

MAGNET SYSTEM FOR ROAD DEBRIS

District #3, Phillips County, Colorado

Contact:

Mike Salyards

District #3 Supervisor

433 E Fletcher

Haxtun, CO 80731

mikespc3@schollnet.com

Problem Statement:

Rural residents complained of flat tires due to road maintenance.

Discussion of Solution:

Devised an automatic, trouble free magnet system. It is intended to remove nails, wires, screws, staples, and any other small metal pieces from the road surface while performing routine road maintenance without added operations.

Magnet system raised by the Maintainers built in air system.

Labor, Equipment, & Materials Used:

Welder, Metal Saw, and Drill. Miscellaneous square tubing and hardware, air cylinder, electric micro-switch, electric operated solenoid valve, 2 forty-eight in yard magnets. We also used two days of in-house labor.

Cost:

Miscellaneous iron and hardware: \$40

Air Cylinder: \$80

Electric Micro-switch: \$38

Electric operated solenoid valve: \$55

Magnets: \$535

The total cost was \$748.

Savings & Benefits:

No direct savings to Phillips County; however, indirect savings are seen in the motoring public spending less to repair flat tires that occur on Phillips County gravel roads.



Magnet shown in the "up" position



Shows one days collection of nails, screws, and other miscellaneous metal retrieved from the road surface. Approximately 10 lbs