp, light-duty blade, enclosed cab, ROPS

Attachments: 415 gal removable water tank, high pressure pump, water monitor, live reel, foam, brush rake, winch with arch, tire chains

D'Avis Logging

Mark D'Avis
6230 Lone Pine
Helena, MT 59602
406-439-1633
406-457-0212
mad59602@yahoo.com

Dispatch: Helena, MT

Business Detail: MT-DNRC, Helena

Transport: contractor provided

Fires: MT 2000 - Judith Complex, Wolf Creek, 2008 Mechanized Equipment Workshop, private land fuels reduction

HARVESTER Type I

1998 Timberjack 1270B, 6-wheel harvester, 204 hp, 35,000 lbs, 33 ft boom reach, FOPS/OPS, enclosed safety cab
Attachments: 26" harvester/processing head, steel track bands and chains, lights, radio

Note: top speed 15.5 mph

Dennison Logging, Inc.

Greg Dennison
62 Sunrise Dr
Kalispell, MT 59901
406-756-6412
406-253-5092
406-756-6413 fax
denlog@clickmontana.net
dennisonlogging.com

Dispatch: Kalispell, MT

Business Detail: EERA

Transport: 24 ft tilt bed trailer

Operators: qualified dozer boss, engine boss

Fires: 1999-2008 MT /CA – Yolla-Bolla (CA), Red Eagle (MT), Brush Creek, Moose, Gergan Creek

References: Kevin Erickson, USFS-Fire, Missoula, MT; Les Thomas, MT-DNRC, Polson, MT

STOCK PHOTO

SKIDDER / SKIDGINE, WHEEL Type 1

1995 CAT 518 C Skidgine, light-duty blade, screened cab, sweep guards, ROPS

Attachments: detachable 685 gal tank, pump, hose reel, foam unit, lights, brush rake, arch with winch (100 ft 5/8" cable)

STOCK PHOTO

DOZER / TRACK SKIDDER Type 3

1989 John Deer 650, 6-way blade, screened cab, sweeps, logging guards

Attachments: brush rake, lights, arch with winch, 100 ft 5/8" cable

SKIDSTEER / LOADER

2007 John Deer 320 Rubber Tire, enclosed cab, FOPS

Attachments: light, brush grapple, bucket, forks

Doble Enterprises, Inc.

Kirk Doble
Box 118
Rexford, MT 59930
406-882-4029
406-261-4028 c
kirkdoble@yahoo.com

Dispatch: Libby, MT

Business Detail: EERA

Transport: 35T lowboy, 25T tilt bed trailer

Fires: Northwest MT, 1988-2007 -Dry Fork, Squaw Creek, 336, Stone Young Complex, Elk Mountain, Dickey Lake, Camp 32, Jocko Lake

References: Ed Ferruzzi, USFS, Kootenai NF, Murphy Lake Rd; Ken Farmer, USFS, Kootenai NF, Canoe Gulch

STOCK PHOTO

DOZER / TRACK SKIDDER Type 2

1988 John Deere 850B long track Dozer, angle blade, screened cab, woods guarding, sweeps

Attachments: 100 ft 5/8” skidding winch with arch, rock guards, lights

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE Type 1

2000 Timbco 445D Tracked Feller Buncher, FOPS/OPS, enclosed self-leveling cab, 24 ft boom

Attachments: 22” high speed disc hot saw head, lights

STOCK PHOTO

EXCAVATOR

1997 John Deere 590D Tracked Excavator, FOPS, enclosed cab, woods guarding, 30 ft boom

Attachments: bucket with thumb, log grapple, lights

STOCK PHOTO

SKIDDER, WHEEL (2) Type 1

1999 John Deere 648G Rubber Tire Skidder, enclosed screened cab, light-duty blade, sweeps
Attachments: swing boom grapple, winch, lights, tire chains

1995 Cat 518C Rubber Tire Skidder, enclosed screened cab, light-duty blade, sweeps
Attachments: swing boom grapple, lights, tire chains

Drake Logging, Inc.

Dave Drake
111 Olson Court
Columbia Falls, MT 59912
406-261-8222
406-862-8222
406-862-8222 fax
drkgln@hotmail.com

Dispatch: Columbia Falls, MT

Business Detail: EERA

Transport: needed

Fires: 20 yrs MT / CO fuels reduction

References: Ralph Gildaman, USFS, Kootenai NF; Tony Willets, USFS, Flathead NF

FELLER BUNCHER, STEEP SLOPE Type 1

2001 Timbco 445D, 24 ft boom, self-leveling, OPS, enclosed cab

Attachments: 22” hot saw or 28” bar saw, lights

SKIDDER, WHEEL R1 Type 1 / R6 Type 3

1989 CAT Skidder, Model 518, screens with sweep guards

Attachments: grapple, winch with 100 ft 5/8” cable, chains

SKIDDER, WHEEL R1 Type 1 / R6 Type 3

2008 John Deere Skidder 648H, light-duty blade, OPS, enclosed cab, sweep guards

Attachments: grapple, pressurized water system for extinguishing small fires (50 gal factory water tank), lights, tire chains

DOZER / TRACK SKIDDER Type 2

1976 Cat D6C Dozer, partial screened cab, sweeps

Attachments: hydraulic tilt blade, log grapple

STOCK PHOTO

DS Jr. Trucking, Inc.

Dave Sheets, Jr.
Janice Grosfield
Drawer D
Drummond, MT 59832
406-544-0555
406-240-7053
406-288-0085 fax
sheetstrucking@hotmail.com

Dispatch: Dillon / Bozeman, MT

Business Detail: Blanket Purchase Agreement (BPA) East Side Acquisition

Transport: 4 lowboys, Type 1

Fires: MT - Derby, Big Creek, Nine Mile, Mussigbrod, Rat Creek, Pattengail, Snow-Talon, Sand Basin, Clark Canyon, Bear Gulch

References: Obie O'Brien, Helena NF - USFS

EXCAVATOR Type 2

2007 Kobelco ED190 Bladerunner; 44,000 lbs, 115 hp

Attachments: 6-way 10 ft blade, bucket with thumb, lights, full brush guarding, climate control cab

SKIDDER, WHEEL Type 1

2000 John Deere 648G, 172 hp, 9 ft blade, FOPS/ROPS, brush guarded, back-up alarm, independent fire suppression system

Attachments: winch, grapple, chains, lights

LOG LOADER, TRUCK-MOUNTED

Prentice 410 front loading log loader with 1980 Kenworth

DOZER / TRACK SKIDDER Type 2

1994 D5H CAT Dozer, 130 hp, 6-way blade, full brush guarding, FOPS/ROPS, climate control cab

Attachments: swinging boom grapple, lights

SKIDDER / SKIDGINE , WHEEL Type 1

2008 John Deere 648H, 9 ft blade, full brush guarding, FOPS/ROPS, climate control cab, back-up alarm, independent fire suppression system

Attachments: quick attack 405 gal water tank attaches with hitch setup for skidder/skidgines conversion within ½ hour, grapple, winch, chains, lights

MONTANA

Enhanced Forest Management, Inc.	Woodland Restoration, Inc.	
Dyrk Krueger 380 Joseph Drive Corvallis, MT 59828 406-961-8324 h 406-369-4466 c (Dyrk) 406-369-0432 c (Erin) 406-961-8325 fax efminc@msn.com	Matt Arno Nathan Arno P.O. Box 956 Potomac, MT 59823 406-544-1842 406-244-5858 www.woodland restoration.net	**Dispatch:** Missoula, MT, Lolo NF Contracting **Business Detail:** EERA **Fires:** 2000-2007 MT – Rumbo, private fuel reduction project **References:** Gena Rheinschmidt, Bitterroot; Pat McKinnon, Bitterroot; Paul Moore, MT-DNRC, Hamilton

EXCAVATOR, WALKING Type 3

1992 Schaeff HS40 53 hp, 15,000 lbs walking excavator, 26 ft boom

Attachments: 24” wide bucket, hydraulic thumb

STOCK PHOTO

EXCAVATOR Type 2

1997 Hyundai 210 LC-3, 142 hp, 55,000 lbs, 32 ft boom, enclosed forestry cab

Attachments: bucket, thumb, forestry guard package - cab and undercarriage, lights

STOCK PHOTO

IN-WOODS CHIPPER

1995 Timberjack Bandit 1270 rubber tire carrier, 165 hp, 25 ft log grapple boom, enclosed cab

Attachments: Bandit 250 XP chipper, 12” diam capacity

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE Type 1

1996 Timbco 445B, 260 hp, 24 ft boom, enclosed self-leveling cab

Attachments: 22” hotsaw felling head, lights

STOCK PHOTO

SKIDDER , WHEEL Type 1

1988 Timberjack 380B, 138 hp, grapple and winch

Attachments: arch grapple, winch, tire chains, lights

Enhanced Forest Management, Inc. & Woodland Restoration, Inc. (cont.)

STOCK PHOTO

HARVESTER Type 2

1270 Timberjack Rubber Tire Harvester, 165 hp, 30 ft boom, enclosed cab, FOPS/ROPS

Attachments: dangle head harvester, barsaw with 25" max capacity, lights, track bands and chains

Equipment Technology

Bill Jones
P.O. Box 326
Lolo, MT 59847
406-273-2302
406-360-6007 c
406-273-3333 fax
billjonesz@yahoo.com

Dispatch: Missoula, MT

Business Detail: EERA

Transport: 2 lowboys, 50T, 28 ft deck; 60T 9-axle

Operators: Bill Jones

Fires: 1988-2007, MT / ID - Gold Creek 2003, Chimney 2007, Rombo 2007, Flathead NF 2007, MT Fire 2000

References: Tim Murphy, NRCG, MT-DNRC; Kevin Erickson, R1 Fire, USFS, Missoula

SUPER-SKIDGINE Type 1

TD81 Ciceron Forwarder, 8-wheel, 20T, 250 hp, rubber tire boogies with steel track bands, log grapple, 27 ft boom reach, enclosed cab

Attachments: water cannon on boom, 3000 gal tank with aerial refilling hooper top, lights, pump, live reel, hoses

STOCK PHOTO

DOZER / TRACK SKIDDER Type 1

1976 CAT D7E, angle blade, screened cab, ROPS

Attachments: logging winch, lights

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE Type 1

2004 Timberjack, 265 hp, 28 ft boom, FOPS/OPS, enclosed cab

Attachments: hotsaw head, 22" capacity

Equipment Technology (cont.)

STOCK PHOTO

FORWARDER / SUPER-SKIDGINE

1998 Timberjack 1010, 6-wheel, 11T carrying capacity, 27 ft boom, rubber tires with track bands, enclosed cab

Attachments: 1700 gal detachable tank, log bunks, pump, live reel, hoses, boom mounted water cannon, foam, lights

STOCK PHOTO

DOZER / TRACK SKIDDER Type 2

2008 CAT 527, 166 hp, swing grapple, FOPS/ROPS/OPS, enclosed cab, sweeps

Attachments: 6-way blade, lights

STOCK PHOTO

DOZER Type 1

1978 CAT D7G, u-blade, cab screens

Attachments: rippers, lights

STOCK PHOTO

SKIDSTEER / MULCHER

2002 ASV Rubber Tire Carrier Mounted Mulcher, 90 hp, enclosed cab

Attachments: 6 ft horizontal shaft mulching head

Fire Solutions, Inc.

Levi Cheff
P.O. Box 16988
Missoula, MT 59808
406-239-2810
406-721-3151 fax
levifiresolutions@yahoo.com

Dispatch: Missoula, MT

Business Detail: EERA

Transport: 35T lowboy and tractor

Fires: Pattengail 2007, North Howard, LNF 2003

References: Dave Marsh, MT DNRC; Jeffrey Sholty, Sholty Contracting; Norm Jones, Norm Jones Contracting, Ellingson, Northwest Management, Inc., Helena office, MT

EXCAVATOR / MULCHER

2007 Kobelco ED150, 28 ft boom, 35,720 lb, 6-way blade

Attachments: processing head, grapple bucket with thumb, vertical shaft disc mulching head with rotating shroud

SKIDSTEER / MULCHER

2008 Bobcat 5330

Attachments: Bobcat 72" carbide-tipped mulching head

Flanagan Quality Contracting

Dale Flanagan
8940 Sharptail Lane
Missoula, MT 59808
406-239-4031
406-531-7323
406-549-9881 fax
dale.flanagan@Yahoo.com

Dispatch: Missoula, MT

Business Detail: EERA

Transport: lowboy; double drop lowboy, support vehicle

Fires: 2000-2007 MT / ID, Fish Creek Complex, Rombo, Bitterroot, numerous private industry and agency fuels reduction projects.

