

SAFE OPERATION & USE OF ALL-TERRAIN VEHICLES

This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation. Featured are:

INTRODUCTION: A brief description of the program and the subject that it addresses.

PROGRAM OUTLINE: Summarizes the program content. If the program outline is discussed before the video is presented, the entire program will be more meaningful and successful.

PREPARING FOR AND CONDUCTING THE PRESENTATION: These sections will help you set up the training environment, help you relate the program to site-specific incidents, and provide program objectives for focusing your presentation.

REVIEW QUESTIONS AND ANSWERS: Questions may be copied and given to participants to document how well they understood the information that was presented. Answers to the review questions are provided separately.

INTRODUCTION

Industrial use of all-terrain vehicles, popularly known as ATV's or four-wheelers, has increased dramatically over the past several years. Although they were originally designed for recreation, many companies have found their mobility and adaptability to workplace applications ideal for use on their premises. While most people think of ATV's as mere toys, they are not toys. Riders must know and understand the basic safe operating skills needed to ride them safely. ATV's can be useful around the facility, but unsafe operation can lead to serious injury or even death.

This video discusses the safe operating procedures that must be followed to avoid injuries while riding an all-terrain vehicle. Topics include pre-ride inspection, protective gear for ATV riders, safe driving tips, turning ATV's safely, traveling on sloped surfaces and rough terrain and hauling tools and supplies with an ATV.

PROGRAM OUTLINE

PRE-OPERATIONAL REQUIREMENTS OF ATV RIDERS

- Before attempting to ride any ATV, make sure to read the operator's manual and become familiar with the operating functions and handling characteristics of the vehicle.
- You need to also know where all the warning labels are located on the machine and understand the information they convey.
- Only those employees trained and authorized by the company may operate an ATV on company property. Authorized employees will be trained on the specific operating controls and handling characteristics of the vehicle they will be operating.
- Be aware that operations such as starting, shifting gears, placing the vehicle in reverse and setting the parking brake vary from machine to machine. Make sure you understand these important functions before use.
- You should practice all riding functions covered in this program at slow speeds until you have mastered them totally before operating the vehicle at higher speeds.

PRE-RIDE INSPECTION

- An important part of your training is learning to conduct a pre-ride inspection. A pre-ride inspection of your ATV before each day's use will reduce the chance of injury or a mechanical breakdown.
- Make sure the tires are in good condition and have adequate pressure. If the tires have unequal pressure, the vehicle will pull toward the tire with the lowest air pressure.
- Check the owner's manual for proper tire pressures; most ATV's require between three and four pounds of pressure in each tire. Be aware that a special air gauge will be needed to measure this low level of air pressure.

- Make sure the brakes work smoothly and are adjusted according to provisions in the operator's manual.
- While moving the handle bars fully to the left and right, check the operation of the throttle. Dirt and mud accumulation can restrict the cable from fully closing.
- Make sure all lights work properly. It's a good idea to use the lights, even in daytime, to improve your visibility to others.
- Check the oil and fuel levels with the engine off. Most ATV's have a fuel selector switch, which must be turned to the "on" position for starting and normal use. This switch may also have a "reserve position;" turning the switch to this position provides a small amount of emergency fuel if needed.
- Take a close look around the vehicle for any sign of leaking fluids.
- If you operate your vehicle on rough terrains, it is important to look for parts that could have been shaken loose during a previous shift. Shake handlebars, footrests and similar elements before each shift and tighten anything you discover loose.
- If you discover any problem with your ATV during the inspection that you cannot rectify, don't operate it. Remove the key and notify your supervisor immediately.

PROTECTIVE GEAR

- After you have conducted the pre-ride inspection, make sure to put on the protective gear required by your company before beginning your ride.
- The most important piece of this gear is your helmet. Make sure your helmet meets or exceeds safety standards.
- Your helmet should fit snugly and always be securely fastened.
- If your helmet is not equipped with an approved face shield, you should always wear safety goggles or safety glasses to protect your eyes when riding.
- Keep in mind that regular sunglasses do not provide adequate eye protection.
- It is a good idea to wear high visibility reflective vests when operating this type of vehicle. This allows you to be seen by other moving vehicles and equipment and allows you to be easily seen by outdoorsmen and hunters when traveling in remote areas.
- Other protective equipment that should be worn while riding include gloves and boots that rise above the ankle and have heels to prevent your feet from slipping off the footrests. Long sleeve shirts and long pants should also be worn.
- If you have any questions about what protective gear you are required to wear, ask your supervisor.

