



FOREST RESOURCES ASSOCIATION INC.

600 JEFFERSON PLAZA, SUITE 350
ROCKVILLE, MARYLAND 20852

PHONE: 301/838-9385

FAX: 301/838-9481

SAFETY DEFLECTORS FOR HIGH-SPEED DISK SAWS

Feller-bunchers: safety

October 2001

INTRODUCTION: A Tennessee logger recently purchased a used Hydro-Ax 411 feller-buncher with a Koehring sawhead that had been retrofitted with a homemade metal deflector over the side discharge opening. This device reduces the risk of injury or damage, because it deflects chips and other discharged objects downward.

OPERATION: The metal deflector resembles the discharge chute on some lawnmowers. It deflects wood chips and other discharged objects (stones, cutter teeth, etc.) downward and reduces the distance and the speed that the discharged object travels beyond the sawhead.

APPLICATION: The logger reports that he has run this feller-buncher with the homemade retrofit deflector for over 1000 hours, with no apparent wear on the deflector. The deflector opening has never become clogged, except two times, when snowy ground conditions were the primary reason for plugging.

SPECIFICATIONS AND COSTS (estimated):

Materials:	5 feet of 1½-inch round stock @ \$ 7.00 per ft.	\$ 35.00
	9 square feet of ½-inch flat plate @ \$ 7.50 per sq. ft.	\$ 67.50
Labor:	6 hours @ \$ 40.00/hour	\$ 240.00
Total Cost:		\$ 342.50

MANUFACTURER'S COMMENTS: Timberjack's Product Assurance Department favors a different deflector retrofit design, which forces the discharged chips and debris through two right-angle turns (see figure 3) and slows the debris considerably. The Timberjack design is believed to be easier on the wear against the metal chute, and it would not result in debris bouncing upwards as can happen with the homemade, downward-facing deflector.

Timberjack (formerly Koehring) had previously notified its sawhead customers of an offer to retrofit sawhead deflector guards. Retrofit kits are still available at no charge. (Also, Timberjack's and Waratah's newer sawhead models are equipped with a factory-installed deflector guard, or with a patented front discharge system that redirects the discharge forward and greatly



Fig. 1: This homemade deflector was retrofitted/welded on an old sawhead model.



Fig. 2: In action: the homemade metal discharge chute deflects cut materials downward while reducing their velocities.



reduces its velocity.) For more information, contact your Timberjack or Waratah dealer and ask for the appropriate Service Bulletin:

- for 24-inch sawheads, Service Bulletin SH018
- for 20/22-inch sawheads, Service Bulletin SH015
- for 16/18-inch sawheads, Service Bulletin SH012

John Finn, Forest Supervisor
Bowater
1782 West Avenue North, Suite 102
Crossville, Tennessee 38555
931/484-6661

FRA STAFF COMMENT: FRA's new 17-minute video *The Cutting Edge of Safety*, with Discussion Leader's guide, provides a six-point training program to orient operators of mechanical cutting machines equipped with high-speed disc cutting heads, and those who work with them. It is available from FRA @ \$35 to members, \$70 to others. Contact FRA at 301/838-9385 to order, or for more information.

Reviewed by
Rick Meyer
FRA Appalachian Technical Division Forester
and
Timberjack Product Assurance Department



Fig. 3: Newer Timberjack sawhead shows how debris on a Timberjack/Waratah-installed retrofit is deflected through two right-angle turns. Timberjack believes this is a better alternative to the homemade, downward-facing deflector.