25 Tapes

They're not all the same, so don't just grab the first one off the rack

BY DANIEL PARISH

LOCKING MECHANISMS

The most common locking system for tape measures is a slide lock, such as Stanley's PowerLock (left). A button slides down with the push of a thumb to lock the blade. Toggle buttons, such as on the Lufkin tape (right), are the easiest to operate. Lever locks, such as on the Craftsman tape (center), let the tape retract when the lever is squeezed with the fingers.

I bet I go through five measuring tapes a year. It's a fact of life for a finish carpenter who uses a tape measure dozens of times every day. When my tape breaks or wears out, I usually tell the guy running out for coffee to get me one of those 25-footers with the silver case. But it turns out there's a good reason to be a little more discerning.

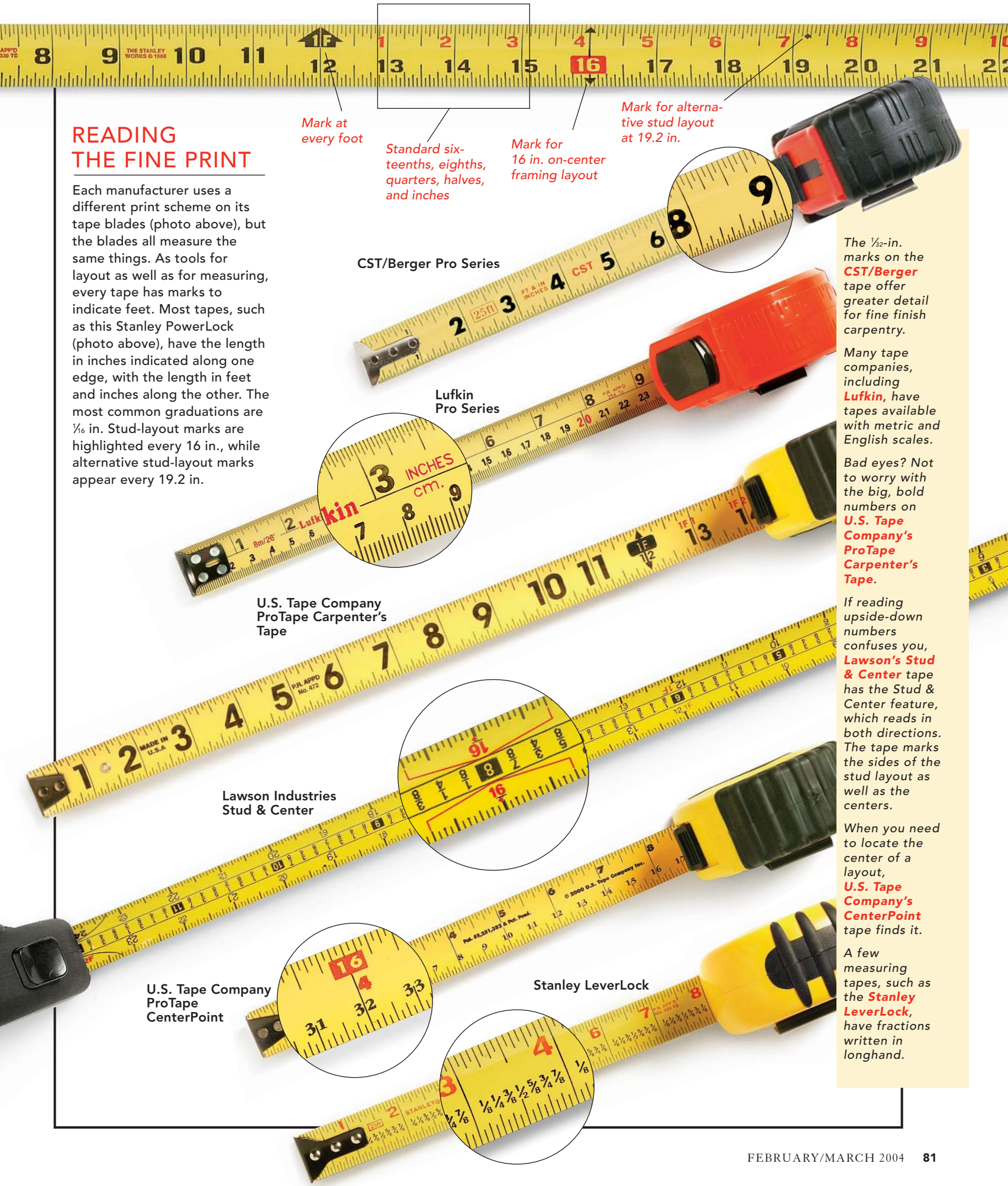
After reviewing a dozen tape measures for this article, I've learned that there are more manufacturers than just Stanley and Lufkin, and that the tapes themselves vary considerably, from the blade graphics to the feel of the case in my hand.

