

Refinishing Fir Floors

- Important Information You Must Know

By Ward Braun

Fir floors are one of the most beautiful floors found in Vancouver homes. It was one of the most popular types of flooring installed here for many years because of its easy availability.

But fir floors have many unique characteristics compared to true hardwood floors such as red and white oak. This means the appearance and performance of your floor will differ significantly from those of an oak floor.

If you want to be completely happy with your floors, then understanding these differences is really important.

To start with, fir is the softest wood used for flooring in Vancouver.

In fact, fir is about 100% more vulnerable to impact damage than red or white oak. The wood flooring industry has a guide to tell the density of different types of wood. It's called the 'Janka Hardness Scale'.

This test measures the force required to embed a .444 inch steel ball to half its diameter in different types of wood. On this scale,

white oak rates at 1360, red oak 1290 and fir at the bottom with a lowly 660.

Because they're so soft, fir floors are *much* more difficult to refinish.

Great care has to be taken to ensure the absolute minimum amount of wood is removed during the sanding process. This takes a lot of skill and years of experience.

This is one of the easiest floors to mess up if you don't know what you're doing. We've seen many fir floors ruined by very deep drum marks or divets caused by inexperienced 'floor refinishers'.

Once these drum marks (caused by leaving the drum sander in one spot too long) are made, the only way to remove them is to sand the surrounding areas flat to the same depth. This takes decades off the life of a floor and in cases of already thin floors, it can mean having to replace large sections with reclaimed wood.

Fir is definitely not the kind of flooring to practice your sanding skills on.

Refinished fir floors often exhibit another characteristic called 'mottling' or 'bruising'. The extent of this 'bruising' can vary greatly from room to room and even from area to area within a single room.

In high traffic areas or near the perimeter of a room, the fir often shows darker, blotchy areas. Most of this is caused by many years of foot traffic and wear.

The structure of fibers and cells in soft fir is very different to hardwoods like oak. As traffic makes its way across the floor over many years, fir becomes bruised and this shows up as darker, blotchy areas in the floor.

It's not uncommon to be able to tell exactly where furniture had been placed for many years in a room.

You'll be able to see a light patch that's exactly the size of a bed or dresser surrounded by a darker area which

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shows the occupants walking path. Usually there will be a darker path to the closets and entrance of the room as well.

Unfortunately there's nothing we can do to guarantee this natural occurrence of 'mottling', 'bruising' or 'blotching' won't occur. In fact the only assurance that it won't show up is if you install a new floor.

Over the years your floors may have been refinished many times, especially if you have a pre 1940's heritage home.

Because of numerous sandings, the thickness of the wood eventually decreases and the heads of nails begin showing between the boards. If your fir floors are this thin, sometimes refinishing is not an option, and installation of a new floor may be necessary.

Sometimes though this can be a false assumption, especially if there's only a few nail heads showing and they're irregularly scattered throughout the floor.

The original installer may not have fully set the nail and it's now sitting higher in the floor than the rest. Also, these fir floors installed over a shiplap sub-floor can be very loose and have a lot of movement.

It could be the case that the nail has slowly worked its way to the surface over the years and just needs to be set again.

So don't let someone tell you that they can't be restored unless they're absolutely certain that they're unrecoverable.

Another clue they may be too thin is to look at the top of the grooves. If they're splitting

and breaking off, there's a good chance there's not enough wood left to sand.

You could also put a knife blade down between one of the boards (if there's a gap) and measure how much wood is left. The measurement will be the difference between the surface and the distance to the tongue. If its 1/8th or more you may be in luck.

Old fir floors are also far more prone to movement and squeaks than other types of hardwood floors.

This is because of the way they were installed and the fasteners used. Back then, screws weren't used for holding down the sub-floor, or shiplap as it's called under these type of floors.

The shiplap was attached to the joists with nails. (If your house is old enough they may even be square headed nails.) The tongue and groove fir flooring was then blind nailed to the shiplap.

Over the years, through many winters and summers, your house has settled and the floor has settled and moved along with it.

Especially in high traffic areas, the fir and the shiplap will often work its way loose from the nails causing these areas to move and possibly squeak.

Movement and squeaks are normal for these beautiful vintage floors. If you don't have any squeaks consider yourself one of the very lucky few.

Attempting to repair this kind of movement can be extremely pricey. It involves very carefully removing the existing flooring to expose the shiplap which then needs to be properly screwed down. Not any easy, quick

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or cheap process. You're much better off accepting this as part of the character of your floors and getting used to it.

Another characteristic of fir floors is they often have large gaps between the boards.

This has a lot to do with the settling and movement as described above. As they contract and expand over the years, the boards can slowly spread apart and leave you with space between the joints.

Many refinishers trowel fill putty over the entire floor to fill these gaps just like they would for an oak floor. But this may not always be in your best interests with fir.

Because these floors can move so much, the dried filler will have a hard time staying in place. Also the gaps between the boards will be full of dirt and residue that has collected over the

decades and this will further interfere with the adhesion of the filler.

Filler that becomes loose will get ground into the newly finished floor surface, scratching it up and shortening its life.

Fir also varies greatly from board to board with respect to color. Some boards will be very red, others a lighter brown and still others will have significant light colored streaks in them. Because of this, no filler color will match perfectly.

We always take these reasons into consideration before advising whether your floors are a candidate for filling or not.

If your floors have *very* large gaps we have

other options for dealing with them as well, we can discuss these with you when we're looking at them together.

Many of these older floors also need repairs due to previous careless renovations like walls being removed etc. Make sure that reclaimed vintage fir from the same era as your floors are sourced so they match as close as possible.

Unfortunately, new fir looks *nothing* like old growth fir from years ago. If you use this new flooring to patch areas in your floor, they'll stand out like a sore thumb.

So there you have it, soft wood, bruising, movement, squeaks and gaps are all part of the charm, beauty and character of these gorgeous vintage floors.

If you accept these characteristics for what they are, then you'll love these floors as much as we do.

We've successfully refinished hundreds of fir floors including rescuing many from certain death according to other refinishers who were too afraid to touch them.

We have a full gallery of pictures from previous fir floors we've refinished in many older heritage homes throughout Vancouver available on our website. If you'd like to see what your fir floors have the potential to become make sure you take a look.

We'd be more than happy to talk with you about refinishing your fir floors.

Ward Braun is the President of Woodsmith Hardwood Floors Ltd.

Visit us online at www.WoodsmithHardwood.com

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