

# Quad Loading and Unloading Procedures

Source: Alberta Safety Council Instructors Manual

## Skills

- maintaining balance, shifting weight, application of brakes and throttle control

## Preparation

- wear safety gear
- check parking brakes on ATV's and tow vehicle
- secure ramps to trailer or tailgate and inspect for cracks, oil or other debris that may cause slippage

## Rider Preparation

- feet on footrests
- shift into low (1st) gear before ascending ramps
- to load, shift weight forward
- align wheels with ramps both loading and unloading

## Directions

- approach straight on, not on an angle
- ascend ramps in 1st gear
- ride up ramps gently increasing throttle until fully on trailer or truckbed. Come to a stop using all brakes
- set parking brake, shift ATV to neutral, turn off ignition, dismount
- using 4 tiedowns, secure all 4 corners of ATV
- eliminate ATV movement when traveling
- to unload, ensure back tires of ATV are aligned with ramps, reverse straight down ramps while applying all brakes.

## Quad Operating and Maintenance Procedures

Source: Alberta Safety Council

### Managing Risk

- This means being a good decision maker. People who make poor decisions cause many accidents. Using an effective thinking strategy can help minimize these risks. It forms the acronym SIPDE: Scan, Identify, Predict, Decide, Execute.

S – Scan/search terrain and environment.

I – Identify hazards or specific problems in your path.

P – Predict what may happen and think of the consequences.

D – Decide what to do based on riding abilities and capabilities of your ATV.

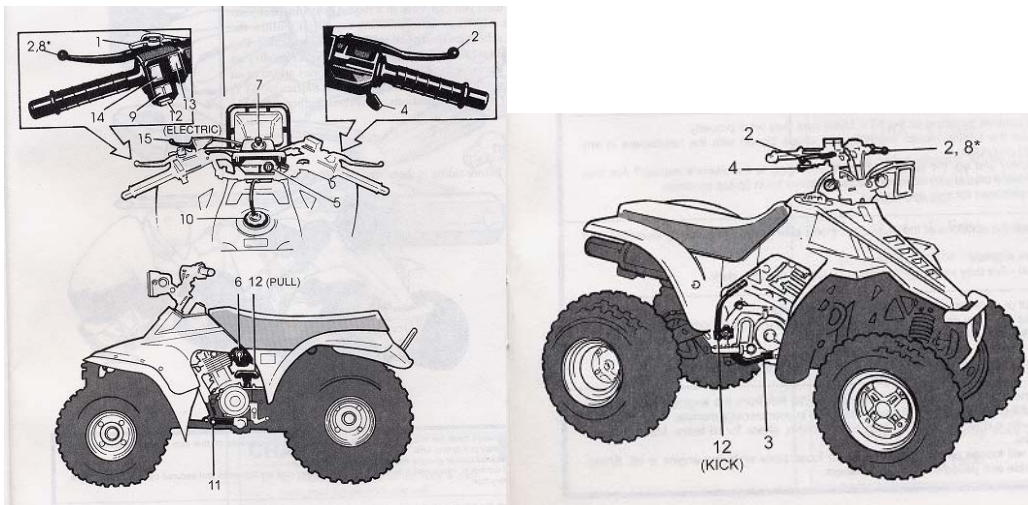
E – Execute your decision.

### Wear Personal Protective Equipment

Person Responsible	Action
Operator	Wear required personal protective equipment, which includes: <ul style="list-style-type: none"><li>• D.O.T. approved motorcycle helmet that fits snugly and is securely fastened.</li><li>• Steel toed boots.</li><li>• Face shield or goggles (shatterproof, tinted for bright days, clear for night, yellow for overcast or snow).</li><li>• Gloves (with padding over knuckles).</li><li>• Coveralls, vest (fully covered arms and legs).</li></ul>
	<i>Safety Tips:</i> <ul style="list-style-type: none"><li>• A hand held radio or cell phone <i>MUST</i> be taken on all trips.</li><li>• Helmets should be replaced every 2 to 4 years unless you have been in an accident with it or you notice any signs of damage before that and then it should be replaced immediately.</li><li>• Always fasten your helmet's chinstrap snugly. A helmet will do you no good if it comes off during a mishap.</li></ul>

