



Lifting Walls Safely

by Felix Marti

Twenty-seven years ago, when I was working with a framing crew in South Denver, we would frame walls on the subfloor. Then, to save time, we sheathed them while they still lay on the deck; installed the windows, exterior trim, and siding; applied the soffit “ladder”; and nailed the soffit plywood in place. With all this material, these walls were heavy. So, to lift them into place, we used Proctor Wall Jacks (Proctor Products Co., 210 8th St. South, Kirkland, WA 98083; 206/822-9296).

I recently had an opportunity to try Proctor Wall Jacks again with my crew. We used two 16-foot jacks — each rated at 1,000 pounds — to raise walls and lift beams into place. Now that my back’s not so good, and I appreciate safe lifting practices a bit more, I like these jacks for raising walls. They’re easy to use, and exceptionally safe.

The Jacks

The jacks are essentially ratcheting cable hoists attached to a telescoping pole. Each jack consists of two telescoping tubes made of $\frac{3}{16}$ -inch-thick steel. One outer tube has a hinged base plate and a cable spool welded on at about waist height. The second inside tube has a pulley built into the top and an adjustable wall stop. A cable — running from the spool and over the pulley to the lifting bracket — does the lifting as it is wound in with a come-along-type handle on the spool. The jack pole provides the fulcrum. Each jack weighs about 35 pounds — an easy load for one person to carry around the site.

The 16-foot jacks we used are designed to lift 11-foot-high walls. Proctor also makes 20- and 23-foot models made to lift 13 $\frac{1}{2}$ - and 15 $\frac{1}{2}$ -foot-high walls, respectively.

Lifting Walls

On the job, we used the jacks to lift two 36-foot by 10-foot 6-inch walls, and a 24-foot by 19-foot gable wall.



To lift framed walls safely and efficiently, a carpenter uses Proctor Wall Jacks.

To start, you have to secure the bottom of the wall, so it won’t kick outwards as the wall is raised into place. For this, I use steel banding straps from the lumber pile. I cut a piece about 2 feet long and bend the end at 90 degrees. For a 2x6 wall, one leg of this bend is about 5 inches long. I nail this leg to the bottom of the wall’s sole plate. The remaining 20 inches I nail to the floor deck, making sure to nail through the subfloor into joists or blocking. When the wall is up, this banding can stay in place — it’s so thin, it won’t interfere with the finish flooring, not even carpet.

To raise the wall, the jacks are extended to their full height, and the lifting bracket is nailed to the wall with a couple of 16d “keepers.” We then position the jack pole directly behind the bracket, and nail the base plate to the subfloor deck, again with 16d nails. It’s best to aim for a joist before you affix the bracket; otherwise, you may have to throw a 2x12 block into the floor framing to support the wall as it’s lifted. Keep in mind this weight will be a point load.

Once the base plate is secure, we begin working the ratchet levers. Within a few minutes the wall is upright and secure against the wall-stops of the jack.

According to the manufacturer, the best lifting points are in from the ends about one-quarter of the wall’s length. From this position, the jack lifted the side walls easily. But the gable wall was far too tall to lift from this point. So we attached a stiff-back across the wall, and lifted it at its end corners, where the height of the wall matched the height of the side walls at 10 feet 6 inches. This seemed to work just as well.

Lifting Beams

These jacks are also good for hoisting beams, and other heavy loads. Proctor suggests erecting a tripod, or nailing together some diagonals that brace off the building. The end of the jack then leans on this.

We used this technique to raise a 16-foot-long 6x12 beam. First, we erected two 6x6 columns, on which the beam would sit. We braced these columns with 2x4s off the building, and these braces formed the cradles for the ends of the wall jacks. We then secured the bases, and we were ready to lift.

The hitch on the end of each cable works well to form a loop. So we slipped this loop over each end of the beam, and cushioned the cable with cedar scraps. We then quickly reeled the cables in, lifting the beam into place. The safety aspect of lifting heavy beams this way cannot be emphasized enough.

Cost

Proctor Wall Jacks aren’t inexpensive, but I think they’re worth the price. The 16-foot pair of jacks we used cost \$625. The 20-foot jacks retail for \$725, the 23-foot jacks for \$950. All are available direct from the manufacturer. ■

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