Removing Exterior Paint

When you have to take it all off, power tools and chemical strippers make quick work of a nasty job

BY JON TOBEY

When I was a kid, I never had to look for work. From the time I was 12 until I graduated from college, my summer job was scraping and painting my parents' sprawling, 175-year-old New Hampshire farmhouse. Every few years, I'd complete a lap, only to have to start over again. After I became a professional painter, the value of doing a job once and doing it right sank in. Over the past 15 years, I've refined the methods and the materials that I use to ensure a long-lasting paint surface. These days, I can confidently say that if it's done correctly, a good paint job should last 20 years.

Sometimes you have to take it all off

A long-lasting paint job depends on high-quality paint (and plenty of it), but prep work is even more important. Before repainting, most conscientious painters give a house a thorough hand-scraping and pressure-washing. That's fine as long as all the existing layers of paint are securely bonded to each other and to the substrate. On my parents' house, like many of the houses I've worked on, that was not the case.

I'm not trying to say that all houses must be stripped bare before repainting. In my experience, unless they suffer from specific moisture problems, newer houses (up to 35 years old) are less troublesome than older houses. If a house was primed and painted correctly when new, especially if it was painted with a high-quality, flexible latex ("Has Latex Won the Paint Wars," *FHB* #121, pp. 62-67), the paint finish should last a long time and should be easy to recoat when it wears out.

Repainting is similar to reroofing, in that you can pile only so many layers on top of one another before it's time for a tearoff. At the time

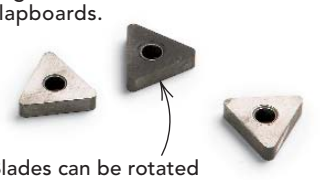
MECHANICAL SCRAPERS TACKLE A TOUGH JOB

Specially designed power strippers such as American International Tool's Paint Shaver (800-932-5872) and Metabo's Paint Remover (800-638-2264) quickly remove multiple layers of old paint and collect the debris for disposal.

Paint Shaver American International Tool

Cutterhead

Triangular carbide blades cut on two surfaces at a time to remove paint from edges and faces of clapboards.



Blades can be rotated to use all six cutting edges.

Tag-team approach removes most paint

The powerful Paint Shaver makes quick work of wide, flat surfaces (photo above). The Metabo Paint Remover, thanks to its smaller footprint and tighter cutting radius, cleans up in the corners (photos below).

Metabo Lf714S Paint Remover

Chemicals are the last resort. *After stripping most of the clapboard surfaces with the Paint Shaver, the author uses a nontoxic chemical paint remover to finish up in the corners. (Note: Photo taken before the author discovered the Metabo Paint Remover, bottom photos, p. 79.)*

I started my summer job, my parents' house already had six or seven distinct layers of paint on it. Oil paint is much less flexible than latex, and its ability to expand and contract along with the wood diminishes with each new layer (sidebar p. 82). On older houses, unless the finish is thin or in good shape and well protected from the sun (expansion and contraction are most extreme on the southern exposure), I generally advise homeowners to bite the bullet and allow me to remove all the old oil-based paint before I begin repainting with latex.

Mechanical scrapers get the job done quickly

It's easy to make the argument for removing failed paint, unless you have to come up with the cash to pay for it or do the work yourself. Over the years, I've tried all the traditional methods for removing paint and found serious drawbacks with each:

- Hand-scraping is slow and grueling.
- Power-sanding is slow and messy.
- Heat is slow and dangerous (even low-temp heat guns can start a fire).
- Chemical paint removers are slow and expensive (most are also toxic).

It's no wonder that most painters would rather convince themselves (and their customers) that a quick scrape and wash is all the prep work a house really needs.

Until a few years ago, I would turn down a job if I determined that the paint had to come off. Then I discovered the latest generation of mechanical paint removers. These power tools don't make the work any more pleasant, but they get the misery over and done with quickly. No power tool is capable of stripping all the paint from all the nooks and crannies, so my strategy is to remove the paint mechanically wherever I can, then use a chemical paint stripper on the rest.

