

First-Round Winner

Innovations Challenge
<http://wwwi/intranet/cr/SolutionsAtWork/Innovations.htm>

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Prepared by Customer Relations
Missouri Department of Transportation

Pipe Liner Winch



Description

The Pipe Liner Winch is an 8-ton winch that is mounted on the boom of a backhoe. The winch has a rotating cable pulley that allows liners to be pulled through CM pipe in almost any direction.

Benefit

The pulley can be used for pipe that is out of reach or a pipe that is too tight to push a liner through. There is little to no impact to traveling public. The winch process saves money due to the amount of time to install many liners as compared to complete pipe replacement. Using the Pipe Liner Winch allows the work to be done off of the roadway making it safer for MoDOT crews. In addition, using the winch eliminates workers injuring themselves when pushing pipe liners.

Parts and Labor

(see list on back)

Total: \$1,100

Labor: 30 hours

For More Information:

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(417) 967-2225.

Additional photos can be seen at the Innovations Challenge homepage: <http://wwwi/intranet/cr/SolutionsAtWork/Innovations.htm>

Parts List:

12,000 lb. Winch
6' 4" x ½" flat plate
1' 2" id pipe 9 (heavy wall)
3' ¾" round stock
27" 2-¾ ID pipe
29" 2-½ OD pipe
½" pulley (heavy duty)
11"x2" pin
7"x2" pin
6"x2" pin
6 pin keepers
2' ½" round stock
8' 1 ½ x 1/8 angle (more may be needed depending on number of pullers)
8 ½ carriage bolts 2" long
8' 5/16 chain
8) ½ clevis's
1) ½ clevis
70' screed poles
17' #6 2-wire power cable
3) power cable connectors (for heavy cable)
1) 200 amp fuse