

## IN-CAB MONITOR KEEPS AN EYE ON MARKER FURROW MADE BY 95-FT. SPRAYER

# Video Camera Scans Sprayer Marker Furrow

"It lets me follow the marker furrow made by my 95-ft. sprayer without having to strain to see it. Greatly reduces operator fatigue," says Bill McLaren, Maidstone, Sask., who designed a video camera system that mounts on his sprayer to help guide it through the field.

The heart of the system is a pair of cameras, each mounted 2 1/2 ft. from either end of the sprayer. The cameras focus on the furrows made by disc markers at the end of the sprayer. A video screen mounts in the cab directly in front of the operator. McLaren simply watches the screen and adjusts steering to keep the furrow at the center of the screen.

"It's almost like I'm sitting on the end of the sprayer boom while I drive the tractor. All I have to do is watch the monitor screen," says McLaren.

McLaren bought a home security camera system, which included cameras and video monitor, at Radio Shack for \$500. He mounted each camera inside a plastic peanut butter jar and packed it with foam rubber, then replaced the lid with a clear glass lens that clamps in place, making a waterproof seal. A rubber ring inside the jar keeps the camera from rotating.

"It works especially well for me because I have a bad back that makes it hard for me to twist and turn. However, I think it would help anyone who operates a sprayer," says McLaren. "I use it on all my crops. One unexpected bonus is that when spraying a lush green crop I can see the wheel tracks so well I don't even have to use the disc markers, which can cause crop damage. If I come to a place where I can't follow the wheel tracks, I simply drop the disc marker back down again.

"I originally wanted to use the cameras on my chemical fallow land where I use Roundup to burn weeds down. I didn't want to use disc markers because they kick up dust that covers the weeds and deactivate the herbicide, causing a green strip of weeds along the furrow. I thought that the cameras could follow the wheel tracks so that I wouldn't have to use disc markers. However, I found that the wheels don't make much of a track in dry stubble.

"Another advantage is when I'm spraying near the edge of a field I can see on the camera if the end of the boom will clear brush, sloughs, power poles, etc.

"I use a 4 1/2-in. video screen, but I think an 8 in. screen would provide a clearer picture. Glare from sunlight can be a problem in the early morning or late afternoon.



Cameras are encased in plastic peanut butter jars.



Video screen mounts in cab directly in front of operator.

I mount a plastic ice cream pail lid over the camera whenever I think glare might be a problem. I thought the picture would be shaky, but my Flexicoil sprayer has a good boom suspension system and the trailing arms that support the wheels are mounted on shock absorbers so it rides smooth," says McLaren.

He used part of an old cultivator shovel to make a "saddle" for each jar. The saddle is welded to a clamp that bolts onto the toolbar. To remove the camera he simply removes two nuts.

A 3-ft. long wire at the back of each camera "quick connects" to wire mounted the length of the implement. "I also plan to mount a separate set of wires on other implements so that I can use the cameras on them without having to transfer wires," says McLaren. "I may use the cameras on my air seeder, cultivator, and combine. I'll mount the camera on the rear fender of my tractor for use with the air seeder and cultivator. I plan to cut a hole in my combine and mount a camera in it so that I can watch the sieves from the cab."

Contact: FARM SHOW Followup, Bill McLaren, B & D Farm Ltd., Box 403, Maidstone, Sask., Canada S0M 1M0 (ph 306 893-4751).



Phillips' kit consists of small air tank with pipe out the top that hooks up to dirty filter, which is enclosed in a clear plastic bag.

## LETS YOU CLEAN FILTERS RIGHT AT HOME

# Air Filter Cleaning Kit

"My new air filter cleaning kit uses bursts of compressed air to blast dirt out of plugged filters at a fraction of the cost of buying new ones," says Larry Phillips, inventor.

Phillips, who showed the kit at the Western Farm Progress Days farm show in Regina, Canada, says he expects to have units for sale later this fall. The kit consists of a small air tank with a pipe out the top that hooks up to the dirty filter, which is enclosed inside a clear plastic bag. As 2 to 3-second bursts of air are blown into the filter, dirt and dust are caught in the bag and air is vented out the top of the bag.

"It's fast and easy to operate and can be used indoors or outdoors," says Phillips. "I built it to save money and time. It's a nuisance to send filters away for cleaning, and an 18 in. dia. one is about \$25. A new one that size costs \$60 to \$70. It works much better than washing filters by hand because there's no need to wait for the filter to dry and there's less chance of damaging the pleats.

"I can clean even the biggest filters in only 5 to 7 minutes. They come out looking

like new. I've cleaned some filters several times with no apparent damage to them. It usually takes two or three blasts of air to get each filter clean. I can clean filters up to 18 in. in dia. and up to 24 in. long. The larger the filter, the more pressure is needed. A pressure gauge mounts on the tank along with a bypass valve that keeps the pressure inside the bag from getting too high and damaging the filter. To clean big filters I have to pressurize the tank two or three times. The biggest filters take about 125 lbs. of pressure while the smallest require only 50 lbs. On filters that have an open bottom I use a steel plate to close them up.

"After the filter is clean I use a shop vacuum to remove any loose dirt on the filter. The air tank can also be used as a portable air tank for filling tires." Phillips says he expects the air filter cleaning kit to sell for about \$300 (Canada).

For more information, contact: FARM SHOW Followup, Filter-Kleen, Box 142, Weyburn, Sask., Canada S4H 2J9 (ph 306 842-5707).



because the design of the shanks sucks the points into the ground."

Contact: FARM SHOW Followup, David

Dobson, 310 Michigan Ave., Point Edward, Ontario, Canada N7V 1E9 (ph 519 383-8857).

## Subsoiler Points Made From Truck Springs

Old semi-truck springs can be used to make "no cost" replacements for worn-out subsoiler points, says David Dobson, Point Edward, Ontario, who uses home-built points on his 3-pt., 9-shank Landoll subsoiler.

Dobson cuts the 3 1/2-in. wide, 1/2-in. thick springs into 1-ft. lengths, then drills mounting holes in one end. He welds a short length of steel rod ahead of the bolt heads to deflect soil over them to reduce

wear.

"They last longer than conventional subsoiler teeth and save us a lot of money," says Dobson. "We've used them for two years. We used to go through four sets of subsoiler points each year and at \$20 apiece, it was a big expense to replace them. We also had to buy new bolts for them whereas we can use ordinary hex bolts to attach the truck springs. We buy the springs from a scrap yard. The springs don't have to be pointed at the end