The workhorse in my arsenal is a tool called the Paint Shaver (American International Tool; 800-932-5872; www.aittool.com). A modified mini-grinder, the Paint Shaver makes quick work of wide, flat painted surfaces such as clapboards and shakes (photo p. 78). The only drawback to the Paint Shaver is that its cutterhead (photo left, p. 79) isn't much good for corners and tight spaces. Until recently, whatever paint I couldn't reach with the Paint Shaver I'd have to attack with chemicals (photo above).

I recently tried out some other paint-removal tools. One tool I really like is the Metabo Lf714S Paint Remover (Metabo Corp.; 800-638-2264; www.metabousa.com). The Metabo is nowhere near as fast as the Paint Shaver, but its small footprint makes it the perfect follow-up tool for getting into corners and cleaning out the small stuff (photo bottom right, p. 79).

Protection measures come first

State-of-the-art power tools may make paint removal faster, but no less exhausting, especially if you're working from an extension ladder the whole time. When I'm doing a large job (unlike the small one I did for the photos), I prefer to put up staging—either pump jacks or

VERSATILE HAND SCRAPERS EASE THE DRUDGE WORK

To remove dry or chemically softened paint from the nooks and crannies of old trim, the author swaps between interchangeable blade profiles in Spectrum Tools' ProPrep scraper (800-229-2233).

Dealing with lead

Lead-based paint was outlawed in 1978, so any house built before that time could contain lead-based paint. The best way to address the problem is to have the house professionally tested to determine if, and where, lead-based paint is present. (Contact your local public-health organization for information on lead-inspection services in your area.) You also can pick up a lead-paint test kit at a hardware or paint store. These kits let you know if lead is present in paint; however, unless you test every side of the house, it is possible to get a false-negative result.

If I'm working on a house that's more than 30 years old and I don't know for a fact that it's lead-free, my rule of thumb is to assume that the paint is lead-based. Even though my dust-collection equipment captures 95% of paint debris, on these jobs, I always wear a full-face respirator and a Tyvek suit; I also tape the openings at the neck, wrists and ankles. (Note: The section of the house shown in these photos did not contain lead paint.) When I'm done for the day, I undress outside my house (behind a bush); then my clothes immediately go into the wash, and I hit the shower. *—J. T.*

pipe scaffolding—and wrap the entire house. Doing this job on staging is much easier on the body because you can work directly in front of your torso and apply more power and finesse with less effort. The rental cost of the staging is more than offset by the increase in productivity and morale.

Once the work site is set up, it's time to run out the tarps. Even though I use vacuum attachments that suck up 95% of the debris, I always cover the ground 6 ft. to 8 ft. out from the house with heavy-duty painters' drop cloths.

If I'm using chemicals or if I suspect I might be removing lead-based paint (sidebar above), I use 3-mil painters' plastic instead of drop cloths. At the end of each day, I can carefully roll up the plastic to dispose of debris. In some locales, this method is sufficient to let the debris be put out for regular trash pickup, but check local disposal regulations.

Scraper removes paint from two surfaces at once

Before I start grinding paint, I need to make sure that nail heads are set below the surface of the wood; otherwise, they'll wreak havoc on the scraper blades. At $49 a set, replacement blades aren't cheap, but if I'm careful, a full set may last an entire painting season. If the job is completely staged, I run around and hit all the nails at one time; otherwise, I carry a hammer and set any protruding nails as I go.

When I'm stripping paint, I don't want debris to rain down the wall and cling to lower surfaces, so I always start at the bottom and work

Why good paints go bad

Paint failure is a broad topic worth an article to itself. Fortunately, *Fine Homebuilding* addressed the issue a few years back ("Why Exterior Finishes Fail," *FHB* #110, pp. 61-65). As a painting contractor, I examine failed paint to determine what prep work I have to do to make sure my paint stays put.

Chalking (photo right) is a sign that good paint has reached the end of its useful life. Even if the underlying paint surface is sound, the "chalk" must be washed away, or the new paint won't stick.

