

## Beautiful Eastern Association of Snowmobile Trails



### *Safe Operating Procedures*

## **SOP – 16: OPERATING TRACKED VEHICLES**

1. Wear your seat belt
2. Always proceed cautiously as stumps, rocks, and other obstacles can cause abrupt stops
3. Spring snow is much softer, especially around trees where "heat wells" will form beneath the surface. You can get stuck by slipping into such wells, so it makes sense to stay as far away as practical
4. If you do get stuck, do not spin the tracks. Gently rock the vehicle back and forth, packing the snow. If that doesn't work, you may need to use a come-along or winch to free the vehicle
5. If uphill travel is too steep, then travel at an angle using ground contour to your advantage - ie: look ahead and plan your route. If your vehicle has a front blade, roll the blade to the uphill side and move snow to the downhill side placing it under the downhill track forming a bench to travel on
6. Trails may contain hills which are beyond the climbing capabilities of your equipment. You may be able to leave the trail and pick it up again on the other side of the hill. If this is not possible, using a power winch to assist the vehicle in climbing may be the only solution
7. When descending steep grades, use a sufficiently low gear and always keep the tracks revolving to permit steering. A good rule of thumb for descending steep grades is to use the same gear as required for climbing the hill
8. In deep drifts such as along fence lines, raise the drag to prevent too much buildup. Remove accumulated snow from the pan. If slippage occurs, try "worming" through the excessively deep patch
9. Do not shift from forward to reverse while still in motion. This type of shifting practice can cause failure not only of the transmission, but the drive line U joints, tracks, and differentials. Always allow the engine RPM to return to idle before shifting from forward to reverse
10. Follow the manufacturers instructions for routine maintenance

**10 common operator abuses of tracked vehicles which can lead to premature wear or failure:**

1. **Failure to Perform Proper Warm-Up** - Neglecting warm-up procedures can impair control responses and cut down on the life of the engine and transmission. Start the vehicle and check the steering, hydraulics, brakes, etc. while it is warming-up.
2. **Failure to Perform Walk-Around inspection** - There is no replacement for an operator's daily start-up inspection. Nobody should be more familiar with the machine than its operator. With daily inspections, the operator has the opportunity to check for loose fittings, bolts, oil leaks and other faults which can be easily corrected before a major problem develops.
3. **Operating When Repairs are needed** - If a vehicle is operated with known problems, even minor ones, you are taking unnecessary risks with vehicle integrity and operator safety. - Report any needed repairs.
4. **Operation Without Proper training** - Untrained operators and even experienced equipment operators who are unfamiliar with the vehicle can overload the equipment causing stress and eventual damage. An important part of every operator's training is to read and understand the operator's manual before starting operations.
5. **Misapplication of Equipment to Job** - All too often, tracked vehicles are used for purposes they were simply not designed for. A tracked vehicle is not a bulldozer and should not be used as one. Knowing and respecting the limits of the vehicles capabilities will prevent injury and damage.
6. **Going Too Fast** - Tracked vehicles are designed to pull heavy loads at relatively low speeds. Operation at high speed over rough terrain can damage tracks, drive train, and cause excessive vibration. Also, working in too high a gear overworks and overheats the transmission.
7. **Unauthorized Modifications** - Some operators think such practices as resetting hydraulic pressures, or recalibrating the fuel pump for more horsepower are smart moves. In reality, such modifications can stress the vehicle beyond its limits and invalidate applicable warranties if a failure occurs because of it. Always check with the manufacturer before making any modification.
8. **High Temperature Shutdown** - Not allowing the engine temperature to stabilize before shutdown can cause damage to turbochargers and premature engine wear. Allow the engine to idle for 10 minutes before shutdown. This is an excellent time to perform a walk-around shutdown.

9. **Unfamiliarity with environment** - An operator who is unfamiliar with a trail can run into sudden and hidden dangers such as rocks, trees, wet areas, and steep grades which can pose a threat to themselves and the machine. Know the trail and groom with a plan.
  
10. **Using Attachments improperly** - Even if the front blade can remove a large drift in one pass, take several and do it in smaller, less stressful cuts. Saw that limb into several small pieces before pushing it off the trail.