References: John Waverick, Lolo NF-Missoula RD; Kevin Erickson, R1 Fire, Missoula, USFS; Joe Larsen, Stimpson Lumber, Trout Creek, MT

DOZER / TRACK SKIDDER Type 2

2000 John Deere 650H Dozer, sweep guards, FOPS/ROPS and screened-in cab

Attachments: brush rake, winch, 6-way blade, lights

HARVESTER , STEEP SLOPE

2003 Timberjack 608L Tracked Harvester, self-leveling enclosed cab, 30 ft boom, FOPS/OPS

Attachments: 26" diam. harvester/dangle head, lights

FORWARDER / SUPER-SKIDGINE

2001 Timberjack 1010B 6-wheel forwarder, enclosed cab, 24 ft boom, log bunks, tires/tracks/chains

Attachments: 1500 gal certified detachable tank, pump, live reel, hoses, lights

Flathead Timber

Tim Smart
Box 663
Kalispell, MT 59903
406-862-8805
406-253-7704 c

Dispatch: Kalispell, MT

Business Detail: Best Value

Transport: company provided

Fires: MT 2000-2007 Mussigbrod, Moose, Buscuit, Wedge, Canyon, Derby, Brush Creek, Big Creek, 2008 CA Lime Complex

References: Greg Poncin, MT-DNRC, Kalispell; Pete Seigmound, MT-DNRC, Kalispell, 406-751-2266

SKIDGINE, WHEEL R1 Type 1 / R6 Type 3

1994 Clark F66 Rubber Tire Skidder, 120-140 hp, partial screened cab, sweeps, light-duty blade

Attachments: 670 gal tank, pump, live reel, pin-on brush blade, tire chains

Get'er Done Wiest, LLC

Gary Wiest
Sharon Greer (admin)
561 Wiest Rd
Brady, MT 59416
406-753-2393
406-450-1968 c (Gary)
406-450-6905 c (Sharon)
406-753-2395 fax
wiest@3riversdbs.net
www.geterdoneboys.com

Dispatch: Great Falls, MT

Business Detail: EERA

Transport: 3 semi's, 6 trailers

Fires: MT 2007 Ahorn, Fool Creek

References: Scott Kuehn, Tricon Lumber, MT

MULCHER , STRIP, TRACK (2)

(2) 2008 Gyro-track (GT 25XP, 260 hp; GT 13XP, 140 hp), nylon / steel track, horizontal shaft, fixed tooth mulching head with tree push bar, enclosed cab

Attachments: lights, winches

SKIDSTEER / MULCHER

2006 ASV RC100 Positrak Skid-Steer, 99.5 hp, rubber tracks, carrier mounted, 6 ft Felon horizontal shaft mulching head with tree push bar, enclosed cab

Attachments: lights, winch, 6 ft brush grapple, brush rake

Glacier Line Logging, Inc.

Pat Hanley
75 Brook Dr
Kalispell, MT 59901-3305
406-752-7753
406-253-2898 c
406-752-7029 fax

Dispatch: Missoula, MT

Business Detail: EERA

Transport: 20T 3-axle lowboy

Fires: 1988-2008 MT - Teakettle, Skyland, Brush Creek, Red Bench, Stone Young Complex, Elk Ridge

References: Tony Willets, Flathead NF, MT-DNRC, Kalispell

STOCK PHOTO

EXCAVATOR Type 3

1999 Hitachi, Model FX 135USR5 tracked Excavator, 25,000 lbs, 81-110 hp, enclosed cab, FOPS, 20 ft boom

Attachments: bucket with thumb, lights

STOCK PHOTO

EXCAVATOR / LOG LOADER Type 1

1993 Komatsu 300 tracked Excavator, long reach, 50,000 lbs, 156+ hp, enclosed cab, 65 ft boom

Attachments: bucket with thumb, log grapple, lights

STOCK PHOTO

EXCAVATOR / FELLER BUNCHER, STEEP SLOPE (2) Type 1

1994, 1995 Timbco T445, 230 hp, tracked swing Feller Buncher, enclosed self-leveling cab with forestry screening, 24 ft boom

Attachments: 30” bar saw, 18” shear, excavator bucket, winch, lights

STOCK PHOTO

DOZER / TRACK SKIDDER (2) Type 3

1989 / 1994 John Deere 650G, 6-way blade, partial screened cab

Attachments: lights, winch (50 ft 9/16” cable)

Grizzly Logging

Harold Glazier
Michele Glazier
100 Sherman Rd
Kalispell, MT 59901
406-756-7973
406-261-0437 c (Harold)
406-261-3250 c
406-756-7983 fax
406-253-2675 c (Jim Vetrone)
griz_logn_gravel@centurytel.net

Dispatch: Missoula, MT

Business Detail: EERA

Transport: two 30T lowboys

Fires: 1994-2008 MT -Lost Trail, Little Wolf, Moose Fire, Wedge Canyon, Crazy Horse, Brush Creek, Crane Mountain, Deep Draw

References: George Zoffman, Strike Team Leader

STOCK PHOTO

DOZER / TRACK SKIDDER Type 3

1990 John Deere 650G Dozer, 6-way blade, partially screened cab, FOPS, sweep, guards

Attachments: grapple, brush rake, lights

STOCK PHOTO

SKIDDER, WHEEL Type 1

1993 John Deere 648E Rubber Tire Skidder, light-duty blade, enclosed cab, forestry sweeps guarding

Attachments: grapple, brush rake, tire chains, lights

STOCK PHOTO

DOZER Type 2

1975 CAT D6C, 4-way blade, partially screen cab, FOPS/ROPS, forestry sweeps

Attachments: _____ ft skidding winch, lights

STOCK PHOTO

EXCAVATOR Type 3

1995 CAT 315L tracked swing machine, 25,000 lbs, 25 ft boom, enclosed cab, FOPS/OPS, woods protection package

Attachments: 24" + 42" buckets with thumb, 5 ft brush rake with thumb, 8 ft landscaping bucket, lights

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE Type 1

1991 Timbco T435 Feller Buncher, enclosed self-leveling cab, 24 ft boom

Attachments: 38" bar saw, lights

STOCK PHOTO

SKIDDER, WHEEL Type 1

1978 John Deere 640 Rubber Tire Skidder, light-duty blade, partial screen cab, forestry sweeps

Attachments: skidding winch, brush rake, lights

Grizzly Logging (cont.)

STOCK PHOTO

LOG LOADER

1970 CAT 966C rubber tire log loader

Hall Wood Processing

Doug Hall
1625 Swanson Lane
Potomac, MT 59823
406-244-5213
406-240-5546 c
406 244 5213 fax
ptm3677@blackfoot.net

Dispatch: Missoula, MT

Business Detail: EERA, Best Value

Transport: 3 lowboys, 35T and 50T (2)

Operators: DOZB qualified

Fires: 2000-2007 Lower Fawn Creek, Boles Meadows, Mineral, Bearmouth, Battle Mountain WY, Jocko Lakes, Big Hole, Bitterroot Complex, Ovando,, Dirty Ike, Packer Gulch

References: John Hanson, MT-DNRC, Missoula: Howie Kent, MT-DNRC, Clearwater; Alan Christman, USFS, Kalispell.

FELLER BUNCHER , STEEP SLOPE Type 1

2008 Timbco/Valmet 445EXL, 300 hp, 24 ft boom, self-leveling enclosed cab, FOPS/ROPS

Attachments: 22" high speed disc saw, lights

DOZER / TRACK SKIDDER (3) Type 2 and 3

1993 John Deere 550G, 80 hp (pictured), partial screened cab, FOPS/ROPS, Type 3
Attachments: 6-way blade, winch

1996 CAT D5H, 130 hp, enclosed cab, FOPS/ROPS, Type 2
Attachments: 6-way blade, swing boom grapple

1989 John Deere 650G, 90 hp, partial screened cab, FOPS/ROPS, Type 3
Attachments: 6-way blade, winch

SKIDDER / SKIDGINE, WHEEL (2) Type 1

2007 John Deere 648G Grapple Skidder, enclosed cab, sweeps
1992 John Deere 648E Grapple Skidder, enclosed cab, sweeps

Attachments: 411 gal detachable tanks, pump and live reel, can be mounted or removed in under 10 minutes, grapples remain on skidders so they can be converted back to skidding; foam unit, lights, tire chains

EXCAVATOR Type 3

John Deere 110, enclosed cab, FOPS, 25 ft boom

Attachments: bucket with thumb, 8 ft front blade, guarding (brush & rock)

Hardley Able Logging

James Evans
918 4th Street
Deer Lodge, MT 59722
406-491-2056
406-846-1508
jimevans1957@hotmail.com

Dispatch: Billings, MT

Business Detail: EERA

Transport: 35T lowboy

Fires: 2000-2007 MT / ID - Ahorn, Pattengail, Mauselbroad; fuel reduction projects through the MT DNRC.

References: Lisa Rakich, Beaverhead-Deerlodge NF, Dillon

SKIDDER, WHEEL Type 1

1993 Timberjack 450C Rubber Tire Skidder, 136-187 hp, enclosed cab with forestry sweep guards, light-duty blade

Attachments: 150 ft skidding winch with arch, grapple, chains, lights

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE Type 1

2001 Timberjack 2618, 24 ft boom swing, tracked, enclosed self-leveling cab

Attachments: 24” hot saw head, lights

SKIDSTEER / BRUSH RAKE

2007 CAT 287B, rubber track, ROPS, enclosed cab

Attachments: brush rake, 8 ft 6-way blade, lights

Intermountain Forest Technology Corp.

Kevin W. Smith
P.O. Box 10
Clancy, MT 59634
406-933-8000
406-949-0001 c
406-933-8000 fax
smith@3riversdbs.net

Dispatch: Helena, MT

Business Detail: Current EERA 2009 Helena NF

Transport: 45T lowboy

Fires: 2000-2008 MT / ID – Clear Creek, Derby, Ahorn, Cascade, Bear Gulch

References: Stephen O'Brien, USFS, Helena; Russ Owen, USFS; Craig Daughtery, SW IMT

SKIDDER, WHEEL Type 1

1996 CAT 525 Rubber Tire Skidder, fixed grapple, 10 ft wide, enclosed cab

Attachments: blade with brush rake, 100 ft winch, tire chains, lights

PROCESSOR / STROKE BOOM DELIMBER, STEEP SLOPE

1994 Timberline 3530, track carrier, self-leveling cab

Attachments: 32" diam. capacity

STOCK PHOTO

DOZER / TRACK SKIDDER Type 2

2000 CAT 527 Dozer, 6-way blade, screened cab, forestry guards

Attachments: swing grapple, lights

HARVESTER, STEEP SLOPE Type 1

1999 Timbco 425D Harvester, 260 hp, ROPS, enclosed self-leveling cab, 28 ft boom

Attachments: 28" harvester bar saw head

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE Type 1

2000 Timbco 445D track swing machine, enclosed self-leveling cab, 24 ft boom

Attachments: 22" high speed disc (hot) saw, lights

STOCK PHOTO

LOG LOADER / TONG TOSSER

1997 CAT 320BL track loader, 28 ft boom, enclosed cab

Attachments: 2 winches, tong tosser, package slack kicker, log grapple

James A. Slack, Inc.

Jamie Slack
Rob Miller
2970 Hwy 2 E
Kalispell, MT 59901
406-752-2959
406-261-3282 c (Jamie)
406-261-5150 c (Rob)
406-752-3769 fax
jamies@tcpkal.com (Jamie)
rdmiller69@bresnan.net (Rob)

Dispatch: Missoula, MT

Business Detail: EERA

Transport: 65,000 lb payload gooseneck lowboy

Fires: Chipmunk, Wedge Canyon, Robert, Blackfoot Complex, Fox Mountain, Sun Dog, Skyland, Brush Creek; since 2000 MT – Bald Hill, Barnum, Moose, Ear, Werner Peak, Robert, Doris, Blackfoot Lake, Doe, Ball, Crazy Horse, Fish Creek Complex. OR - Sour Biscuit 2

FELLER BUNCHER, STEEP SLOPE (2)

2004 Timbco 445D, 260 hp, self-leveling enclosed cab, 24 ft boom

2001 Timberjack 2628 enclosed self-leveling cab, 24 ft boom

Attachments: high speed disc hot saws, lights

STOCK PHOTO

GRADER

1969 CAT 14E Grader, enclosed cab

Attachments: rippers, front blade, 14 ft mow board

DOZER / TRACK SKIDDER (2) Type 2

1965 CAT D6C, angle blade, partial screen cab, sweeps, FOPS/ROPS
Attachments: 80 ft winch with arch, lights

1979 CAT D6D, angle blade, partial screened cab, FOPS/ROPS
Attachments: grapple, lights

EXCAVATOR / HARVESTER / LOG LOADER (2)

2000 CAT 320B tracked swing forest machine, enclosed cab, FOPS
Attachments: bucket with thumb, 22" harvester head

2003 CAT 320C tracked swing forest machine, enclosed cab, FOPS
Attachments: log grapple

James A. Slack, Inc. (cont.)

SKIDDER / SKIDGINE, WHEEL (2) Type 1

2005 John Deere 648GIII Rubber Tire Skidder, enclosed cab
Attachment: basket, grapple, winch, detachable 670 gal water tank

1994 CAT 518C Rubber Tire Skidder, enclosed cab
Attachment: basket, grapple, winch, detachable 670 gal water tank

EXCAVATOR / LOG LOADER (2) Type 1

2000 CAT 320B Tracked Excavator, enclosed cab, 30 ft reach
Attachment: forest machine bucket, Log Max processor, thumb

2003 CAT 320C Tracked Excavator, enclosed cab, 30 ft reach
Attachment: forest machine, log loader

J & M Logging, Inc.

Jonathan Sheets
P.O. Box 411
Drummond, MT 59832
406-544-0795 c / fax
jmlogging@blackfoot.net

Dispatch: Helena, MT

Business Detail: EERA

Transport: double drop lowboy provided

Fires: 2000-2008 MT - Snow Talon, Keep Kool, Telegraph, Sand Basin, Derby, Jocko Lakes, Fool Creek Rehab, Skyline Rehab.

