Prescription Safety Glasses



On-Guard O58

They can be hard to find, but today's safety glasses are as attractive as designer street glasses and offer much better protection

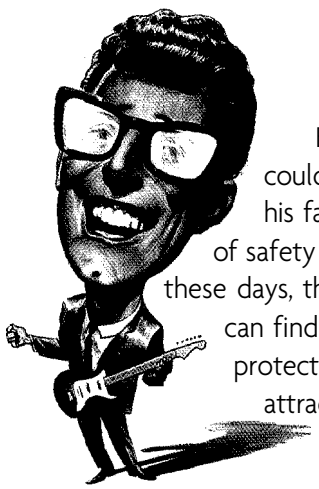
BY TOM O'BRIEN

Anybody remember Gump Worsley? He was the last goaltender in the National Hockey League to play his entire career without wearing a mask. Worsley, who retired in 1974, is the perfect symbol of a bygone era: a time before bicycle helmets, child safety seats, shoulder harnesses, air bags and secondhand smoke; a time when lead paint and asbestos were respected building materials. Thankfully, we take personal safety a lot more seriously these days—except when it comes to our eyes.

According to the Occupational Safety and Health Administration (OSHA), 1,000 eye injuries occur every day in American workplaces, almost one-third resulting in some vision loss. Prevent Blindness America, the nation's leading volunteer eye-health organization, estimates that as many as 90% of these injuries could be prevented with the use of proper eye wear. Some work hazards—chemical handling, spot welding, concrete chipping, for example—require specialized types of eye protection. But for the most part, residential builders just need a good pair of safety glasses with side shields.

Why not street glasses?

A job site is a dangerous place. You never know when an errant nail, a lump of concrete or a dropped pry bar might fly through the air. Cliff Valarose, a health and safety trainer with the United Brotherhood of Carpenters, emphasizes that safety glasses are not something to be worn only when you think your eyes might be at risk. "Safety glasses with side shields must be worn all the time. If you get in the habit of taking them on and off, you'll get complacent, and that's when serious eye injuries can occur."



Buddy Holly could always get his favorite style of safety glasses, but these days, the rest of us can find serious eye protection in many attractive styles.

Drawing: Matt Collins

Builders with 20/20 vision have it relatively easy: They can choose safety glasses from a huge variety of wraparound styles that look almost as cool as the Oakley sport glasses worn by professional athletes. Of course, they have to get used to wearing glasses all day long. Visually challenged builders like me don't have that problem. But we have the

dork factor to contend with. For years, our eye-protection options were limited to inexpensive but dorky safety specs that we had to wear over our street glasses, or we could choose from a limited number of dorky prescription safety glasses, all of which involved minor variations on the Buddy Holly theme.

Small wonder that many of us convinced ourselves that our street glasses were all we really needed to protect our eyesight on the job. These days, all eyeglass lenses are designed to be shatterproof, so street glasses can provide a modest level of eye protection. But they offer no protection against side impacts or severe frontal impacts. Terry Krug, a construction instructor at OSHA's Training Institute, warns that a severe impact can shatter a street-glass lens, or worse, he says, "The lens could be driven into the eye and actually scoop out the eyeball." Yuck.

Safety lenses, frames and side shields are designed to work as a system that protects the eyes from impact. All safety glasses have to meet the ANSI Z87.140 standard for impact protection. The testing procedures involve dropping a high-mass object onto the lenses and firing a high-velocity (BB-like) projectile into the lenses. Safety glasses that meet the ANSI standard will have the manufacturer's logo etched into the corner of each lens and the Z87 symbol stamped into the frames and side shields (bottom photo).

Plenty of options (now) available

If you tried to buy safety glasses in the past and found nothing but dismal choices, look again. Major manufacturers such as Titmus and AOSafety have seen the light. Remove the side shields (off the job site), and their top-of-the-line offerings could be mistaken for the best of Ralph Lauren or Perry Ellis (photos right). As with designer frames, you should expect to pay upward of $300 (including lenses) for the Titmus Titanium series or AO's Urban series, but you will not be embarrassed to attend a job meeting while wearing these safety glasses.

Even inexpensive safety glasses have come a long way. The most basic styles still make the wearer look like a Drew Carey wannabe, but you can purchase a reasonably attractive frame with single-vision lenses for as little as $100 (top photos, p. 82).

