

The Basics Of Snow Removal

By JAY ROMANO

LAST winter, the New York City Department of Sanitation issued about 9,000 summonses to property owners who failed to shovel their sidewalks after snowstorms. Over a five-day period last month — Jan. 19 through Jan. 23 — the department issued 6,908 such summonses in the aftermath of just one storm.

And while officials deny that any “ticket blitz” is under way, the message is nevertheless clear: keep your sidewalk clear of ice and snow.

In suburbia, that may mean hauling out heavy equipment like plows and snow throwers. In the city, though, for most property owners, more conventional equipment is employed: the old-fashioned snow shovel. Not all snow shovels are created equal, however, and not all such tools are shovels.

According to the National Retail Hardware Association, a trade organization based in Indianapolis, there are a number of different muscle-powered snow- and ice-removal tools available.

The most common snow removal device, of course, is the snow shovel.

“The basic stock includes steel, aluminum and plastic snow shovels,” said Walt Johnson, a spokesman for the association. Standard shovels made of steel, he said, typically have 14-inch-by-18-inch enamel-finished blades with 33-inch handles. Aluminum shovels are usually that size as well with steel wear straps — metal strips at the leading edge of the blade. Plastic shovels, Mr. Johnson said, generally weigh less, with ribbed blades for extra strength. “They shed snow easily and can be lower priced than metal shovels,” he said.

While most shovels designed for snow have wide flat blades, some have narrower blades with sides so they can be used for lifting and throwing wet heavy snow.

Mr. Johnson noted that besides standard shovels, there are a number of newer designs available, including shovels with ergonomically designed shafts intended to reduce back strain.

Another category of snow removal tool, he



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Not all snow shovels are created equal, and not all snow clearing devices are even shovels.

said, are snow pushers. “Snow pushers are not designed for lifting and throwing snow,” Mr. Johnson said, adding that instead, snow pushers typically have sharply curved blades designed to get snow out of the way by pushing it.

“There are even new designs in snow pushers,” he said, referring to a product now being sold that adopts a design found on large snow plows. Instead of having a uniformly curved blade that pushes snow directly in front of it, the new design instead has a blade that is curved more sharply at one end, thereby moving the snow off to the side and allowing the pusher to make long, straight, continuous passes. Some such snow pushers even have wheels.

All such devices, of course, rely upon the muscle power and endurance of the operator. And since most homeowners are not professional shovelers, they should do everything possible to maximize their efforts while minimizing the chance of, say, a heart attack. “The most important things to remember are: use the right shovel for the job at hand and don’t overdo it,” said George Maher, a farm safety specialist at North Dakota State University in Fargo.

For example, he said, a shovel needs to fit its operator. “There’s such a thing as a shovel that is too long or too short,” he said, adding that ideally, the handle of the shovel should be such that the shovel can be used while the person using it is standing up fairly straight. “You definitely don’t want to shovel bent over,” he said.

In fact, he said, ergonomically designed shovels — those that have an irregularly shaped shaft — are generally designed so

that they can be used without bending over. And shovels that have "D" handles at the end of the shaft are typically easier to use than those with just a straight end. "The D handle makes it easier to control where you throw the snow than a pole handle," Mr. Maher said.

He added that while plastic shovels are generally lighter and less expensive than steel and aluminum shovels, they may not be sturdy enough for heavy-duty snow removal. "And I wouldn't use a plastic shovel to try to break up ice or frozen snow," he said. "I'd be afraid that the blade could shatter."

While "pusher shovels" can typically handle more snow than standard shovels — because pushers do not require lifting — there are limits to how much they can handle. "You have to be careful to not get one that's too big," Mr. Maher said, adding that such shovels work best with no more than four inches of snow.

Deeper snow "will overload you and cause muscle problems later." In fact, he said, it generally makes sense to use a shovel or pusher with a smaller blade instead of a large one. And it is also more prudent — during a prolonged snowfall — to clear a manageable amount of snow a number of times rather than wait for the storm to end. "This is based on the principal that you can do many light jobs better than you can do one or two heavy ones," Mr. Maher said.

He added that regardless of what kind of tool is being used, it helps to ensure that snow does not stick to the blade. With newer shovels coated

with a naturally slippery finish, sticking generally is not a problem. To avoid having snow stick to older or uncoated shovels, however, it may help to take the shovel indoors to warm it up, and then spray it with penetrating oil like WD-40. "You can also use spray wax on a shovel blade to keep snow from sticking," he said.

A relatively new addition to the homeowner's snow remover arsenal is the Masi Nova Snow Pusher.

"I love it," said Nicole Gay, manager of Towers Flowers in West Islip, N.Y. "It's not heavy, not awkward, and it's easy on the back." Ms. Gay said that she just started using the shovel this year, and that it is much easier to use, and moves more snow, than ordinary shovels.

The Masi Nova, which is manufactured by Motoseal, a company in Rauma, Finland, is a combination, of sorts, of a shovel and a pusher. (Picture a 31-inch-wide-by-26-inch-deep dustpan with high sloping sides, a high back and a U-shaped, baby-carriage-like handle attached at both sides.)

Kari Tikkanen, the owner of Finn Smart/USA, the United States distributor of the Masi Nova in Babylon, N.Y., said the design of the shovel makes it possible to move large amounts of snow easily because the bottom of the shovel slides over the ground like a child's plastic sled. When the bucket is full, he said, the user just rotates the plastic bucket to one side or the other and dumps the snow. "You never have to lift the shovel except to put it away," he said. (The shovel, which lists for \$70, is available at primoshop.net)

While removing the snow from the sidewalk might be enough to keep the

Department of Sanitation's ticket writers at bay, it is typically also necessary to take some preventative steps to ensure that ice does not form after the snow has been cleared. And that can be accomplished with the judicious application of a deicer.

"There are basically five common deicers," said Greg MacDonnell, marketing manager for the Dow Chemical Company in Ludington, Mich. The most common deicing product, of course, is sodium chloride, commonly known as rock salt. The others are calcium chloride, urea, potassium chloride and magnesium chloride.

While salt is relatively inexpensive, Mr. MacDonnell said, it is effective at melting snow and ice only when the temperature is about 20 degrees Fahrenheit or more. For potassium chloride and urea, he said, the practical limit at which they will work is about 25 degrees. Magnesium chloride and calcium chloride, on the other hand, will both work at lower temperatures. The practical limit of magnesium chloride is about zero degrees, and calcium chloride, about 28 degrees below zero.

Glen Kotowski, general manager of North Shore Towers, a three-building 1,844-unit co-op in Floral Park, Queens, said his maintenance crew used calcium chloride to keep several acres of parking area and a couple of miles of sidewalk from freezing. To apply the deicer — which can cause damage to grass — his employees employ a tool typically used in fairer weather.

"You don't want to get calcium chloride on your grass," he said. "So we use a fertilizer spreader with a shield to control distribution." ■