References: Obie O'Brien, USFS, Helena, MT; Adam Mendonca, USFS, Ruidoso, NM

HARVESTER, STEEP SLOPE Type 1

1998 2618 Timberjack Feller Buncher, FOPS, enclosed self-leveling cab

Attachments: 762 harvester head, lights

DOZER / TRACK SKIDDER Type 3

1976 International / Dresser TD8E dozer, partially screened cab, forest sweep guards

Attachments: 6-way blade, skidding winch with arch, lights

Kelly Logging, Inc.

Jerry P. Kelly
P.O. Box 16067
Missoula, MT 59808
406-251-4600
406-240-2292 c
406-251-3317 fax
Kellytrees@aol.com

Dispatch: Missoula, MT

Business Detail: USFS timber sale contractor

Transport: company lowboys

Fires: 2000-2007 MT – Cave Gulch, Bear Gulch

References: USFS-Helena NF, Rick Henningson, USFS-Butte, Bob Johns, Brian King

FELLER BUNCHER, STEEP SLOPE (3) Type 1

2006 Timberjack 608L (2) Feller Buncher
2008 John Deere 759G Feller Buncher

Note: 28 ft reach booms, self-leveling enclosed cabs, FOPS/ROPS
Attachments: 20" Koehring 180 deg rotation hot saws

LOG LOADER (4) Type 2

2006 CAT 320 Track Log Loaders, enclosed cab, 30 ft boom reach

Attachments: log grapple with live heel

DOZER (3) Type 1 and 2

1975 CAT D6, FOPS/ROPS, screens, sweeps (2)
1974 CAT D8H, FOPS/ROPS, sweeps

Attachments: angle blade, rippers, lights

GRADER (4)

CAT 140G

STOCK PHOTO

DOZER / TRACK SKIDDER / PUMPERCAT (2) Type 2

2002/2004 CAT 527 tracked skidder (2) , enclosed cabs

Attachments: 6-way blade, swing grapple, FOPS/ROPS/OPS, attachable 308 gal water tanks, pumps, live reels

SKIDDER / SKIDGINE, WHEEL (2) Type 1

CAT 535 Rubber Tire Skidder, enclosed cab, sweeps
Attachments: attachable 308 gal water tanks, live reels, pump
518 CAT, Rubber Tire Skidder, enclosed cab, sweeps

Attachments: tire chains, enclosed cab, lights, 308 gal tank, pump, reel

Kelly Logging, Inc. (cont.)

STOCK PHOTO

DOZER / TRACK SKIDDER (2) Type 2 and 3

1988 CAT D5 Tracked Skidder, partial screened cab, FOPS/ROPS, sweeps
Attachments: 6-way blade, fixed grapple
1975 CAT D6, FOPS/ROPS, screens, sweeps
Attachments: angle blade, winch with 100 ft 5/8 in cable

Low Impact Forestry, Inc.

Jim L. Nethercott
45489 River Breaks Rd
Polson, MT 59860
406-883-5049
406-261-2293 c
lowimpactforestry@yahoo.com

Dispatch: Missoula, MT

Business Detail: EERA

Transport: 30T lowboy, 12T tilt bed

Fires: MT - Bald Hill, Brush, Moose, Sundog; 15 yrs fire and fuels work in MT / ID

References: Duane Plant, SKC Tribal Forestry Manager, Ronan, MT, 406-676-3755; Tony Willett, Flathead NF, USFS

STOCK PHOTO

DOZER / TRACK SKIDDER Type 3

1974 John Deere 450C, 6-way blade, partial screen cab, FOPS/ROPS, sweeps

Attachments: brush blade, 125 ft winch and arch , lights

SKIDDER, WHEEL Type 1

1995 Timberjack 450C Rubber Tire Skidder, forestry safety enclosed cab, sweeps, light-duty blade

Attachments: deck blade, swing grapple, 200 ft winch and arch, lights, tire chains

SKIDSTEER / LOADER

2002 John Deere 280, partial screen cab, rubber tire track bands

Attachments: Loader, bucket, 9 ft Xtnd-a-hoe, lights

LTL Enterprises, LLC dba LTL Forestry

Larry & Sheree Roberts
45 Willow Drive
Kalispell, MT 59901
406-756-6214
406-253-9368 c Larry
406-261-5773 c Sheree
406-756-0177fax
smalldetails@bresnan.net

Dispatch: Missoula, MT

Business Detail: EERA; Montana Jumpstart Fuels Reduction Forest Stewardship

Transport: 4 lowboy/truck combos

Fires: 2000-2007, MT: Brush Creek, Skyland, Chippy Creek, Crazy Horse, Happy's Inn, Bald Hill, Wedge Canyon

References: Josh Harvey - St. Maries Id. TFLD, Brent Kallander - Kalispell DNRC Dozer Boss, Cameron Goins - Libby USFS – IC, Manny Mendoza - Tally Lake District IC, Keigh Smiley - USFS - Rehab/restoration boss

EXCAVATOR / LOG LOADER Type 2

2001 CAT 318 B LN Tracked Excavator, 25 ft boom, enclosed and screened cab
Attachments: Winch - 200 FT of line, cut-off saw attached to bucket

Note: winch with boom-mounted block (can log out SMZ's), bucket saw, 20" diameter felling capacity

SKIDDER, WHEEL Type 1

1995 CAT 525 Rubber Tired Skidder, sweep guard, enclosed cab

Attachments: grapple with winch, light-duty blade, tire chains

STOCK PHOTO

DOZER / TRACK SKIDDER (4) Type 2

1998 D6H Dozer, enclosed cab, FOPS/ROPS
Attachments: grapple

1990 CAT 525 Dozer, enclosed cab, FOPS/ROPS
1980 CAT D5 Dozer, partial screened cab, FOPS/ROPS
1979 CAT 518 Dozer, partial screened cab, FOPS/ROPS

Attachments: angle blades, lights, skidding cable winches with arches

McFarland Logging

Gene McFarland
29 Arlene Drive
Clinton, MT 59825
406-531-1868 c
406-531-9240 m
406-825-4466
406-825-3553 fax
ljmcfarland@peoplepc.com

Dispatch: Missoula, MT

Business Detail: EERA

Transport: 30T lowboy trailer

Fires: MT 1993-2003 Gold Creek, Beavertail Hill, I 90, Ryan Creek

References: Plum Creek Timber, Missoula, MT; Scott Kuehn, Tri-con, St. Regis, MT; Jeff Rupicaluis, USFS-Lolo NF, Missoula, MT

DOZER / TRACK SKIDDER Type 1

2005 CAT 527 track skidder, 6-way blade, FOPS/ROPS, enclosed cab

Attachments: swing grapple, lights

STOCK PHOTO

SKIDDER, WHEEL

1995 John Deere 648E Rubber Tire skidder, enclosed cab, forestry sweeps, light duty blade

Attachments: fixed grapple, pin-on brush rake, lights, tire chains

Milner Brothers Logging, Inc.

Patrick Milner
Larry Milner
P.O. Box 1253
Thompson Falls, MT 59873
406-827-4276
406-396-1446 c
406-827-3846
406-242-0020 c
sandsmilner@blackfoot.net
ltm1@blackfoot.net

Dispatch: Missoula, MT

Business Detail: EERA, Best Value

Transport: 23T flatbed

Fires: 2000 -2008 MT - Thompson Falls, Strawberry Mountain, Clinton, Cherry Creek, Thompson Falls, Prospect Creek, Superior, Garceau 1 and II, Polson, Chippy Creek, Marion, Arnold Rd Plains, Wood Chuck, Lolo, Achley Lake, Ronan, Marion, Deep Draw, Elmo

References: Joe Hughes, Resourse Manager, USFS, Superior, MT; Ron Swainey, BIA, Ronan, MT

SKIDGINE, WHEEL (2)

1984 John Deere 540B / 1987 John Deere 540D Rubber Tire Skidder, partial screen cab, sweeps, FOPS/ROPS, light-duty blade

Attachments: 235 gal tank, pump, hose reel, 75 ft winch, tire chains, lights

STOCK PHOTO

SKIDDER, WHEEL

1985 John Deere 540B Rubber Tire Skidder, partial screened cab, FOPS/ROPS, sweep guards, light-duty blade

Attachments: 100 ft winch with arch, tire chains

STOCK PHOTO

DOZER / TRACK SKIDDER Type 3

1981 Case 850B, partial screen cab, sweeps, FOPS/ROPS

Attachments: 75 ft winch, skidding arch, 6-way blade, lights

Mote Lumber

Doug Mote
P.O. Box 6938
Helena, MT 59604
406-439-1632
406-458-5949 fax
doug@motelumber.com

Dispatch: Helena, MT

Business Detail: MT DNRC for initial attack; private landowner contracts

Transport: 3-axle tilt deck

Fires: MT - Snow Talon 2003, Meriwether 2007, private ground fuels reduction

References: 2008 MT Logger of the Year, D.J. Bakken, MT-DNRC Central Land Office, Helena, MT

FORWARDER

2007 Ponsse Wisent, 174 hp, 13T capacity, 6-wheel drive rubber tire with tracks and chains, FOPS/ROPS, enclosed safety cabin, 33 ft crane reach, light-duty blade

Attachments: log grapple, available saw attachment for grapple, lights, log bunks

Note: top speed 17 mph

Obadiah's Wildfire Fighters

Woody Chain
249 Silver Dr
Troy, MT 59935
800-968-8604
406-295-9490 fax
woody@wildfirefighters.com
www.wildfirefighters.com

Dispatch: Missoula, MT

Business Detail: Best Value

Transport: 20T lowboy, 20T equipment trailer

Fires: 2000-2008 MT, OR, CO, ID, CA, Australia

References: Basil Canavan, Chief, Yaak Vol FD; Obie O'Brien, USFS, Helena, MT

SKIDGINE / CARGO HAULER / CREW HAULER / EMERGENCY EVACUATION VEHICLE , SOFT TRACK Soft Track, Type 2

Soft track non-armored personnel carrier (M548), cab seats 4, rear enclosed cargo area, twin 500 gal mixing tanks (water, retardant, hydroseed), rubber road pads on tracks

Attachments: lights, woods cab guards, two 5 hp mixing pumps, 5 hp slurry application pump, two 200 ft live reels, foam system, roof water cannon, 20T PTO winch, 100 gal Terra Torch, broadcast seeder

Note: steep slope capable, amphibious, 45 mph top speed

SKIDGINE, SOFT TRACK Type 1

1978 FMC 220 Soft Track Carrier, 220 hp, partial screened cab, FOPS, light-duty blade, woods cab guards

Attachments: 1620 gal tank, pump, remote water cannon; 2 - 300 ft live reels, pin-on brush rack, lights, foam, 100 gal Terra Torch, broadcast seeder

Note: steep-slope capable (max 60%) with light ground pressure

Quartz Logging, Inc.

Kevin Donally
322 William Lloyd Ln
Superior, MT 59872
406-822-4889
406-822-2336 c
406-822-4889 fax
donallys@blackfoot.net

Dispatch: Missoula, MT

Business Detail: EERA

Transport: lowboy

Fires: Fish Creek 2003, Jocko Lakes 2007

FELLER BUNCHER, STEEP SLOPE Type 1

2001 Timbco T445D, enclosed self-leveling cab, FOPS/OPS, 24 ft boom, fire suppression system

Attachments: 22" high speed disc hot saw head, lights

Rick Oliver Contracting

Rick Oliver
P.O. Box 892
Plains, MT 59859
406-826-4430
406-544-7571
406-531-0035
rolivercont@hotmail.com

Dispatch: Missoula, MT

Business Detail: Fuels reduction contracts for Sanders and Missoula Counties, Townsend, MT, Black Hills, SD.

Fires: 2000 Initial attack MT-DNRC; 2001-02 IA MT and CA, 2003 Robert and Crazy Horse Fires, 2004 IA MT DNRC, 2005 Baker, 1-90 Complex and Sepay, 2006 Black Pulaski, Woodchuck, Big Creek Fires, 2007 Chippy Creek, IA MT DNRC, 2008 IA MT DNRC

References: Calvin Minemyer FMO, Dave Olsen, Division Supervisor, Everett Young, IC3. All from MT DNRC Plains Unit (406-826-3851)

MULCHER, STRIP, TRACK

2008 Fecon FTX 140 Tracked Carrier, 140 hp, steel tracks, forestry package, enclosed cab

Attachments: 7 ft horizontal shaft mulcher with push bar, lights

Riding High Excavation, Inc.

