OPERATOR'S GUIDE
RE-X ACE SERIES • 2012

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OPERATOR'S MANUAL 2012

RAVE ™ 600 ACE
XTRIM ™ 600 ACE
Adventure™ LC 600 ACE
49 RANGER ™ 600 ACE

⚠ WARNING

Disregarding any of the safety precautions and instructions contained in this Operator's Guide, on-product labels could cause injury including the possibility of death!

⚠ WARNING

This vehicle may exceed the performance of other vehicles you may have ridden in the past. Take time to familiarize yourself with your new vehicle.

Lynx products are manufactured by BRP.

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D.E.S.S.™	600 ACE™	ROTAX™	LYNX ®
HPG™	REX™	PPS™	eDrive™

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FOREWORD

Congratulations on your purchase of a new Lynx® snowmobile. Whatever model you have chosen, it is backed by the Bombardier Recreational Products Inc. (BRP) warranty and a network of authorized Lynx snowmobile dealers ready to provide the parts, service or accessories you may require.

Your dealer is committed to your satisfaction. He has taken training to perform the initial set-up and inspection of your snowmobile as well as completed the final adjustment required to suit your specific weight and riding environment before you took possession.

At delivery, you were informed of the warranty coverage and signed the *PREDELIVERY CHECK LIST* to ensure your new vehicle was prepared to your entire satisfaction.

Know Before you Go

To learn how to reduce the risk for you, your passenger or bystanders being injured or killed, read the following sections before you operate the vehicle:

- *SAFETY INFORMATION*
- *VEHICLE INFORMATION*.

Also read all safety labels on your snowmobile.

We highly recommend that you take a safety riding course. Please check with your dealer or local authorities for availability in your area.

Failure to follow the warnings contained in this Operator's Guide can result in SERIOUS INJURY or DEATH.

Safety Messages

The types of safety messages, what they look like and how they are used in this guide are explained as follows:

⚠ WARNING

Indicates a potential hazard, if not avoided, could result in serious injury or death.

⚠ CAUTION Indicates a hazard situation which, if not avoided, could result in minor or moderate injury.

NOTICE Indicates an instruction which, if not followed, could severely damage vehicle components or other property.

About this Operator's Guide

This Operator's Guide has been prepared to acquaint the owner/operator and passenger with this snowmobile and its various controls, safe riding and maintenance instructions.

The following terminology in regards to operator, passenger and vehicle configuration is used as follows throughout this guide:

- Operator: refers to the person being behind the controls and driving the snowmobile.
- Passenger: refers to a person sitting behind the operator.
- 1-UP: refers to a model designed for an operator only.
- 2-UP: refers to a model designed to accommodate one passenger.

Keep this Operator's Guide in the vehicle as you can refer to it for things such as maintenance, troubleshooting and instructing others.

Note that this guide is available in several languages. In the event of any discrepancy, the English version shall prevail.

If you want to view and/or print an extra copy of your Operator's Guide, simply visit the following website www.operatorsguide.brp.com.

The informations contained in this document are correct at the time of publication. BRP, however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on prod-

ucts previously manufactured. Due to late changes, some differences between the manufactured product and the descriptions and/or specifications in this guide may occur. BRP reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring any obligation upon itself.

This Operator's Guide should remain with the vehicle when it's sold.

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Avoid Carbon Monoxide Poisoning

All engine exhaust contains carbon monoxide, a deadly gas. Breathing carbon monoxide can cause headaches, dizziness, drowsiness, nausea, confusion and eventually death.

Carbon monoxide is a colorless, odorless, tasteless gas that may be present even if you do not see or smell any engine exhaust. Deadly levels of carbon monoxide can collect rapidly, and you can quickly be overcome and unable to save yourself. Also, deadly levels of carbon monoxide can linger for hours or days in enclosed or poorly ventilated areas. If you experience any symptoms of carbon monoxide poisoning, leave the area immediately, get fresh air and seek medical treatment.

To prevent serious injury or death from carbon monoxide:

– Never run the vehicle in poorly ventilated or partially enclosed areas such as garages, carports or barns. Even if you try to ventilate engine exhaust with fans or open windows and doors, carbon monoxide can rapidly reach dangerous levels.
– Never run the vehicle outdoors where engine exhaust can be drawn into a building through openings such as windows and doors.

Avoid Gasoline Fires and Other Hazards

Gasoline is extremely flammable and highly explosive. Fuel vapors can spread and be ignited by a spark or flame many feet away from the engine. To reduce the risk of fire or explosion, follow these instructions:

– Use only an approved gasoline container to store fuel.
– Strictly adhere to instructions in *FUELING PROCEDURE*.
– Never start or operate the engine if the fuel cap is not properly installed.

Gasoline is poisonous and can cause injury or death.

– Never siphon gasoline by mouth.
– If you swallow gasoline, get any in your eye or inhale gasoline vapor, see your doctor immediately.

If gasoline spills on you, wash with soap and water and change your clothes.

Avoid Burns from Hot Parts

The exhaust system and engine become hot during operation. Avoid contact during and shortly after operation to avoid burns.

Accessories and Modifications

Do not make unauthorized modifications, or use attachments or accessories that are not approved by BRP. Since these changes have not been tested by BRP, they may increase the risk of crashes or injuries, and they can make the vehicle illegal.

Accessory passenger seats approved by BRP and conforming to SSCC standards may be available for certain models. If such a seat is used, you must follow the guidelines and recommendations in regards to a passenger in this guide.

⚠ WARNING

Passenger seat must have a strap or handholds and must meet SSCC standards.

See your authorized Lynx dealer for available accessories for your vehicle.

SPECIAL SAFETY MESSAGES

SEVERE INJURY OR DEATH can result if you do not follow these instructions:

- Always make a pre-ride inspection BEFORE you start the engine.
- Throttle mechanism should be checked for free movement and return to idle position before starting engine.
- Always attach tether cord eyelet to clothing before starting the engine.
- Never operate the engine without drive belt guard and brake disk guard securely installed or, with hood or side panels opened or removed. Never run the engine without drive belt installed. Running an unloaded engine such as without drive belt or with track raised, can be dangerous.
- Always engage parking brake before starting the engine.
- Everyone is a beginner the first time he sits behind the controls of a snowmobile regardless of previous experience in driving any other type of vehicle. The safe use of your snowmobile depends on many conditions such as visibility, speed, weather, environment, traffic, vehicle condition and the condition of the operator.
- Basic training is required for the safe operation of any snowmobile. Study your Operator's Guide paying particular attention to cautions and warnings. Join your local snowmobile club: its social activities and trail systems are planned for both fun and safety. Obtain basic instructions from your snowmobile dealer, friend, fellow club member or enroll in your state or provincial safety training program.
- Any new operator must read and understand all safety labels on the snowmobile, the Operator's Guide before operating the snowmobile. Only allow a new operator to operate the snowmobile in a restricted flat area, at least until he is completely familiar with its operation. If snowmobile operator's training course is offered in your area, have him enroll.
- The performance of some snowmobiles may significantly exceed that of other snowmobiles you have operated. Therefore, use by novice or inexperienced operators is not recommended.
- Snowmobiles are used in many areas and in many snow conditions. Not all models perform the same in similar conditions. Always consult your snowmobile dealer when selecting the snowmobile model for your particular needs and uses.
- Injury or death may result to the snowmobile operator, passenger or bystander if the snowmobile is used in risky conditions which are beyond the operator's, passenger's or snowmobile's capabilities or intended use.
- BRP recommends the operator has at least 16 years old of age.
- It is very important to inform any operator, regardless of his experience, of the handling characteristics of this snowmobile. The snowmobile configuration, such as ski stance, ski type, suspension type, track length, width and type vary from a model to another. The snowmobile handling is greatly influenced by these characteristics.
- The novice operator should become familiar with the snowmobile through practice on a level area at slow speeds before venturing far afield.

- Know your local laws. Federal, state, provincial and local government agencies have enacted laws and regulations pertaining to the safe use and operation of snowmobiles. It is your responsibility as a snowmobiler to learn and obey these laws and regulations. Respect and observance will result in safer snowmobiling for all. Be aware of the liability property damages and insurance laws regarding your equipment.
- Speeding can be fatal. In many cases, you cannot react or respond quickly enough to the unexpected. Always ride at a speed which is suitable to the trail, weather conditions and your own ability. Know your local rules. Speed limit may be in effect and meant to be observed.
- Always keep right hand side of the trail.
- Always keep a safe distance from other snowmobiles and bystanders.
- Remember, promotional material may show risky maneuvers performed by professional riders under ideal and/or controlled conditions. You should never attempt any such risky maneuvers if they are beyond your level of riding ability.
- Never ride this vehicle under influence of alcohol or drugs. They slow reaction time and impair judgement.
- Your snowmobile is not designed to be operated on public streets, roads or highways.
- Avoid road traveling. If you must do so, and it is permitted, reduce speed. The snowmobile is not designed to operate or turn on paving. When crossing a road, make a full stop, then look carefully in both directions before crossing at a 90° angle. Be wary of parked vehicles.
- Snowmobiling at night can be a delightful experience but because of reduced visibility, be extra cautious. Avoid unfamiliar terrain and be sure your lights are working. Always carry a flashlight and spare light bulbs.
- Never remove any original equipment from your snowmobile. Each vehicle has many built in safety features. Such features include various guards and consoles, plus reflective materials and safety labels.
- Nature is wonderful but don't let it distract your attention from driving. If you want to truly appreciate winter's scenery, stop your snowmobile on the side of the trail so that you don't become a hazard to others.
- Fences represent a very serious threat for both you and your snowmobile. Give a wide berth to telephone poles or posts.
- Hidden wires unseen from a distance can cause serious accidents.
- Always wear an approved safety helmet, eye protection and a face shield. This also applies to your passenger.
- Be aware of inherent risks associated with riding off trails, such as avalanche and other natural or man made hazards or obstacles.
- Tailgating another snowmobile should be avoided. If the snowmobile in front of you slows for any reason, its operator and passenger could be harmed through your neglect. Maintain a safe stopping distance between you and the snowmobile in front of you. Depending on the terrain condition, stopping may require a little more space than you think. Play it safe. Be prepared to use evasive driving.

- Venturing out alone with your snowmobile could also be hazardous. You could run out of fuel, have an accident, or damage your snowmobile. Remember, your snowmobile is capable of traveling further in half an hour than you may be able to walk in a day. Use the "buddy system". Always ride with a friend or member of your snowmobile club. Even then, tell someone where you are going and the approximate time you plan to return.
- Meadows sometimes have low areas where water accumulate and freezes over in winter. This ice is usually glare ice. Attempting to turn or brake on this surface could cause your vehicle to spin out of control. Never brake or attempt speeding or turning on glare ice. If you do happen to travel over such a condition, reduce speed by carefully releasing the throttle.
- Never "jump" with your snowmobile.
- When riding in a group, do not "gun" the throttle. Snow and ice can be thrown back into the path of a following snowmobile. In addition, when "gunning" the throttle, the vehicle digs into and leaves an irregular snow surface for others.
- Riding in a group is fun and enjoyable but don't show off or overtake others in the group. A less experienced operator might try to do the same as you and fail. When riding with others, limit your abilities to the experience of others.
- In case of an emergency, press down on the engine emergency stop switch, then apply brake.
- Always engage parking brake when vehicle is not in use.
- Never run the engine in a non-ventilated area and/or if vehicle is left unattended.
- Electric start models only: Never charge or boost a battery while installed on snowmobile.
- Ensure the path behind is clear of obstacles or bystanders before proceeding in reverse.
- Always remove the tether cord cap from engine cut-off switch when vehicle is not in operation in order to prevent accidental engine starting, to avoid unauthorized use by children or others or theft.
- NEVER stand behind or near a rotating track. Debris could be projected causing severe injuries. To remove packed snow or ice, stop engine, tilt and hold vehicle on its side and use screwdriver from tool kit.
- Do not stud the track unless it has been approved for studs. At speed, a studded track that has not been approved for studs could tear and separate from vehicle. See an authorized Lynx dealer for current specific studding availability and applications.
- You may stud the track on this vehicle model. However, you MUST only use the BRP approved type stud for use on Lynx snowmobiles. DO NOT EVER use conventional studs because the track thickness is thinner then our standard tracks. The stud could tear off of track and separate from vehicle.
- Always wear an approved helmet and follow the same dressing guidelines as those recommended for the operator and described in this guide.
- Make sure that you are able to achieve a stable stance, both feet resting positively on the footboards of footrests with good grip, and that you are able to hold on firmly to the handholds.

– Do not forget, with 2-UP models, the operator is responsible for the safety of the passenger. Always remember that the snowmobile handling, stability and braking distance may be affected when riding with a passenger.
– Before riding the vehicle, ask your passenger to inform you to slowdown or stop immediately if he feels uncomfortable or insecure during the ride. Keep a watchful eye on your passenger while riding.

Each operator has a responsibility to ensure the safety of other recreationists or bystanders.

You are responsible for proper operation of your vehicle as well as training those whom you allow to ride or drive. There may be noticeable handling and performance differences from one snowmobile to the other.

A snowmobile is relatively simple to operate but like any other vehicle or mechanical equipment, it can be hazardous if you or a passenger are reckless, thoughtless or inattentive. We encourage you to have an Annual Safety Inspection of your snowmobile. Please contact an authorized Lynx dealer for further details. Finally, we urge you to visit an authorized Lynx dealer periodically for regular and safety maintenance, as well as snowmobile accessories you may require.

Before venturing on the trails, operate the snowmobile in a restricted flat area until you are completely familiar with its operation and feel comfortable that you can safely tackle a more demanding task. Have an enjoyable and safe ride.

Pre-Ride Inspection

⚠ WARNING

The pre-operation check is very important prior to operating the vehicle. Always check the proper operation of critical controls, safety features and mechanical components before starting.

Before Starting the Engine

1. Remove snow and ice from body including lights, seat, footrests, controls and instruments.
2. Verify that air silencer prefilter is free of snow.
3. Verify that skis and steering operate freely. Check corresponding action of skis versus handlebar.
4. Check fuel and oil for levels and leaks. Replenish if necessary and see an authorized Lynx dealer in case of any leaks.
5. All storage compartments must be properly latched and they must not contain any heavy or breakable objects. Hood and side panels must be also properly latched.
6. Activate the throttle control lever several times to check that it operates easily and smoothly. It must return to idle position when released.
7. Activate the brake lever and make sure the brake fully applies before the brake control lever touches the handlebar grip. It must fully return when released.
8. Apply parking brake and check if it operates properly. Leave parking brake applied.

After Engine Is Started

For proper engine starting procedure, refer to the appropriate *ENGINE STARTING PROCEDURE* section.

1. Check headlights high beam and low beam, taillight, stop light and pilot lamps operation.

NOTE: You may need to detach tether cord from your clothes to check lights. In such a case, attach cord as soon as you get back at the controls of the snowmobile.

2. Check the engine cut-off switch (by pulling tether cord cap) and emergency engine stop switch operation.
3. Release parking brake.
4. Refer to the *VEHICLE WARM UP* section and follow instructions.

Pre-Ride Check List

ITEM	OPERATION	✔
Body including seat, footrests, lights, air filter, controls and instruments	Check condition and remove snow or ice.	
Skis and steering	Check for free movement and proper action.	
Fuel	Check for proper level and no leaks.	
Coolant	Check for proper level and no leaks.	
Storage compartment	Check for proper latching and no heavy or breakable objects.	
Throttle lever	Check for proper action.	
Track	Check condition and remove snow or ice.	
Brake lever	Check for proper operation.	
Parking brake	Check for proper operation.	
Emergency engine stop switch and engine cut-off switch (tether cord cap)	Check for proper action. Tether cord must be attached to operator clothing eyelet.	
Lights	Check for proper operation.	

How to Ride

Riding Gear

Proper snowmobile clothing should be worn. It should be comfortable and not too tight. Always check the weather forecast before going on a ride. Dress for the coldest weather expected. Thermal underwear next to the skin also provides a good insulation.

Wear an approved helmet at all times for safety and comfort. They provide both warmth and reduce injury. A stocking type cap, balaclava and face mask should always be carried or worn. Goggles or a face shield that attach to the helmet are indispensable.

Hands should be protected by a pair of snowmobile gloves or mitts which have sufficient insulation and allow use of thumbs and fingers for operation of controls.

Rubber bottom boots with either a nylon or a leather top, with removable felt liners are best suited for snowmobiling.

You should keep yourself as dry as possible when snowmobiling. When you come indoors, take your snowmobile suit and boots off and make certain they dry properly.

Do not wear a long scarf or loose apparels that could get caught in moving parts.

Carry colored lens goggles.

What to Bring

First aid kit	Provided tool kit
Mobile phone	Knife
Spare spark plugs	Flashlight
Friction tape	Trail map
Spare drive belt	Snack

Rider Position (Forward Operation)

Your riding position and balance are the two basic principles of making your snowmobile go where you want it to. When turning on the side of a hill, you and your passenger must be ready to shift body weight to help it turn in the desired direction. Operator and passenger(s) must never attempt this maneuvering by placing feet outside of the vehicle. Experience will teach you how much lean to put into turns at different speeds and how much you will have to lean into a slope to maintain proper balance.