Sharp edges (photo left, facing page) where an older layer of paint slices through a newer one point to insufficient handscraping. Usually, this problem can be fixed by scraping the loose paint and feathering the edges with a palm sander.

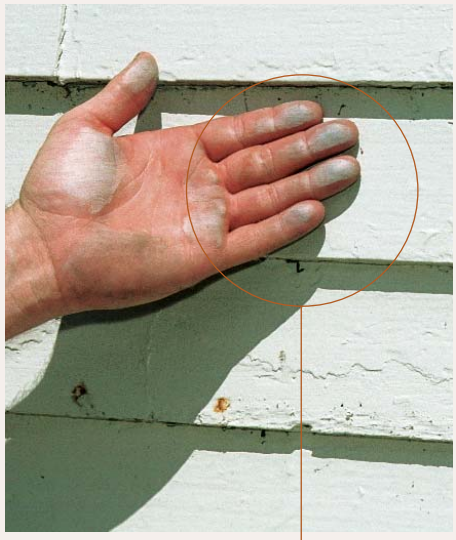
Other paint failures are more serious.

Cross-grain cracking, or alligatoring (photo center, facing page), arises from too many coats of paint. Alligatoring is a sign that paint needs to come off.

Paint peeling away in sheets (photo right, facing page) is often a sign of underlying moisture problems that must be corrected before repainting can begin.

A high-quality latex over oil can be a problem. The latex bonds with the oil underneath, and when the latex expands and contracts due to temperature differentials, it pulls the more brittle oil paint right off the surface. For this reason, it's often best to remove all the oil paint from southern exposures on older houses before repainting with latex.

—*J. T.*



Chalking just requires a good cleaning.

my way up. That way, I'm always working into a clean area. What makes the Paint Shaver such an effective workhorse is that its multisided carbide blades are mounted in the cutterhead so that they remove paint simultaneously from the face of one clapboard and the bottom edge of the one above (photo top left, p. 79). A U-shaped steel guard that surrounds the blades controls the depth of cut. To reduce the likelihood of damaging fragile clapboards, I adjust the tool for a shallow cut and make several passes over the wall surface.

Even with blades set for a shallow cut, if you've never used one of these tools before, you can chew up a lot of good wood before you get the hang of things. I always make sure new employees get plenty of practice on an inconspicuous spot before I turn them loose on the home's front entrance.

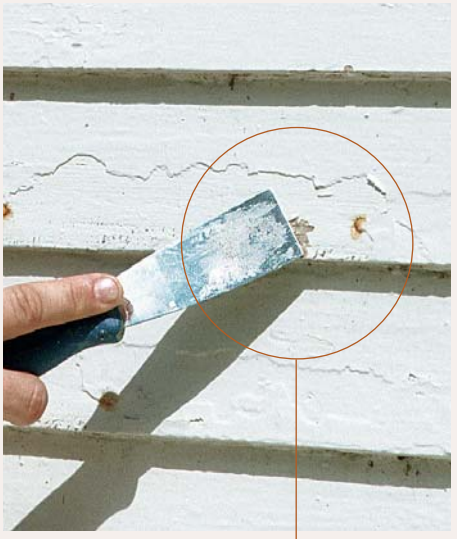
When I'm operating the Paint Shaver, I make sure that the steel guard (photo left, p. 79) that surrounds the cutterhead remains flat on the painted surface while I move the tool from right to left in a series of narrow (shoulder-width) passes. To ensure stability, I keep one hand on the auxiliary handle and guide the body of the scraper with my other hand (photo center right, p. 79).

Debris is collected at the source

If you've never used the Paint Shaver before, you should practice with the dust-collector removed (and wear a full-face respirator) because it's much easier to see what you're doing. Once you've gotten used to working partly by feel rather than entirely by sight, the value of the dust collector becomes apparent. My nonscientific opinion is that it picks up more than 95% of the debris, which makes it useful for any job but essential wherever lead paint might be involved (sidebar p. 81). Even the best dust collector is useless without a heavy-duty shop vacuum and a hose that's as long as the extension cord. I use twist ties to keep the extension cord and the vacuum hose together (photo p. 78).

