



Efficient and Safe - Snow Clearing Planning & Practices

Before operating or servicing your Kolpin Snowplow, you should become thoroughly familiar with the owner's manual.

Personal Safety

- Always use or have ready to access the following safety equipment.
 - Winter rated helmet with a no-fog face shield
 - Warm clothes
 - Insulated and water resistant boots
 - Insulated underwear
 - Warm jacket (water resistant if possible)
 - Hat or Balaclava
 - Warm, water resistant gloves that allow you to operate all vehicle and plow functions
 - Sunglasses if needed

In case of an emergency, it is always a good idea to carry a cellular phone or two-way radio with you when plowing.

Basic Plow Safety and Operation Tips

- Never exceed the maximum snow plowing speed of 5MPH. Damage to the plow, mount, ATV and personal injury risk increase with higher speed.
- When transporting a snowplow, position the blade to the straight position. This will allow the greatest amount of ground clearance to avoid obstacles.
- When transporting the plow from site to site do not exceed 20MPH. The added weight of the plow can make the vehicle unstable at higher speeds.
- Never operate a plow while transporting it to and from a job site.
- When transporting a plow or while plowing, be aware of temperature of the engine. A snow plow may reduce the amount of air that normally passes through the vehicles cooling system. Overheating the engine can be costly. If overheating occurs while transporting or while plowing, stop and correct the problem. Additional means of cooling maybe necessary in some applications.
- Before it snows, walk around the area you will be plowing to check for obstacles that will become hidden when snow is on the ground. Look for obstacles such as parking stops and speed bumps, curbs, sidewalk edges, shrubs, water drains, fire hydrants, fences, tree stumps and pipes sticking up from the ground. To prevent damage to the area being

plowed as well as to your snowplow or vehicle, mark any obstructions that may be covered with snow in peak season.

- Each time you operate your vehicle in reverse gear, be sure to inspect the area behind you!
- When plowing loose surfaces, (gravel, rock or dirt) lower the plow shoes. This will raise the blade so you don't scrape the surface away.
- When plowing on hard surfaces, raise or remove the plow shoes so that you scrape as close to the surface as possible.
- Before every job should:
 - Check your vehicle's tire pressure
 - Drive belts for cracks and tightness
 - Hoses for leaks and vehicle fluid level
 - Examine the battery terminals for corrosion and make sure the connections are tight.
 - Make sure all the vehicle controls are functioning properly.
 - Check the vehicle headlights, brake lights and turn signals (if equipped) to be sure they are in good working order.
 - Check your strobe light or flashing warning light is working. (If you do not have a strobe light or backup lights, you should consider adding them to your vehicle to increase your own visibility, as well as making yourself more visible to others while plowing.)
 - Make sure your fuel tank is full before going out to plow.
 - Check your snowplow to make sure all bolts are tight. Look for cracked welds or damaged parts.
 - Check your snowplow cutting edge. Reverse (flip over) or replace your cutting edge if more than ¾" is worn across its length or from one or both of the ends.

Pre-Season Site Preparation

- Every area to be plowed should be inspected before snowfall for potential hazards.
- Holes should be repaired, raised manhole covers leveled or noted and obstructions noted to prevent damage to the plow mounting or vehicle undercarriage.
- Markers or stakes with reflectors should be in position to indicate boundaries of areas to be plowed, location of shutoff valves, catch basins and other hazards.
- Markers should be at least three feet above the ground; higher in areas of deeper snowfall. The first step in organizing an efficient plan is to prepare a map or procure a blueprint of the area. Locate and mark all utilities, outlets, shutoffs, catch basins and possible emergency equipment that must be reached from outside.

Basic Snow Removal Procedures

- Plan your plowing pattern so that you are driving forward as much as possible.
- Come to a complete stop before shifting from forward to reverse.

- Accelerate slowly, allowing the wheels to grip the road surface for better traction. Avoid spinning the tires. Lower tire air pressure for more traction or apply tire chains.
- Whenever possible, back into an area already cleared of snow.
- Make sure you know where you want you to pile the snow. This should be decided before snow fall occurs.
- Use extra caution when plowing next to curbs.
- If a significant amount of snow is expected, plow with the storm rather than letting snow accumulate.
- Keep water drains and catch basins clear at all times.
- Use caution when plowing next to parked cars or buildings--as the snow can push you into the car.
- When pushing snow that is next to a building, push away from the building.
- Any snow that must be removed by hand with a shovel should be completed first before you start plowing so that the snow can be plowed away.
- As you come to the end of a pass, lift off from the accelerator while starting to use the brake. At the same time, start to raise the blade to help stack the snow.
- Plow areas in front of buildings and overhead doors first. Angle the blade and plow along the building pushing the snow away. If that is not possible you can also attempt to back drag the snow away. With the blade raised and in the Straight-position, drive up to the building, drop the blade, and pull the snow away from the building. Then turn your vehicle around, back into the cleared area and push the snow to the outer edges of the lot.
- After removing the snow away from the buildings, it's time to start plowing the lot. Start by making a pass down the center of the lot, and then push snow in windrows to the outer edges. If there has been a significant amount of snowfall, push as much bulk off the lot as possible. Then go over it again. In large lots it may be best to break your plowing down into smaller areas.
- Plow in straight lines whenever possible and push to the outer edges of the lot. Keep the wind direction in mind--and pile snow downwind to minimize drifting later.
- Plow snow during low-traffic hours and always be cautious of cars and people in the lot.
- Once the majority of the snow is removed from the lot, it's time to do the cleanup work. Start by plowing next to curbs. Be sure to square off corners where possible, and don't leave trails of snow behind.
- Push the banks back far enough to accommodate future snowfalls.
- There's no substitute for doing a quality job, and for doing so safely.

Things NOT to Do!

- Never pile snow on someone else's property.
- Never pile snow on a street or on sidewalks.
- Never pile snow on top of any structure.
- Never pile snow by mailboxes, dumpsters, water drains, catch basins, electrical boxes or fire hydrants.

- Never push snow across a road without first checking the local regulations. In many areas it is illegal to push snow across a road.
- Do not pile snow in the middle of the lot. It will be difficult to remove later.
- Do not pile snow near handicapped parking areas.
- Do not stack snow by the road so as not to block the visibility of vehicles coming or leaving a parking lot or driveway.

Blade Plowing Tips

Angle-Position

In this position the blade is angled to either left or right side of the vehicle. Use this position for windrowing or widening after the first pass.

How to Windrow

With the blade angled to the left or right side of the vehicle, make consecutive passes--each time throwing the snow forward and to the side. This technique is useful to clear large areas such as parking areas or long driveways.

Straight-Position

In this position the blade is positioned directly in front of the vehicle. Use this position for back-dragging, removing a large windrow or cleaning up at the end of the job.

Back Dragging

To remove snow from the edge of a building, raise the blade and drive forward to the building. Lower the blade, and then back up while pulling the snow away from the building. You should back drag 1-1/2 lengths of the ATV before turning around. You can then back into the cleared area and push snow forward. Your plow will be more effective when pushing snow than when back-dragging over long distances.

At the end of the job, adjust the blade to the Straight-position and push snow directly ahead--cleaning up any spill off left from previous plowing.

Deep Snow

In deep snow raise the plow several inches off the ground to shear off the top layer.

Wet Snow

The best advice is this: Once you start, finish the job. Wet snow left in windrows overnight can freeze and will be difficult to move.