Tim Ryan
P.O. Box 1016
Eureka, MT 59917
406-250-1941 c
406-889-3240 ofc / fax
ridinghigh@montanasky.net
www.ridinghighinc.com

Dispatch: Libby, MT

Business Detail: EERA

Transport: 2 lowboys – 50T, 25T

Fires: 1988-2008 MT - Brush Creek, Basin Creek, Elk Mountain

References: John Shotzberger, (406-293-2711), DNRC, Libby District; Judy Fosse, Kalispell NF, Libby

EXCAVATOR (2) Type 2

2007 John Deere 270D Tracked Excavator, enclosed cab, forest guard package, 26 ft boom

2005 Hitachi 120 Tracked Excavator, enclosed cab, forest guard package, 24 ft boom
Attachments: bucket thumb, rippers, 5 ft wide muck bucket

DOZER (2) Type 2

2007 John Deere 850J Dozer, 6-way blade, forest guard package, enclosed cab, FOPS/ROPS, sweeps
Attachments: pin-on brush rake, broadcast, rippers
1995 Allis FD14E Dozer, tilt blade, partial cab screen, FOPS/ROPS
Attachments: brush rake, rippers

GRADER Type 1

2002 Volvo 736 Motor Grader, 6-wheel drive

Attachments: 14 ft mow board blade

STOCK PHOTO

Roper Logging

Robert Roper
Box 27
Hall, MT 59837
406-544-6080 (Robert)
406-531-5875 (Jenn)
406-288-3212 fax
roperhorsejr@netscape.net

Dispatch: Missoula / Dillon, MT

Business Detail: Best Value, EERA

Transport: Contractor provided 50T removable gooseneck or short, single drop lowboy 35T

Fires: MT 2003-2007 Snow-Talon, Moose, Derby, Big Timber, Chippy Creek, Merriweather

References: D.J. Bakken, MT-DNRC, Helena

STOCK PHOTO

SKIDDER / SKIDGINE, WHEEL (2) Type 1

1996 CAT 525 Skidgine Rubber Tire Skidder, FOPS/ROPS, enclosed cab, sweeps, light duty blade

Attachments: 410 gal water tank, quick attach tank, lights, full guarding, tire chains, grapple

STOCK PHOTO

1989 Clark 667 Skidgine Rubber Tire Skidder, screened cab, FOPS/ROPS

Attachments: 405 gal water tank, quick attach tank, lights, full guarding dozer blade, tire chains, grapple

STOCK PHOTO

DOZER / TRACK SKIDDER (2) Type 2

1974 CAT D6C, 10,000 lbs, 142 hp, angle blade, partial screened cab, ROPS, sweeps
Attachments: fixed grapple, lights

1966 CAT D6C 77A, 135 hp, partial screened cab, ROPS, sweeps
Attachments: 100 ft bulline winch with arch, lights

Scott's Fire Service, Inc.

Parke & Pam Scott
181 Clark's Lookout Rd
Dillon, MT 59725
406-683-4877
406-925-1909 c
406-925-0228 c
406-683-4877 fax
scottsfireservice@bmt.net

Dispatch: Dillon, MT

Business Detail: USFS Best Value, EERA

Transport: available

Fires: 2007 MT - Mcknight, Meriwether

References: Roy Barkley, USFS, Helena NF; Lisa Rackaich, Jonathan Kline, USFS, Beaver-Deer Lodge NF; Mark Williams, USDA, Dubois, ID

SKIDGINE, WHEEL

1981 CAT 528, Rubber Tired Skidder, enclosed cab, sweep guards, light-duty blade

Attachments: 730 gal tank, pump, hose reel, front spray bars, lights

DOZER, TRAIL Type 3

1998 SWECO 480 Trail Dozer, 4 ft 6-way dozer blade, 80 hp, 9000 lb, partial screened cab

Attachments: 3 shank ripper, winch, lights

Soft Track Attack

Larry Covey
540 Elk Haven Rd
Troy, MT 59935
406-295-5770
406-295-5771 fax
softtrackattack@hotmail.com
softtrackattack.com

Dispatch: Libby, MT

Business Detail: EERA, R1 Best Value, CAL-FIRE, WA DNR; worked for USFS, BIA, BLM, DNR. Admin dispatch from Libby MT, but resources stationed in Columbia Falls, Missoula, Bonners Ferry, Grangeville, ID

Transport: lowboys

Fires: 2008: Siskiyou Complex, Abraham Canyon, Inchellium, WA; 2007: Brush Creek/Whitefish, Sawmill/Missoula, Skyland, Essex, Jocko Lakes, Landmark and East Zone, McCall, ID; 2006: Red Eagle, St. Mary's; WA DNR: Tripod (in Winthrop, Loomis and Conconully, WA)

SUPER-SKIDGINE, WHEEL Type 1

Timberjack 560 Rubber Tire Skidder, enclosed cab, sweep guards

Attachments: 1270 gal water tank, foam, remote water monitor, pump, tire chains, lights

SKIDGINE, SOFT TRACK (6) Type 1

(6) 1977 FMC CA-210, 210 hp, soft track carrier, enclosed cab, light-duty blade, drafting capabilities, FOPS/ROPS, sweep guards
Attachments: remote control water cannon, pump, 1500 gal water tank, hose reels, night lighting

Note: up to 60% slope operability

Spencer Logging

Kurt Spencer
628 Florence Rd
Libby, MT 59923-9368
406-293-9154
406-291-0702 c
406-293-9154 fax
ckspencer@windjammercable.net
http://bigfoot-firefighting.tripod.com

Dispatch: Libby, MT

Business Detail: Best Value, EERA

Transport: contractor provided 35T lowboy, 20T tilt bed

Fires: 1988-2008 MT / CA / TX / CO / NM / ID / OR - CA 2008 Lime Complex, MT 2003-2007 Brush Creek, Wedge Canyon

References: Heath Morton, 706-657-4211; Tony Conte, USFS, Trout Creek RD; Jim Harrington, USFS, Phillipsburg RD

SUPER-SKIDGINE, WHEEL Type 1

1992 Franklin 170 4-wheel Forwarder, enclosed cab, sweeps, light-duty blade

Attachments: 2500 gal tank, water monitor, 300 ft hardline live reel, foam, 360 degree lights, 1500 ft hose, tire chains

STOCK PHOTO

DOZER / TRACK SKIDDER

1982 John Deere 550 Dozer, 8 ft 6-way blade, partial screen cab, forestry sweeps, FOPS/ROPS

Attachments: 80 ft winch, lights

STOKEN LOGGING, INC.

Pat Stoken and Mike Stoken
P.O. Box 771
Eureka, MT 59917
406-297-2470 ofc
406-297-2347 h
406-270-7494 c (Mike)
406-253-4112 c (Pat)
406-297-2469 fax
Stokenlogging@Montanasky.Com

Dispatch: Libby, MT

Business Detail: EERA

Transport: 2 60T lowboys, 20T tilt trailer

Fires: 1979-2007 MT - Cayuse Complex, Chippy Creek, Dry Fork

References: Jim Pucket, USFS, Eureka; Ralph Gilderman, USFS, Murphy Lake; Brian Manning, MT-DNRC, Stillwater Station, MT

STOCK PHOTO

DOZER / TRACK SKIDDER

1979 CAT D6, partial screen cab, ROPS, forestry sweeps, angle blade

Attachments: grapple, lights

STOCK PHOTO

SUPER-SKIDGINE

1998 John Deere 1010B, 6-wheel, 22 ft boom reach, enclosed cab with screens, FOPS, sweeps

Attachments: 2000 gal certified tank, pump, 250 ft live reel, track bands, chains, water cannon, 200 ft hose, lights

STOKEN LOGGING, INC. (cont.)

STOCK PHOTO

GRADER

2001 CAT 14E, 140 hp, articulated, enclosed cab

Attachments: ripper, 14 ft mow blade, lights

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE (2)

2001 Timbco 445D / 2004 Timbco 445EXL, self-leveling cab, 24 ft boom

Attachments: 24” high speed disc hot saw, lights

STOCK PHOTO

LOADER, FRONT END

1980 CAT Wheel Loader 930, rubber tire, ROPS, enclosed cab

Attachments: 1.3 yd bucket, lights

STOCK PHOTO

SKIDDER , WHEEL (3)

2002 / 2004 CAT 525B Rubber Tire Skidder
Attachments: grapple, lights, chains

1980 CAT 518, partial screen cab
Attachments: 100 ft winch with arch

STOCK PHOTO

LOG LOADER (2)

2002 CAT 312C + 2004 CAT 320B, off-road swing machines, 30 ft reach
Attachments: log grapple, lights

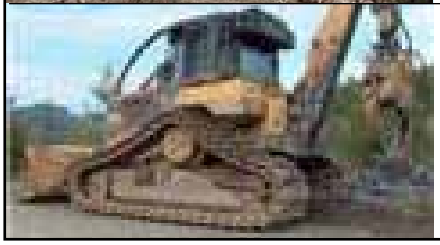
STOCK PHOTO

HARVESTER, STEEP SLOPE (3)

2002 Timbco 425, enclosed self-leveling cab, 30 ft boom reach
2005 Timbco 425 Exl, enclosed self-leveling cab, 30 ft boom reach
2006 CAT 320C Excavator, 30 ft boom reach

Attachments: 20” + 24” dangle head harvester/processer, lights

STOCK PHOTO



DOZER / TRACK SKIDDER (2)

2003 CAT 527, 6-way blade and 2004 CAT 527 High Track, enclosed cab, FOPS/ROPS/OPS, sweeps, 6-way blade

Attachments: swing grapples, lights

St. Onge Logging, Inc.

Kevin St. Onge, Bob St. Onge
P.O. Box 2075
Kalispell, MT 59903-2075
406-257-3088
406-261-8456 Kevin
406-261-2038 Bob
406-257-0018 fax
stongelogging@centurytel.net

Dispatch: Kalispell, MT

Business Detail: EERA

Transport: 50T lowboy

Fires: MT 2000-2007 Moose Creek, Blackfoot, Chippy Creek, Bald Hills, Wedge, Roberts, Brush Creek, Stryker Ridge, North Lost, Sunday Creek, Scout Lake, Huckleberry Mountain, Gardenwall, Jete Mountain, Crazy-horse, Tear Drop, Red Owl, Challenge Creek, Ahorn, Sun Dog

References: Pete Sigmund, MT-DNRC, Kalispell, MT; Tony Willetts, USFS, Flathead

SKIDDER, WHEEL (5) Type 1

1978 + 1983 CAT 518 Rubber Tire Skidder, partial screen cab, FOPS, sweep guards, light-duty blade
Attachments: 100 ft winch with arch, lights, tire chains

2002 + 2004 John Deere 648G3 Rubber Tire Skidder, FOPS/ROPS/OPS, enclosed cab, light-duty blade, sweep guards
Attachments: grapple, lights, tire chains

2007 John Deere 648H Rubber Tire Skidder, FOPS/ROPS/OPS, enclosed cab, light-duty blade, sweep guards
Attachments: grapple, lights, tire chains

EXCAVATOR

1995 CAT 325L tracked swing machine, 156 hp, 50,000 lbs, ROPS, enclosed cab, guards

Attachments: lights, bucket with thumb

EXCAVATOR / LOG LOADER (2)

2005 John Deere 2054 track swing machine, enclosed cab, 37 ft boom, high clearance 4 ft
Attachments: log grapple, live reel, lights

St. Onge Logging, Inc. (cont.)


Dangle Head Delimber


Stroke Delimber

PROCESSOR (4)

2006 Daewoo SL225LL Dangle Head Processor
Attachments: 28" Waratah harvester/processer head, lights

1995 Komastu 0752-DMW7 Tracked Stroke Boom Delimber, 45 ft reach
Attachments: 30" Boom Delimber

2002 John Deere 2054 Track Swing, 25 ft boom
Attachments: 28" processor head, lights

1999 Denarco Tracked Stroke Boom Delimber, 45 ft reach
Attachments: 30" capacity, lights

DOZER / TRACKED SKIDDER (3) Type 2

1974 CAT D6C Dozer, partial screen cab, FOPS/ROPS, forestry sweep guards, angle blade
Attachments: 100 ft winch with arch, lights

1973-977 CAT D6C Dozer, partial screen cab, FOPS/ROPS, sweeps, angle blade
Attachments: grapple, lights

SHOVEL LOG LOADER (2)

2005 John Deere 2054 track swing machine, enclosed cab, 37 ft boom, high clearance 4 ft.
Attachments: log grapple, liver reel, lights

2008 Shovel Log Loader

FELLER BUNCHER, STEEP SLOPE (3)

2004 Timco 445 Tracked Feller Buncher, enclosed self-leveling cab, 24 ft boom
2000 Prentice 622B, enclosed self-leveling cab, 24 ft boom
2006 John Deere 759G Tracked Feller Buncher, enclosed self-leveling cab, 24 ft boom

Attachments: all have 22" hot saws

Sun Mountain Logging

Rex Anderson
P.O. BOX 389
Deer Lodge, MT 59722
406-560-0382
406-846-3799
406-846-3714 fax
majesticmtnlogging@hotmail.com
www.sunmtnlumber.com

Dispatch: Dillon, MT

Business Detail: USFS, BIA, BLM, Montana DNRC

Transport: contractor provided low-boys

Fires: 1976 – present MT

References: Obie O'Brien, USFS, Helena, MT

SKIDDER / SUPER-SKIDGINE, WHEEL Type I

2003 CAT 535B Rubber Tire Skidder, 200 hp, 37,300 lbs, light-duty blade, enclosed cab, sweep guards, FOPS/ROPS/OPS

Attachments: 1100 gal capacity, 2 detachable water tanks, 2 pumps, 2 hose reels, hoses

DOZER Type I

1997 CAT D7R, 240 hp, 57,000 lbs, enclosed cab, ROPS, sweeps

Attachments: 12 ft U-blade, rippers, lights

T & N Enterprises

Tony M. Hulett
P.O. Box 965
Swan Valley, MT 59826
406-754-2959
406-210-3003
wanemah@blackfoot.net

Dispatch: Kalispell, MT

Business Detail: EERA, Federal and State contracts

Transport: truck and trailer, 35T, 22 ft deck

Fires: 1980s-2008 Brushy Creek, Bald Hill, Jocko Lakes, Lindbergh Lake, Challenge Creek, Sunset, Meadow Lake fires (partial list)

References: Bruce Timpano, Pyramid Mountain Lumber, 406-677-2710, Tony Willits, Flathead NF, 406-253-1507, Dan Roberson, Swan River State Forest, 406-754-2301

EXCAVATOR Type 2

2001 200LC John Deere, 111-155 HP, 25 ft boom, FOPS, enclosed cab

Attachments: bucket with thumb, lights

SKIDSTEER / MULCHER, STRIP

2009 Caterpillar 299C-ACHF Rubber Track Loader, enclosed cab, screens

Attachments: 6-way blade, bucket, 6 ft horizontal carbide tooth mulcher with push bar

TBC Timber, Inc.