The Paint Shaver isn't much good in corners, so now I just give them a light kiss and come back later with the Metabo. Although its manufacturer markets the Metabo Lf714S as a full-scale paint remover, it doesn't have nearly the power of the Paint Shaver, so it would take much longer to do a whole house. What it does have is finesse. The Metabo has a long, flat sole plate that makes it as stable in operation as a palm sander. Its depth adjustment is even finer than that of the

Getting rid of the fuzz. *After the paint is gone (photo below), a palm sander loaded with 40-grit sandpaper prepares an old softwood surface for primer.*



Sharp edges need scraping and sanding.

Alligatoring means it all has to come off.

Peeling in sheets points to hidden moisture problems.

Paint Shaver, and what's more, the cutting heads can be exposed on both sides as well as on the front (photo bottom left, p. 79). This setup makes it easy to reach deep into corners (photo bottom right, p. 79).

Chemical stripper cleans out the nooks and crannies

After I've hit each corner with the Metabo paint remover, there's usually a silver-dollar-size wedge of paint that needs attention. To get the last bit of paint out of the corners, and (more important) to remove paint from trim details, I use chemicals. About a year ago, I discovered a new product called Back to Nature Multi Strip (800-423-7733; www.backtonatureprod.com) that consistently removes multiple layers of paint (latex as well as oil) with one application. It's also relatively safe. Whereas most paint strippers are extremely caustic, Multi Strip is water-based and requires no special neutralizing agents.

Despite this product's benign nature, I still put on rubber gloves, long sleeves and long pants before I begin the application process. Using a disposable 4-in. brush, I apply the stripper, a semipaste, in a thick, even coat (photo p. 80), then wait for it to take effect. Air temperature, paint thickness and types of paint all influence the effectiveness of the chemical stripper. All I can do at this point is watch the area and look for signs of bubbling and discoloration, occasionally testing a small section until I'm sure that the stripper has done all the work that it's going to. In my experience, this process can take anywhere from four hours to 24 hours. Then I scrape the surface and apply a second coat, if necessary.

Trim surfaces need the least attention

Once all the siding has been stripped, I often stop there. Trim surfaces rarely undergo expansion and contraction to the same degree that wall surfaces do, so even if it doesn't look better, the trim paint is usually in better shape. Most paint failure on trim is localized (rather than systemic) and does not require removal to bare wood. In most cases, I simply hand-scrape the loose paint, then sand the edges. For hand-scraping trim elements, especially complex profiles, I use ProPrep scrapers (Spectrum Tools; 800-229-2233). These well-balanced tools (top photo, p. 81) come with a wide variety of interchangeable blade profiles. (For the author's take on a new brand of paint scrapers, see "Tools & Materials," p. 120.)

When I encounter massive paint failure on trim surfaces, I'm more dependent on chemical paint removers than I am on wall surfaces. Fortunately, the combination of a sharp blade, the right profile and some effective chemicals makes this job faster and easier than it was in the past.

Mechanical paint removers, by design, are rough-cutting tools. To prepare a surface properly for paint , most tool manufacturers recommend power-sanding the surface after the paint has been removed. Unless the homeowner insists on perfectly smooth surfaces, I prefer to minimize this step. In fact, I've found that the "tooth" left behind by the paint remover aids significantly in helping the new paint bond to the house, so I take pains not to oversand.

However, after the paint is removed from old softwoods, such as white pine, the surface is left with a furry nap that must be taken down (inset photo, facing page). In these cases, I quickly go over the entire surface with a palm sander (bottom photo, facing page).

Before priming, I lightly pressure-wash the bare wood to remove dust and chemicals. Whenever lead paint is involved, I make sure to capture the dust from the house and not let it wash into the soil. A light wash can be contained using 2x4s and plastic drop cloths. After the water has evaporated, the plastic is carefully bundled up for disposal. □

ONLINE CONNECTION

Read "Why Exterior Finishes Fail" from *FHB* #110 on our Web site at www.finehomebuilding.com.

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