Generally, the riding position for best balance and control is sitting. However, the posting, kneeling or standing positions are also used under certain conditions.

⚠ WARNING

Do not attempt any maneuvers if they are beyond your abilities.

Sitting

Feet on the running boards, body midway back on seat is an ideal position when operating the snowmobile over familiar, smooth terrain. Knees and hips should remain flexible to absorb shocks.

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Posting

A semi-sitting position with the body off the seat and the feet under the body in a sort of squatting posture, thus allowing the legs to absorb the shocks when traveling over uneven terrain. Avoid abrupt stops.

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Kneeling

This position is achieved by placing one foot firmly on the running board and the opposite knee on the seat. Avoid abrupt stops.

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Standing

Place both feet on the running boards. Knees should be flexed to absorb the shock from surface bumps. This is an effective position to see better and to shift weight as conditions dictate. Avoid abrupt stop.


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Rider Position (Reverse Operation)

We recommend sitting on your snowmobile when operating in reverse.

Avoid standing up. Your weight could shift forward against throttle lever while operating in reverse, causing an unexpected acceleration.

⚠ WARNING

Unexpected acceleration when snowmobile operates in reverse can cause a loss of control.

Carrying Passenger

Certain snowmobiles are designed for an operator only (1-UP), and others can allow one passenger (2-UP). Make sure to identify and respect the warnings according to your specific models.

Even when a passenger is allowed, this person must be physically fit for snowmobiling.

⚠ WARNING

Any passenger must be able to firmly lay his feet on the footrests and keep his hands on the handholds or seat strap at all times when seated. Respecting those physical criteria is important to ensure that the passenger is stable and to reduce the risks of ejection.

On snowmobiles allowing two passengers, if you have an adult and a child for passenger, BRP recommends that the child sits in the center location. This allows an adult sitting in the rear seat to keep a visual contact with the child and hold him if necessary. In addition, the child is best protected against the wind and cold temperature if seated in the center location.

The operator has a responsibility to ensure the safety of his passenger and should inform the passenger about snowmobiling basics.

⚠ WARNING

- Passenger must only sit on designated passenger seat. Never allow anyone to sit between the handlebar and the operator.
- Passenger and operator must always wear an approved helmets and warm clothing appropriate for snowmobiling. Make sure that no skin is exposed.
- Once underway, if the passenger feels uncomfortable or insecure for any reason, he must right away inform the operator to slowdown or stop.

Riding with a passenger on board is different than riding alone. The operator has the benefit of knowing what will be the next maneuver and is able to prepare himself accordingly. The operator also benefits from the support of his grip on the handlebar. In contrast, the passenger has to rely on the oper-

ator's careful and safe operation of the vehicle. In addition, "body english" is limited with a passenger, and the operator can sometimes see more of the trail ahead than the passenger. Therefore, smooth starting and stopping are required with a passenger, and the operator must slow down. The operator must also warn the passenger about side hills, bumps, branches, etc. An unforeseen bump can leave you passenger-less. Remind your passenger to lean into the turn with you, without causing the vehicle to topple. Be extremely careful, go more slowly and check the passenger frequently.

⚠ WARNING

When riding with a passenger:
- Braking ability and steering control are reduced. Decrease speed and allow extra space to maneuver.
- Adjust suspension according to weight.

For complete information on how to adjust the suspension, please refer to the *TUNE YOUR RIDE* subsection.

Use extra caution and go even more slowly with a young passenger. Check frequently to make certain the child has a firm grip and is properly positioned with his feet on the running boards.

Terrain/Riding Variations

Groomed Trail

On a maintained trail, sitting is the most preferred riding position. Do not race and, above all, keep to the right hand side of the trail. Be prepared for the unexpected. Observe all trail signs. Do not zigzag from one side of the trail to the other.

Ungroomed Trail

Unless there has been a fresh snowfall you can expect "washboard" and snowdrift conditions. Taken at excessive speeds, such conditions can be physically harmful. Slow down. Hold on the handlebar and assume a posting position. Feet should be under the body assuming a crouched position to absorb any jarring effect. On longer stretches of "washboard" trails, the kneeling position of one knee on the seat can be adopted. This provides a certain amount of comfort, while at the same time keeps the body loose and capable of vehicle control. Beware of hidden rocks or tree stumps partially hidden by a recent snowfall.

Deep Snow

In deep "powder" snow, your vehicle could begin to "bog" down. If this occurs, turn in as wide an arc as possible and look for a firmer base. If you do get "bogged", and it happens to everyone, do not spin your track as this makes the vehicle sink deeper. Instead, turn the engine off, get off and move the back of the vehicle onto new snow. Then tramp a clear path ahead of the vehicle. A few feet will generally suffice. Restart the engine. Assume the standing position and rock the vehicle gently as you steadily and slowly apply the throttle. Depending on whether the front or rear end of the vehicle is sinking, your feet should be placed on the opposing end of the running boards. Never place foreign material beneath the track for support. Do not allow anyone to stand in front of, or to the rear of, the snowmobile with the engine running. Stay away from the track. Personal injury will result if contact is made with the revolving track.

Frozen Water

Traveling frozen lakes and rivers can be fatal. Avoid waterways. If you are in an unfamiliar area, ask the local authorities or residents about the ice condi-

tion, inlets, outlets, springs, fast moving currents or other hazards. Never attempt to operate your snowmobile on ice that may be too weak to support you and the vehicle. Operating a snowmobile on ice or icy surfaces can be very dangerous if you do not observe certain precautions. The very nature of ice is foreign to good control of a snowmobile or any vehicle. Traction for starting, turning or stopping is much less than that on snow. Thus, these distances can be multiplied manyfold. Steering is minimal, and uncontrolled spins are an ever present danger. When operating on ice, drive slowly with caution. Allow yourself plenty of room for stopping and turning. This is especially true at night.

Hard Packed Snow

Don't underestimate hard packed snow. It can be difficult to negotiate as both skis and track do not have as much traction. Best advice is to slow down and avoid rapid acceleration, turning or braking.

Uphill

There are two types of hills you can encounter — the open hill on which there are few trees, cliffs or other obstacles, and a hill that can only be climbed directly. On an open hill, the approach is to climb it by side hilling or slaloming. Approach at an angle. Adopt a kneeling position. Keep your weight on the uphill side at all times. Maintain a steady, safe speed. Continue as far as you can in this direction, then switch to an opposite hill angle and riding position.

A direct climb could present problems. Choose the standing position, accelerate before you start the climb and then reduce throttle pressure to prevent track slippage.

In either case, vehicle speed should be as fast as the incline demands. Always slow down as you reach the crest. If you cannot proceed further, don't spin your track. Turn the engine off, free the skis by pulling them out and downhill, place the rear of the snowmobile uphill restart the engine and ease it out with slow even throttle pressure. Position yourself to avoid tipping over, then descend.

Downhill

Downhill driving requires that you have full control of your vehicle at all times. On steeper hills, keep your center of gravity low and both hands on the handlebar. Maintain slight throttle pressure and allow the machine to run downhill with the engine operating. If a higher than safe speed is reached, slow down by braking but apply the brake with frequent light pressure. Never jam the brake and lock the track.

Side Hill

When crossing a side hill or traversing up or downhill, certain procedures must be followed. All riders should lean towards the slope as required for stability. The preferred operating positions are the kneeling position, with the knee of the down hill leg on the seat and the foot of the uphill leg on the running board, or the posting position. Be prepared to shift your weight quickly as needed. Side hills and steep slopes are not recommended for a beginner or a novice snowmobiler.

Avalanche Hazard

When riding on mountainous terrain, you should be aware of the risk of avalanches. Avalanches vary in size and shapes and generally occur in steep terrain and on unstable snow.

New snow, animals, people, wind and snowmobiles can all trigger an avalanche. Avoid high marking or traversing steep terrain when avalanche conditions are possible. When in unstable snow conditions, travel should be restricted to lower angle slopes. Wind formed cornices should be avoided. Staying off un-

stable conditions is the key to safe mountain riding. Probably most important is to be aware of the conditions and dangers on a daily basis when in the mountains. Check local avalanche forecasts and threats each day before heading out to ride and heed forecasters advice.

You should always carry a snow shovel, probe and avalanche beacon while riding on mountains. We recommend that all mountain riders take a local avalanche safety training course to become more familiar with snow conditions and learn how to properly use their equipment.

Here are some web sites that can help you finding important information:

– Europe: www.avalanches.org

Slush

Slush should be avoided at all times. Always check for slush before starting across any lake or river. If dark spots appear in your tracks, get off the ice immediately. Ice and water can be thrown rearward into the path of a following snowmobile. Getting a vehicle out of a slush area is strenuous and in some cases, impossible.

Fog or Whiteout Conditions

On land or water, fog or visibility-limiting snow can form. If you have to proceed into the fog or heavy snow, do so slowly with your lights on and watch intently for hazards. If you are not sure of your way, do not proceed. Keep a safe distance behind other snowmobilers to improve visibility and reaction time.

Unfamiliar Territory

Whenever you enter an area that is new to you, drive with extreme caution. Go slow enough to recognize potential hazards such as fences or fence posts, brooks crossing your path, rocks, sudden dips, guy wires and countless other obstacles which could result in a termination of your snowmobile ride. Even when following existing tracks, be cautious. Travel at a speed so you can see what is around the next bend or over the top of the hill.

Bright Sunshine

Bright sunny days can considerably reduce your vision. The glare from sun and snow may blind you to the extent that you cannot easily distinguish ravines, ditches or other obstacles. Goggles with colored lenses should always be worn under these conditions.

Unseen Obstruction

There may be obstructions hidden beneath the snow. Driving off established trails and in the woods requires reduced speed and increased vigilance. Driving too fast in an area can make even minor obstacles very hazardous. Even hitting a small rock or stump could throw your snowmobile out of control and cause injury to its riders. Stay on established trails to reduce your exposure to hazards. Be safe, slow down and enjoy the scenery.

Hidden Wires

Always be on the lookout for hidden wires, especially in areas that may have been farmed at one time or another. Too many accidents have been caused by running into wires in the fields, guy wires next to poles and roads, and into chains and wires used as road closures. Slow speeds are a must.

Obstacles and Jumping

Unplanned jumps of snowdrifts, snowplow ridges, culverts or indistinguishable objects can be dangerous. You can avoid them by wearing the proper color lenses or face shields and by operating at a lower speed.

Jumping a snowmobile is an unsafe and dangerous practice. However, if the trail does suddenly drop away from you, crouch (stand) towards the rear of the vehicle and keep the skis up and straight ahead. Apply partial throttle and brace yourself for the impact. Knees must be flexed to act as shock absorbers.

Turning

Depending on terrain conditions, there are two preferred ways to turn or corner a snowmobile. For most snow surfaces, "body english" is the key to turning. Leaning towards the inside of the turn and positioning body weight on the inside foot will create a "banking" condition beneath the track. By adopting this position and positioning yourself as far forward as possible, weight will be transferred to the inside ski.

On occasion, you will find that the only way to turn the vehicle about in deep snow is to pull the snowmobile around. Do not over-exert yourself. Get assistance. Remember to always lift using your legs as opposed to your back.


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Road Crossing

In some cases, you will be approaching the road from a ditch or snowbank. Choose a place where you know you can climb without difficulty. Use the standing position and proceed with only as much speed needed to crest the bank. Stop completely at the top of the bank and wait for all traffic to clear. Judge the drop to the roadway. Cross the road at a 90° angle. If you encounter another snowbank on the opposite side, position your feet near the rear of the vehicle. Remember, your snowmobile is not designed to operate on bare pavement and steering on this type of surface is more difficult.

Railroad Crossing

Never ride on railroad tracks. It is illegal. Railroad tracks and railroad rights-of-way are private property. A snowmobile is no match for a train. Before crossing a railroad track, stop, look and listen.

Night Rides

The amount of natural and artificial light at a given time can effect your ability to see or to be seen. Nighttime snowmobiling is delightful. It can be a unique experience if you acknowledge your reduced visibility. Before you start, make certain your lights are clean and work properly. Drive at speeds that will allow you to stop in time when you see an unknown or dangerous object ahead. Stay on established trails and never operate in unfamiliar territory. Avoid rivers and lakes. Guy wires, barbed wire fences, cabled road entrances and other objects such as tree limbs are difficult to see at night. Never drive alone. Always carry a flashlight. Keep away from residential areas and respect the right of others to sleep.

Riding in a Group

Before starting out, designate a "trail boss" to lead the party and another person to follow-up at the end of the party. Ensure that all members of the party are aware of the proposed route and destination. Make certain that you are carrying all necessary tools and equipment and that you have sufficient fuel to complete the trip. Never overtake the trail boss or, for that matter, any

other snowmobile. Use down-the-line hand signals to indicate hazards or intent of direction change. Assist others whenever necessary.

It is always IMPORTANT to keep a safe distance between each snowmobile. Always maintain a safe interval and allow sufficient stopping distance. Don't be a tailgater. Know the position of the machine ahead.

Signals

If you intend to stop, raise either hand straight above your head. A left turn is indicated by extending your left hand straight out in the proper direction. For right turns, extend the left arm and raise the hand to a vertical position so it forms a right angle at the elbow. Every snowmobiler should relay any signal to the ones behind.

Trail Stops

Whenever possible, pull off the trail when you stop. This will reduce the hazard to other snowmobilers using the trail.

Trails and Signs

Trail signs are used to control, direct or regulate the use of snowmobiles on trails. Become familiar with all signs used in the area where you are snowmobiling.

Environment

Wildlife compliments your snowmobiling day. Snowmobile tracks provide firm ground over which animals can travel from area to area. Do not violate this privilege by chasing or harassing wildlife. Fatigue and exhaustion can lead to animal's death. Avoid areas posted for the protection or feeding of wildlife.

If you happen to be fortunate enough to see an animal, stop your snowmobile and observe quietly.

The guidelines that we support are not designed to limit your snowmobiling fun, but to preserve the beautiful freedom that you can experience only on a snowmobile! These guidelines will keep snowmobilers healthy, happy and able to introduce others to what they know and enjoy about their favorite winter pastime. So, the next time you hit the trails on a cool, crisp and clear winter day, we ask you to remember that you are paving the way for the future of our sport. Help us lead it down the right path! From all of us at BRP, thank you for doing your share.

There is nothing more exhilarating than snowmobiling. Venturing onto snowmobile trails that cross wild areas is an exciting and healthy winter sport. However, as the number of people using these recreational parks increases, so does the potential for damage to the environment. Abuse of land, facilities and resources inevitably leads to restrictions and closures of both private and public land.

In essence, the greatest threat to our sport, is all around us. Which leaves us with one logical choice. When we snowmobile, we must always ride responsibly.

The vast majority respect the law and the environment. Each of us must set an example for those who are new to the sport, young and old alike.

It is in every one's best interest to tread lightly into our recreational areas. Because, in the long run, to protect the sport we must preserve the environment.

Recognizing the importance of this issue and the need for snowmobilers to do their share in preserving areas that make it possible to enjoy our sport, BRP has developed the “Light Treading Is Smart Sledding” campaign for snowmobilers.

Light Treading refers to more than the thread of our tracks. It's a statement of concern, respect and willingness

to take the lead and take action. It applies to the environment in general, its proper care and maintenance, its natural inhabitants and all enthusiasts and the public at large who enjoy the great outdoors. With this theme, we invite all snowmobilers to remember that respecting the environment is not only critical to the future of our industry but to future generations.

Light Treading in no way suggests you should curb your appetite for snowmobiling fun! It simply means tread with respect!

The fundamental objective of Light Treading is one of respect for where and how you ride a snowmobile. You're a light treader when you follow the principles below.

Become informed. Obtain maps, regulations and other information from the Forest Service or from other public land agencies. Learn the rules and follow them and that goes for speed limits, too!

Avoid running over young trees, shrubs, and grasses and don't cut wood. On flatlands or areas where trail riding is popular, it's important to ride only where authorized. Remember, there is a link between protecting your environment and your own safety.

Respect wildlife and be particularly sensitive of animals that are rearing young or suffering from food shortage. Stress can sap scarce energy reserves. Refrain from riding in areas where only animals are intended to tread!

Obey gate closures and regulatory signs and remember, light treaders don't litter!

Stay out of wilderness areas. They're closed to all vehicles. Know where the boundaries are.

Obtain permission to travel across private land. Respect the rights of landowners and other people's privacy. Remember, snowmobile technology has lowered the noise factor considerably, but you still shouldn't rev your engines where quiet "is the order of the day".

Snowmobilers know all too well the efforts that have been made throughout the sport's history to enjoy access to areas where people can snowmobile safely and responsibly. This effort continues today, as strong as ever.

Respecting the areas where we ride... wherever they may be... is the only way to ensure their future enjoyment. That's one major reason why we know you'll agree that Light Treading is smart sledding! And there are more.

