



Big-Job Framing Saw

by Clayton DeKorne

The *Linear Link Saw* is a hybrid machine with the body of a worm-drive circular saw and the blade of a chain saw. Despite claims, it probably won't replace any saw currently on the job site. It is strictly a framing saw and even then it is best only for special framing operations such as gang-cutting, chopping large dimensioned lumber and engineered components, and cutting up stress-skin panels. But for these special operations, the *Linear Link* may be unparalleled.

Production Cutting

The *Linear Link* can cut through 12 inches of material with the bar set square to the shoe plate. This makes it ideal for gang-cutting framing components. To square cut studs and joists, I laid the pieces on edge with the crowns facing one direction and used pipe clamps to hold them together. I could then snap a "chop" line across the edges. Production framers are familiar with this set-up and use it to lay out rafters. The bird's mouth is then cut out with a swing table saw. And the plumb cuts are started and finished piece by piece as they are pulled off "the racks."

With the *Linear Link*, even 2x12 joists can be cut in one pass. But

rafters have to be stacked face to face. Six 2x rafters seemed to be a comfortable amount to cut at once, but even with eight, the bar did not deflect. I clamped the pile together and planed down the most exaggerated crowns. After laying out the top pieces, I transferred the end points of my lines down the edges of each board to make starting the cut easier. Even after spending this amount of time to set up, I still cut the stack much faster than I could have piece by piece.

The speed is there, but how about the quality? The smallest jiggle of the trigger hand wobbles the blade and rakes the cut. With some practice I could get an acceptable cut, but this is still a chain saw and it cuts rough. Tear-out from the up-cutting chain can obliterate the line and scoring the line with a knife didn't help too much. A chisel-tooth cutting chain, the SS-53, improves the cut a little but it is by no means a finish saw.

Specialty Cutting

Most timber framers I spoke with don't use a *Linear Link* to cut frames. The cut is too rough for an exposed joint and a conventional chain saw is more maneuverable for rough cutting.

But the tool is well acclaimed for

cutting stress-skin panels. Joe Ellis of Controlled Environment Structures, in Greenville, Mich., claims "the *Linear Link* is the only tool for cutting 8-inch-thick wall panels and most any roof panel." It would be hard to argue with him. A 16-inch "beam" saw will only cut 6 inches at 90° and 4 inches at 45°. By comparison, the *Linear Link* can cut 12 inches vertical and just over 8 inches at 45°. Without the *Linear Link*, a stress-skin panel must be cut on both sides, flipped over between cuts, then sliced through with a charged "hot wire." If you have a crane operator waiting on these cuts, a *Linear Link* could easily pay for itself on one job.

The *Linear Link* also works well for cutting large engineered lumber. One builder I spoke with who runs a *Linear Link* claims the saw saves him a lot of time framing with solid Parallam headers. He says his time savings are most significant when 3-1/2- and 5-1/4-inch "one-piece" headers become one-cut headers, as well.

The *Linear Link* is an awkward beast. It's about 20 inches high and about 16 inches long. It can't be set down easily because the blade sticks out so far below its shoe. I found that setting the blade down in a mud bucket worked well enough but this made for a tower ready to topple. Storing it is more difficult and the dimensions don't lend themselves well to any ready-made box. As of this writing, however, the manufacturer claims it is working on a carrying case.

The *Linear Link* is manufactured by Progressive Power Tools. The company purchases parts from Skil and Oregon to produce a completed model VCS-12. They also offer a conversion kit, which includes all the parts needed to convert any Skil or Craftsman worm-drive saw into a right-angled chain saw. I used a kit to convert my ten-year old Craftsman worm-drive. The conversion took about 45 minutes. The instructions were simple and direct. And best of all, all the screws had hex key drives, so I couldn't easily strip the heads. There seemed to be no difference in the end product from the pre-assembled model.

The assembled *Linear Link* sells for \$449 direct from Progressive Power Tools (303 N. Rose St., Suite 304, Kalamazoo, MI 49007; 800/635-5465). The conversion kit sells for \$295. ■



What do you get when you cross a chainsaw with a circular saw? Answer: the Linear Link, a specialty framing saw that can be used for gang cutting stair stringers, studs, and rafters; chopping engineered timbers; and slicing stress-skin panels.