Paul Tisher
Paul Brown
P.O. Box 1490
Libby, MT 59923-1490
406-293-7536
406-293-7596 fax

Dispatch: Libby, MT

Business Detail: Best Value, EERA

Fires: Brush Fire near Whitefish, Jocko Lakes, Chippy Fire, Meriwether and many more project fires. In addition, we have responded to numerous initial attacks around the Libby areal; were involved in the first stewardship fuels reduction project on the Kootenai Forest

References: O.B. O'Brien, Don Crawford, Kevin Erickson, Smitty Smith, John Shotzberger, Bob Sandman, Bill Caldwell

SUPER-SKIDGINE Type 1

Super Skidgine, Type I, TimberJack 1010 6-wheel Forwarder, enclosed cab, 25 ft boom

Attachments: 2500 gal tank, pump, 300 ft live hose reel, end dump, 5 ft hydrant hookup, live nozzle on boom, lights

FELLER BUNCHER, STEEP SLOPE (3) Type 1

2003 + (2) 2000 Timbco T445D Tracked Feller Bunchers, self-leveling enclosed cabs, 24 ft booms

Attachments: 22" high speed disc saws, lights

SKIDGINE, WHEEL (2) Type 2

1998 John Deere 648G Rubber Tire Skidgines (2), enclosed cab, FOPS/ROPS, sweeps

Attachments: 300 gal tank, 300 ft live hose reel, draft capable, pump, lights, tire chains

STOCK PHOTO

DOZER / TRACK SKIDDER (2) Type 2

1998 + 2002 CAT 527 Track Skidders, 166 hp, enclosed cabs, FOPS/ROPS/OPS

Attachments: swing grapples, lights

EXCAVATOR / LOG LOADER/TONG TOSSER, STEEP SLOPE

1995 Timbco T445BB Tracked swing carrier, enclosed self-leveling cab, FOPS, 22 ft boom

Attachments: log grapple, tong throwing cable drum, slack kicker + tongs

Note: 200 ft reach for logging steep slopes and broken ground

EXCAVATOR, STEEP SLOPE

1991 Timbco T430 tracked swing carrier, self-leveling enclosed cab, FOPS, forestry guards

Attachments: bucket with thumb, lights

TBC Timber, Inc. (cont.)

STOCK PHOTO

SKIDDER, WHEEL (4) Type 1

1998 John Deere 648G, grapple, enclosed cab, FOPS/ROPS, sweeps
2002 John Deere 648G, grapple, winch, enclosed cab, FOPS/ROPS, sweeps
2004 CAT 535C, grapple, winch, enclosed cab, FOPS/ROPS, sweeps
2006 CAT 535C, grapple, enclosed cab, FOPS/ROPS, sweeps
Attachments: light-duty blade, lights

Ten Lakes Forestry and Excavation, Inc.

Wayne Finch
P.O. Box 1074
Eureka, MT 59917
406-253-4082
406-297-3114
406-297-7541 fax
tenlakesforestry@hotmail.com

Dispatch: Libby, MT

Business Detail: EERA

Transport: Class TR9 lowboy/transport, 1984 Mack R754S tractor with 1994 Dynaweld detachable gooseneck trailer

Fires: 1988-2005 MT - Dry 3 Mile, Camp Creek, Pink-Stone, Camp 32, Fish Creek

References: Ron Hvisdak, retired FMO Rexford Ranger, Kootenai NF, Eureka, MT; Ed Farruzzi, USFS, Kootenai NF, Murphy Lake; Mike Justice, MT-DNRC, Libby, MT

EXCAVATOR / PROCESSOR

1999 CAT 312BL tracked swing machine, 88 hp, forestry guarded enclosed cab, screens, 25 ft boom

Attachments: bucket with thumb, 18” log processing dangle head, lights

DOZER / TRACK SKIDDER

1998 CAT 527 Tracked Skidder, FOPS/ROPS/OPS, enclosed cab, forestry sweep guards, screens

Attachments: 6-way blade, swing boom grapple, 30 ft pad, lights

EXCAVATOR Type 3

1998 Kobelco Sk150LC Tracked Excavator, 100 hp, forestry guarded enclosed cab, 28 ft boom

Attachments: bucket with thumb, brush rake, lights

SKIDDER, WHEEL

1997 Timberjack 460D, FOPS/ROPS/OPS, enclosed cab, forestry sweep guards, light-duty blade

Attachments: swing grapple, tire chains, lights

Timberlake Landworks and Excavation

Mike Wilson
Caleb Bonny
P.O. Box 645
Lakeside, MT 59922
406-844- 3965
406-249-1604 c (Mike)
406-471-8170 c (Caleb)
406-844-3965 fax
mike@timberlakelandworks.com

Dispatch: Missoula, MT

Business Detail: EERA

Transport: 32T lowboy, 12T lowboy

Operators: All operators have current BMP/SMZ training

Fires: 2007 Brush Creek Fire Montana

References: Kevin Grodi, Oscola NF, FL; Michael Dunn, Grangeville Air Center, ID

STOCK PHOTO

EXCAVATOR / LOG LOADER (2) R1 Type 2 / R6 Type 3

2007 John Deere 160C LC Tracked Excavator, enclosed cab, forestry guards, 28 ft boom

Attachments: bucket and thumb, log grapple

SKIDSTEER / MULCHER

2008 Bobcat T320 rubber track skid-steer loader, 93 hp, 10,000 lbs, enclosed cab, 6-way dozer blade
Attachments: 5 ft horizon shaft drum mulcher with carbide tip teeth, brush rake / grapple, bucket

SKIDDER, WHEEL R1 Type 1 / R6 Type 3

1995 CAT 518C Rubber Tire Skidder, enclosed cab, forestry sweeps, screen guard, FOPS, light-duty blade

Attachments: 2-way grapple, 100 ft 5/8” cable winch, tire chains, lights

EXCAVATOR / LOG LOADER R1 Type 4 / R6 Type 3

2007 John Deere 75C, 6-way dozer blade, enclosed cab, forestry guards, 28 ft boom

Attachments: bucket with thumb, log grapple

EXCAVATOR / FELLING SHEAR Type 3

2007 CAT 314C LCR Tracked Excavator, enclosed cab, forestry guards, 28 ft boom, 6-way blade

Attachments: bucket and thumb, tree shear

Tough Go Logging, Inc.

James J. Stupack
Jennie M. Stupack
695 Lore Lake Rd
Kalispell, MT 59901
406-257-7141
406-253-2227 James
406-253-1944 Jennie
406-257-0204 fax
toughgoturf@centurytel.net

Dispatch: Missoula, MT

Business Detail: EERA

Transport: company provided

Fires: 2000-2008 MT - Dahl Lake, Werner Peak, Moose, Fox Creek, Wedge, Blackfoot Complex, Ahorn, Derby, Crazy Horse, Brush Creek, Deep Draw

Fuels Reduction: Blankenship Fuels Stewardship Flathead NF, Hungry Horse-West Glacier Fuels Stewardship, Blankenship Fuels Stewardship, Pierce Fuels Stewardship, Holland Fuels Stewardship

References: USFS - Wally Bennett, James Barnett, Mike Shira; DNRC - Bill Glaspey, Pete Siegmund, Dave Jones, Dave Ring

FELLER BUNCHER, STEEP SLOPE (2)

2002 Timbco 445E Tracked Feller Buncher (Type 1), 300 hp, self-leveling enclosed cab, 24 ft reach
Attachments: 22" high speed disc hot saw, lights

1990 Timbco 430 Tracked Feller Buncher (Type 2), 174 hp, self-leveling enclosed cab, 24 ft reach
Attachments: 28" bar saw

STOCK PHOTO

EXCAVATOR Type 2

1996 Hitachi 200 LC-3 Tracked Excavator, 150 hp, enclosed cab, 18 ft reach

Attachments: 42" bucket, progressive thumb, lights

STOCK PHOTO

SKIDGINE, WHEEL (2) R1 Type 1 / R6 Type 3

1984 CAT 518C Wheel Skidder, light-duty blade, screened cab, FOPS/ROPS
Attachments: 1170 gal tank, pump, hose reel, lights

1978 CAT 518C Wheel Skidder, light-duty blade, screened cab, FOPS/ROPS
Attachments: 500 gal tank, pump, hose reel, chains, lights

SKIDDER, WHEEL (4) R1 Type 1, R6 Type 3

1984 CAT 518C, swing grapple, light-duty blade, screened cab
1996 John Deere 648, grapple, light-duty blade, enclosed cab
1998 John Deere 648 II, grapple, light-duty blade, enclosed cab
2000 John Deere 648 III, grapple, winch, light-duty blade, enclosed cab

Attachments: tire chains, lights, forestry sweeps and screens

EXCAVATOR / MULCHER (2) Type 2

2006 Hitachi ZX200 LC-5, 150 hp, woods cab guarded, 26 ft reach
Attachments: 5 ft horizontal shaft chipper head

2007 Hitachi ZX200 LC-5, 150 hp, woods cab guarded, 26 ft reach, 90 degree wrist
Attachments: 5 ft horizontal shaft mulching head, 90 degree wrist, debris hooks

Tough Go Logging, Inc. (cont.)

STOCK PHOTO

PROCESSOR (3)

1996 Kobelco 200 Mark IV, 150 hp, woods guarded, Denharco 3000 stroke delimber, 24 ft boom

2004 CAT 320CFM, 150 hp, woods guarded, Log Max 7000 dangle head harvester, 20 ft boom

2007 CAT 320CFM, 150 hp, woods guarded, Log Max 7000XT dangle head harvester

STOCK PHOTO

DOZER / TRACK SKIDDER (3) Type 2 and 3

1971 Allis-Chalmers HD-16B (R1 Type 1, R6 Type 2), angle tilt dozer, rippers
1979 CAT D6D (Type 2), angle tilt dozer, winch and arch, brush rake
2002 John Deere 450J (Type 3), 6-way blade, rippers, enclosed cab

Attachments: lights

Western Reclamation, LLC

Ken Verley
Willie Peck (Manager)
506 Quartz Loop
Superior, MT 59872
406-822-4544
406-239-8074 c (Ken)
406-822-2536 c (Willie)
406-822-4546 fax
kdv@blackfoot.net

Dispatch: Missoula, MT

Business Detail: EERA, stewardship and hazardous fuels reduction projects

Transport: 3 lowboys (2-30T, 1-20T)

Fires: 1970-2008 MT / WA / ID / WY / NM / CA - MT 2007 Black Cat, Jocko Lakes, CA, 2008 Cub Complex
Fuels Reduction: MT - Frenchtown Face, Second Rabbit with Mayo, Cherry Fuels, Knox Brooks, Game Range

References: Rod Blessing, USFS, Lolo NF, Missoula, MT; Angelo Verarus, Tricon Timber, St. Regis, MT; Shawn Thomas, MT-DNRC, Plains, MT; Dave Olson

SKIDGINE , WHEEL R1 Type 1 / R6 Type 2

2003 Timberjack 460 Rubber Tire Skidder, enclosed cab, FOPS/ROPS, sweep guards

Attachments: 250 gal, pump, live reel, tire chains, lights

EXCAVATOR (3) Type 3
1996 CAT 312BL Tracked Excavator, enclosed cab, 26 ft boom
1998 CAT 312B Tracked Excavator, enclosed cab, 26 ft boom
Attachments: clamshell bucket, lights

1998 CAT 320, enclosed cab, 33 ft reach
Attachments: bucket with thumb, lights

Western Reclamation, LLC (cont.)

DOZER / PUMPERCAT Type 2

1998 CAT D5M Dozer, 110 hp, 30,000 lb, 6-way blade, enclosed cab, FOPS/ ROPS

Attachments: 250 gal water tank, pump, hose reel

STOCK PHOTO

DOZER Type 1

1980 CAT D8H, partial screen cab, forestry sweeps

Attachments: angle blade, rippers

STOCK PHOTO

GRADER (2)

1989 CAT 14G, enclosed cab
Attachments: 16 ft mow board, rippers, lights

1975 Champion 120
Attachments: 14 ft mow board, scarifier, lights

STOCK PHOTO

LOG LOADER

1990 CAT 320 Tracked Loader, enclosed cab, FOPS, forestry guards, 35 ft boom

Attachments: log grapple, lights

FELLER BUNCHER, STEEP SLOPE Type 1

2008 Timbco 445EXL, 24 ft boom, enclosed self-leveling cab, FOPS

Attachments: 22” high speed disc saw, lights

Woodland Restoration, Inc.