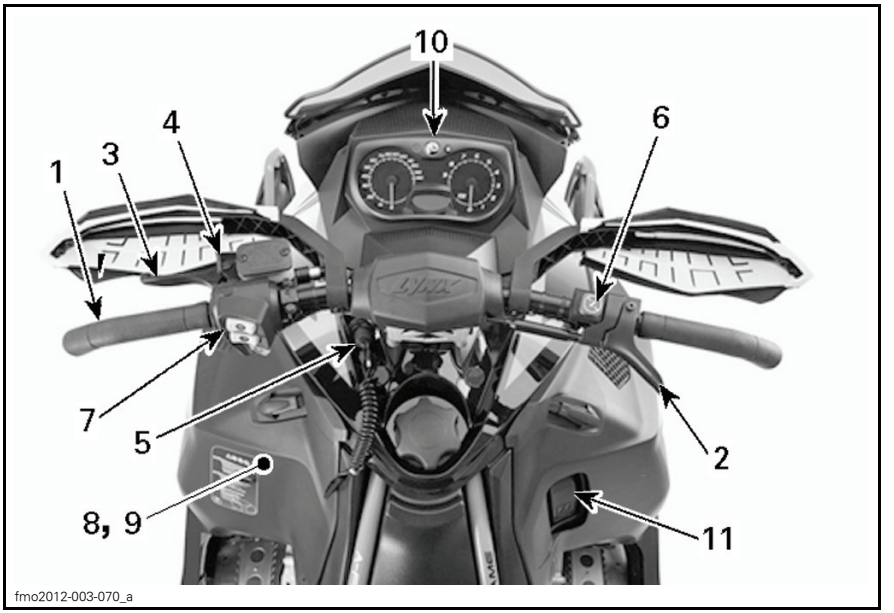
Enjoying the opportunity to see winter and all its natural majestic wonders, is an experience cherished by snowmobilers. Light Treading will preserve this opportunity and will make it possible for us to expose others to the beauty of winter and the unique thrill of our sport! Light Treading will help our sport to grow!

Finally, Light Treading is the sign of a smart snowmobiler. You don't have to leave big tracks or careen through a virgin forest to show you can ride. So whether you're driving a high performance Lynx, a sporty RS snowmobile or any other make or model, show you know what you're doing. Show you know how to send snow flying and make tracks with a light touch!

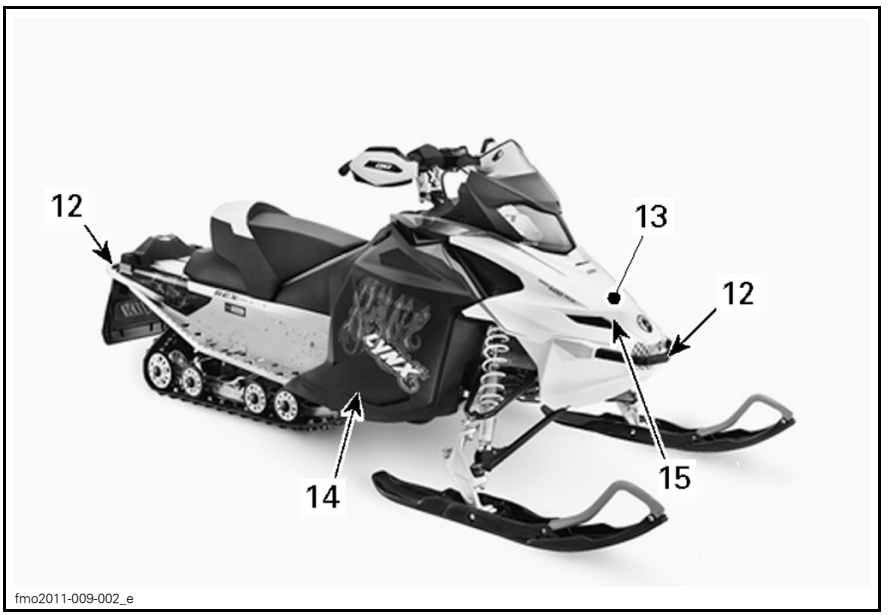
VEHICLE INFORMATION

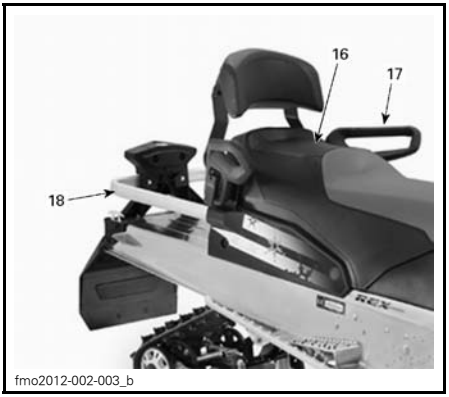
CONTROLS, INSTRUMENTS AND EQUIPMENT

NOTE: Some features may not apply to your model or could be optional.

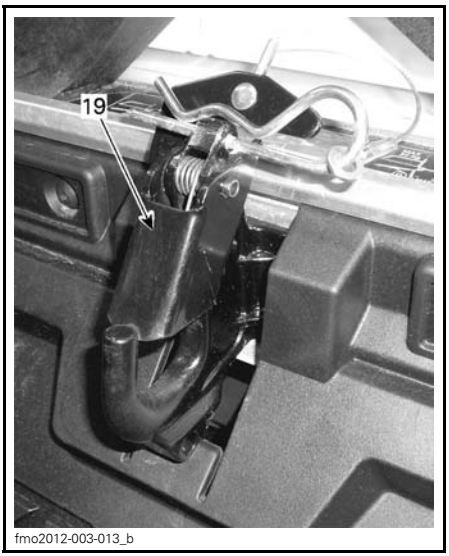


TYPICAL





ADVENTURE LX SHOWN



J-HOOK MODEL SHOWN

1) Handlebar

The handlebar controls the steering of the snowmobile. As the handlebar is rotated to right or left, the skis are turned right or left to steer the snowmobile.

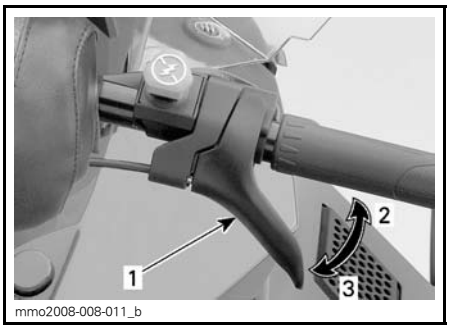
⚠ WARNING

Fast reverse while turning, could result in loss of stability and control.

2) Throttle Lever

Throttle lever is located on the RH side of handlebar.

Designed to be thumb activated. When squeezed, it increases the engine speed. When released, engine speed returns automatically to idle.



TYPICAL
1. *Throttle lever*
2. *To accelerate*
3. *To decelerate*

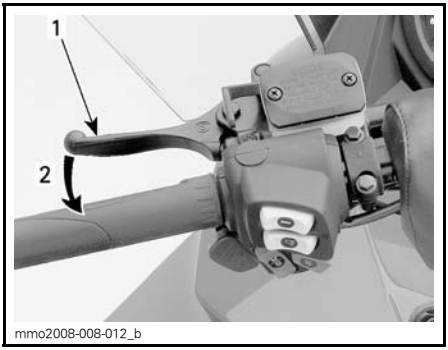
⚠ WARNING

Test the throttle lever operation each time before starting the engine. The lever must return to the rest position once released. Otherwise, do not start engine.

3) Brake Lever

Brake lever is located on the LH side of handlebar.

When squeezed, brake is applied. When released, it automatically returns to the rest. Braking effect is proportional to the pressure applied on the lever and to the type of terrain and its snow coverage.

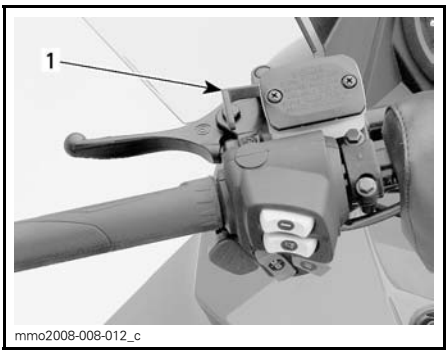


TYPICAL
1. *Brake lever*
2. *To apply brake*

4) Parking Brake Lever

Parking brake lever is located on the LH side of handlebar.

Parking brake should be used whenever snowmobile is parked.



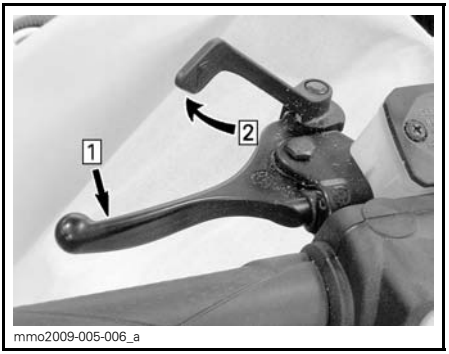
TYPICAL
1. *Parking brake lever*

⚠ WARNING

Make sure parking brake is fully disengaged before operating the snowmobile. When you ride the vehicle, brake pads that are caused to drag by a continuous pressure on the lever may cause damage to the brake system and cause loss of braking capacity and/or fire.

To Engage Parking Brake

Apply and hold brake, then lock brake lever using the parking brake lever as shown.



TYPICAL — ENGAGE MECHANISM
Step 1: Apply and hold brake
Step 2: Lock brake lever using parking brake lever

To Release Parking Brake

Squeeze brake lever. Parking brake lever will automatically return to its original position. Always release parking brake before riding.

5) Engine Cut-Off Switch

The engine cut-off switch (tether cord) is located to on the LH side of console.

The tether cord cap must be securely snapped on the engine cut-off switch to allow vehicle operation.

NOTE: After engine starting, 2 short beeps should be heard if a programmed D.E.S.S. key (tether cord cap) is correctly snapped on engine cut-off switch. If another beep code is heard, refer to *MONITORING SYSTEM* for D.E.S.S. malfunction codes information.

Pulling the tether cord cap from the switch shuts the engine off.

⚠ WARNING

Always attach the tether cord eyelet to clothing before starting the engine.

D.E.S.S. (Digitally Encoded Security System)

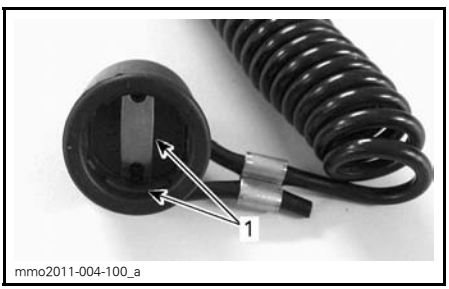
The tether cord cap has an integrated D.E.S.S. key to provide you and your snowmobile with the equivalent security of a conventional lock key.

The D.E.S.S. key contains an electronic chip which features a unique permanently memorized digital code.

Your authorized Lynx dealer has programed the D.E.S.S. of your snowmobile to recognize the D.E.S.S. key in the tether cord cap to allow vehicle operation.

If another tether cord is used without programming the D.E.S.S., the engine will start but will not reach drive pulley engagement speed to move vehicle.

Make sure the tether cord cap is free of dirt or snow.



TETHER CORD CAP
1. Free of dirt or snow

D.E.S.S. Flexibility

The D.E.S.S. of your snowmobile can be programmed by your authorized Lynx dealer to accept up to 8 different keys.

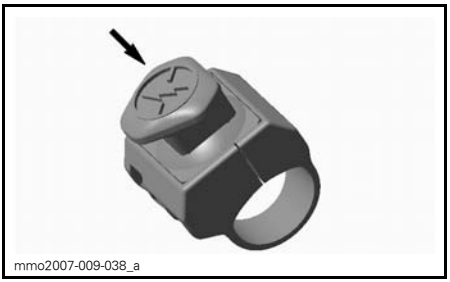
We recommend the purchase of additional tether cords from your authorized Lynx dealer. If you have more than one D.E.S.S. equipped Lynx snowmobile, each can be programmed by your authorized Lynx dealer to accept the other vehicles D.E.S.S. keys.

6) Emergency Engine Stop Switch

The emergency engine stop switch is located on the RH side of handlebar.

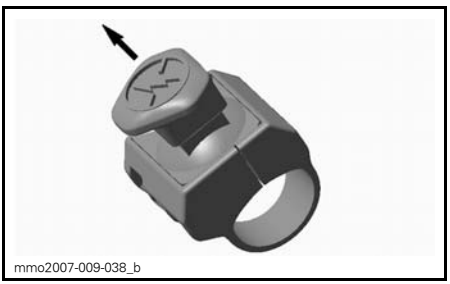
Use the emergency stop switch to stop engine in a emergency situation.

To stop the engine, push switch down (OFF position).



OFF POSITION

To allow engine starting, the switch must be in the ON position (UP).



ON POSITION

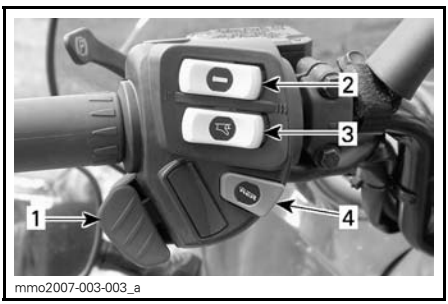
All operators of the snowmobile should familiarize themselves with the function of the emergency engine stop switch by using it several times on first outing and whenever stopping the engine thereafter. This engine stopping procedure will become a reflex and will prepare operators for emergency situations requiring its use.

⚠ WARNING

If the switch has been used in an emergency caused by a suspected malfunction, the source of the malfunction should be determined and corrected before restarting engine. See an authorized Lynx dealer for servicing.

7) Multifunction Switch

Multifunction switch is located on the LH side of handlebar.



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1. Headlights dimmer switch
2. Heated grips switch
3. Heated throttle lever switch
4. Start button

Start Button

Press to start engine. Refer to *ENGINE STARTING PROCEDURE* in the *BASIC PROCEDURES* subsection.

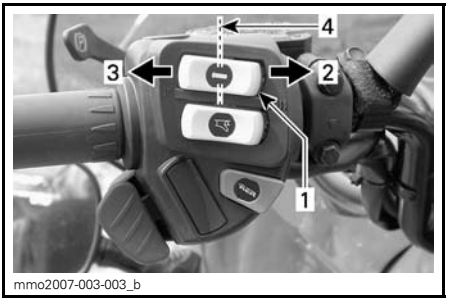
Headlights Dimmer Switch

Press to select HI or LOW beam. Lights are automatically ON when the engine is running.

Heated Grips Switch

NOTE: The heated grips are enabled above 2000 engine RPM.

Select the switch position according to the desired heating intensity to keep your hands at a comfortable temperature.



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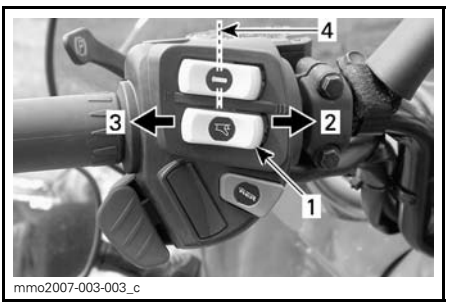
TYPICAL
1. Heated grip switch
2. Hot
3. Warm
4. Off

Heated Throttle Lever Switch

NOTE: The heated grips are enabled above 2000 engine RPM.

Select the switch position according to the desired heating intensity to keep your thumb at a comfortable temperature.



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TYPICAL
1. Heated throttle lever switch
2. Hot
3. Warm
4. Off

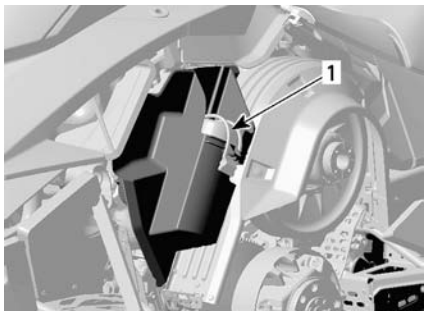
8) Tool Kit

A tool kit containing tools for basic maintenance is supplied with the vehicle.

The tool kit support is located in engine compartment on pulley guard.

NOTICE Make sure tool kit is secured properly to avoid contact with CVT (continuously variable transmission).

To remove the tool kit support from the pulley guard, unlock the tab from underneath the pulley guard and pull the tool kit support towards front to release it.



TYPICAL
1. Tool kit

9) Drive Belt Guard

Drive Belt Guard Removal

⚠ WARNING

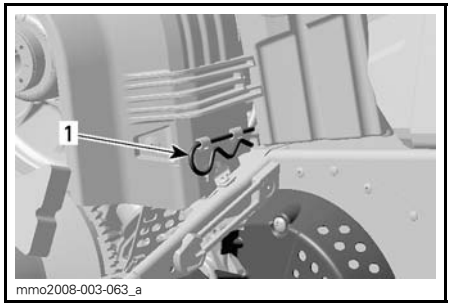
NEVER operate engine:
- Without shields and drive belt guard securely installed.
- With hood and/or side panels opened or removed.

NEVER attempt to make adjustments to moving parts while engine is running.

Remove tether cord cap from engine cut-off switch.

Open engine compartment LH side panel, see procedure in this subsection.

Remove retaining pin.