SAFE DRIVING TIPS

- Now that you've conducted your pre-ride inspection and put on the appropriate protective gear, you're ready to roll.
- When riding the ATV, make sure to keep your feet on the footrests. Putting a foot on the ground while riding could easily cause you to run over your foot or pull you off the vehicle.
- Be sure to stop for all intersections and rail crossings, making sure there are no oncoming vehicles before proceeding.
- Maintain a safe following distance of four to five vehicle lengths when following other ATV's or vehicles. Allow a little more distance at higher speeds or when dusty conditions affect visibility.

- It's a good idea to use arm signals to signal your intentions to turn or stop to other riders or vehicles.

TURNING THE VEHICLE SAFELY

- Turning an ATV is a skill you must learn and master to prevent tip-overs.
- While some ATV's have a differential rear axle, most are equipped with a solid rear axle. This causes the rear wheels to rotate at the same speed.
- This requires a unique turning technique that causes the inside tire to slip. To do this, you must shift your body weight.
- For low-speed turns, shift your body weight forward and to the outside of the turn as you turn the handlebar. This reduces weight on the inside rear wheel.
- For turns at higher speeds, lean your upper body toward the inside of the turn while keeping your weight on the outer footrest. This balances the increased cornering forces as the vehicle's speed increases.
- If your ATV begins to tip over during a turn at any speed, lean your upper body farther into the turn while gradually reducing the throttle and making the turn wider.
- ATV's are designed to operate on dirt, gravel and other loose surfaces. Paved surfaces greatly affect the ATV's steering and stability characteristics, making the vehicle harder to control and much easier to turn over. It's best to avoid paved surfaces altogether, but when it's necessary to travel on them, reduce your speed and use extra caution.

SLOWING DOWN & STOPPING

- Slowing down and stopping is another skill that requires practice to get the feel of the braking process.
- You should begin the braking process by releasing the throttle and shifting to a lower gear well in advance of your intended stopping point. This will allow the engine to help slow the vehicle.
- Apply the brakes smoothly and evenly to bring the ATV to its quickest stop.
- Make sure you understand which brake control operates the front brake and which one operates the rear brake. It's best to primarily use the rear brake in most situations on level ground.
- When dismounting your ATV, make sure you put on the proper protective equipment for the work area you intend to enter.

PREVENTING INCIDENTS & INJURIES INVOLVING ATV'S

- Don't allow anyone to hitch a ride on your vehicle as this contributes to one-third of all ATV accidents. Carrying passengers decreases its stability and makes it much more difficult to maneuver.
- Also, never drive the vehicle in reverse directly toward a co-worker or a fixed object. It's too easy to misjudge your distance or speed.
- Only ride in areas designated by your company. Stay off sidewalks and always give pedestrians the right of way.
- Never try to get the ATV airborne, as this may cause you to lose control and be seriously injured or even killed. Furthermore, you should never engage in horseplay and stunt driving.
- When traveling away from the main facility, make sure you have a way to maintain contact in case of emergency or unexpected conditions. Always tell someone your travel route and when you expect to return.
- Always be prepared for the weather conditions in your area. Carry a pack of supplies and suitable clothing in case you or your vehicle become disabled and must await rescue.

TRAVELING ON SLOPED SURFACES & ROUGH TERRAIN

- While ATV's are designed to climb rugged terrain, you must follow some basic safety rules to prevent tip-overs when traveling on sloped surfaces.
- Keep in mind that some inclines are just too steep to climb safely. Don't attempt to climb a hill that you don't feel comfortable climbing or one that you aren't sure the ATV is able to climb.
- When approaching an incline, keep both feet firmly on the footrests and shift your body weight forward by sliding forward on the seat.
- On steep hills, stand on the footrests and lean forward to shift as much weight forward as possible.
- Climb hills in low gear to minimize the chance of stalling the engine.
- If the engine does stall while climbing or you don't have enough power to continue uphill, stop the ATV and apply the parking brake.
- Dismount the machine and drag the vehicle around so it is facing downhill. Then remount and proceed back downhill.
- If the engine has stalled and won't restart, you can shift into neutral and coast downhill using the rear brake to control speed.
- Do not try to back down or let the ATV roll backwards downhill. This is extremely dangerous.
- If the ATV begins to roll backwards while on a hill, apply the front brake. If this doesn't stop the vehicle, jump off.
- Before descending a hill, shift the transmission into low gear and point the ATV directly downhill. Keep both feet firmly on the footrests and slide back on the seat to increase your stability and the effectiveness of the brakes.
- Whenever possible, ride in a straight line directly up or down a hill. Avoid crossing slopes laterally; this makes a tip-over much more likely. If you must cross a slope, keep both feet firmly on the footrests and lean your body uphill. If the ATV begins to tip, turn the front wheels downhill.
- If the terrain prohibits you from turning downhill, dismount on the uphill side immediately.
- Riding over rough terrain should be done with the utmost caution. Avoid obstacles that could damage the ATV or cause it to tip over.
- Use extreme caution when traveling in unfamiliar areas, especially when crossing any type of water. Never cross creeks or streams unless you are confident that the depth and bottom composition are suitable for crossing.

