

# SAFETY SHOOTER



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## Pump Safety— The Forgotten Screen

It seems like every time we take delivery of a new pump, everybody wants to climb all over it. They love to check out all the controls and features, comparing them to the equipment they have been using. Of course, they thoroughly review all the safety and oper-

ational information on the numerous decals.

The hopper seems to draw the most attention. I guess it's because of the lack of concrete stuck on the sides of the hopper and on the swing tube. It is at this time that everyone vows to keep the pump spotless and clean, just like brand new. While everyone is still looking at the hopper area, the pump operator is lifting the screen. This time, the superintendent and foreman tell him that the screen will remain closed on the hopper at all times! The pump operator looks at them (probably rolling his eyes) and gives them a "10-4" nod, knowing that shotcrete with a slump of 1-1/2 to 2 in. will stack up on that screen like a two-story building.

On the first day of operation, the pump operator usually has covered the pump with so much WD 40 and diesel fuel to protect the pump's surfaces that the pump looks like an off-

shore oil spill. It's new and everyone wants to keep it clean. The day goes well, the pump operator watches all his loads carefully, and it is a great day. The screen was lifted only once to clean the hopper sides. Piece of cake, love that screen. The day goes well but the pump looks like a dust ball, covered with dirt and dust from the jobsite attracted by all the oil and diesel fuel applied to keep the pump clean. The new pump looks 50 years old. And now it's time to clean the hopper, and that means chipping-gun time to shotcrete pumps. The screen comes into play now. Shotcrete has built up on the hinges and it's hard to open all the way. Once

opened, how does it stay open? You then use the famous shotcrete tool (tie wire) to keep it from hitting you in the head while you are jack hammering out the hopper.

On the second day, the WD 40 and diesel are held to a minimum. The brand new pump already looks like it has been through a war zone. Everyone agrees that it is only dust, but it still looks ugly. Today is a 100 yd<sup>3</sup> shotcrete day—a big day for the new rig and it's going to be a hotter day. At 12:00 p.m., the trucks are starting to back up on the pour. The operator is having a hard time pumping the hotter shotcrete. It starts building up on the screen. The screen is cleaned and reset. Shotcrete keeps building up on the screen and the trucks keep lining up waiting to unload. The screen is now put to the side so the concrete truck operator can clean his chute and the pump operator can clean the pump hopper. From that minute on, that screen is gone. I don't know where they go, but they disappear. Gone—no one can find it. If you ask workers where the screen is, they can't tell you. It's just gone. That screen grew legs and walked off the site.

So what can we do to be safe and productive at and around the hopper? We have come up with two ideas to keep the screen on the pump hopper. We know it is hard to use a screen in hot weather with shotcrete, so why not put a hole in it where most of the shotcrete falls, and reverse the swing of the screen so it does not hit you in the head when cleaning it? We now have screens on all of our pumps, thus keeping hands out of the hopper area. And remember—a swing tube can amputate a finger or hand in a fraction of a second!

Whether you are pumping with a new rig or Old Faithful, the hopper is an area with the potential for serious injuries. Taking steps to keep screens in-place and cleaned will keep your personnel from incurring those injuries. Hands and hoppers do not mix!