1. Retaining pin

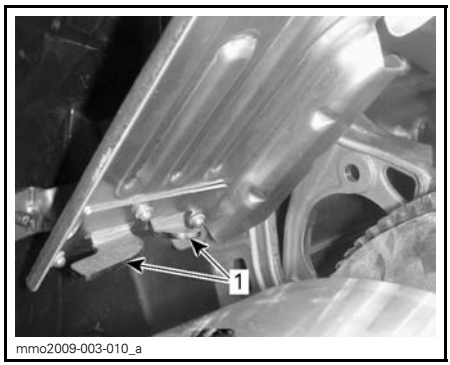
Lift rear portion of guard then release from front tabs by pivoting the guard outwards.

Drive Belt Guard Installation

When reinstalling drive belt guard, position its cutaway toward front of snowmobile.

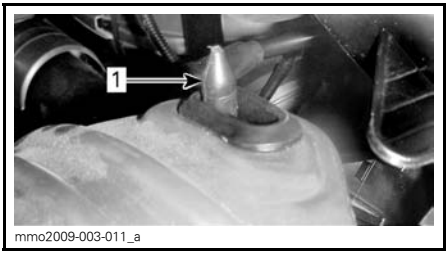
Place the front LH slot of the guard over the longest tab.

Pivot the guard inward to engage the shortest tab in the RH slot.



1. Tabs

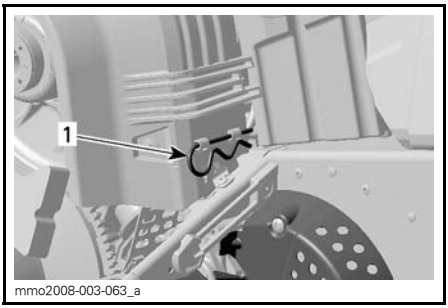
Position the grommet over the retaining rod. It may be necessary to slightly lift the console to make room.



1. Retaining rod

Position rear portion of the drive belt guard over the retainer and secure it using the retaining pin.

NOTE: The drive belt guard is purposely made slightly oversize to maintain tension on its pins and retainers preventing undue noise and vibration. It is important that this tension be maintained when reinstalling.



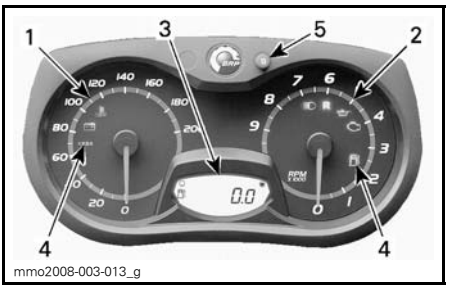
1. Retaining pin

10) Gauge

⚠ WARNING

Reading the gauge digital display can distract from the operation of the vehicle, particularly from constantly scanning the environment.

Gauge Description

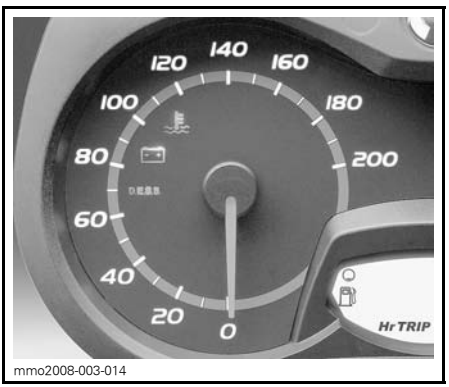


ANALOG/DIGITAL GAUGE (STANDARD)
1. Speedometer
2. Tachometer (RPM)
3. Gauge Digital Display
4. Gauge Pilot Lamps
5. Gauge SET "S" button

NOTE: The gauge is factory preset in metric units but it is possible to change it to Imperial units, contact an authorized Lynx dealer for unit settings.

1) Speedometer

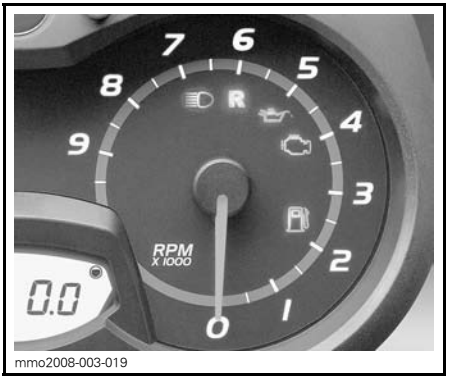
Measures vehicle speed (in miles per hour or kilometers per hour depending on the setting).



LH PORTION OF GAUGE

2) Tachometer (RPM)

Measures engine revolution per minute (RPM). Multiply by 1000 to obtain the actual revolutions.



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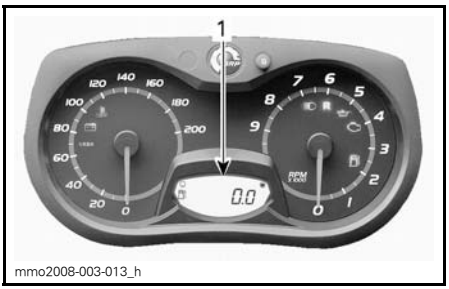
RH PORTION OF GAUGE

3) Digital Display



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1. Digital display

The multifunction display is used to:

- Display the WELCOME message on power up
- Display the KEY recognition message
- Provide various indications as selected by the operator
- Activating or changing various functions or modes of operation
- Display scrolling messages of function activation or system faults
- Display fault codes.

⚠ WARNING

Never adjust or set functions on the multifunction gauge while riding the vehicle.

4) Pilot Lamps and Messages


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TYPICAL — PILOT LAMPS

See table below for usual pilot lamps information. Refer to *MONITORING SYSTEM* for details on malfunction pilot lamps.

PILOT LAMP(S) ON	BEEPER	DESCRIPTION
	4 short beeps every 5 minutes	Low engine oil pressure. Stop vehicle in a safe place then, check oil level. Fill to proper level. If oil level was correct, discontinue use and contact an authorized Lynx dealer.
	—	Low fuel level. One (1) bar left in fuel level display. Replenish fuel tank as soon as possible.
	Long beeps repeating slowly	Reverse is selected.
	—	High beam headlights are selected.

5) SET (S) Button

Button used to navigate, adjust or reset gauge multifunction display.

In order to memorize settings, engine must be running.

Gauge Features

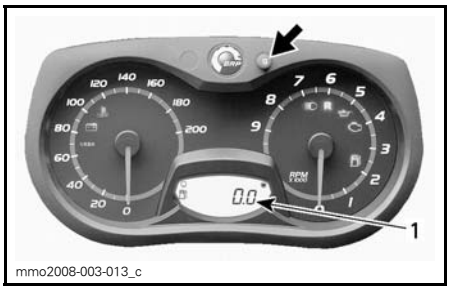
AVAILABLE INDICATIONS IN DIGITAL DISPLAY				
FUNCTIONS	RAVE	XTRIM	ADVENTURE LX	49 RANGER
A) Odometer	X	X	X	X
B) Trip meter "A" or "B"	X	X	X	X
C) Trip hour meter	X	X	X	X
D) Fuel level	X	X	X	X

NOTE: The display is factory preset in Metric units but it is possible to change it to Imperial units, contact an authorized Lynx dealer for unit settings.

A) Odometer

Records the total distance travelled.

Press the SET (S) button to select odometer mode.

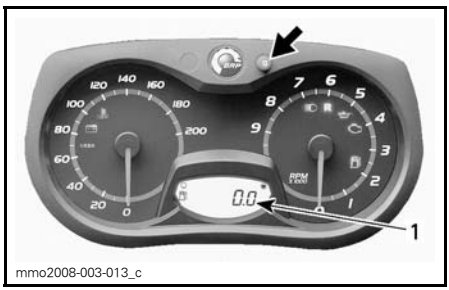


1. Odometer mode

B) Trip Meter "A" or "B"

Trip meters records distance travelled since it has been reset.

Press the SET (S) button to select trip meter (TRIP A/TRIP B) mode.



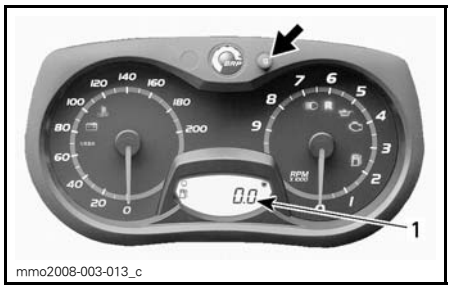
1. Trip meter (TRIP A/TRIP B) mode

Press and hold the SET (S) button to reset.

C) Trip Hour Meter

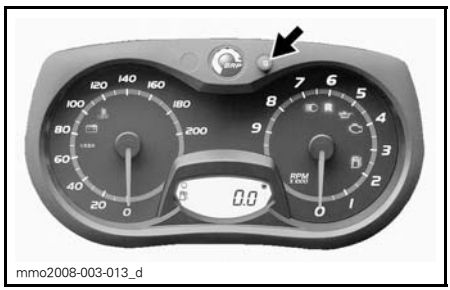
Records vehicle running time when the electrical system is activated since it has been reset.

Press the SET (S) button to select trip hour meter (HrTRIP) mode.



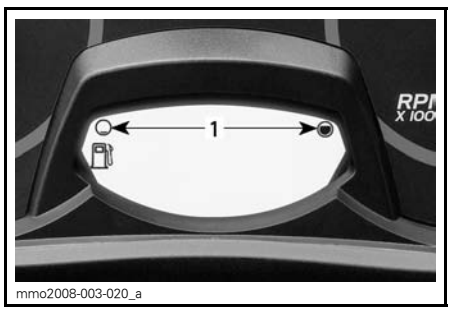
1. Trip hour meter (HrTRIP) mode

Press and hold the SET (S) button to reset.



D) Fuel Level

Bar gauge that continuously indicates the amount of fuel left in the fuel tank.



FUEL LEVEL
1. Operating range

11) Shift Lever

Use this lever to shift in forward or reverse.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PULL TO ENGAGE REVERSE GEAR

Refer to *OPERATING IN REVERSE* in *BASIC PROCEDURES* for details.

12) Front and Rear Bumpers

To be used whenever snowmobile requires manual lifting.

⚠ CAUTION Use proper lifting techniques, notably using your legs force. Do not attempt to lift the either end of the vehicle if it is above your limits. Use appropriate lifting device or have assistance to share lifting stress if possible.

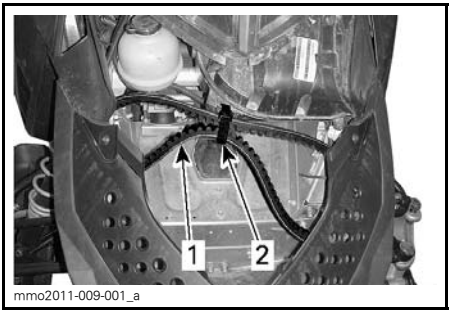
NOTICE Do not use skis to pull or lift snowmobile.

13) Drive Belt Holder

The drive belt holder is provided to secure a spare drive belt (not supplied).

Remove the hood, refer to *HOOD* in this subsection.

Position drive belt on the holder as shown and secure with the Velcro® strap.



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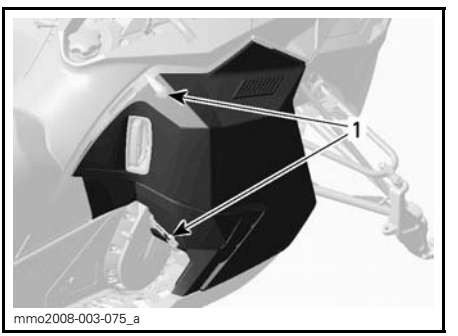
1. *Spare drive belt*
2. *Velcro strap*

14) Side Panels

Side Panel Opening and Closing

To open a side panel, stretch and unhook the latches, slightly lift the top of side panel, then open sideways.



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TYPICAL
1. *Latches*

Reverse procedure to close side panel.

⚠ WARNING

Never operate engine with side panels opened or removed from vehicle.

Velcro ® is a registered trademark of Velcro industries B.V.

Side Panel Removal and Installation

To remove a side panel, open it then lift it up. Free the lower hinge from its slot, then free the upper hinge by lowering the panel.

1. Open side panel as explained in this subsection.
2. Lift side panel up, then free the lower hinge from its slot.
3. Lower side panel, then free the upper hinge from its slot.
4. Remove side panel.

Reverse procedure to install side panel.

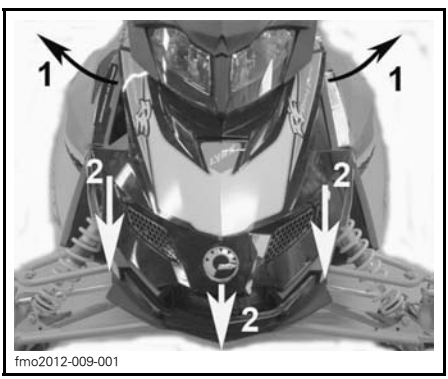
⚠ WARNING

Never operate engine with side panels opened or removed from vehicle.

15) Hood

Hood Removal

To open hood, release hood retaining pins then slide hood towards the front of the vehicle.



Step 1: Release retaining pins
Step 2: Slide hood towards the front

⚠ WARNING

Never operate engine with hood removed from vehicle.

16) Passenger Seat

2-UP Models

A fixed passenger seat with backrest.

⚠ WARNING

Any passenger must be able to firmly lay is feet on the footrests and keep his hands on the handholds at all times when seated. Respecting those physical criteria is important to ensures that the passenger is stable and to reduce the risks of ejection.

17) Passenger Handholds

2-UP Models

Rear handholds provides a grip for the passenger.

18) Rear Rack

⚠ WARNING

All objects in rear rack must be properly latched. Do not carry any breakable objects. Excessive weight in rack may reduce steering ability. Always readjust suspension according to the load. The capacity of this rack is limited, the MAXIMUM cargo load is 15.8 kg (35 lb). Ride at very low speed when loaded. Avoid speed over bumps.

19) Hitch

Use the hitch in conjunction with a tow bar to tow an accessory.

NOTE: Refer to decal on vehicle for towing weight capacities.

⚠ WARNING

Never tow an accessory with a rope. Always use a rigid tow bar. Using a rope would result in a collision between the object and the snowmobile and possibly in a tip over in case of a rapid deceleration or on a downward slope.

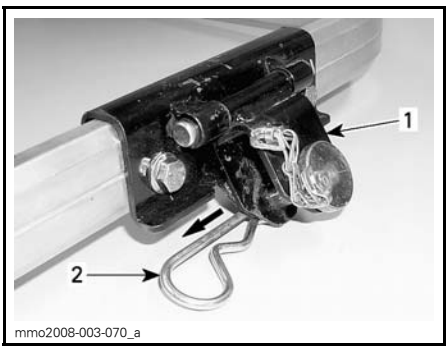
Hitch (Tongue Type)

To attach an equipment to the hitch, secure the accessory tow bar to the hitch tongue using a lockable pin.

Hitch ("C" Type)

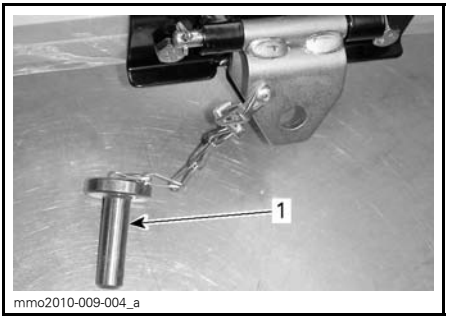
Xtrim Models

Detach hitch from its support by removing the hairpin.



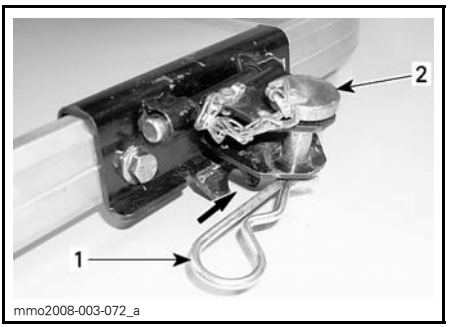
1. Hitch
2. Hairpin

Remove rod from hitch then attach rigid tow bar to hitch using the same rod.



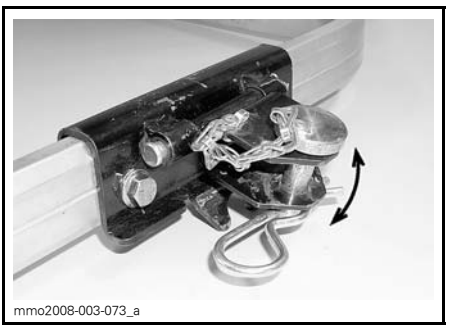
TYPICAL
1. Rod

Secure rod to hitch using hairpin previously removed.



TYPICAL
1. Hairpin
2. Rod

NOTICE To avoid damages to the vehicle, always release hitch from its support. Ensure hitch moves freely when towing an accessory.



HITCH MOVES FREELY WHEN TOWING

To avoid noise from hitch when not in use, secure hitch to its support by using the hairpin.

Hitch ("J" Type)

49 Ranger Models

1. *Tow Hook*
2. *Hairpin*

Attaching an Equipment

1. Remove the hairpin clip.
2. Align accessory attachment hole with the hitch hook.
3. Push the accessory attachment passed the safety tab.
4. Secure safety tab using the hairpin clip.

