

Tool and Equipment First-Round Winner

Innovations Challenge

April 2017

Prepared by Transportation Planning
Missouri Department of Transportation

Underbody Flusher



Description

Cleaning the underbody of trucks helps prevent corrosion and rust from salt and other materials that are harmful to our equipment. Cleaning also helps detect possible future problems, such as leaks or cracks of any kind.

Benefit

Cleaning equipment helps with the longevity of MoDOT equipment which saves the department money, simplifies work and saves employees time cleaning equipment.

Materials and Labor

2 hours of staff time with \$70.20 in materials. Diagram on back page.

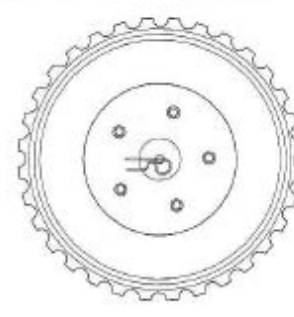
Underbody Flusher		
Innovation Challenge Materials and Cost Sheet		
Quantity	Material	Cost
1	6 ft Pipe	25
1	5' x 1 1/2" Square Tubing	13.5
1	18" X 5/8" Solid Round Stock	1.75
1	18 x 3/4" Round Stock	1.95
1	3"x 2" Square Tubing	0
2	4.00 x 6 x 13" 2 ply tires	28
4	Washers 1 3/4" round w/ 5/8" hole	0
2	Cotter pins	0
1	2" Valve	0
1	2" Female Fitting w/ Ears	0
Total		70.2

For More Information Contact:

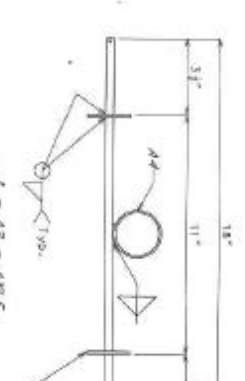
James Hake at James.Hake@modot.mo.gov or (573) 291-0717. Alternate contacts: Matt Brune, Parker Lawrence, Steve Matels, Jason Lackman and Ron Rothove.

Additional photos or videos can be seen by accessing the Innovations Challenge SharePoint page at: <http://sharepoint/systemdelivery/TP/Documents/InnovationsChallenge.aspx>.

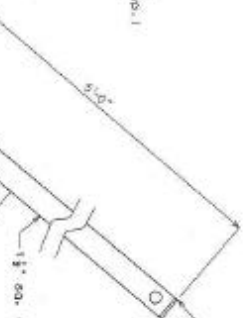




2 - A1 - OXLEY TYPE WHEEL
W/TIRE & BALL BEARING HUB



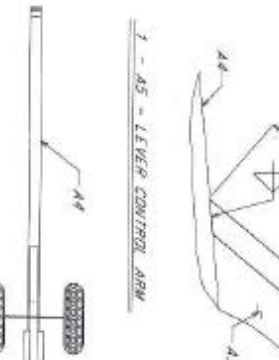
1 - A2 - AXLE
1/2" centered thru 1/2" dia. hole
of 12" thru 12" sq. tubing
1" dia. washer 1 1/2" x 1"



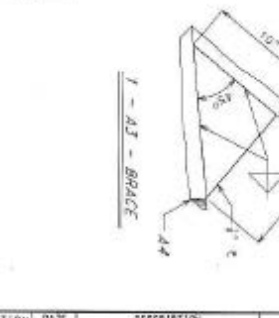
1 - A3 - HANDLE
3/8" dia. hole thru 1/2" dia. hole



1 - A4 - FLUSHER BARREL
1/2" thick



1 - A5 - LEVER CONTROL ARM



1 - A6 - BARREL STAND
3/8" x 2" steel
tubing 2' in
length and
to the bottom
of the hole



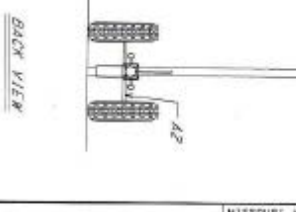
1 - A7 - FLUSHER BARREL
4' x 12"



1 - A8 - AXLE
1/2" centered thru 1/2" dia. hole
of 12" thru 12" sq. tubing
1" dia. washer 1 1/2" x 1"



1 - A9 - HANDLE
3/8" dia. hole thru 1/2" dia. hole



1 - A10 - BARREL
1/2" thick



UNDERBODY FLUSHER

DATE: 7/30/2017
DESCRIPTION:
M BRUNE
D LARENCE
J LACKMAN
S MATHEIS
R ROTHQUIE
D TAYLOR

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MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION
INNOVATION 2017

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