Tape locks: buttons or levers?

One of the key features to consider is how the tape locks (photo above). You either lock the blade with your thumb using a slide button or toggle, or you lock the blade with your fingers compressing a lever. Slide

READING THE FINE PRINT

Each manufacturer uses a different print scheme on its tape blades (photo above), but the blades all measure the same things. As tools for layout as well as for measuring, every tape has marks to indicate feet. Most tapes, such as this Stanley PowerLock (photo above), have the length in inches indicated along one edge, with the length in feet and inches along the other. The most common graduations are 1/16 in. Stud-layout marks are highlighted every 16 in., while alternative stud-layout marks appear every 19.2 in.



*The 1/32-in. marks on the **CST/Berger** tape offer greater detail for fine finish carpentry.*

*Many tape companies, including **Lufkin**, have tapes available with metric and English scales.*

*Bad eyes? Not to worry with the big, bold numbers on **U.S. Tape Company's ProTape Carpenter's Tape**.*

*If reading upside-down numbers confuses you, **Lawson's Stud & Center** tape has the Stud & Center feature, which reads in both directions. The tape marks the sides of the stud layout as well as the centers.*

*When you need to locate the center of a layout, **U.S. Tape Company's CenterPoint** tape finds it.*

*A few measuring tapes, such as the **Stanley LeverLock**, have fractions written in longhand.*

Score against the hook

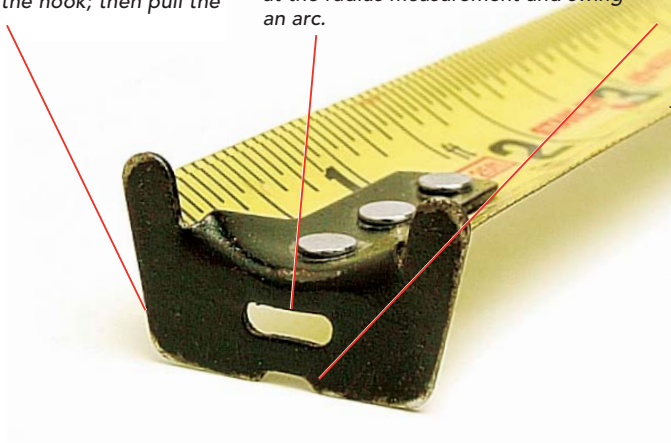
To score drywall, hold your finger at the measurement with the knife blade against the hook; then pull the knife along.

Make a pivot point

Hook the slot over the head of a common nail. Then hold your pencil at the radius measurement and swing an arc.

Guide a pencil

To scribe a long cutline, put the tip of a pencil in the hook notch, and hold your finger at the measurement to make the line.



buttons are by far the most common option, but a close cousin is the toggle found on Lufkin and Lawson tapes.

The travel distance of the buttons varies. U.S. Tape Company's Pro-Tape Carpenter's Tape had the smoothest-operating slide lock of the group with the shortest travel. The toggle lock, as on the Lufkin Pro Series, was more convenient and comfortable than a slide, but it did not seem to lock the blade as firmly as the slide lock.

With the third type of lock, squeezing the lever allows the blade to extend or retract. Releasing the lever locks the blade. The biggest advantage of this type of locking mechanism is being able to feather or brake the blade as it retracts to prevent the hook from being damaged as it slides back into the housing. Stanley and Craftsman manufacture models with squeeze-lever locks. Stanley's LeverLock tape has a button that disables the lever so that the blade can move freely without a squeeze of the lever.

It's the blades and hooks that count

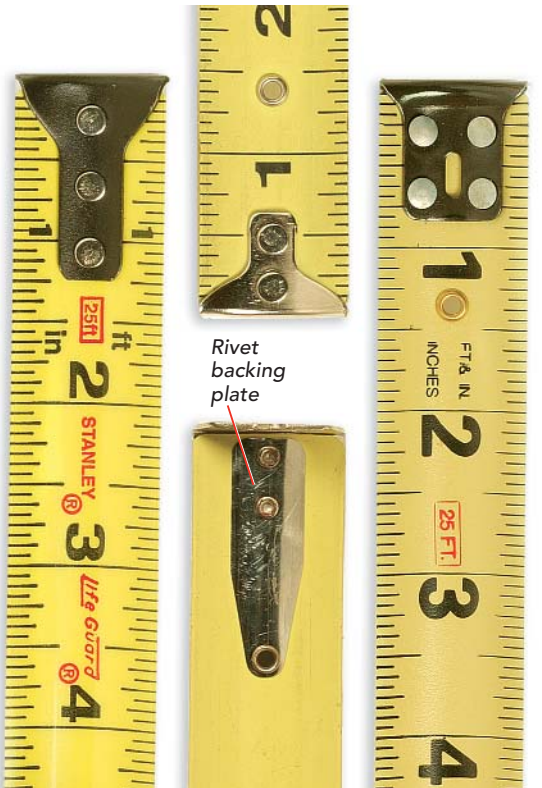
The best overall length for working on or around houses is 25 ft. Longer retractable tapes are available (up to 35 ft.), but the longer the tape, the heavier it is. And extra weight isn't something most folks want in a tool belt that they wear all day. Besides being able to measure most things in most houses, most 25-footers come with cases small enough for the average hand.