Detaching an Equipment

1. Remove the hairpin clip.
2. Push safety tab forward to free accessory attachment fromthe hitch.
3. Detach accessory attachment.
4. Install hairpin clip.

Detach hitch from its support by removing the hairpin.

NOTICE To avoid damages to the vehicle, always release hitch from its support. Ensure hitch moves freely when towing an accessory.

To avoid noise from hitch when not in use, secure hitch to its support by using the hairpin.

Recommended Fuel

Use unleaded gasoline available from most service stations or oxygenated fuel containing a maximum total of 10% of ethanol or methanol. The gasoline used must have the following recommended minimum octane rating.

MINIMUM OCTANE RATING (OUTSIDE NORTH AMERICA)	
ENGINE	95 RON E10
600 ACE	X

NOTICE Never experiment with other fuels. The use of inadequate fuel can result in snowmobile performance deterioration and damage to critical parts in the fuel system and engine components.

Fuel Antifreeze Additives

When using oxygenated fuel, additional gas line antifreeze or water absorbing additives are not required and should be not used.

When using non-oxygenated fuel, isopropyl base gas line antifreeze can be used in a proportion of 150 ml (5 U.S. oz) of gas line antifreeze added to 40 L (10.6 U.S. gal.) of gas.

NOTE: Use only methyl hydrate free gas line antifreeze.

Vehicle Fueling Procedure

⚠ WARNING

- Fuel is flammable and explosive under certain conditions.
- Never use an open flame to check fuel level.
- Never smoke or allow flame or spark in vicinity.
- Always work in a well-ventilated area.

1. Stop engine.

⚠ WARNING

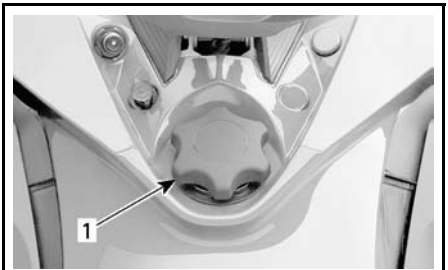
Always stop engine before refueling.

2. Have operator and passenger get off vehicle.

⚠ WARNING

Do not allow anyone to remain in the vehicle while fueling. If there is a fire or explosion during fueling, a vehicle occupant could be unable to quickly leave the area.

3. Unscrew slowly the fuel reservoir cap counterclockwise to remove it.



TYPICAL
1. Fuel tank cap

⚠ WARNING

If a differential pressure condition is noticed (whistling sound heard when loosening fuel reservoir cap) have vehicle inspected and/or repaired before further operation.

4. Insert the spout into the filler neck.
5. Pour fuel slowly so that air can escape from the tank and prevent fuel flow back. Be careful not to spill fuel.
6. Stop filling when the fuel reaches the bottom of filler neck. Do not overfill.

⚠ WARNING

Never top up the fuel tank before placing the vehicle in a warm area. As temperature increases, fuel expands and may overflow.

7. Fully tighten fuel reservoir cap clockwise.

⚠ WARNING

Always wipe off any fuel spillage from the vehicle.

NOTE: Do not sit or lean on seat when fuel tank cap is not properly installed.

BREAK-IN PERIOD

Operation During Break-In

A break-in period of 10 operating hours or 500 km (300 mi) is required for the vehicle.

After the break-in period, the vehicle should be inspected by an authorized Lynx dealer. Refer to *MAINTENANCE* section.

Engine

During the break-in period:

– Avoid prolonged full throttle operation.
– Avoid sustained accelerations.
– Avoid prolonged cruising speeds.
– Avoid engine overheating.

However, brief accelerations and speed variations contribute to a good break-in.

During the first few hours of break-in, the engine management system controls some engine parameters which will slightly reduce the engine performance.

Drive Belt

A new drive belt requires a break in period of 50 km (30 mi).

During the break-in period:

– Avoid strong acceleration and deceleration.
– Avoid pulling a load.
– Avoid high speed cruising.

Engine Starting Procedure

Procedure

1. Apply parking brake.
2. Recheck throttle control lever operation.
3. Put your helmet on.
4. Ensure that the tether cord cap is installed on the engine cut-off switch and that the cord is attached to your clothing eyelet.
5. Ensure that the emergency engine stop switch is in the ON position (up).
6. Depress the START button to engage the electric starter and start the engine. Release button immediately when engine has started.

⚠ WARNING

Never depress throttle while starting engine.

NOTICE Do not engage electric starter for more than 10 seconds at a time. A rest period should be observed between the cranking cycles to allow electric starter to cool down.

7. Release parking brake.

NOTE: For an initial cold start, do not release parking brake. Perform the *VEHICLE WARM-UP* procedure as explained below.

Vehicle Warm-Up

Before every ride, vehicle has to be warmed up as follows.

1. Start engine as explained in *ENGINE STARTING PROCEDURE* above.
2. Allow engine to warm up one or two minutes at idle speed.

NOTE: The engine will shut down after approximately 12 minutes of idling.

3. Disengage parking brake.
4. Apply throttle until drive pulley engages. Drive at low speed the first two or three minutes.

NOTICE If vehicle does not move when throttle is applied, stop engine, remove tether cord cap from the engine cut-off switch, then do the following.

- Check if skis are stuck on the ground. Lift one ski at a time by the handle, then put it down.
- Check if track is stuck on the ground. Lift rear of snowmobile enough to clear track from the ground, then drop.
- Check rear suspension for hard snow or ice accumulation that could interfere with track rotation. Clean the area.

⚠ **CAUTION** Use proper lifting techniques, notably using your legs force. Do not attempt to lift the either end of the vehicle if it is above your limits.

⚠ WARNING

Make sure tether cord cap is removed before standing in front the vehicle, getting close to the track or rear suspension components.

OShifting in Reverse or Forward

⚠ WARNING

When shifting in reverse, wait until the reverse alarm sounds and the pilot lamp comes on in the analog/digital gauge before operating throttle. The reverse speed is not limited. Always proceed with caution as fast reverse could result in loss of vehicle stability. Come to complete stop before depressing engaging the reverse. Always remain seated and apply the brake before shifting. Ensure the path behind is clear of obstacles or bystanders before proceeding.

Shifting in Reverse

To engage reverse gear, proceed as follows:

1. Bring vehicle to a complete stop.
2. Apply and hold brake. Remain seated, refer to *RIDER POSITION (REVERSE OPERATION)* for posture information.
3. With engine at idle speed, pull the reverse shift lever all the way out.
4. Gently depress throttle lever.

Shifting in Forward

To engage forward gear, proceed as follows:

1. Bring vehicle to a complete stop.
2. Apply and hold brake.
3. With engine at idle speed, push the reverse shift lever all the way in.
4. Gently depress throttle lever.

Shutting Off the Engine

Release throttle lever and wait until engine has returned to idle speed.

Shut off the engine using either the emergency engine stop switch or by pulling off the tether cord cap from the engine cut-off switch.

⚠ WARNING

Always remove the tether cord cap from engine cut-off switch when vehicle is not in operation in order to prevent accidental engine starting, theft or use by unauthorized persons.

Riding your Snowmobile at Higher Altitude

At factory, your snowmobile was calibrated to be used at sea level (up to 600 m (2,000 ft) above sea level).

If your snowmobile is to be used at an altitude above 600 m (2,000 ft), have it calibrated accordingly by an authorized Lynx dealer.

NOTICE An inappropriate altitude calibration would decrease performance and may cause serious damage to the snowmobile.

Towing an Accessory

Always use a rigid tow bar to tow an accessory. Any towed accessory should have reflectors on both sides and at the rear. Check local laws for brake light(s) requirements.

⚠ WARNING

Never tow an accessory with a rope. Always use a rigid tow bar. Using a rope would result in a collision between the object and the snowmobile and possibly in a tip over in case of a rapid deceleration or on a downward slope.

Towing Another Snowmobile

If a snowmobile is disabled and must be towed use a rigid tow bar. Remove the drive belt from disabled snowmobile, refer to *DRIVE BELT* in the *MAINTENANCE PROCEDURES* subsection and tow at moderate speed.

NOTICE Always remove the drive belt of the snowmobile that is to be towed to prevent damage to its drive belt and drive system.

In an emergency situation only, if a rigid tow bar is not available, a rope. Proceed with extra caution. In some areas, it may be illegal to do so. Check with state or local authorities.

Remove the drive belt, attach the rope to the ski legs (spindles), have someone sit on the towed snowmobile to activate the brake, and tow at low speed.

NOTICE In order to prevent damage to the steering system, never attach the tow rope to the ski loops (handles).

⚠ WARNING

Never ride at high speed when towing a disabled snowmobile. Proceed slowly with extra caution.

TUNE YOUR RIDE

Snowmobile handling and comfort depend upon suspension adjustments.

⚠ WARNING

Suspension adjustment could affect vehicle handling. Always take time to familiarize yourself with the vehicle's behavior after any suspension adjustment have been made. Always adjust LH and RH suspension components to the same setting.

Choice of suspension adjustments vary with carrying load, operator's weight, personal preference, riding speed and field condition.

NOTE: Some adjustments may not apply to your snowmobile.

⚠ WARNING

Before proceeding with any suspension adjustment, remember:

- **Park in a safe place.**
- **Remove the tether cord cap from the engine cut-off switch.**
- **Use appropriate lifting device or have assistance to share lifting stress. If a lifting device is not used, use proper lifting techniques, notably using your legs force.**
- **Do not attempt to lift the front or rear of vehicle if it is above your limits.**
- **Support front of vehicle off the ground with a suitable device before adjusting suspension.**
- **Support rear of vehicle off the ground with a wide-base snowmobile stand with a rear deflector panel.**
- **Make sure support device is stable and secure.**

The best way to set up the suspension is to customize each adjustment one at a time. Various adjustments are interrelated. It may be necessary to readjust center spring after adjusting front springs for instance. Test run the snowmobile under the same conditions; trail, speed, snow, operator riding position, etc. Proceed methodically until you are satisfied.

Following are guidelines to fine-tune suspension. Use suspension adjustment tool provided in the tool kit.

Adjustment Tips According to Vehicle Behavior

PROBLEM	CORRECTIVE MEASURES
Front suspension darting	Check ski alignment. – Reduce front suspension spring preload. – Increase center spring preload. – Reduce rear spring preload.
Steering feels too heavy at steady speeds	– Reduce front suspension spring preload. – Increase center spring preload.
Steering feels too heavy during acceleration	– Reduce rear spring preload. – Lengthen limiter strap.
Too much ski lift during cornering or acceleration	– Shorten limiter strap. – Increase rear spring preload.
Rear of snowmobile seems too stiff	Reduce rear spring preload.
Rear of snowmobile seems too soft	Increase rear spring preload.
Rear suspension is frequently bottoming	– Increase rear spring preload. – Increase center spring preload. – Lengthen limiter strap.
Snowmobile seems to pivot around its center	– Reduce center spring preload. – Increase rear spring preload. – Increase front suspension spring preload. – Shorten limiter strap.
Track spins too much at start	– Lengthen limiter strap.

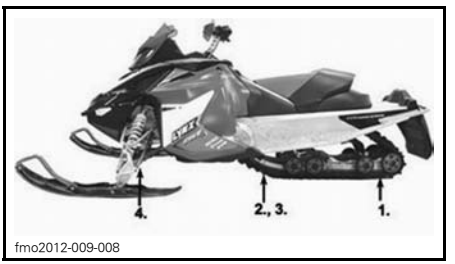
SUSPENSION ADJUSTMENTS

Snowmobile handling and comfort depend upon suspension adjustments.

Choice of suspension adjustments vary with carrying load, driver's weight, personal preference, riding speed and field condition.

Adjustable suspension

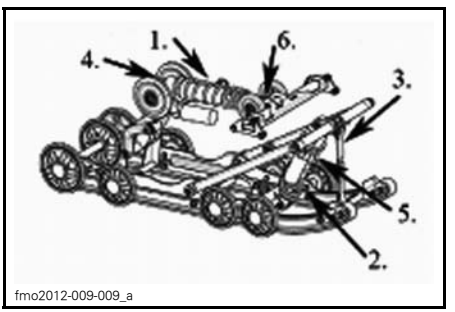
NOTE: Some adjustments may not apply to your snowmobile. Use special keys in tool kit (SOME MODELS).



fmo2012-009-008

1. *Rear springs - comfort and ride height*
2. *Center spring - handling*
3. *Stopper strap – snowmobile weight transfer*
4. *Front shock - handling*

Suspension adjustments



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TYPICAL — PPS

1. *Rear springs adjustable for comfort and ride height*
2. *Center spring for steering behavior*
3. *Stopper strap for snowmobile weight transfer*
4. *Rear shock motion ratio — Damping strength*
5. *Center shock motion ratio — Damping strength (not seen on picture)*
6. *Rebound strength adjustment*

Following are guidelines to fine-tune suspension.

The best way to set up the suspension, is to start from factory settings, then customize each adjustment one at a time. It may be necessary to readjust center spring after adjusting front springs for instance. Test run the snowmobile under the same conditions; trail, speed, snow, driver riding position, etc. Change one adjustment and retest. Proceed methodically until you are satisfied.

⚠ WARNING

Always remove tether cord cap before performing any maintenance or adjustment, unless otherwise specified. Vehicle must be parked in a safe place, away from the trail. Always lift the front of vehicle off the ground with a suitable lifting device before adjusting ski suspension. Lift the rear of vehicle off the ground with a wide-base snowmobile stand with a rear deflector panel before rear suspension adjustment.

⚠ WARNING

Do not attempt to lift the vehicle by hand alone. Use appropriate lifting device to avoid risk of strain injuries. Always make sure the lifting device is stable and secure before proceeding to adjust the suspension components.

⚠ CAUTION Whenever adjusting rear suspension, check track tension and adjust as necessary.

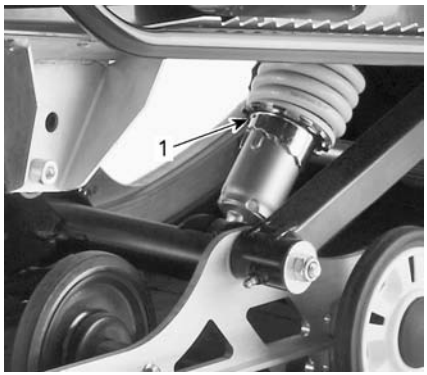
Slight suspension bottoming occurring under the worst riding conditions indicates a good choice of spring preload.

NOTE: Some models may come from factory equipped with Take/Apart (T/A) shocks. These can be rebuilt or re-calibrated. See an authorized Lynx dealer. Take/Apart type of shock absorbers need service at least once a year or after 1500km (refer to maintenance schedule).

SHOCK ABSORBER ADJUSTMENTS

Screw Ring Type Shock

In some models you have to first open lock ring then turn adjust ring to position wanted.



CENTER SUSPENSION
1. *Increase or decrease spring preload*
2. *Locking ring*

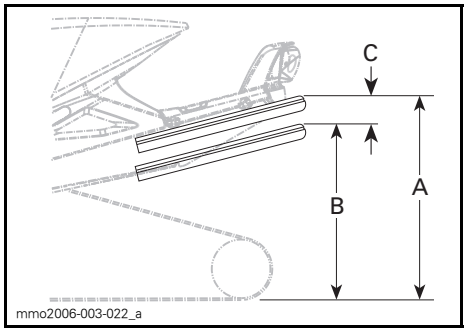
Rear Springs — Comfort

IMPORTANT: Make sure that all objects to be transported are in place in storage compartment and rear rack.

– Grab rear bumper and lift until suspension is fully extended.
– From this point, rear of snowmobile should collapse by 50 to 75 mm (2 to 3 in) when driver and passenger (if so applicable) take place. Measure at rear bumper as shown in next photo.

⚠ WARNING

Do not attempt to lift the vehicle by hand alone. Use appropriate lifting device or have assistance to share lifting stress in order to avoid risk of strain injuries.



TYPICAL — PROPER ADJUSTMENT
A. Suspension fully extended
B. Suspension has collapse with driver, passenger(s) and load added
C. Distance between dimension A and B, must not exceed 50 to 75 mm (2 to 3 in), see table

Rear Springs Adjustment

"C"	CAUSE	SOLUTION
50 to 75 mm (2 to 3 in)	No adjustment required	
More than 75 mm (3 in)	Too soft of adjustment	Increase preload (see preload adjustment)
Less than 50 mm (2 in)	Too hard of adjustment	Decrease preload (see preload adjustment)

NOTE: Xtrim models only. When carrying passenger adjust rear shock spring preload to 17mm (normal adjustment 8mm).

Center Spring — Steering Behavior

– Ride at moderate speed on a trail.
– If handlebar is felt too easy or too hard to turn, adjust center spring accordingly.

⚠ WARNING

Before proceeding with any suspension adjustment, remember:
- park in a safe place
- remove tether cord cap
- lift rear of vehicle off the ground with a wide-base snowmobile stand with a rear deflector panel
- make sure lifting device is stable and secure.