HAULING TOOLS & SUPPLIES

- As the use of ATV's increases on the job site, so does the number of different things we expect them to do. Not only are they used to carry us around the job site, but ATV's are now used to haul loads of work tools and supplies.
- While this equipment makes the ATV much more versatile, it also dramatically affects the stability of the vehicle.
- If the rack is mounted on the front, steering can be more difficult and the traction of the rear wheels decreases, increasing stopping distances.
- If the rack is mounted on the rear, traction on the front wheels decreases, affecting the ability to steer.

- A balanced load, split between front and rear, improves the handling characteristics; however, slow, cautious operation is still required.
- Always obey the manufacturer's load limits because overloading either the front or rear can make the ATV impossible to control.

PREPARE FOR THE SAFETY MEETING OR TRAINING SESSION

Review each section of this Leader's Guide as well as the videotape. Here are a few suggestions for using the program:

Make everyone aware of the importance the company places on health and safety and how each person must be an active member of the safety team.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline.

Copy the review questions included in this Leader's Guide and ask each participant to complete them.

Make an attendance record and have each participant sign the form. Maintain the attendance record and each participant's test paper as written documentation of the training performed.

Here are some suggestions for preparing your videotape equipment and the room or area you use:

Check the room or area for quietness, adequate ventilation and temperature, lighting and unobstructed access.

Check the seating arrangement and the audiovisual equipment to ensure that all participants will be able to see and hear the videotape program.

Place or secure extension cords to prevent them from becoming a tripping hazard.

CONDUCTING THE PRESENTATION

Begin the meeting by welcoming the participants. Introduce yourself and give each person the opportunity to become acquainted if there are new people joining the training session.

Explain that the primary purpose of the program is to explain the basic safe operating skills employees must have to ride ATV's safely.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline.

Lead discussions about the tasks that are performed on ATV's at your facility and the hazards involved in those tasks. Use the review questions to check how well the program participants understood the information.

After watching the videotape program, the viewer will be able to explain the following:

- What to look for in an ATV pre-ride inspection;
- What basic operating skills are needed to safely operate an ATV;
- How to turn, slow down and stop an ATV safely;
- How to safely travel on sloped surfaces and rough terrain;
- What precautions to take when using an ATV to haul tools and supplies.

SAFE OPERATION & USE OF ALL-TERRAIN VEHICLES
REVIEW QUIZ

Name _____ Date _____

The following questions are provided to check how well you understand the information presented during this program.

1. Most ATV's require between _____ pounds of pressure in each tire.
 - a. 3 to 4
 - b. 15 to 16
 - c. 28 to 32

2. The most important piece of your protective gear for riding an ATV is your _____.
 - a. boots
 - b. gloves
 - c. helmet

3. You should maintain a distance of _____ vehicle-lengths when following other ATV's or vehicles.
 - a. 2 to 3
 - b. 4 to 5
 - c. 10 to 12

4. If your ATV begins to tip over during a turn, you should lean your upper body farther into the turn.
 - a. true
 - b. false

5. Passengers are only allowed to ride on an ATV when they are seated directly behind the driver in the driver's seat.
 - a. true
 - b. false

6. What should you do if you are climbing a hill and discover your ATV doesn't have enough power to continue uphill?
 - a. turn around facing your rear and back the ATV down the hill slowly
 - b. apply the parking brake, drag the vehicle around so it is facing downhill and proceed back downhill
 - c. let the ATV roll backwards, steer it around so it is facing downhill and proceed back downhill

7. What should you do if your ATV begins to tip over while crossing a slope?
 - a. turn the front wheels downhill
 - b. turn the front wheels uphill
 - c. dismount on the downhill side immediately

ANSWERS TO THE REVIEW QUESTIONS

1. a

2. c

3. b

4. a

5. b

6. b

7. a