

SNOW THROWER SAFETY CONSIDERATIONS¹

Now that a major snow fall event has occurred, current and new owners of snow throwers are realizing how this piece of powered equipment can assist in rapid snow removal and some have learned about the hazards related to snow throwers. This fact sheet will review the latest findings from the Consumer Product Safety Commission's study of injuries related to snow throwers from 1990 through 1997 of which Michigan was included in the data.

Safety Concerns With Snow Throwers

Each year an estimated 4,295 injuries occur to operators of snow throwers. Most snow throwers being used are the walk-behind gasoline powered type. Some product and operator characteristics of 43 blade contact accidental injuries investigations with snow throwers are:

- G** The ages of operators ranged from 15 to 72 years.
- G** Half of blade-contact injuries were amputations.
- G** All except one of the contact injury were to fingers.
- G** Nineteen of the contact injuries required hospitalization and 14 of these involved amputations.

G About 75% of blade-contact injuries studied were related to older units built in the 1970's and 1980's. Most models of self-propelled types manufactured since 1975 are equipped with a "deadman safety control" that stops the big collector-impeller in 5 seconds when the operator releases the lever at the handle.

G About 80% of the blade-contact injuries studied involved machines with the engine running.

G Some blade-contact injuries associated with snow throwers were with the engine off. Blocked auger/collectors and impellers can "spring back" when cleared and may cause personal injury, even with the engine stopped.

G 86% of the blade-contact injuries involved two stage walk-behind units containing a second set of impeller blades located inside the discharge chute.



*Most snow thrower injuries happen when consumers try to clear snow from the discharge chute or debris from the auger/collectors. **Keep hands and feet away from all rotating and moving parts.** Stop engine and wait for everything to stop and then use a long stick or shovel handle to clear blockages.*

Contributing factors that may have resulted in injury.

- Leaving the engine running and blade engaged while attempting to clean the discharge chutes.
- Not waiting until the coasting blades stop rotating.
- Gloves or mittens caught in the blades.
- Lack of deadman control of defeated/removed unit.
- The deadman control in earlier models (built in 1970's or early 1980's) may not operate accurately.
- Machine malfunction or drive-belt adjustment.
- Unfamiliarity with machines (first-time users).
- Fatigue, rushing the job or slipping on icy surfaces.

PLAN FUEL NEEDS FOR A SNOW THROWER!

Fuel tank capacity and the approximate running time per tankful will demand planning for a supply of fuel and refilling time intervals. Store gasoline outside of the home and not in a garage. Use a small unattached storage shed for this purpose that is located away from your home and garage that can be locked to keep children and others away from your fuel supply. Limit your fuel supply to just a two gallon gasoline can which is easier to handle with less spills. Fill your snow thrower outside after it cools.

Always wait about five minutes for any gasoline engine to cool down prior to refueling. Excessive engine heat could cause a fire or explosion, if you spill fuel on a hot engine.

Safety Tips For Operators of Snow Throwers:

G Keep hands and feet away from all rotating and moving parts.

G Stop the engine (remove the key, spark plug wire or power cord) whenever you leave the operator position to make repairs or adjustments on inspections.

G Never put your hand in the discharge chute or near the auger/collector to remove snow, sticks or other debris.

Blocked auger/collectors and impellers can “spring back” when cleared and may cause personal injury, even with the engine stopped. Always use an object such as a long stick or shovel handle to clear blockages.

G Keep the area of operation clear of other people and pets. Do not aim the discharge at people, automobiles, windows, etc. as sticks, stones and chunks of ice can be propelled causing damage or injury.

G Electric Powered Snow Throwers: Be aware of the power cord on electrically-powered snow throwers at all times. Check cords for cuts or breaks in the insulation. Older worn or damaged electrical cords should be replaced. Newer electrically-powered snow throwers are double insulated for shock protection of the unit. Extension cords with two or three wires can benefit from being plugged into a ground fault circuit interrupter (GFCI) outlet for human shock protection. Small cracks in the extension cord's insulation cover can occur and can not be easily seen with a visual inspection. Always use a GFCI with extension cords when working in damp/wet locations.

G Read the owners manual for the snow thrower and maintain the machine as directed by the manufacturer.

WET HEAVY SNOW CLOGS SNOW THROWERS IN 81% OF THE 43 BLADE CONTACT ACCIDENTS INVESTIGATED!

Within the group studied of 43 blade contacts by operators using snow throwers 81 percent occurred in the course of attempting to clear the discharge chute of wet, heavy snow.

Unclogging a discharge chute appears to be the most hazardous activity associated with the use of snow throwers.

MICHIGAN HAS MORE THAN ITS SHARE OF SNOW THROWER INJURIES?

18 percent of the 43 blade contacts by operators using snow throwers were in Michigan. This was the highest frequency among the 17 states whose snow thrower injuries were investigated. Within the eastern time zone of 17 states in this study, Michigan had the highest frequency of incidents with snow thrower injuries.

INJURIES ASSOCIATED WITH SNOW THROWERS

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Injuries to wrists, hands and fingers
71% of total injuries per year

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Amputations, fractures, and lacerations
66% were most frequently diagnosed of total injuries per year

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The hospitalization rate for snow thrower injuries is 9% per year. This is a much higher hospitalization rate than the average rate of 4 percent related to all consumer products according to the CPSC report.

1. Source: Snow Thrower-Related Hazards, 1990-1997, a Memorandum dated October 30, 1998 from the U.S. Consumer Product Safety Commission (CPSC) and, web site <http://www.cpsc.gov>.

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