Arguably the most important part of a tape measure is the blade. After all, without all those numbers, how could you record a measurement? But not all tape blades are created equal (photos p. 81).

The blades themselves are made of thin steel concave in section. The curved shape keeps the blade straight and stiff when extended.

THE BUSINESS END OF THE TAPE

An essential part of every tape measure, the **HOOK** is designed to move the distance of its own thickness, which is crucial for keeping inside and outside measurements equal. In other words, whether you butt the tape against a wall or hook the tape on the end of a board, the measurement should be the same. Hooks attach to the blade with **RIVETS**. On most tapes, three rivets fasten the hook, but on the Starrett tape, two rivets hold the hook, and a third anchors a backing plate. On the Lufkin tape, the hook is attached with four rivets. Most hooks have a slot and a notch that increase the tape's usefulness (top photos). The hook on the Stanley FatMax has additional ears on top so that it can grab from both sides (photo left). To avoid **WEAR** on the blade, Stanley adds a strip of plastic called Blade Armor to the first 6 in. (photo above).



THIS TAPE REACHES AN OUTSTANDING 11 FEET

To measure long distances without help, tapes must extend unsupported. Most 25-ft. tapes are ⅞ in. to 1 in. wide and extend unsupported to a distance of around 7 ft. The 1¼-in.-wide blade on Stanley's FatMax increases that distance by more than 50% to 11 ft.

After the tapes are printed, manufacturers add a protective coating to the blade, usually nylon, acrylic, or Mylar.

The hook at the end of every tape-measure blade is essential for accurate measurements (photos facing page). The hook not only conveniently holds the end of the tape, but it also moves to keep the inside and outside measurements precisely the same. The hook is set at 90° to the blade. If that angle changes, the accuracy of the tape is diminished. The quickest way to bend a hook is by letting it slam against the case while the tape is retracting. Many companies, including Starrett and U.S. Tape Company, have added shock absorbers to their measuring tapes to soften the blow of the hook slamming home (photo below). I slow the speed of the blade when it's retracting by rubbing my finger on the blade.

All self-retracting tapes have a spring that causes the tape to wind up inside the case when the blade is released. Manufacturers go to great lengths to reduce friction in the spring, which in turn helps the blade to retract smoothly and controllably. I found that most of the tapes extended and retracted with reasonable smoothness, but the Pro Series tape by CST/Berger operated noticeably more smoothly than the rest. The folks at CST/Berger told me that they use a spring hub made of Teflon-infused plastic, essentially a self-lubricating mechanism.

BRAKING AVOIDS BREAKING

Some companies, such as Starrett, install shock absorbers so that the hook isn't damaged if it bangs back into the case. A finger on the blade slows retraction, but avoid the moving blade edge—it can slice skin.

I can't always count on having someone there to hold the end of the tape when I'm taking a measurement, especially if I'm on a ladder measuring a run of crown molding around a 10-ft.-high ceiling. In these cases, I rely on my tape's standout, which is its ability to extend unsupported.

Most of the 25-footers that I looked at had blades ⅞ in. to 1 in. wide, which all have a maximum standout of around 7 ft. With these tapes, it's difficult for me to measure distances greater than 10 ft. comfortably. But Stanley's FatMax tape has a 1¼-in.-wide blade that can extend up to 11 ft. without support, letting me measure a 15-ft. wall with no problem. The extra width means more steel and a little more weight to lug around, but the extra standout is worth the effort. The wider tape is also less likely to catch the wind when it's extended during outdoor use.

SOURCES ONLINE

For a complete list of tape manufacturers featured in this article, go to www.finehomebuilding.com.

My personal favorites

Lever-locking tapes were at a definite disadvantage because of my familiarity with slide locks. For my colleagues who prefer lever locks, the Craftsman seemed to be the top choice.

The tape I found myself reaching for the most was Stanley's FatMax, mainly because of its superior standout and comfortable feel in my hands. But several other tapes were close runners-up. The smoothness and ½₃₂-in. marks of the CST/Berger Pro Series tape made it a strong contender. I liked the size and feel of U.S. Tape Company's ProTape Carpenter's Tape, but the print was hard to read. The Craftsman also was a great all-around tape, and with the company's well-known replacement warranty, it could well be the last tape you buy. □

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