Matt Arno
Nathan Arno
P.O. Box 956
Potomac, MT 59823
406-544-1842
406-244-5858
matt@woodlandrestoration.net
www.woodlandrestoration.net

Dispatch: Missoula, MT

Business Detail: signed up under EERA for Enhanced Forest Management

Fires: Novak 2007, Black Mountain 2003

IN-WOODS CHIPPER

Bandit 250xp mounted on Timberjack 1270 carrier, 12” capacity; chipper is fully automated with all functions controlled by operator in the cab; self feeding, only requires operator in cab

FORWARDER

Timberjack 1210B, 8-wheel, 15T capacity, enclosed cab, light-duty blade

Attachments: 24 ft boom, lights

HARVESTER

Timberjack 1270 cut-to-length, 25 Inch capacity on the stump; fells, processes trees at the stump and drives on slash

FORWARDER

Valmet 840, 8-wheel, 13T capacity, enclosed cab, light-duty blade

Attachments: 24 ft boom, lights

ACW, Inc.

Andy Root
524 Hwy 20 N
Hines, OR 97738
541-589-0107
541-573-3615
541-573-3419 fax
shelleyj@acwinc.net

Dispatch: John Day, OR

Business Detail: EERA, federal and private contracts

Transport: contractor provided, 50T lowboy, 50T beavertail

Fires: Egley Complex, Juniper Reservoir, Spear Spring, Silvies River, Steens, Maxwell, Irish Springs, Bellows Creek, Coleman

DOZER (2) Type 2

2003 John Deere 850C, 180 hp, enclosed cab
2001 John Deere 750C, enclosed cab

Attachments: 6-way blade, 3 shank ripper, lights

STOCK PHOTO

EXCAVATOR (2) Type 3

1999 John Deere Tracked Excavator, enclosed cab, 30 ft boom
1996 John Deere 690E Tracked Excavator , enclosed cab, 30 ft boom

Attachments: bucket with thumb

STOCK PHOTO

SKIDDER, WHEEL

CAT 518 Rubber Tire Skidder, enclosed cab, FOPS/ROPS, light-duty blade

Attachments: grapples, tire chains, lights

STOCK PHOTO

GRADER Type 3

1987 John Deere 670B Motor Grader, enclosed cab

Attachments: tilt angle blade, rippers

Cascade Brush Clearing

Richard Brown
2660 NE Hwy 20, TMB 330
Bend, OR 97701
800-276-5112
541-322-0842
541-610-1909 fax
info@cascadebrush.com
www.cascadebrush.com

Dispatch: Prineville, OR

Business Detail: BLM 4-yr IDIQ, USFS-EERA, BIA, CAL FIRE, DNR

Transport: Peterbilt hooklift lowboy 35T with flatbed

Fires: 2008 Fires: Red King, Rattle, OR; Panther, CA.

References: David Reed, BLM (541-683-2237); Michael Cuttler, USFS (41-783-4001); LA County Fire Dept Capt. Drew Smith (818-952-6469), Mowawk Rural Fire Dept; Chief Dennis Shew (541-933-2907).

SKIDSTEER / MULCHER Type 3

2006 Rayco 100L steel track Skidsteer loader, 110 hp, enclosed cab with screens

Attachments: 6-way dozer blade, grapple, mowing head, 5 ft carbide teeth horizontal shaft mulching head with tree pushbar, winch with arch, 20 gal foam unit, lights

MULCHER, STRIP

2009 Fecon FTX 148 Steel Track Dozer, 142 hp, 18,000 lbs, enclosed cab, FOPS/ROPS/OPS, screens

Attachments: 7 ft wide horizontal shaft carbide teeth mulching head, powered by auxiliary motor, lights, backup camera

Gary R. Wright Contracting, Inc.

Gary R. Wright
66982 Miller Lane
Union, OR 97883
541-962-5789 c (Gary)
541-562-5097
541-562-5097 fax
grwrightinc@eoni.com

Dispatch: LaGrande, OR

Business Detail: EERA

Transport: company trucks and trailers

Fires: 2007 Monument Complex, Potters Creek; 2006 Fly Fire, Twin Lakes Complex; 2005 Spring Creek, School Fires

References: Woody Wright WWNF, Jamie Knight ODF; Rick Wagner ODF, Mitch Williams ODF.

EXCAVATOR / FELLER BUNCHER, STEEP SLOPE Type 1

1997 Timbco T445-C, Tracked Feller Buncher, self-leveling enclosed cab, FOPS/OPS, 24 ft reach

Attachments: 28” bar saw, 38” digging bucket, lights

SKIDDER, WHEEL Type 2

2005 Prentice 490/950 Rubber Tire Skidder, enclosed cab, FOPS/ROPS, sweep guards, light-duty blade

Attachments: grapples, tire chains, lights

DOZER / TRACK SKIDDER Type 3

1986 CAT D4H Dozer, screen cab, screens, FOPS/ROPS, sweep guards

Attachments: 6-way blade, fixed grapple, ligh

STOCK PHOTO

HARVESTER, STEEP SLOPE Type 1

1994 Timbco T425-C Tracked Processor, self-leveling enclosed cab, FOPS/OPS, 24 ft boom

Attachments: 24” diameter bar saw, felling/processing dangle head, lights

EXCAVATOR / MULCHER Type 2

2007 Daewoo S175-Z Tracked Excavator, enclosed cab, FOPS/ROPS/OPS, 30 ft reach

Attachments: 4 ft vertical shaft mulching head, hydraulic thumb and 2 buckets

HORIZON DEVELOPMENT, INC.

Steve Bieker
P.O. Box 296
Clackamas, OR 97015
503-519-0513
503-761-0689
stevebieker@yahoo.com

Dispatch: Umatilla, OR

Business Detail: EERA

Fires: 2002-2009 OR/CA/WA - Battle Creek Complex, Columbia Complex, Tripod Complex

References: Jeff Tanasse, Gifford Pinchot NF, Vancouver, WA; Peggy Patton, Umatilla NF

SKIDSTEER /SKIDGINE, WHEEL , REMOTE CONTROL (1) R 1 Type 2
SKIDSTEER /SKIDGINE, WHEEL (5)

2005-2008 Bobcat A300 Rubber Tire Skidsteer Skidgines, 70-81 hp, 7992 lbs, enclosed cab

Attachments: 400 gal detachable tank, water monitor, foam, log grapples, loading forks, bucket, 5 ft horizontal axle mulching head

Note: wireless remote control up to 1500 ft on the 2008 unit

Mike Hutton

Mike Hutton
Justin Hutton
44487 Duby Road
Baker City, OR 97814
541-519-2626
541-519-6125
541-523-5952 fax
justinhutton@msn.com

Dispatch: LaGrande, OR

Business Detail: EERA

Transport: trucks and 35T lowboy

Fires: 1996 – 2008: Summit, Maggie Creek, Jackies Butte, Wolf Creek, Morgan Mountain, Cavanah, Mosier Creek, Bowl, Biscuit, Sheldon Ridge, Cottonwood, Winter, Meadow, Fish Creek Complex, Boles Meadow, Monument Complex, Elk Creek, Sumpter Valley, Egley Complex, Summit Springs, Bellow Creek, Panther, Tipton, Bulger Flat.

References: John Miller, VA Dpt. Forestry; Carl Beganson, BLM-WY; Mike Farbed, Apache Vol. Fire District, AZ; ID Dpt. Lands; Michael Simmons, Deschutes NF; OR Dpt. Forestry; BLM, AK Fire Service.

SKIDDER, WHEEL R 1 Type 1 / R 6 Type 3

John Deere 648 Rubber Tire Skidder, enclosed cab, FOPS/ROPS, sweep guards, light-duty blade

Attachment: grapple, lights, tire chains

DOZER / TRACK SKIDDER Type 3

1993 John Deere 650 Dozer, 105 hp, partial screened cab, FOPS, sweep guards

Attachment: brush blade, winch with arch

Mike Hutton (cont.)

HARVESTER

1991 Hitachi Tracked Excavator, enclosed cab, FOPS, 25 ft boom

Attachment: Keto 150 processing head (21” max. diam.)

HARVESTER R 1 Type 1

2002 Neuson MHT steel track swing to tree harvester, enclosed cab, FOPS/OPS

Attachment: 26” max. diameter harvester processor (dangle) head, lights

FELLER BUNCHER Type 1

1995 John Deere 590, Track Mounted Excavator

Attachment: 22” Roto saw

STOCK PHOTO

HARVESTER

1999 Daewoo 170 Track Excavator, 24 ft boom

Attachment: 20” diameter felling processing head, bar saw, lights

Integrated Resource Management

Marc Barnes
P.O. Box 547
Philomath, OR 97370
541-929-3408
775-535-4364 fax
marc@irmforestry.com
www.irmforestry.com

Dispatch: Philomath, OR

Business Detail: USFS Deschutes NF – Head Stewardship Project

Transport: truck and trailer

SKIDSTEER / FELLING SHEAR / MULCHER / SKIDDER (4)

2006 Takeuchi TL150 Rubber Track Skid-steer Loader

Attachments: 5 ft horizontal shaft brush cutter, 14” tree shear, grapple/rake, skidding grapple, log skidding winch, 8” wood chipper

James E. Woodward, Inc.

James E. Woodward
16089 Hwy 26
Mitchell, OR 97750
541-462-3200
541-462-3400 fax
woodward4321@hotmail.com

Dispatch: Prineville, OR

Business Detail: EERA

Transport: 3 lowboys (40T, 2-50T)

Fires: 1995-2007 Wildland fires in CA, OR, WA

References: Turner Slater, Ranger, Ochoco NF-Rager RD; Kevin Donham, FMO, Ochoco NF; John Fischer, BLM Bayview, OR

EXCAVATOR Type 3

1994 CAT 312L, enclosed cab, FOPS, screens, 30 ft boom reach

Attachments: bucket and thumb, brush rake with thumb, lights

SKIDGINE, WHEEL

1984 CAT 518G Rubber Tire Skidder, partial screened cab, FOPS/ROPS, sweeps, light-duty blade

Attachments: 1000 gal water tank, 250 ft hose on live reel, lights

DOZER / TRACK SKIDDER Type 2

1971 International TB15B, forestry sweeper guard package, cab FOPS/ROPS

Attachments: 1 ¼" 75 ft cable logging winch, tilt blade, lights.

SKIDGINE, SOFT TRACK (2) Type 1

FMC Soft Track Skidgine, 200-210 fwhp, partial screened cab, FOPS/ROPS, sweeps, light-duty blade

Attachments: 1200 gal certified tank, 300 ft hose on live reel, pump, lights

Jeff Wessel dba Jeff and Billi Wessel

Jeff Wessel
541-891-2551
541-353-2259
P.O. Box 162
Bly, OR 97622
wesselbly@gmail.com

Dispatch: Lakeview, OR

Business Detail: EERA

Transport: lowboy

Fire: 30+ yrs

DOZER Type 2

John Deere 855, sweeps, enclosed cab

Attachments: 10 ft 6-way blade, lights, back up alarm

John F. Richmond Contracting, Inc.

John Richmond
P.O. Box 27
Bly, OR 97622
541-891-0745

Dispatch: Lakeview, OR

Business Detail: EERA, road building, reforestation, river restoration, logging, fire rehab, site prep

Transport: 1998 KW transport with 50 Ton detatchable lowbed

Fires: 1968-2008

EXCAVATOR (2) Type 3

CAT EL200B Tracked Excavator, enclosed cab, 35 ft boom
Attachments: buckets with thumbs, log grapple, lights

2001 CAT 315L Tracked Excavator, enclosed cab
Attachments: Bucket with thumb, lights

DOZER Type 2

CAT D6C, forestry sweeps, FOPS/ROPS, partially screened cab
Attachments: angle blade, rippers

John F. Richmond Contracting, Inc. (cont.)