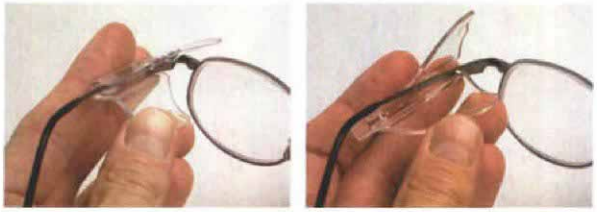
Street-style safety glasses equipped with side shields provide very good front and side protection, but they do not fully seal the eyes. Workers whose jobs involve dangerous chemicals, lead paint, severe dust or other hazards need more aggressive eye protection (photos p. 83). A guide for selecting the appropriate type of eye and face protection for

NICE ENOUGH TO WEAR OUT

Lightweight, comfortable and attractive frames such as the Titanium series from Titmus and the Urban series from AOSafety will make you forget you're wearing safety glasses.



Titmus Ext6 Titanium



Easy on, easy off. A simple twist of the wrist is all it takes to remove the side shields, thus allowing these safety glasses to double as street glasses. For adequate protection, side shields must be worn on the job.



AOSafety Urban 1



PROOF THEY'VE PASSED THE TEST

All safety glasses that meet the ANSI Z87.140 standard for impact protection have the Z87 symbol stamped into the frames and the side shields.

EVEN BUDGET STUFF IS LOOKING BETTER

The Rx3003 from Uvex is an inexpensive version of that company's familiar nonprescription safety frame. The SC900 from Titmus is the most popular safety frame that company sells. Both frames can be set up with single-vision lenses for a total cost of $100 or less.



UVEX Astro Rx3003



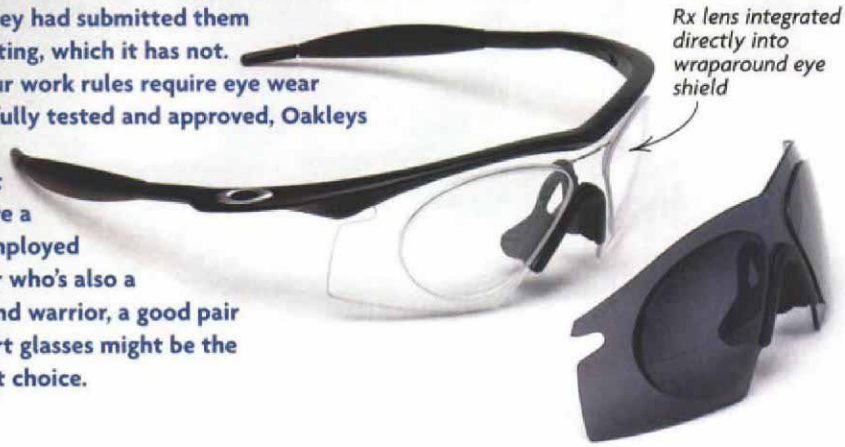
Titmus SC900

SPORT GLASSES ALSO PROVIDE SERIOUS EYE PROTECTION

Professional athletes depend on sport glasses such as the M Frame from Oakley (800-878-8584; www.oakley.com) to protect their eyes. Can builders do the same? The short answer is yes. According to Sloane Costello, sales manager for Oakley Rx, Oakley's lenses exceed all ANSI Z87.140 standards for impact protection. He assures me that their frames would also exceed ANSI standards if Oakley had submitted them for testing, which it has not.

If your work rules require eye wear that's fully tested and approved, Oakleys won't do. But if you're a self-employed builder who's also a weekend warrior, a good pair of sport glasses might be the perfect choice.

—T. O.



particular hazards is available by visiting OSHA's Web site (www.osha-slc.gov/OshStd_data/1926_0102.html). Depending on the situation, workers may wear protective goggles or face shields over safety glasses.

The right optician is essential

For years, the market for safety glasses was almost exclusively factory workers. Manufacturers sold their products directly to the workers or their employers, so there wasn't much incentive for private opticians to get involved. All of that is changing, but it's changing slowly. If you walk into a suburban LensCrafters, for example, and ask to see their safety glasses, don't be surprised if the clerk has to root around for 10 or 15 minutes before finally emerging with a dust-covered case that contains four or five nearly identical pairs of Buddy Holly glasses.