Preload Adjustment

CENTER SPRING ADJUSTMENT				
STEERING BEHAVIOR			ADJUSTMENT	
VEHICLE SPEED	HANDLEBAR	STEERING ATTITUDE	PROBLEM	SOLUTION
Moderate	Easy to turn	Neutral	No adjustment required	
	Harder to turn	Oversteering	Too soft of adjustment	Increase preload
	Very easy to turn	Understeering	Too hard of adjustment	Decrease preload

Stopper Strap — Weight Transfer
- Ride at low speed then fully accelerate.
- Note steering behavior.
- Adjust stopper strap length accordingly,

⚠ WARNING

Before proceeding with any suspension adjustment, remember:
- park in a safe place
- remove tether cord cap
- lift rear of vehicle off the ground with suitable lifting device
- make sure lifting device is stable and secure.

⚠ CAUTION Whenever stopper strap length is changed, track tension must be readjusted.

Strap Adjustment

STOPPER STRAP — WEIGHT TRANSFER				
WEIGHT TRANSFER			ADJUSTMENTS	
STEERING BEHAVIOR	TRACK	SKIS	PROBLEM	SOLUTION
Comfortable	Good weight transfer	Light pressure	No adjustment required	
Light	Too much weight transfer	Lift off the ground	Too long strap	Reduce strap length
Heavy	Not enough weight transfer	Heavy pressure	Too short strap	Increase strap length

Front Springs — Handling
- Ride at moderate speed and check for proper handling.
- Adjust front springs accordingly.

⚠ WARNING

Before proceeding with any suspension adjustment, remember:
- park in a safe place
- remove tether cord cap
- lift rear of vehicle off the ground with a wide-base snowmobile stand with a rear deflector panel
- make sure lifting device is stable and secure.

⚠ WARNING

Always adjust both front springs to same position.

Preload Adjustment

FRONT SPRINGS ADJUSTMENT			
HANDLING	STEERING	PROBLEM	SOLUTION
Good	Comfortable	No adjustment required	
Bad	Too easy to turn	Too soft of adjustment	Increase spring preload
Bad	Hard to turn	Too hard of adjustment	Decrease spring preload

HPG 36 SHOWN
1. Adjustment ring

CAUTION Make sure that both front springs are still pre loaded when front of vehicle is off the ground.

FRONT SUSPENSION
1. Front springs for handling

Following are guidelines to fine-tune suspension.

The best way to set up the suspension, is to start from factory settings, then customize each adjustment one at a time. Adjustments 2 through 6 are interrelated. It may be necessary to readjust center spring after adjusting front springs for instance. Test run the snowmobile under the same conditions; trail, speed, snow, driver riding position, etc. Change one adjustment and retest. Proceed methodically until you are satisfied.

WARNING

Always remove the tether cord cap (DESS key) before performing any maintenance or adjustment, unless otherwise specified. Vehicle must be parked in a safe place, away from the trail. Always lift the front of vehicle off the ground with a suitable lifting device before adjusting ski suspension. Lift the rear of vehicle off the ground with a wide-base snowmobile stand with a rear deflector panel before rear suspension adjustment.

WARNING

Do not attempt to lift the vehicle by hand alone. Use appropriate lifting device to avoid risk of strain injuries. Always make sure the lifting device is stable and secure before proceeding to adjust the suspension components.

CAUTION Whenever adjusting rear suspension, check track tension and adjust as necessary.

Front Suspension Adjustments

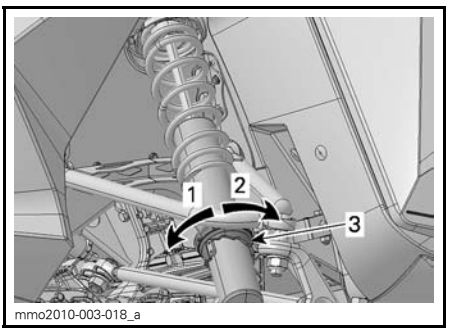
Ski Stance

Spring Preload

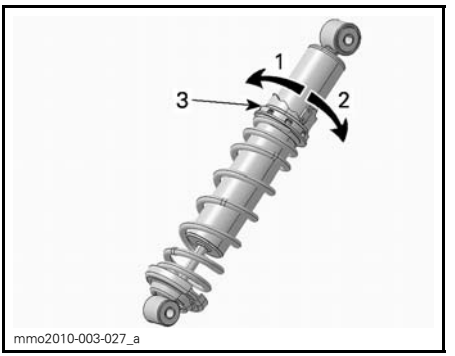
Front spring preload has an effect on front suspension firmness.

Front spring preload also has an effect on the steering behavior.

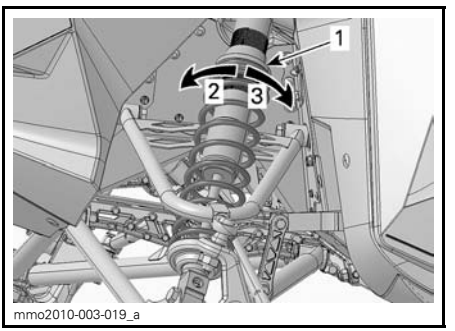
ACTION	RESULT
Increasing preload	Firmer front suspension.
	Higher front end.
	More precise steering.
	More bump absorption capability.
Decreasing preload	Softer front suspension.
	Lower front end.
	Lighter steering.
	Less bump absorption capability.



CAM TYPE - MOTION CONTROL SHOCK ABSORBER
1. *Increase preload*
2. *Decrease preload*
3. *Spring preload adjustment cam*



CAM TYPE - HPG SHOCK ABSORBER
1. *Decrease preload*
2. *Increase preload*
3. *Spring preload adjustment cam*



TYPICAL- RING TYPE
1. *Spring preload adjustment ring*
2. *Increase preload*
3. *Decrease preload*

Suspension Troubleshooting Chart

PROBLEM	CORRECTIVE MEASURES
Front suspension wandering	Check ski alignment and camber angle adjustment. See an authorized LYNX dealer. Reduce ski ground pressure. – Reduce front suspension spring preload. – Increase center spring preload. – Reduce rear spring preload.
Snowmobile seems unstable and seems to pivot around its center	Reduce rear suspension front arm pressure. – Reduce center spring preload. – Increase rear spring preload. – Increase front suspension spring preload.
Steering feels too heavy	Reduce ski ground pressure. – Reduce front suspension spring preload. – Increase center spring preload.
Rear of snowmobile seems too stiff	Reduce rear spring preload.
Rear of snowmobile seems too soft	Increase rear spring preload.
Rear suspension front shock absorber is frequently bottoming	Increase center spring preload.
Track spins too much at start	Lengthen stopper strap.

Deep Snow Riding

When operating the snowmobile in deep snow, it may be necessary to vary stopper strap length and/or riding position, to change the angle at which the track rides on the snow. Operator's familiarity with the various adjustments as well as snow conditions will dictate the most efficient combination.

VEHICLE TRANSPORTATION

Make sure the fuel tank cap is properly installed.

Tilt bed trailers can easily be equipped with a winch mechanism to afford maximum safety in loading. Simple as it may seem, never drive your snowmobile onto a tilt bed trailer or any other kind of trailer or vehicle. Many serious accidents have resulted from driving up and over a trailer. Anchor your vehicle securely, front and rear, even on short hauls. Be certain all equipment is securely fastened. Cover your snowmobile when trailering to prevent road grime from causing damage.

Be certain your trailer meets state or provincial requirements. Ensure the hitch and safety chains are secure and the brake, turn indicators and clearance lights all function.

MAINTENANCE

BREAK-IN INSPECTION

After the first 10 hours or 500 km of operation, whichever comes first, your vehicle have to be inspected by an authorized Lynx dealer. The break-in inspection is very important and must not be neglected.

NOTE: The break-in inspection is at the expense of the vehicle owner.

BREAK-IN INSPECTION (4-STROKE)
Inspect engine seals and gaskets for leaks
Inspect exhaust system and check for leaks
Check coolant level
Change engine oil and filter
Inspect fuel lines and connections
Inspect throttle cable
Inspect drive belt
Visually inspect drive pulley
Tighten drive pulley retaining screw to specified torque
Inspect driven pulley
Adjust and align track
Change chaincase / gearbox oil
Retorque gearbox cover screws both sides of speedometer sensor connector to 10Nm (Only XU Models)
Adjust drive chain (Not for models equipped with gearbox)
Check brake fluid level
Inspect brake hose, pads and disk
Inspect steering mechanism
Inspect skis and runners
Tighten frame pyramid rod screws to specified torque
Inspect front suspension
Inspect rear suspension and slider shoes
Lubricate front and rear suspension

PERIODIC MAINTENANCE CHART

⚠ WARNING

It is recommended that the assistance of an authorized LYNX dealer be periodically obtained on other components/systems not covered in this guide. Unless otherwise specified, engine must be cold and not running. Remove the tether cord cap (DESS key) before performing any maintenance or adjustment, unless otherwise specified. Vehicle must be parked in a safe place, away from the trail.

⚠ WARNING

Observe WARNINGS and CAUTIONS mentioned throughout this guide which are relevant to the item being checked. When component conditions seem less than satisfactory, replace with genuine BRP parts or approved equivalents.

Some items may not apply to your particular model. Refer to *MAINTENANCE* in *SHOP MANUAL* for more details.

MAINTENANCE SCHEDULE (4-STROKE)

NOTE: The maintenance schedule does not exempt the pre-ride inspection.

EVERY 1 500 KM
T/A shocks oil change / service. First at 1500 km, then every 3000 km or once a year
Models with chaincase: Adjust drive chain
Models with gearbox: Check oil level

EVERY 3 000 KM OR 1 YEAR (WHICHEVER COMES FIRST)
Inspect heat shields
Replace drive pulley O-rings (1200 4-TEC only)
Clean drive pulley
Tighten drive pulley retaining screw to specified torque
Check driven pulley preload
Clean driven pulley
Adjust and align track
Inspect brake hose, pads and disk
Inspect steering mechanism
Inspect front suspension
Inspect rear suspension and stopper strap. PPS Suspension: Replace stopper strap.
Lubricate front and rear suspension whenever the vehicle is used in wet conditions (wet snow, rain, puddles)
Lubricate QRS axle gearbox end. (XU models)

EVERY 6 000 KM OR AT PRE-SEASON (WHICHEVER COMES FIRST)
Change engine oil and filter

EVERY 6 000 KM OR 2 YEARS (WHICHEVER COMES FIRST)
Replace fuel pump outlet filter
Replace drive pulley slider shoes and inspect ramps (1200 4-TEC only)
Replace brake fluid
Inspect throttle cable

EVERY 10 000 KM OR 3 YEARS (WHICHEVER COMES FIRST)
Replace spark plugs

EVERY 20 000 KM
Check valve clearance and adjust if necessary. (1200 4-TEC only)

EVERY 5 YEARS
Replace engine coolant

PRESEASON PREPARATION

PRESEASON PREPARATION (4-STROKE)
Visually inspect engine seals and gaskets and check for leaks
Check exhaust system condition and check for leaks
Change engine oil and filter
Check coolant density
Inspect fuel lines and connections
Clean and inspect throttle body
Inspect throttle cable
Inspect drive belt (adjust at every drive belt replacement)
Clean and visually inspect drive pulley
Clean and inspect driven pulley
Inspect, adjust and align track
Adjust drive chain (Not for models equipped with gearbox)
Change chaincase / gearbox oil
Check brake fluid level
Inspect brake hose, pads and disk
Inspect steering mechanism
Inspect skis and runners
Inspect front suspension
Inspect rear suspension and stopper strap.
Charge battery (if so equipped)
Adjust headlight beam aiming

STORAGE

During summer, or when a snowmobile is not in use for more than three months, proper storage is a necessity.

STORAGE
Clean the vehicle
Add fuel stabilizer to fuel following the product manufacturer recommendations Run the engine after adding the product to the fuel
2-Stroke models: Lubricate engine. See owners manual for instruction.
Lubricate brake lever pivot
Inspect and lubricate rear suspension
Charge battery monthly to keep it fully charge during storage
Block muffler with rags
Lift rear of vehicle until track is clear of the ground. Do not release track tension
Lubricate front and rear suspension

This section includes instructions for basic maintenance procedures. If you have the necessary mechanical skills and the required tools, you can perform these procedures. If not, see your authorized Lynx dealer.

Other important items in the maintenance schedule that are more difficult and require special tools are best performed by your authorized Lynx dealer.

⚠ WARNING

Turn off the engine, remove tether cord cap and follow these maintenance procedures when performing maintenance. If you do not follow proper maintenance procedures you can be injured by hot parts, moving parts, electricity, chemicals or other hazards.

⚠ WARNING

Should removal of a locking device be required (e.g. lock tabs, self-locking fasteners, etc.) when undergoing disassembly/assembly, always replace with a new one.

Engine Oil

Recommended Engine Oil

ENGINE	RECOMMENDED ENGINE OIL
600 ACE	XPS 4-STROKE SYNTHETIC OIL (ALL CLIMATE) (P/N 619 590 114)

NOTICE The engine of this snowmobile has been developed and validated using the recommended BRP XPS™ oil. BRP strongly recommends the use of its recommended XPS oil at all times. Damages caused by oil which is not suitable for the engine will not be covered by the BRP limited warranty.

If the recommended oil is not available, use SAE 0W-40 synthetic-based oil that meets or exceeds the requirements for API service classification SM.

Engine Oil Level Verification

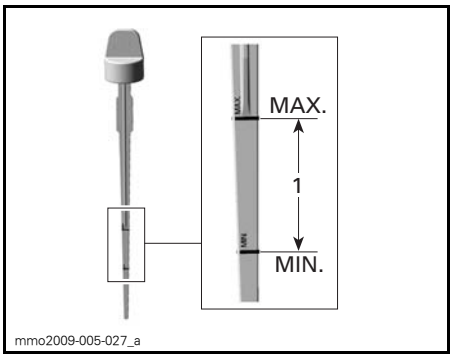
NOTICE Check level every 10 hours of use and refill if necessary. Do not overfill. Operating the engine with an improper level may severely damage engine. Wipe off any spillage.

Make sure the engine is at normal operating temperature.

NOTE: The engine reaches normal temperature when the rear radiator gets warm indicating the thermostat has opened.

Place vehicle on a level surface and proceed as follows to check oil level:

1. Let engine run at idle for approximately 30 seconds.
2. Stop engine.
3. Open the LH side panel, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.
4. Remove the drive belt guard, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.
5. Remove dipstick from the filler tube, then wipe it clean.
6. Completely insert dipstick in the filler tube.
7. Remove dipstick and check the oil level. Oil level should be between the MIN. and MAX. marks as shown, add if necessary.



1. Oil level between MIN. and MAX.

⚠ WARNING

Wipe off any oil spills. Oil is highly flammable when heated.

Engine Oil Replacement

⚠ WARNING

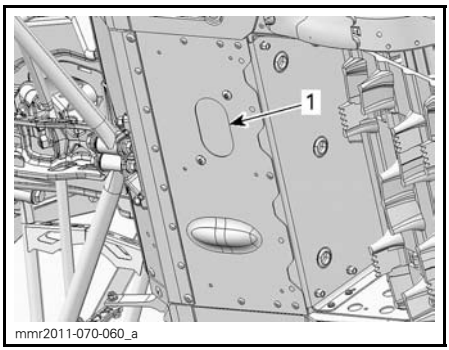
The engine oil can be very hot. Wait until engine oil is warm.

NOTICE Engine oil and oil filter must be replaced at the same time.

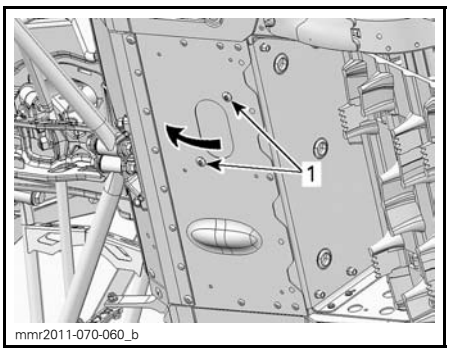
1. Place vehicle on a level surface.
2. Remove the LH side panel.
3. Remove dipstick.

LH SIDE OF VEHICLE
1. Oil tank dipstick

4. From underneath the vehicle, access the drain plug:
   - 4.1 Remove one access cover retaining screw and loosen the other.
   - 4.2 Pivot the access cover to clear the bottom pan opening.

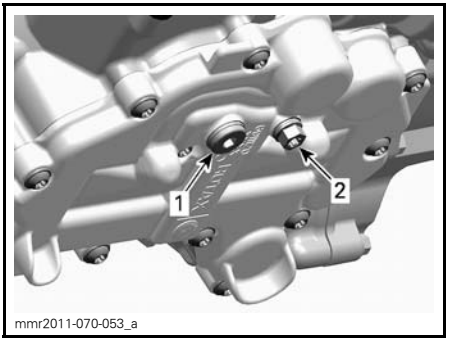


1. Drain plugs access cover



PIVOT THE ACCESS COVER
1. Retaining screws

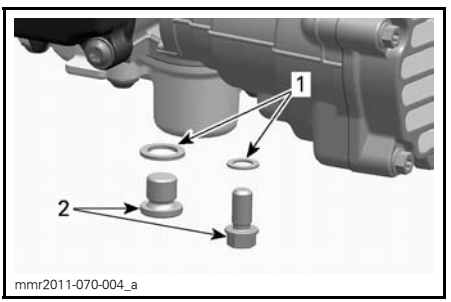
5. Clean drain plug area.
6. Place a drain pan under the bottom pan opening.
7. Remove engine drain plugs in the following order.
   - 7.1 Main drain plug.
   - 7.2 Secondary drain plug.