**Know Your Controls (Controls shown are typical – your model may vary).**

1. Parking brake
2. Hand brake lever
3. Foot brake pedal
4. Throttle
5. Ignition Switch
6. Fuel supply valve
7. Choke (primer)
8. Clutch
9. Engine stop switch
10. Gas cap/tank vent
11. Shift lever
12. Starter (pull, kick, electric)
13. Light on/off switch
14. Light hi/lo switch
15. Compression release lever



## Pre-Ride Inspection

Person Responsible	Action
Operator	<p><i>Tires and Wheels:</i></p> <ul style="list-style-type: none"> <li>• <b>Air Pressure</b> – always have the recommended tire pressure. If the pressures are different from one side to the other, it could pull the vehicle to one side.</li> <li>• <b>Condition</b> – Check for cuts or gouges that could cause air leakage.</li> <li>• To avoid loss of control or injury, make sure axle nuts and wheel nuts are tightened and secured by cotter pins. Check before every ride.</li> </ul>
	<p><i>Controls and Cables:</i></p> <ul style="list-style-type: none"> <li>• <b>Controls</b> – Check the location of all the controls by sitting on the ATV. Make sure they work properly.</li> <li>• <b>Throttle and other cables</b> – Make sure the throttle moves smoothly and snaps closed with the handlebars in any position.</li> <li>• <b>Brakes</b> – Do the controls operate smoothly and are the controls adjusted according to the owner's manual?</li> <li>• <b>Foot shifter</b> – Is it firmly attached and positioned for safe operation?</li> </ul>
	<p><i>Lights and Electronics:</i></p> <ul style="list-style-type: none"> <li>• <b>Ignition Switch</b> - Check the condition of the switch and make sure it works properly by switching it off and on during your warm-up period.</li> <li>• <b>Engine stop switch</b> – Does it turn off the engine?</li> <li>• <b>Headlight and taillight</b> – Are they working? You could be caught after dark.</li> </ul>
	<p><i>Oil and Fuel:</i></p> <ul style="list-style-type: none"> <li>• Do not get stranded because you are out of oil or fuel. Know your ATV's cruising range.</li> <li>• Check oil level with dipstick or sight glass while the engine is off. Check your owner's manual for procedure.</li> <li>• Always start your ride with a full fuel tank.</li> <li>• Check for fuel or oil leaks.</li> <li>• Take off the filter cover and check the condition of the air filter element. Be sure it is clean and not torn or blocked.</li> </ul>
	<p><i>Chain and Drive Shaft Chasis:</i></p> <ul style="list-style-type: none"> <li>• <b>Chain</b> – Inspect, adjust and lubricate the chain regularly. Check for chain slack or free play so that it is within</li> </ul>

	<p>specifications as described in your owner's manual.</p> <ul style="list-style-type: none"> <li>• <b>Drive shaft</b> – If your ATV is equipped with a drive shaft rather than a drive chain, check for oil leaks. Maintain its oil supply as outlined in your owner's manual.</li> <li>• <b>Nut's n' bolts</b> – Riding in rough terrain will loosen parts. Look and feel for loose parts while the engine is off. Shake handlebars, footrests, etc., before each ride and periodically check fasteners.</li> </ul>
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### Starting the ATV

Person Responsible	Action
Operator	<ul style="list-style-type: none"> <li>• Read owners manual section on starting the ATV.</li> </ul> <p><i>Brakes:</i></p> <ul style="list-style-type: none"> <li>• Set the parking brake.</li> </ul>
	<p><i>On:</i></p> <ul style="list-style-type: none"> <li>• Turn fuel cap vent to on position. Also, turn the fuel valve to on or reserve position, depending upon how much fuel is in the machine. Turn ignition key on (if so equipped).</li> </ul>
	<p><i>Neutral:</i></p> <ul style="list-style-type: none"> <li>• Check that the transmission is in neutral.</li> <li>• To make sure it is in neutral check the neutral indicator, if equipped.</li> <li>• If necessary, release the parking brake and rock the machine back and forth to release the shifter (keeping your feet on the footrests).</li> <li>• Re-apply the parking brake.</li> </ul>
	<p><i>Engine:</i></p> <ul style="list-style-type: none"> <li>• Check that the engine stop switch is in the 'Run ' or 'Start' position. The engine stop switch is usually found by either the left or right hand grip.</li> </ul>
	<p><i>Choke:</i></p> <ul style="list-style-type: none"> <li>• If the engine is cold, put the choke in the 'On' position. Check the owner's manual for choke location.</li> <li>• Start the engine according to the directions in the owner's manual.</li> <li>• Once the machine is warmed up, return the choke to its normal position. This is very important because if you don't, the machine will not run properly.</li> </ul>