DOZER Type 2

CAT D6C, forestry sweeps, FOPS/ROPS, partially screened cab
Attachments: angle blade, rippers

DOZER Type 1

CAT D7G, forestry sweeps, FOPS/ROPS, partial screened cab

Attachments: "U" blade, rippers

LOADER, FRONT END

CAT 950 B, Rubber Tire Front End Loader

Attachments:

GRADER (2)

CAT Road Grader, enclosed cab
John Deere Road Grader, enclosed cab

Attachments: 14 ft mowboards and rippers

SKIDSTEER / LOADER , TRACK

CAT 257B Rubber Track Skidsteer, enclosed cab

Attachments: brush bucket, angle blade, lights

Jon Greenup Logging

Jon P. Greenup
(Owner/Operator)
60071 Hanna Arbuckle Rd
Heppner, OR 97836
503-793-9414
541-969-6885
503-630-2595 fax
greenupent@rconnects.com

Dispatch: Pendleton, OR

Business Detail: EERA

Transport: Trucks and trailers, 50T lowboy

Fires: 2007 Sharps Ridge Meadowbrook, OR. 2008 Ukiah Complex Ukiah, OR. 2008 Lime Complex Hayfork, CA. 2007-Present Line Logging fuel reduction, Umatilla NF. 2008-Present Ground Logging fuel reduction., Umatilla

References: Scott McDonald and Gary Dillavou, Umatilla NF

SKIDGINE, SOFT TRACK

1978 FMC Soft Track Skidgine, partial screened cab, FOPS/ROPS, sweeps, light-duty blade

Attachments: 1500 gal tank, pump, reel, blade, lights

STOCK PHOTO

FORWARDER

1996 Rottne 6-wheel Forwarder, 17T capacity, 26 ft boom, enclosed cab, light-duty blade

Attachments: log bunks, log grapple, lights

STOCK PHOTO

EXCAVATOR / HARVESTER R 1 Type 2 / R 6 Type 3

2005 CAT 320C Excavator, 165 hp, enclosed cab, ROPS/OPS, 32 ft boom

Attachments: harvester dangle head processor, 36” and 24” buckets with thumbs

STOCK PHOTO

SKYLINE YARDER / YODER (2)

1998 CAT 330B Track Loader set up as a Skyline Yarder with motorized carriage (Yoder): 2 drums 1200 ft 5/8” skyline and 1200 ft 5/8” mainline (both swedged)
Attachments: 2 drums (1100 ft)

1998 CAT 330B Tracked Loader set up as a Skyline Yarder (Yoder), motorized carriage, 2 pullmaster drums, ACME 10 carriages
Attachments: 2 Pullmaster drums (1200 ft skyline, 1200 ft mainline), motorized carriage, boom-mounted fair lead blocks

Note: 1000 ft external yarding distance

Mark Rector

Mark Rector
P.O. Box 336
Powers, OR 97466
541-439-4901
541-439-3591

Dispatch: Medford, OR

Business Detail: EERA

Transport: lowboy available

Fires: 2000-2008 OR and CA

References: Rich "Mac" MacDonald, Powers RD, Siskiyou NF; Robin Wills, Fire Ecologist, Oakland, CA; Rick Rader, Fire Operations Supervisor, Winemuca, NV (775-964-1042).

DOZER / TRACK SKIDDER / PUMPER-CAT Type 1

CAT D7 Dozer, 175 hp, partial screened cab, FOPS/ROPS, angle blade

Attachments: 1500 gal water tank with live reel, foam unit, winch

Note: Tank is self-supporting, attach and detachable on the line.

Miller Timber Services, Inc.

Dan Mace
P.O. Box 638
Philomath, OR 97370
541-929-2840
541-740-4338
541-929-4489 Fax
dan@millertimber.com
www.millertimber.com

Dispatch: Eugene, OR

References: Heidi Cleveland

Business Detail: EERA, Best Value

Transport: Company owned/operated lowboy, 50 Ton transport.

Fires: 1994-2008 OR and WA, Noisy 2008

HARVESTER

2005 Ponsse Ergo 6-wheel Harvester, 250 hp crane, 32 ft reach

Attachments: harvester head (Ponsse H73)T for tree diameters up to 27.5”

STOCK PHOTO

SKIDDER, WHEEL R 1 Type 1 / R 6 Type 2

1997 Timberjack 460 Rubber Tire Skidder, enclosed cab, FOPS/ROPS/OPS, sweep guards

Attachments: swing boom grapple, lights

DOZER / TRACK SKIDDER Type 2

2004 CAT 517, 130 hp, 6-way blade, FOPS/ROPS/OPS, sweeps

Attachments: lights, swing grapple

FORWARDER / SUPER-SKIDGINE

2005 18T 8-wheel Ponsse Buffalo King Forwarder, 250 hp, weight 40,786 lbs, crane with 31 ft reach

Attachments: steel track bands, 2,000 gal detachable water tank

STOCK PHOTO

EXCAVATOR (2) R 1 Type 1 / R 6 Type 2

2001 John Deere 230LC, enclosed cab, FOPS, 34 ft reach
Attachments: clamshell rake

2000 Hitachi 330, enclosed cab, FOPS, 30 ft reach
Attachments: bucket and thumb

Miller Timber Services, Inc. (cont.)

DOZER / TRACK SKIDDER Type 2

John Deere 850B Dozer, straight blade, partial screened cab, FOPS/ROPS

Attachments: lights, arch winch

SKYLINE YARDER

Rubber Tire Tractor Mounted Koller;
k300T tower yarder
24 ft tower, 2 drums, 1200 ft external yarder distance
Attachments: Kollar locking carriage

Note: comes with 3-person crew

NW Eco Mulching & Mowing

Michael Sellers
19520 Rudi Rd
Bend, OR 97701
541-480-3663
info@nwecomulching.com

Dispatch: Bend, OR

Business Detail: EERA, Oregon Dept. Foresty

Transport: 10T gooseneck trailer

Fires: 2008 OR

SKIDSTEER / MULCHER

2007 Takeuchi Rubber Track Loader, 100 hp, 14,500 lbs, cab canopy

Attachments: 5 ft horizontal shaft carbide teeth mulcher, push bar, winch

O'Rorke Logging

Charlie O'Rorke
Jan O'Rorke
P.O. Box 670
John Day, OR 97845
541-820-4335
541-820-4530 fax

Dispatch: John Day, OR

Business Detail: EERA, Oregon Dept. Forestry

Transport: 60T lowboy

Note: only available for OR

Fire: 25+ years, OR

STOCK PHOTO

SKIDDER , WHEEL Type 2

John Deere 648E Rubber Tire Skidder, enclosed cab, FOPS/ROPS, sweep guards, light-duty blade

Attachments: grapple, lights package

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE Type 1

Timbco 435 Feller Buncher, enclosed self-leveling cab, FOPS

Attachments: 22" hot saw head, lights package

STOCK PHOTO

DOZER (2) Type 2

CAT D5H Dozer, 6-way blade, partially screened cab
Attachments: lights package

CAT D6C Dozer, angle blade, partially screened cab
Attachments: lights package

SISKIYOU LOGGING dba INLAND TIMBER COMPANY

Jim Dougherty
Shane Dougherty
P.O. Box 95
Cave Junction, OR 97523-0095
541-592-4982
541-415-0242 c
541-659-2613 c
inlandtimbercompany@
frontiernet.net

Dispatch: Medford, OR

Business Detail: EERA, hazard trees on State and Federal fires

Transport: 50T lowboy (2)

Fires: : 2000 Clear Creek ID, 2002 Biscuit Fire Complex OR, 2003 Cooney Ridge MT, 2008 Iron Complex and Lime Complex CA, 2008 Horse/ Lonesome OR

References: Joe King, USFS, Siskiyou; Walt Freeman, Walt Freeman Forestry, Cave Junction, OR; Ed Floate, Greyback Forestry, Selman, OR

EXCAVATOR, RUBBER TRACK Type 3

2005 Kubota Excavator, 42 hp, forestry screen, cab canopy, 15 ft reach

Attachments: angle blade, bucket with thumb, lights

STOCK PHOTO

LOG LOADER (2) Type 1

1997 Komatsu PC200LC6L Track Log Loader, enclosed cabs, screened, FOPS, 30 ft booms

Attachments: log grapple with live heel, lights

DOZER / TRACK SKIDDER

1987 John Deere 550 Track Dozer, partial screened cab, 6-way blade, FOPS/ ROPS, sweeps

Attachments: angle blade, brush rake, lights, 100 ft winch

STOCK PHOTO

DOZER / TRACK SKIDDER Type 3

1988 CAT D4H Dozer, enclosed cab, sweep guards, 6-way blade

Attachments: 100 ft winch, grapple, brush rake, lights

SKIDDER, WHEEL

1988 CAT 508 Rubber Tire Skidder, screened cab, FOPS/ROPS, sweep guards

Attachments: 100 ft winch, fixed grapple, lights

Swaggart Enterprises, Inc.

Cecil Swaggart
53818 Bone Point Lane
Ritter, OR 97856
541-421-3861
541-969-9256 c
541-289-1641
541-421-3815 fax
541-289-1642 fax
swaggartent@earthlink.net
chawkins@wsslive.com (Chuck Hawkins, Forester)
www.swaggartenterprises.com

Dispatch: Hermiston, OR

Business Detail: BLM fuels contractor, Hazardous Fuels Reduction contracts, Forest and range restoration

Transport: contractor supplied trucks and lowboys (60T / 65T)

Fires: 30 yrs OR

References: Mitch Mund, OR Forest, John Day, OR; Marilyn Johnson, USFS, Umatilla, Pendleton, OR; Shawn Peterson, BLM, Cedar City, UT

FELLER BUNCHER / MULCHER, STEEP SLOPE (2) Type 1

1998-99 Timbco feller-bunchers, 260 hp, 65,000 lbs, self-leveling cab, FOPS/ROPS/OPS, 24 ft boom

Attachments: 22” hotsaw cutting head, vertical-shaft mulching heads, lights

STOCK PHOTO

MULCHER, STRIP, WHEEL

2001 Hydro-Ax 741E 4-wheel Strip Mulcher

Attachments: 5 ft horizontal-shaft mulching head, winch, lights

STOCK PHOTO

EXCAVATOR / MULCHER

2001 Kobelco 200 Excavator, enclosed cab, screens, guards, 32 ft reach

Attachments: bucket & thumb, rotating brush grapple, horizontal-shaft mulching head.

STOCK PHOTO

DOZER Type 1

1982 CAT D7G, FOPS/ROPS with straight blade, partial screened cab

Attachments: pin-on brush rake, parallelogram 3-tooth ripper, lights

Tom Davis Livestock Inc.

Paul Davis
46008 Alvord Ranch Ln
Princeton, OR 97721
541-495-2240
541-495-2243
541-589-2123 c
208-475-6023 fax
alvordranch@gmail.com

Dispatch: John Day, OR

Business Detail: EERA

Transport: contractor supplied

Fires: B&B Complex, Shake Table complex, Tripod Complex, Grandad Complex, Egley Complex

SKIDGINE, WHEEL
Clark 668 Rubber Tire Skidgine, enclosed cab, forest sweep guards, light-duty blade

Attachments: 840 gal tank, pump, remote controlled monitor, rear water bar, hose reel, lights

Warren Partridge Contracting

Warren or Laurey Partridge
P.O. Box 329
Bly, OR 97622
541-891-8622
530-667-5242
541-353-2202 fax
hotrodlogger@aol.com

Dispatch: Klamath Falls and Lakeview, OR

Business Detail: EERA, Best Value

Transport: custom trucks and lowboys, 2008 60T or 50T Hyster lowboy. Trucks are apportioned in OR/CA/NV/UT

Fires: 1983-2008, CA, OR, Scarface, Robinson Spring, Winter Rim, Toolbox, rehab, many smaller assignments

References: CDF, Danny Benson and Darrin Yazzie ODF Klamath Falls, OR, Bruce Nicholes and Dan Lee USFS Bly OR, Bob Gibbs and Nina Hardin USFS Lakeview, OR

SKIDDER, WHEEL (2)

(2) late model CAT 528, ROPS/FOPS, partial screened cab, forest sweeps

Attachments: grapple, winch, brush blades, lights

DOZER / TRACK SKIDDER (5) Type 2

1975-1980 D6 CAT, ROPS/FOPS

Attachments: lights, angle blade, log / tree grapple, fire curtains

Warren Partridge Contracting (cont.)

DOZER (7)

1992 D5H CAT
Attachments: 6-way blade, enclosed fire cab, rippers

1989 and 1987 D7G CAT
Attachments: angle blade, enclosed fire cab, rippers

1964-1986 D7 CAT
Attachments: angle blade, fire curtains

EXCAVATOR Type 2

1995 Hitachi 200 with 40 ft boom, enclosed cab

Attachments: thumb, bucket, lights

STOCK PHOTO

DOZER / TRACK SKIDDER (3) Type 2

1975-1980 D6 CAT, ROPS/FOPS

Attachments: angle blade, lights, 150 ft 1 inch cable winch with arch, fire curtains

Note: All equipment pulled on 3-axle tilt bed trailer behind water tender.

Artillery Concepts, LLC

Marty Schmoker
12220 Spromberg Canyon
Leavenworth, WA 98826
509-548-6445
509-860-7224
509-548-7611 fax
artilery@crcwnet.com

Dispatch: Wenatchee, WA

Business Detail: EERA

Transport: 4-axle flatbed

Fires: WA - Baily Mountain, Deer Point, Deep Harbor, Green Lake, Tripod

References: All the Washington State Type 2 IC's, and several Type 1 teams from out of state

SKIDGINE, SOFT TRACK (2)

Ex-military aircraft, aluminum armored personnel carrier M113-A2, rear enclosed cargo area, steel tracks with rubber pads

Attachments: live reel, pump, roof-mounted water monitor, lights, includes all components of Type 6 engine, internal 400 gal water tank

Note: suitable for paved road travel, max 45 mph; max slope 60%; side slope 40%

Baker Fire, LLC

Casey Baker
P.O. Box 1091
Tum Tum, WA 99034
509-993-4861
509-496-8537
baker_fire@msn.com

Dispatch: Wenatchee, WA

Business Detail: EERA, R-6 Portland, OR, DNR Colville, WA

Transport: 1989 Kenworth T-800 with lowboy, 80,000 GVW

Fires: 2003 Togo Mountain, 2005 Mill Canyon, 2006 Tripod and Columbia Complex, 2007 Manila Creek, 2008 Spokane Valley and Swanson Lake

References: DNR, Cindy Tonasket; USFS, Elaine Paladino

EXCAVATOR Type 3

1993 Linkbelt 2650C Tracked Excavator, 110 FWHP, enclosed cab, 15 ft boom reach

Attachments: bucket with thumb

STOCK PHOTO

DOZER / TRACK SKIDDER Type 2

1979 International Model TD-8E, cab canopy, angle blade

Attachments: 30T winch, lights

Bear Mountain Cutters, Inc.