UNDERNEATH THE ENGINE
1. *Main drain plug*
2. *Secondary drain plug*

8. Allow oil to drain completely.
9. Install NEW sealing washers on oil drain plugs.

NOTICE Never use a sealing washer a second time. Always replace with a new one.



1. *Sealing washer*
2. *Oil drain plug*

10. Install drain plugs and tighten to the specified torque.

DRAIN PLUGS TIGHTENING TORQUE
20 N•m ± 2 N•m (15 lbf•ft ± 1.5 lbf•ft)

11. Replace *OIL FILTER*, see procedure in this subsection.
12. Refill oil tank at the proper level with the recommended oil.

APPROXIMATE ENGINE OIL CAPACITY (WITH FILTER)	
600 ACE	2.1 L (2.2 qt (U.S. liq.))

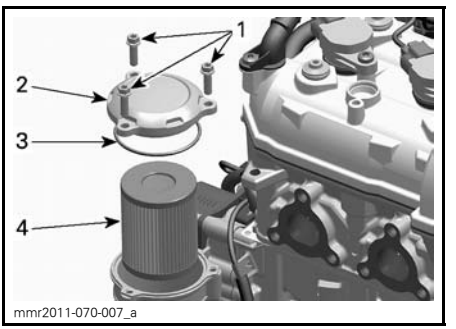
13. Reinstall dipstick in oil tank and properly tighten it.
14. Start engine and let it idle for a few minutes.
15. Ensure there are no leaks.
16. Stop engine and check oil level as explained in this subsection. Refill if necessary.
17. Dispose oil and filter as per your local environmental regulations.

Engine Oil Filter

Engine Oil Filter Replacement

Oil Filter Removal

1. Remove the RH side panel.
2. Clean oil filter area.
3. Remove:
   – Oil filter cover screws
   – Oil filter cover with O-ring
   – Oil filter.

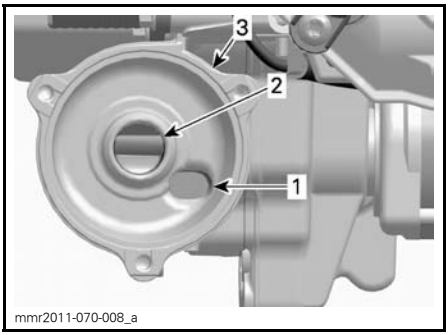


1. *Oil filter cover screws*
2. *Oil filter cover*
3. *O-ring*
4. *Oil filter*

4. Dispose filter as per your local environmental regulations.

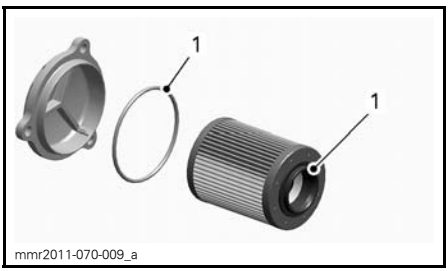
Oil Filter Installation

1. Check the oil filter inlet and outlet orifices inside oil filter receptacle (integrated part of magneto cover) for dirt and contaminations.



1. Oil inlet orifice from the oil pressure pump
2. Oil outlet orifice to the engine lubrication system
3. Oil filter receptacle

2. Install a O-ring on oil filter cover.
3. Lubricate filter seal and cover O-ring with engine oil.



1. Lubricate with engine oil

4. Install the oil filter cover.
5. Tighten oil filter cover screws to the specified torque.

OIL FILTER COVER TIGHTENING TORQUE
10 N•m ± 1 N•m (89 lbf•**in** ± 9 lbf•**in**)

Air Filter

Air Filter Verification

Ensure the air intake prefilter is properly installed, clean and in good condition.

1. Air filter

If the air filter has to be cleaned or replaced, see an authorized Lynx dealer.

Engine Coolant

⚠ WARNING

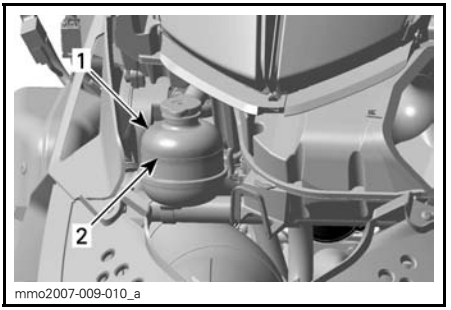
Never open coolant tank cap when engine is hot.

Engine Coolant level

Check coolant level at room temperature with the cap removed. Liquid should be at cold level line (engine cold) of coolant tank.

NOTE: When checking level at low temperature it may be slightly lower then the mark.

If additional coolant is necessary or if entire system has to be refilled, refer to an authorized Lynx dealer.



TYPICAL
1. *Coolant tank*
2. *COLD LEVEL line*

Recommended Engine Coolant

Always use ethylene-glycol antifreeze containing corrosion inhibitors specifically for internal combustion aluminum engines.

Cooling system must be filled with BRP PREMIXED COOLANT (P/N 219 700 362) or with distilled water and antifreeze solution (50% distilled water, 50% antifreeze).

Exhaust System

Exhaust System Verification

The muffler tail pipe should be centered with the exit hole in the bottom pan. Exhaust system must be free of rust or leaks. Make sure that all parts are securely in place.

Check retaining springs condition and replace if necessary.

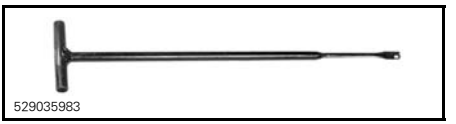
The exhaust system is designed to reduce noise and to improve the total performance of the engine. Modification may be in violation of local laws.

NOTICE If any exhaust system component is removed, modified or damaged, severe engine damage may result.

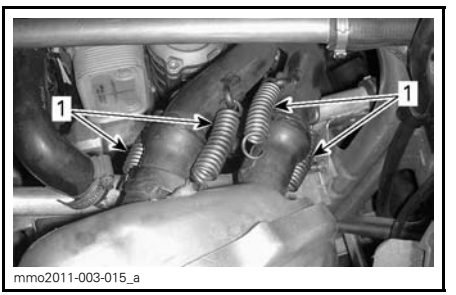
Muffler Removal and Installation

1. Refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT* subsection and remove:
   – Hood
   – RH side panel.
2. Remove the springs retaining the exhaust pipes to the muffler using the following tool.

SPRING INSTALLER/REMOVER (P/N 529 035 983)

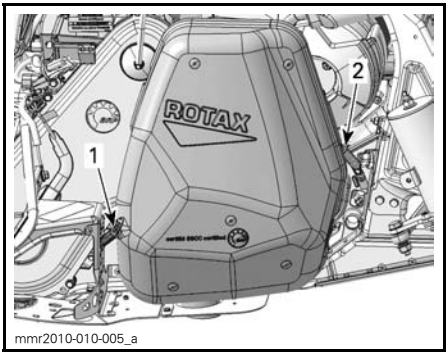


⚠ CAUTION Wear protective eye glasses when removing exhaust components. Beware of sudden spring tension release.



1. Exhaust pipes to muffler retaining springs

3. Remove the two muffler retaining springs.



TYPICAL
1. *Aft muffler retaining spring*
2. *Front muffler retaining spring*

4. Remove the muffler.

Inspect doughnut shaped muffler gaskets and replace if necessary.

To install muffler, reverse removal procedure.

Spark Plugs

Spark plugs inspection or replacement must be done by an authorized Lynx dealer.

Brake Fluid

Recommended Brake Fluid

Use only DOT 4 brake fluid from a sealed container. An opened container may be contaminated or may have absorbed moisture from the air.

⚠ WARNING

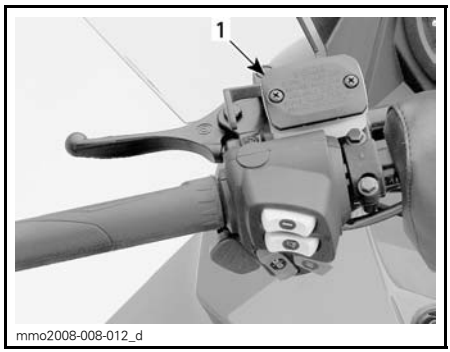
Use only DOT 4 brake fluid from a sealed container. To avoid serious damage to the braking system, do not use fluids other than the recommended one, nor mix different fluids for topping up.

NOTICE Brake fluid can damage painted and plastic parts. Handle with care. Rinse thoroughly in case of spillage.

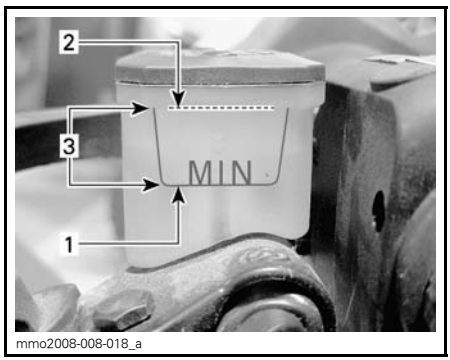
Brake Fluid Level Verification

NOTICE Vehicle must be on a level surface before checking any fluid levels.

Check brake fluid in reservoir for proper level. Add recommended brake fluid as required.



TYPICAL
1. *Brake fluid reservoir*



1. *Minimum*
2. *Maximum*
3. *Operating range*

⚠ **CAUTION** Avoid getting brake fluid on skin or eyes - it may cause severe burns. In case of contact skin, wash thoroughly. In case of contact with the eyes, immediately rinse with plenty of water for at least 10 minutes and then consult a doctor immediately.

Chaincase Oil

Recommended Chaincase Oil

RECOMMENDED CHAINCASE OIL
XPS SYNTHETIC CHAINCASE OIL (P/N 413 803 300)

NOTICE The chaincase of this snowmobile has been developed and validated using the XPS™ Synthetic chaincase oil. BRP strongly recommends the use of its XPS Synthetic chaincase oil at all times. Damages caused by oil which is not suitable for the chaincase will not be covered by the BRP limited warranty.

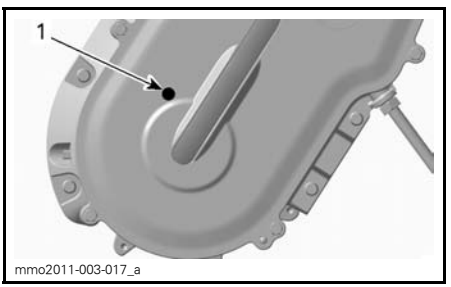
Access to Chaincase

Open RH side panel, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

Chaincase Oil Level Verification

With the vehicle on a level surface, check the oil level by removing the check plug on the chaincase cover.

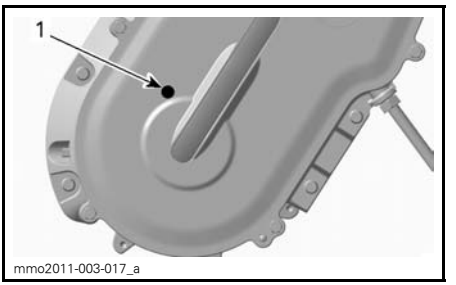
Oil level must reach the threaded hole.



TYPICAL
1. Check plug

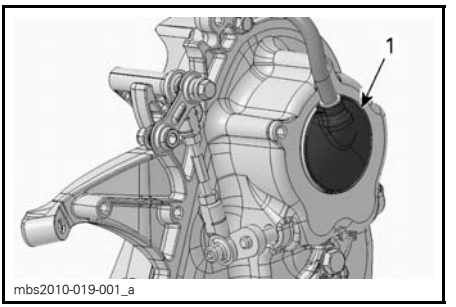
Chaincase Filling Procedure

Remove the check plug.



TYPICAL
1. Check plug

Remove the filler cap on the chaincase cover.



1. Filler cap

Pour recommended oil in chaincase by the filler hole until oil comes out by the check plug hole.

Reinstall check plug and torque to specification.

TORQUE	
Check plug	6 N•m ± 1 N•m (53 lbf•**in** ± 9 lbf•**in**)

Reinstall the filler cap.

Drive Chain

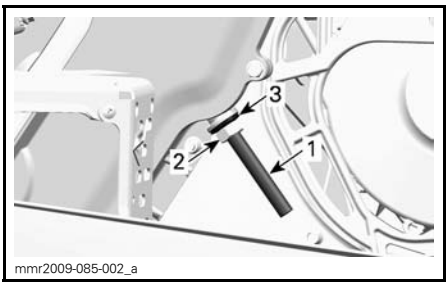
Access to Chaincase

Open RH side panel, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

Drive Chain Adjustment

1. Remove muffler, refer to *EXHAUST SYSTEM* in this subsection.

2. Unscrew tensioner lock nut several turns.



1. Tensioner adjustment screw
2. Lock nut
3. Seal washer

3. Unscrew tensioner adjustment screw a few turns.
4. Pull seal washer back.
5. Clean adjustment screw threads if necessary.

NOTICE Adjustment screw threads must be clean to obtain an accurate adjustment.

6. Tighten tensioner adjustment screw by hand.

NOTE: Turn adjustment screw until resistance is strong enough that it can not be turned by hand.

7. Hold tensioner adjustment screw and tighten lock nut to 36 N•m ± 3 N•m (27 lbf•ft ± 2 lbf•ft).
8. Install muffler.

Drive Belt

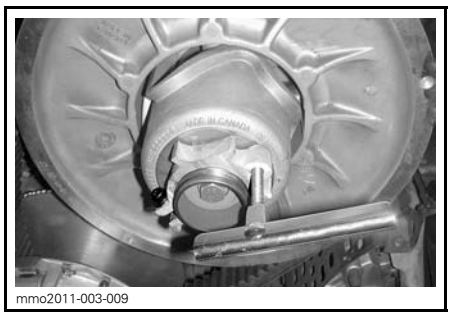
Drive Belt Inspection

Inspect drive belt for cracks, fraying or abnormal wear (uneven wear, wear on one side, missing cogs, cracked fabric). If abnormal wear is noted, probable cause could be pulley misalignment, excessive RPM with frozen track, fast starts without warm-up period, burred or rusty sheave, oil on drive belt or distorted spare drive belt. Contact an authorized Lynx dealer.

Drive Belt Replacement

Drive Belt Removal

1. Remove tether cord cap from engine cut-off switch.
2. Remove drive belt guard, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.
3. Insert the driven pulley expander provided in the tool kit in the threaded hole on the adjuster hub as shown.



PULLEY EXPANDER INSTALLED ON ADJUSTER HUB

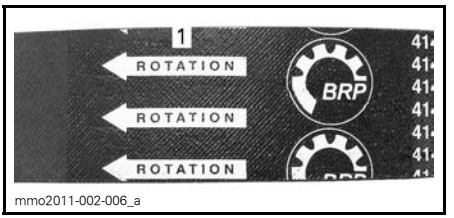
4. Open the driven pulley by screwing the tool in.
5. Remove the belt by slipping it over the top of the driven pulley, then over the drive pulley.

Drive Belt Installation

1. Slip the drive belt over the drive pulley, then over the driven pulley.

NOTICE Do not force or use tools to pry the drive belt into place, as this could cut or break the cords in the drive belt.

NOTE: The maximum drive belt life span is obtained when drive belt is installed with arrows in the direction of rotation.



1. To be pointed in the direction of rotation

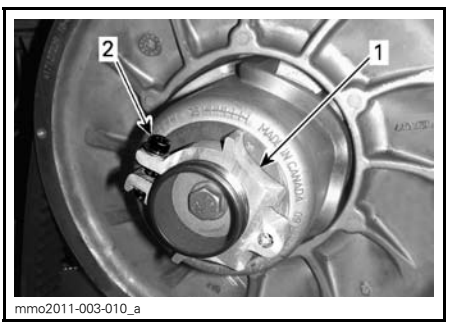
2. Unscrew and remove the driven pulley expander from the pulley.
3. Rotate the driven pulley several times to properly set the drive belt between the sheaves.
4. Refer to *DRIVE BELT HEIGHT ADJUSTMENT* below.
5. Install drive belt guard and close side panel. Refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

Drive Belt Height Adjustment

The drive belt height must be checked every time a new drive belt is installed.

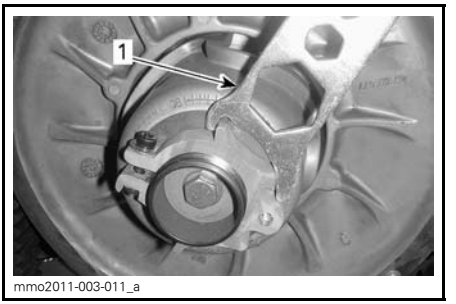
To adjust the drive belt height, proceed as follows:

1. Remove tether cord cap from engine cut-off switch.
2. Remove drive belt guard.
3. Loosen the clamping screw.



1. Adjuster hub
2. Clamping screw

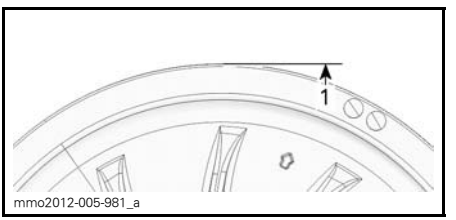
4. Using the suspension adjustment tool provided in the tool kit, turn the ring 1/4 turn at a time then rotate the driven pulley to properly set the drive belt between the pulley sheaves.



