SNOW REMOVAL PRACTICES

By H. A. Firestone, Elkhart County Highway Superintendent

We have four types of snow plows: namely, the blade type, the adjustable V-type with low mold board, the straight rigid V-type, and the large tractor-plow type for heavy going.

For light snow, not badly drifted, the blade-type plow is very effective on 2½ to 3-ton trucks. It can be driven at a relatively high speed and will serve to keep roads open and the pavement practically bare. However, a wind causing the snow to drift soon makes tough going for the blade plow, necessitating use of the V-type. These can not as a rule be driven at so great a speed, but will move drifts with greater ease than the blade-type plow with straight blade.

My experience has been with a heavy snowfall that our light truck equipment is not very effective when storms continue for a period of several days. With high wind, generally turning very cold, snow freezes in large drifts and we are then forced to use our heavy tractor plows.

We use two caterpillar tractors with the V-type hydraulic plow. These plows are operated on 24-hour shifts. As a rule, they are so far from the garage that by changing operators every twelve hours the men would lose too much rest getting to and from the plow.

We also have a power grader on pneumatic tires, equipped with a V-type plow which has proved very effective in heavy snowfall. Deep snow when badly drifted requires heavy weights, with of course power enough to drive the equipment. Trucks are good only for the weight you can get on them. Use of the V-type, high mold-board plow on a truck after the heavier-type equipment has opened a passage does a very creditable job of widening which speeds up the work a great deal.

In sections where there is much drifting to contend with, snow fence properly placed is very effective and will greatly reduce the costs of snow removal.

Starting on snow removal promptly is highly desirable. Much time is lost by snow removal crews on main highways where motorists have used poor judgment in trying to get through, in many cases without even tire chains, thus resulting in a series of stalled cars. These hamper our snow plows, and a lot of valuable time is consumed in pulling them out. Many times motorists leave their stalled cars locked on the road.

For the protection of traffic on roads where plow crews are working, we use red flags in the daytime and red lights, placed on the front end of the equipment, at night time. A plow on the road is a very dangerous piece of equipment, especially

after dark. Equipment should be painted yellow or orange, thus providing very effective visibility at night. Elkhart County uses the orange paint.

The cost of snow removal varies a great deal in different localities, and I know of no general cost basis to work on. Our costs have run as high as $75 a mile for the season, including depreciation.

Above all, care must be given equipment to be sure exhaust pipes and manifold gaskets are in good shape to avoid danger of poisonous gases in the operators' cabs.

The old practice of waiting until the storm ceases before starting snow removal is obsolete in this day and age when the motor vehic'e has created a demand for everyday use of our highways.

LOCAL ROAD ORGANIZATION AND ADMINISTRATION

By Elmer Harrison, Rush County Highway Superintendent

When I was appointed road superintendent in January, 1930, I eliminated the assistant superintendents on the recommendation of the commissioners. At that time there were 16 assistant superintendents, each having from one to three helpers. It was reported that part of these assistants were drawing pay and letting the helpers do all the work.

Our heavy equipment consisted of nine trucks, a motor patrol grader, a caterpillar 60 tractor, and a large grader. We installed the patrol system, giving each of the nine patrolmen a truck and assigning him a definite mileage of roads to maintain with full responsibility. The pay roll was thus reduced to about thirteen men. We had five one-man truck drag outfits, and with the other four we used two men when dragging. When we were using the trucks to haul gravel or stone, these extra men were assigned to whitewashing culvert headers, painting and repairing bridges, or operating the tractors and grader.

I require each truck driver and the motor patrol operator to keep a daily report of roads dragged, amount of gas and oil used, and number of miles traveled. If hauling gravel or stone (we have gravel in the central and northern part of the county and stone in the southern part of county), they must record the number of yards hauled, the name of the road repaired, the miles traveled, and the amount of gas and oil used. On this report, there is a place for the cost of each repair. At first I had most of the repair work done at the local garages, but have gradually worked away from this until now we do all of our repair work at our central garage. In