## Riding your ATV

Person Responsible	Action
Operator	<ul style="list-style-type: none"> <li>• Review your owner's manual, paying special attention to the warnings and procedures.</li> </ul> <p><i>Posture:</i></p> <ul style="list-style-type: none"> <li>• Head and eyes up, looking well ahead.</li> <li>• Shoulders relaxed, back straight.</li> <li>• Elbows bent, slightly out away from your body.</li> <li>• Hands on the handlebars.</li> <li>• Knees in toward the tank.</li> <li>• Feet on the footrests, toes pointing straight ahead.</li> </ul>
	<p><i>Shifting Gears:</i></p> <ul style="list-style-type: none"> <li>• Always release the throttle while shifting to prevent the front wheels from lifting.</li> <li>• Learn the sounds of your engine so you know when to shift to keep the engine speed in the most efficient range.</li> </ul> <p><b>If equipped with a reverse gear...</b></p> <ul style="list-style-type: none"> <li>• Look behind you for obstacles or people.</li> <li>• When safe, operate slowly.</li> </ul>
	<p><i>Braking:</i></p> <ul style="list-style-type: none"> <li>• Release the throttle.</li> <li>• Downshift to use the engine to slow the vehicle.</li> <li>• Apply both brakes equally (if equipped).</li> <li>• Avoid excessive braking while cornering. Do most of your braking before the turn.</li> <li>• Apply both brakes lightly on slippery surfaces.</li> <li>• Keep head and eyes up.</li> <li>• Keep your feet on the footrests at all times.</li> </ul>
	<p><i>Parking:</i></p> <ul style="list-style-type: none"> <li>• Always try to find flat ground.</li> <li>• Shift into neutral.</li> <li>• Stop the engine with the engine stop switch and, if equipped, turn off the ignition switch.</li> <li>• Set the parking brake, or shift into a low gear if you do not have a parking brake, to keep the ATV from rolling.</li> <li>• Turn off the fuel.</li> </ul>
	<p><i>Turning:</i></p> <ul style="list-style-type: none"> <li>• When turning an ATV with solid rear axle at low speeds your body weight must shift forward and to the inside of the turn.</li> <li>• Turn handlebars while looking in the direction of the turn.</li> <li>• As you increase your speed or turn more sharply, move your body weight farther toward the inside of the turn to maintain your balance.</li> <li>• If your ATV starts to tip while turning lean your upper body farther into the turn while gradually reducing the throttle and making the turn wider.</li> </ul>
	<p><i>Going up a Hill:</i></p> <ul style="list-style-type: none"> <li>• When approaching a hill shift the ATV into a lower gear and speed up before ascending the hill. Keep both feet firmly on the footrests.</li> </ul>