In my limited experience, independent opticians tend to be more knowledgeable about safety glasses than the major eye-wear chains; however, I've been told that the optical departments at many Sears, Target and Wal-Mart stores have recently begun to expand their inventories of safety frames. The best way to hunt down a knowledgeable dispenser of safety glasses in your area is to use the search features available at most of the manufacturers' Web sites (sidebar facing page).

Any optician can order a frame for you, but a first-rate dispenser of safety glasses will stock a wide selection of frames you can try on in the store. A knowledgeable optician can help you find the right fit—for safety as well as appearance—and help you choose the best lens options. All the lens-grinding options available for street lenses (such as progressive lenses, bifocals and trifocals) can be accommodated within safety lenses.

The material from which a safety lens is made can be glass, plastic or polycarbonate. Polycarbonate is almost always the best choice. Lighter than glass, more impact-resistant than either glass or plastic and more scratch-resistant than plastic, polycarbonate also filters out harmful ultraviolet (UV) radiation.

A clear polycarbonate lens eliminates UV radiation but not the sun's glare. Fortunately, builders who work outdoors have a number of options for safety sunglasses. Any lens material can be darkened. A safety lens can also be made as a photochromic lens, which darkens and lightens according to changing light conditions. A few styles of safety glasses are also available with clip-on sun lenses.

Don't just wipe 'em on your sleeve

If they're worn correctly—eight hours a day, five days a week—safety glasses will collect

Rx FOR EXTREME CONDITIONS

Guard Dogs from U. S. Safety (photo below) provide superior protection from flying objects and airborne particles. Stealth goggles from Uvex (photo right) also protect against chemical splashes. Both models feature prescription inserts that mount behind the replaceable safety lenses.



Both models of safety glasses easily come apart for cleaning or for replacing the wraparound safety lenses.



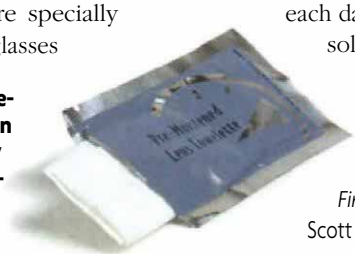
Stealth goggles (Uvex)



Guard Dogs Purebred (U.S. Safety)

plenty of dirt and grit. Polycarbonate lenses are scratch-resistant, not scratchproof. Job-site dust that settles on the lenses will act like sandpaper if dirty lenses are merely wiped clean. "Wash your glasses when you wash your hands," says Francine Jones of Titmus Optical. Jones recommends rinsing safety glasses under water, washing the frame as well as the lenses with hand soap and wiping them dry with a clean, soft cloth. If water is not available, she suggests using premoistened towelettes that are specially made for cleaning eyeglasses (photo below). Cleaning time is also a good time to inspect safety glasses for signs of damage. Breaks or weaknesses in the frame or deep scratches in the lens are signs that the glasses may need to be replaced.

With their easily removable side shields, the new generation of designer safety glasses is so attractive that wearers might be tempted to dispense with their street glasses altogether. This practice is fine, providing the wearer remembers to replace the side shields each day before starting work. A better solution is to invest in a pair of safety glasses that is dedicated specifically for work. □



Job-site cleaning kit. Premoistened towelettes can be used to clean safety lenses when soap and water aren't available.

Tom O'Brien is an associate editor at *Fine Homebuilding*. Photos by Scott Phillips.

Sources of safety glasses

Here is a list of some of the most prominent manufacturers of prescription safety glasses.

AOSAFETY (division of Aearo Inc.)
5457 W. 79th St., Indianapolis, IN 46268
(800) 982-2828 / aosafetysrx.com

ARTCRAFT OPTICAL CO. INC.
57 Goodway Drive S., Rochester, NY 14623
(800) 828-8288 / artcraftoptical.com

HUDSON OPTICAL
18TV-5 Drive, Henderson, NV 89014
(800) 458-1920

ON-GUARD SAFETY CORP.
2-344 N. Rivermede Road
Concord, ON, Canada L4K 3N5
(800) 268-1265 / onguard.ca

TITMUS OPTICAL
3811 Corporate Drive, Petersburg, VA 23805
(800) 446-1802 / titmus.com

U.S. SAFETY
8101 Lenexa Drive, Lenexa, KS 66214
(800) 821-5218 / ussafety.com

UVEX
10 Thurber Blvd., Smithfield, RI 02917
(800) 343-3411 / uvex.com