

# The Meter Setter



## The Unexpected . . .

Freezing and thawing temperatures can create havoc with water mains during the winter months and change of seasons. Another source of stress for a water system is "water hammer." When water system valves or fire hydrants are shut down too quickly, the strain on piping can be significant. This type of activity can cause water lines to burst, crack, or separate.

Modern fire engines with high capacity pumps can draw a tremendous amount of water compared to the requirements of water systems built 100 years ago, leading to pump cavitations, or the collapse of the water main.

Other reasons for water main failure are the age and material type of the water main. Water mains most commonly are made of cast or ductile iron, steel, AC, PVC and HDPE pipe. Each of these materials have specific properties to consider when looking at possible problems and solutions. An active preventative maintenance program, as well as knowing the hydraulic capabilities of your water system, can sometimes alleviate water main breaks.

Several of these issues recently came into play in the small town of Keota, Iowa. In the early morning of December 4, 2010, a major fire began to consume several downtown business buildings. The water system was put to the test. Several neighboring fire agencies responded to



*Smart phone photos compliments of Bill Miller, Miller's Body Shop .*

the blaze, taxing the water system to the extreme. Below-freezing temperatures for the first cold snap of the winter, together with the stress of fighting the fire, led to the split of a four-inch cast iron water main.

The battle against this massive fire, combined with the main break, quickly drained about 350,000 gallons of water from the elevated storage tank in Keota. Facing the possible loss of the town's minimum water supply needs, firefighters began to haul water with tanker trucks from a neighboring community.

To Keota Public Works' credit, they had the repair clamp in stock and quickly repaired the main with a Ford Meter Box FS1-514 x 30 repair

clamp. Another leak sprung up a few hours later, but a Ford FS1-514 x 24 was waiting on the shelf to repair that leak.

We commend firefighters and public service workers for their tireless efforts to keep our towns safe. The Keota employees should be recognized for having the right equipment and supplies on the shelf to handle the emergency situation they faced that morning.

Plan ahead, stock your shelves with Ford Meter Box repair clamps, and be prepared for the unexpected! For more information about Ford repair clamps, contact your local Ford distributor or The Ford Meter Box Company.



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