	<ul style="list-style-type: none"> <li>• For small hills, shift your body weight forward by sliding forward on the seat. For steep hills, stand on the footrests and lean well over the handlebars in order to shift as much weight forward as possible.</li> <li>• If the hill is steep and you must downshift to prevent stalling, shift quickly and smoothly. Don't forget to close the throttle while shifting to prevent the front wheels from lifting.</li> <li>• If you don't have enough power to continue up the hill, but have enough forward momentum and enough space to turn safely, turn around before you lose speed and then proceed downhill in a lower gear, keeping your weight to the uphill side.</li> <li>• If you are riding uphill and lose forward momentum keep your weight uphill and apply the brakes and come to a stop. Never allow the ATV to roll backward. Apply the parking brake while keeping your weight uphill and dismount on the uphill side or to either side if pointed straight uphill, and follow the procedure described in your owner's manual.</li> </ul> <p><i>DO NOT attempt to ride backward down a hill.</i> Should you begin to roll backward, do not apply the rear brake abruptly. Using the rear brake only or abruptly could cause the ATV to roll over backward.</p> <p><b><i>If you begin rolling backward:</i></b></p> <ul style="list-style-type: none"> <li>• Keep your weight uphill, and apply the front brake. If your ATV is 4WD model, follow the procedure described in your owner's manual.</li> <li>• When you are fully stopped, apply the rear brake as well. Apply the parking brake, dismount on the uphill side or to a side if pointed straight uphill and follow the procedure described in your owner's manual.</li> <li>• If the ATV continues to roll backward, dismount to the uphill side immediately.</li> </ul> <p><b><i>Safety Tips:</i></b> Remember...</p> <ul style="list-style-type: none"> <li>• Some hills are too steep for your abilities. Use common sense.</li> <li>• Some hills are just too steep for your ATV regardless of skill.</li> <li>• Never ride past the limit of your visibility- if you cannot see what is on or over the crest of a hill, slow down until you have a clear view.</li> <li>• Keep your weight uphill at all times.</li> </ul>
	<p><b><i>Going downhill:</i></b></p> <ul style="list-style-type: none"> <li>• Shift your weight to the rear (uphill).</li> <li>• Keep speed low.</li> <li>• Use gradual braking.</li> <li>• Use a lower gear.</li> <li>• Look ahead.</li> </ul>
	<p><b><i>Traversing a Hill:</i></b></p> <ul style="list-style-type: none"> <li>• Keep both feet firmly on the footrests.</li> <li>• Lean your upper body uphill.</li> <li>• When riding on soft terrain, you may need to gently turn your front wheel(s) uphill to keep your ATV on a straight line across the hill.</li> <li>• If your ATV begins to tip, turn the front wheel(s) downhill if the terrain allows. If the terrain does not permit dismount on the uphill side immediately.</li> </ul>

	<ul style="list-style-type: none"> <li>• Avoid making sudden throttle changes.</li> </ul> <p><u>Safety Tips:</u></p> <ul style="list-style-type: none"> <li>• Avoid traversing a slope with excessively slippery, rough or loose surfaces.</li> <li>• Use caution this technique is difficult.</li> </ul>
	<p><i>Riding Through Mud and Water:</i></p> <ul style="list-style-type: none"> <li>• Safely determine the water and mud depth before riding in it.</li> <li>• Never operate your ATV in fast-flowing water or in water deeper than that specified in your owner's manual.</li> <li>• If you cross a stream, or go up and down stream banks, use established bridge where the banks have gradual incline. This will help minimize the impact on the stream bank.</li> <li>• To maintain proper balance or maximum traction, be prepared to shift your weight in any direction.</li> <li>• Proceed at a slow, steady speed, avoiding obstacles and slippery rocks. Do not ride through unfamiliar water too quickly.</li> <li>• Test your brakes after leaving water. If necessary, apply them several times to let friction dry out the linings.</li> <li>• Drain any trapped water by removing the drain screws (if equipped; check owner's manual).</li> <li>• To prevent the loss of traction in mud or snow, allow the tires to rotate at a speed that enables their knobs to 'bite'. Do not spin the tires quickly.</li> </ul>
	<p><i>Riding in Snow:</i></p> <ul style="list-style-type: none"> <li>• ATV's can be used in snow as much as 1.5 feet, hard or soft. Hard snow is much easier to use the ATV on. Use discretion.</li> </ul>
	<p><u>Safety Tips:</u></p> <ul style="list-style-type: none"> <li>• An experience rider must accompany any unfamiliar or inexperienced rider.</li> <li>• Always wear proper protective gear.</li> </ul>

## Maintain

<b>Person Responsible</b>	<b>Action</b>
Operator	<ul style="list-style-type: none"> <li>• ATV's must be regularly serviced due to their hard, off-road use.</li> <li>• This service and maintenance program must meet or exceed the requirements outlined by the manufacturer.</li> <li>• Examine the tool kit that came with the vehicle. You may want to add more parts: spark plugs, wire and tape, a headlight bulb.... Plan to carry what you may need for emergencies. Carry a strong towrope.</li> </ul>