Doug Korevaar
P.O. Box 38
Leavenworth, WA 98826
or P.O. Box 354
Bay Center, WA 98527
503-812-5454 c
dkorevaar7@msn.com

Dispatch: Wenatchee, WA

Business Detail: EERA

Transport: 30T, 50T and 60T lowboys

Fires: 1989-2008, WA - Tyee, Leavenworth, Lake Chelan, Deer Pt., Biscuit, Maple, Tripod, Columbia Complex, Mt Hood

EXCAVATOR Type 2

1999 Hitachi EX 200 LC Tracked Excavator, enclosed cab, 30 ft reach

Attachments: 24”, 42”, 60” bucket and thumb, woods cab guards and lights

EXCAVATOR / MULCHER, WHEEL Type 2

Rubber tire mounted Samsung 210 Excavator, enclosed cab, forestry guards, 45 ft boom

Attachments: lights, rotating disc, vertical shaft mulching head with thumb

FELLER BUNCHER (2) Type 2

Kobelco 200 and A 210 Tracked Excavators, enclosed cab, 32 ft reach

Attachments: blade, Timbco 33” and 28” Timbco barsaw feller head with buncher arms

SKIDSTEER / MULCHER, RUBBER TRACK

Takeuchi TL 150 rubber track mounted Strip Mulcher, 97 hp, cab canopy

Attachments: 5 ft horizontal shaft mulcher head with pushbar, lights

FELLER BUNCHER, STEEP SLOPE Type 1

2005 Timbco 445 EXL track Feller Buncher with self-leveling enclosed cab, 25 ft reach

Attachments: 28” 360 degree rotation intermittent circular saw head, forestry cab guards, lights, fire suppression system

Bear Mountain Cutters, Inc. (cont.)

EXCAVATOR / MULCHER (7) Type 2

1997-2007 Kobelco 210 Tracked Excavators, enclosed cab, 32 ft reach

Attachments: blade, wood cab guards, lights, rotating disc vertical shaft mulching head, with rotating chip shroud and thumb

Havillah Logging, Inc.

Tom Kershner
493 N Siwash Creek Rd
Tonasket, WA 98855
509-486-1941
509-322-1467 c
havlog@nvinet.com

Dispatch: Wenatchee, WA

Business Detail: EERA

Transport: Contractor provided transport; 50T 3-axle lowboy

Fires: 1988 White Mtn., 2003 Fawn Peak complex, 2006 Tripod complex; Numerous WA State fires

References: USFS – Okanogan/ Wenatchee, Tonasket RD, Mark Wood

DOZER / TRACK SKIDDER Type 2

1993 D5H Dozer, 130 hp, full brush guarding, FOPS/ROPS

Attachments: 6-way blade, swing grapple, lights

FELLER BUNCHER, STEEP SLOPE

1989 Timberjack 2520 Feller Buncher, 22 ft boom, FOPS/OPS, self-leveling enclosed cab

Attachments: 22” rotosaw, intermittent circular saw, lights

SKIDDER, WHEEL (2) Type 1

2005 John Deere 648G, 155 hp, 9 ft blade, FOPS/ROPS, climate control cab, brush guarded, backup alarm

1990 John Deere 648D, 140 hp
Attachments: winch, swing grapple, lights, tire chains

STOCK PHOTO

HARVESTER

2000 Prentice 620, 260 hp, self-leveling cab, tracked Harvester, 30 ft squirt boom, FOPS

Attachments: 27” Log Max 750 harvester head

Havillah Lumber / Smith Timber

Mikel or Bonnie Smith
P.O. Box 109
Tonasket, WA 98855
509-486-4650
509-679-9853
509-486-4650 fax (phone first)
bsmith@nvinet.com
SmithTimber@Synthasite.com

Dispatch: Wenatchee, WA

Business Detail: EERA, Best Value, Wash. State DNR

Transport: 20T International flat bed tilt truck

Fires: 1981 Barker Mountain, 1989 Tonasket WA, 1989 White Mountain, Bannon Mountain, Wauconda, WA, Round Lake, Tonasket WA, Republic, WA; 17 different fires since 1981, 1981-2008 WA NE Region

References: DNR-WA, Colville, Greg Roberts, Fire, 509-684-7474

DOZER / TRACK SKIDDER Type 3

1995 D-5 C, FWHP-90, cab canopy, sweep guards, 6-way blade with side claws

Attachments: winch, arch

EXCAVATOR / LOG LOADER Type 2

1988 Hitachi Tracked Excavator / log loader, EX 200-LC, 30 ft boom, enclosed cab

Attachments: 2 digging buckets, log grapple

SKIDGINE, WHEEL

1990 Clark Ranger F-666, 148 FWHP, light-duty blade, partial screened cab, FOPS/ROPS, sweep guards

Attachments: 400 gal tank, live reel, pump, winch (75 ft cable), tire chains

STOCK PHOTO

SKIDDER, WHEEL R 1 Type 1

1988 Clark Ranger F-666 Rubber Tire Skidder, FOPS/ROPS, sweep guards

Attachments: arch winch (75 ft ¾" cable), tire chains

Incline Contracting

Devin Meyer
14010 238 Drive
Monroe, WA 98272
866-826-5431
206-930-3608

Dispatch: Wenatchee, WA

Business Detail: EERA

Transport: 50T, 21 ft deck tri-axle lowboy, 2- 27T 25 ft deck tri-axle tiltbed

STOCK PHOTO

EXCAVATOR R 1 Type 2 / R 6 Type 3

2003 John Deere 120 Excavator, enclosed cab, forest guard package, FOPS/OPS, 25 ft boom

Attachments: 36 in bucket with thumb, lights

STOCK PHOTO

EXCAVATOR / MULCHER

1996 Hitachi 120 Excavator, enclosed cab, 25 ft boom reach

Attachments: 6 ft horizontal shaft mulching head, lights

STOCK PHOTO

DOZER Type 2

2007 John Deere 700J, enclosed cab, FOPS/ROPS/OPS, sweep guards

Attachments: 6-way blade, rippers, lights

STOCK PHOTO

DOZER / TRACK SKIDDER Type 2

1978 CAT D6D, partially screened cab, FOPS/ROPS, sweep guards

Attachments: 6-way blade, 150 ft winch with arch, lights

STOCK PHOTO

SKIDGINE, SOFT TRACK Type 1 (2)

1986 FMC, partially screened cab, FOPS/ROPS, sweep guards, 8 ft light-duty blade
Attachments: 1500 gal water tank, pump, hose reel, water cannon

1978 FMC soft track skidgine, partially screened cab, FOPS/ROPS, sweep guards, 8 ft light-duty blade
Attachments: 1200 gal water tank, pump, hose reel, water cannon, dust control water bar, lights.

Incline Contracting (cont.)

STOCK PHOTO

SKIDGINE, WHEEL

1996 John Deere 648G Rubber Tire Skidgine, 8 ft light-duty blade, fully enclosed cab, screens, sweeps

Attachments: 650 gal water tank, pump, reel, dust control water bar, lights

Lite Logging

Grant Gibbs
11632 Freund Canyon Rd
Leavenworth, WA 98826-9523
509-548-5185
509-669-0159 c

Dispatch: Wenatchee, WA

Business Detail: EERA

Fires: : 25+ yrs

References: James Furlong, USFS-R6 Fire

STOCK PHOTO

SKIDDER, WHEEL R 1 Type 1 / R 6 Type 3

1988 Timberjack 240A, 120 hp, screened cab, sweeps, FOPS/ROPS, light-duty blade

Attachments: grapple, winch

STOCK PHOTO

DOZER / TRACK SKIDDER Type 3

1973 TD 7C International Dozer, 100 hp, 6-way blade, sweeps, FOPS

Attachments: winch, lights

Northern Columbia Reforestation, LLC

Alan McKee
1274 Peterson Swamp Rd
Colville, WA 99114
509-936-0949
509-685-9117
509-685-9117 fax
alan_n_mouse@hotmail.com

Dispatch: Colville, WA

Business Detail: EERA, R-6 water handling equipment

Transport: transport arranged

Fires: Dozer has been on numerous small IA type fires with WA DNR; Timbco Feller Buncher worked on Tripod fire

References: Doug Cox or Jill Jones, NEWA DNR, 509-684-7474

STOCK PHOTO

DOZER / TRACK SKIDDER Type 3

1993 CAT D4H TSK Dozer, swing grapple, enclosed screened cab

Attachments: lights, rock guards

STOCK PHOTO

FELLER BUNCHER, STEEP SLOPE

1995 Timbco 415 Feller Buncher, 24 ft boom

Attachments: 31” bar saw head, convertible to boom-mounted brush rake, lights

STOCK PHOTO

SKIDDER, WHEEL R 1 Type 1/R 6 Type 3

1994 Timberjack 450C Rubber Tire Skidder, enclosed cab, light-duty blade, forestry sweeps

Attachments: fixed grapple

STOCK PHOTO

EXCAVATOR / HARVESTER R 6 Type 2

1993 CAT 320L Steel Track Excavator, 30 ft boom, enclosed cab

Attachments: 22” harvester head, digging bucket

Tiger Trucking, Inc.

Mickey Mumau
511 Hwy 20 E
Colville, WA 99114
509-684-5757
509-684-3526
509-684-9099
tigertrucking.com

Dispatch: Wenatchee, WA

Business Detail: EERA

Transport: lowboys under contract to transport

Operators: Experienced and Red Card Certified

Fires: 2008 CA - Lime Complex, Yolla Bolly, 2003-2007 WA -Windy Ridge, Blue Creek Knob, South Pend O'Reille, Wrights Valley, Manilla Creek, Columbia Complex, Secondhud, Burnt Bread, Narcisse Again, Comstock, Black Canyon, Togo, Napoleon, Rattlesnake

OFF-ROAD WATER TENDER / SUPER-SKIDGINE, WHEEL

6-wheel drive (rear-swinging bogie tandem wheels) rubber tires, articulated chassis off-road truck, enclosed cab, light duty blade

Attachments: 3500 gal water tank, pumps, live reel, top mount remote control monitor, full drafting capability,
Class A & B foam, dust abatement water bars (side and rear), backup video camera

Transport: lowboys under contract to transport

Note: 30 mph max speed

Wildfire Safe, LLC

Chris Walter
Kyle Walter
P.O. Box 236
Manson, WA 98831
509-670-3816
509-630-7738
wildfiresafe@gmail.com
www.bewildfiresafe.com

Business Detail: Private landowners, WA DNR, fuels reduction, wildfire mitigation contracts

Transport: 20 ft rollback truck, Class B

Projects: Lake Wenatchee, Camas Meadows, Squilchuck State Park

References: Andrew B. Perleberg, WSU Professor, 509-667-6658; Matt Everline, DNR–WA, 509-856-7055

IN-WOODS CHIPPER, REMOTE CONTROL

2008 Bandit 255XP-HD Disc Chipper, 200 hp, CAT 305 rubber track undercarriage

Attachments: winch, 280 degree rotating discharge

Note: controlled by remote up to 100 ft, chips up to a 15" log

STOCK PHOTO

EXCAVATOR / MULCHER , RUBBER TRACK

Bobcat 337 Excavator, 12,000 lb, 46 hp, 20 ft boom reach

Attachments: horizontal shaft mulching thumb with lifting thumb, lights

BOOK REPRODUCTION

ADDITIONAL INFORMATION

For verification of technical equipment application details, readers may contact the following agency resources:

- Stephen “Obie” A. O’Brien, USFS Inter-Regional Logging Engineer, saobrien@fs.fed.us, 406-439-4757 (cell), 406-495-3798 (office), Helena, MT
- Kevin Erickson, USFS, Region 1, Fire Equipment Specialist, kerickson@fs.fed.us, 406-829-7084, Missoula, MT

General subject and book composition questions may contact:

Valerie Jaffe, owner/manager, Tea Gardens Technology, LLC, val@teagardenstech.com, 406-459-0324, Helena, MT

"Mechanized equipment is the most over-looked, under-utilized, and misunderstood firefighting resource."

George Custer,
Incident Commander
National Incident
Management
Team (NIMO), 2008

This second edition of the "Yellow Book" builds upon the first one, written in 2008 for a Montana in-woods training. It is a collaborative project of agency, non-profit and private sectors to create a handy reference, training guidebook and dispatching aid. Included in the three sections of the book are mechanized operation strategies, tactics, machine profiles, and a directory of experienced and agency-contracted equipment operators from Idaho, Montana, Oregon, and Washington.

More than 400 machines available from 87 contractors are pictured and described. Twelve common forestry equipment categories are discussed with profiles and numerous photos: dozers, pumpercats, wheeled and tracked skidders, feller bunchers, harvesters, forwarders, skidgines, super-skidgines, excavators, shovels, and mulchers.

General and specialized forestry workers, alike, will find the contents valuable with seasoned perspectives and useful tips from the field. A must read for the aspiring wildfire and fuels reduction equipment manager interested in safe, efficient use of mechanized task forces.