



## Is Lumber Quality Slipping?

by Hank Spies

**Q.** *Lumber that I've been buying lately is rated SDF Douglas Fir, Standard and Better, but it looks and acts like Utility grade. Have the grading rules changed dramatically or is someone playing games with the grades? What can I do about it?*

**A.** The grading rules for Douglas fir have not changed significantly since 1973, but Standard is really a rather poor grade of lumber. For instance, a nominal 2x4 is permitted knots up to 2 inches in diameter, and one hole equivalent to 1/4 inches per 2 lineal feet. Spike knots extending across the face are limited to one-third the thickness of the piece. There are no limits on bark pockets or pitch streaks or pockets, or on stain. Shake is permitted up to one-half the thickness on the ends and up to 2 feet long away from the ends. The slope of the grain may be 1 in 4. Warp should be light. By definition, this means that an 8-foot 2x4 may have 1 inch of bow, 1/2-inch of crook or twist, and 1/32-inch of cup. The specifications for Utility are similar except the allowable knot size is 2 1/2 inches and the hole size 1 1/2 inches for a 2x4. The best answer to the problem is to order Construction or Better.

### Asbestos Dilemmas

**Q.** *Can you suggest any safe and affordable ways to seal in asbestos pipe insulation on old steam pipes and fittings? Could I use heavy-duty aluminum foil? Where can I get advice without involving local authorities?*

**A.** Several manufacturers produce approved asbestos encapsulating compounds that are brushed, rolled, or applied with an airless spray. They penetrate the asbestos and set (usually two coats are needed), forming a hard shell which encapsulates the asbestos. Two such products are Serpiflex, by International Protective Coatings Corp., 725 Carol Ave., Ocean Twp., NJ 07712 and Foster Bridging Encapsulant, by Foster Products Division, H. B. Fuller Co., 6107 Industrial Way, Houston, TX 77011. For small areas, such as the asbestos tapes used on old heating ducts, covering with duct tape will encapsulate the asbestos effectively.

With or without the local authorities, OSHA and the EPA (state and federal) regulate the asbestos exposure of your workers and the disposal of any asbestos-containing materials. Department of Transportation regulations cover the transportation of the materials to the disposal site. Your potential liability to your workers and to your customers is mind-boggling, and most insurance companies will not cover any asbestos-related activities. I would also refer you to the article, "A Contractor's Guide to Asbestos," in the December, 1987, issue of *NEB. The Asbestos Abatement Workers Handbook*, by Skoog and Twombly, and *Asbestos Removal and Control, an Insider's Guide*

*to the Business*, by Natale and Evans, will probably provide more information than you want to have.

### Truss Butchery

**Q.** *If one needs to cut the bottom chords of a couple of trusses to accommodate a pull-down stair, what can you do to compensate structurally?*

**A.** If you cut any member of a truss, its structural capability is destroyed, and that section of roof and ceiling will have to be framed with joists and rafters meeting the specifications of the joist and rafter tables. Any headers around the opening must be supported on the joists or rafters and not on the trusses. The basic rule is *never* cut, notch, or drill any member of a truss, under any circumstances.

### High-Voltage Vapor Barrier

**Q.** *Do you envision any problems using large sheets of foil behind the drywall to serve as a vapor barrier and heat reflector? Also, have you heard of any radio or TV or other electrical interference from foil products?*

**A.** Large sheets of foil should serve well as a vapor barrier as long as the seams are sealed. Polished foil will also serve as reflective insulation as long as the polished side faces an air space of at least 1/2 inch. If the foil is grounded, it could restrict the reception of airborne radio and TV signals, but would not affect signals brought in by cable or antenna leads. As for other electrical interference, there should be none if the electrical system is properly installed. I once found a situation where the foil face on batt insulation was charged with 120 volts due to a bad connection at a junction box, which made for a few surprises.

### Best Brick Floors

**Q.** *We wish to put down a brick floor for thermal mass in a passive solar house. What type of brick is suited for use as an interior floor, and how should it be finished, especially in the kitchen?*

**A.** Paving brick would be the best choice, sealed as you would seal slate. Another option to provide the equivalent thermal mass would be a concrete slab surfaced with quarry tile, which would be easier to maintain. ■

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