1. Suspension adjustment tool

NOTE: The adjustment ring has **left hand treads**.

Repeat step 4 until the drive belt is flush with driven pulley edge.



PRELIMINARY SETTING
1. Drive belt flush with driven pulley edge

NOTE: Turning the ring counterclockwise lowers the drive belt in the pulley. Turning the ring clockwise raises the drive belt in the pulley.

5. Firmly tighten the clamping screw. If possible, tighten to specified torque using a torque wrench.

TORQUE	
Clamping screw	5.5 N•m ± 0.5 N•m (49 lbf•**in** ± 4 lbf•**in**)

6. Install drive belt guard.
7. Install side panel.

NOTE: This setting is correct as a preliminary adjustment for most models. In some cases, when starting the engine, the vehicle could creep, indicating that the drive belt is too tight.

If the vehicle creeps, lower the drive belt height from the preliminary setting. Repeat procedure until creeping stops.

Reverse Activation

NOTE: The reverse may not activate or may be harder to activate if the drive belt is positioned too high in the driven pulley. If reverse activation does not work properly, ensure the drive belt is properly adjusted. Adjust the drive belt lower in the driven pulley if needed.

Track

Track Condition

⚠ WARNING

Remove tether cord cap from engine cut-off switch before performing any maintenance or adjustment, unless otherwise specified. Vehicle must be parked in a safe place, away from the trail.

Remove tether cord cap from engine cut-off switch.

Lift the rear of the snowmobile and support it with a wide-base snowmobile mechanical stand with a rear deflector panel. With the engine off, rotate the track by hand, and inspect condition. If worn or cut, or if track fibers are exposed, or if missing or defective inserts or guides are noted; contact an authorized Lynx dealer.

Snowmobiles Equipped with Traction Enhancing Products

If your snowmobile is equipped with a BRP approved studded track, refer to *INSPECTION* in the *TRACTION ENHANCING PRODUCTS* subsection.

⚠ WARNING

Riding with a damaged track or studs could lead to a loss of control.

Track Tension and Alignment

NOTE: Track tension and alignment are interrelated. Do not adjust one without the other.

⚠ WARNING

To prevent serious injury to individuals near the snowmobile:

- NEVER stand behind or near a moving track.
- Always use a wide-base snowmobile stand with a rear deflector panel if it is necessary to rotate track.
- When the track is raised off the ground, only run it at the lowest possible speed.

Centrifugal force could cause debris, damaged or loose studs, pieces of torn track, or an entire severed track to be violently thrown backwards out of the tunnel with tremendous force, possibly resulting in the loss of a leg or other serious injury.

Track Tension Verification

NOTE: Ride the snowmobile in snow about 15 to 20 minutes prior to adjusting track tension.

1. Remove tether cord cap from engine cut-off switch.
2. Lift rear of vehicle and support it off the ground.

⚠ CAUTION Use proper lifting techniques, notably using your legs force. Do not attempt to lift the rear of vehicle if it is above your limits.

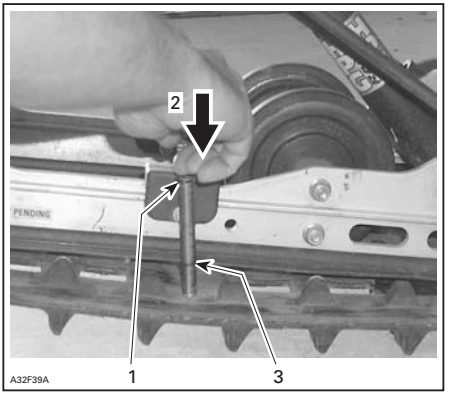
3. Allow rear suspension to fully extend.

4. Use the TENSIOMETER (P/N 414 348 200).

Check gap halfway between front and rear idler wheels. Measure between slider shoe bottom and inside of track. The gap should be as given in *SPECIFICATIONS* at the end of this guide. If the track tension is too loose, track will have a tendency to thump.

DEFLECTION SETTING
1. *Bottom O-ring*

5. Place upper O-ring to 0 kgf (0 lbf).
6. Position the tensiometer on track, halfway between front and rear idler wheels.
7. Push the tensiometer downwards until bottom O-ring (deflection set earlier) be aligned with the bottom of slider shoe.



TYPICAL
1. *Top tool O-ring positioned at 7.3 kg (16 lb)*
2. *Push on top portion of tool until it contacts the top O-ring*
3. *Measured track deflection (See specifications section to find your model track deflection)*

8. Read load recorded by the upper O-ring on the tensiometer.

LOAD READING
1. *Upper O-ring*

9. Load reading must be as per the following table / see *SPECIFICATIONS* at the end of this guide.

TRACK ADJUSTMENT SPECIFICATION	
Track deflection setting	30 mm - 35 mm (1-3/16 in - 1-3/8 in)
Track load reading	7.3 kg (16 lb)

10. If load reading is not in accordance with the specification, adjust track tension. Refer to *TRACK TENSION ADJUSTMENT*.

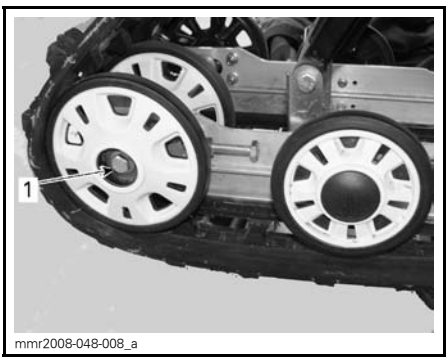
Track Tension Adjustment

1. Remove tether cord cap from engine cut-off switch.

2. Remove rear wheel caps (if so equipped).

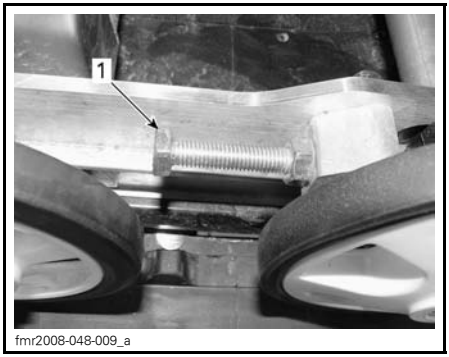
1. RH rear idler wheel cap

3. Loosen the rear idler wheel retaining screws.



1. RH rear idler wheel bolt

4. Tighten or loosen both adjustment screws to increase or decrease track tension.



1. RH adjustment screw

5. If correct tension is unattainable, contact an authorized Lynx dealer.
6. Retighten retaining bolts to specification.

SPECIFICATION	
Retaining Bolt	48 N•m ± 6 N•m (35 lbf•ft ± 4 lbf•ft)

7. Check track alignment as described below.

Track Alignment

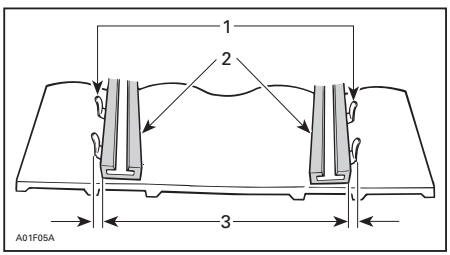
⚠ WARNING

Before checking track alignment, ensure that the track is free of all particles which could be thrown out while track is rotating. Keep hands, tools, feet and clothing clear of track. Always lift the snowmobile on a wide-base stand with a rear deflector panel. Ensure no one is standing in close proximity to the snowmobile, especially at the rear of the track. Never rotate track at high speed.
Centrifugal force could cause debris, damaged or loose studs, pieces of torn track, or an entire severed track to be violently thrown backwards out of the tunnel with tremendous force.

1. Lift rear of vehicle and support it off the ground.

CAUTION Beware of injuries by using proper lifting techniques, notably using your legs force. Do not attempt to lift the rear of vehicle if it is above your limits.

2. Start engine and accelerate slightly so that track slowly turns. This must be done in a short period of time (15 to 20 seconds).
3. Check that the track is well centered; equal distance on both sides between edges of track guides and slider shoes.



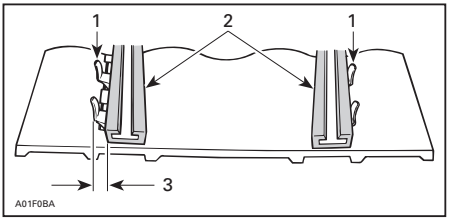
1. Guides
2. Slider shoes
3. Equal distance

4. To correct track alignment:
   4.1 Stop engine.
   4.2 Remove tether cord cap from engine cut-off switch.

WARNING

Remove tether cord cap from engine cut-off switch before performing any maintenance or adjustment, unless otherwise specified. Vehicle must be parked in a safe place, away from the trail.

   4.3 Loosen rear wheel retaining screws.
   4.4 Tighten adjustment screw on side where the slider shoe is the farthest from the track insert guides.



1. Guides
2. Slider shoes
3. Tighten on this side

5. Tighten retaining screws.

WARNING

Properly tighten wheel retaining bolts, otherwise wheel may come off and cause track to "lock".

TYPICAL
1. Retighten to 48 N•m ± 6 N•m (35 lbf•ft ± 4 lbf•ft)

6. Restart engine and rotate track slowly to recheck alignment.
7. Reposition snowmobile on the ground.
8. Install rear wheel caps if so equipped.

Suspension

Rear Suspension Condition

Visually inspect all suspension components including slider shoes, springs, wheels, etc.

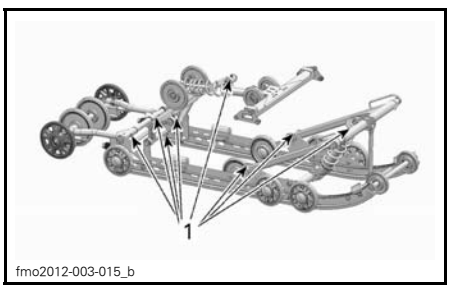
NOTE: During normal driving, snow will act as a lubricant and coolant for the slider shoes. Extensive riding on ice or sanded snow, will create excessive heat build-up and cause premature slider shoe wear.

Suspension Stopper Strap Condition

Inspect stopper strap for wear and cracks, bolt and nut for tightness. If loose inspect holes for deformation. Replace as required. Torque nut to 11 N•m (97 lbf•**in**)

Rear Suspension Lubrication

Lubricate rear suspension at grease fittings using SUSPENSION GREASE (P/N 293 550 033.) Refer to *MAINTENANCE SCHEDULE* for maintenance frequency.



1. Grease fittings

Steering and Front Suspension Condition

Visually inspect steering and front suspension for tightness of components (steering arms, control arms and links, tie rods, ball joints, ski bolts, ski legs, etc.). If necessary, contact an authorized Lynx dealer.

Skis

Wear and Condition of Skis and Runners

Check the condition of the skis and ski runner carbides. If worn, contact an authorized Lynx dealer.

⚠ WARNING

Excessively worn skis and/or ski runners will adversely affect snowmobile control.

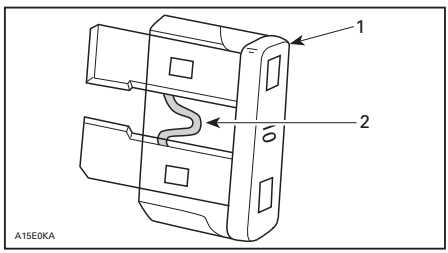
Fuses

Fuse Inspection

The electrical system is protected with fuses.

Check fuse condition and replace it if necessary.

To remove fuse from holder, pull fuse out. Check if filament is melted.



1. Fuse
2. Check if melted

⚠ WARNING

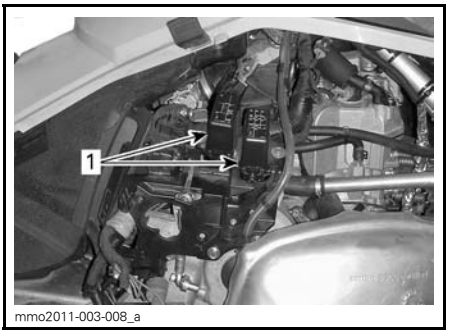
Do not use a higher rated fuse.

⚠ WARNING

If fuse has burnt out, source of malfunction should be determined and corrected before restarting. See an authorized Lynx dealer for servicing.

Fuse Location

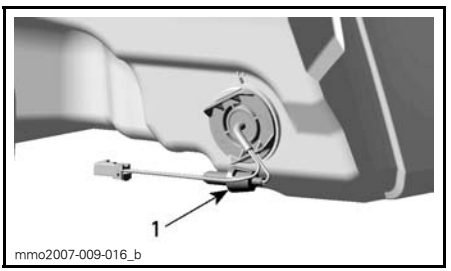
The fuse boxes (two) are located on the RH Side, behind the side panel.



1. Fuse boxes

Refer to the cover decal or the *SPECIFICATIONS* subsection of this guide for fuses identification.

The electric fuel level sender fuse is located behind the air intake silencer.



BEHIND AIR INTAKE SILENCER
1. Fuse location

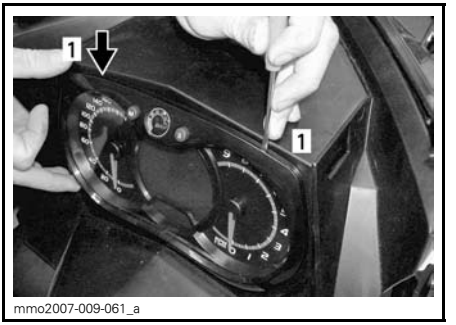
Lights

Always check light operation after bulb replacement.

Headlights Bulb Replacement

NOTICE Never touch glass portion of an halogen bulb with bare fingers, it shortens its operating life. If glass is touched, clean it with isopropyl alcohol which will not leave a film on the bulb.

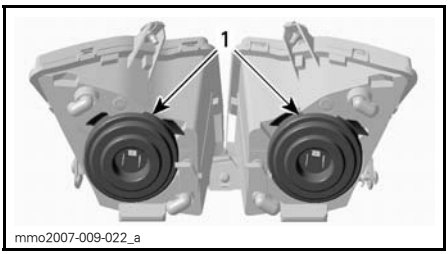
1. By using a small screwdriver, release multifunction gauge locking tabs.



1. Locking tab

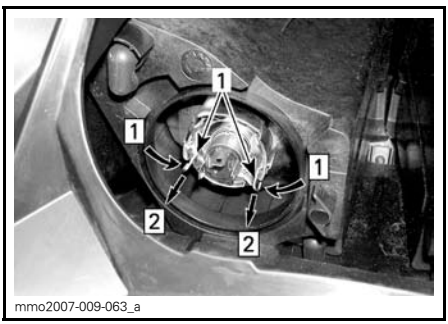
2. Gently pull on multifunction gauge and set aside.

3. Disconnect burnt bulb connector. Remove the rubber boot.



1. Rubber boots

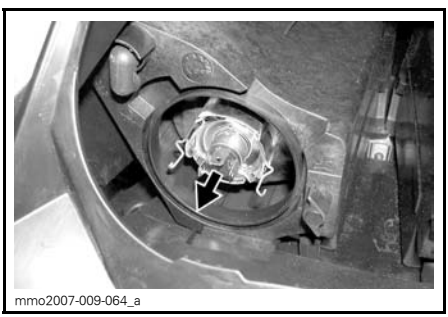
4. Press and pull both sides of the retaining clip at the same time to release it from bulb support.



Step 1: Push both sides
Step 2: Pull to release

1. Retaining clip

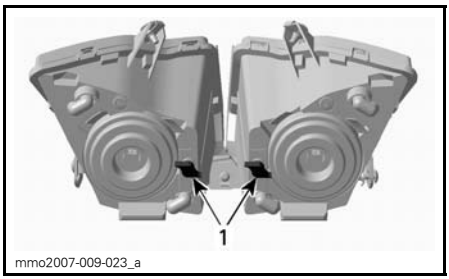
5. Pull bulb and replace. Properly reinstall parts.



PULL BULB AND REPLACE

Headlights Beam Aiming

Remove multifunction gauge, refer to *HEADLIGHTS BULB REPLACEMENT*. Turn knob to adjust beam height.



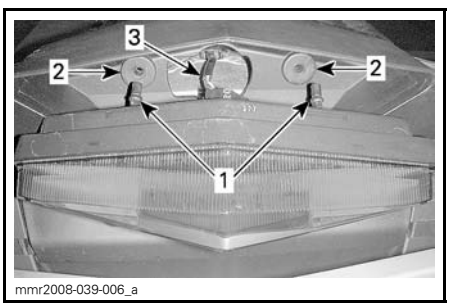
TYPICAL
1. Knobs

Taillight Bulb Replacement

1. Remove taillight housing by carefully pulling on lens at both ends using an equal force.

TYPICAL - CAREFULLY PULL OUT AT CORNERS

NOTICE If taillight housing is not removed perpendicularly to the taillight holder, mounting pins may break and taillight housing will have to be replaced.

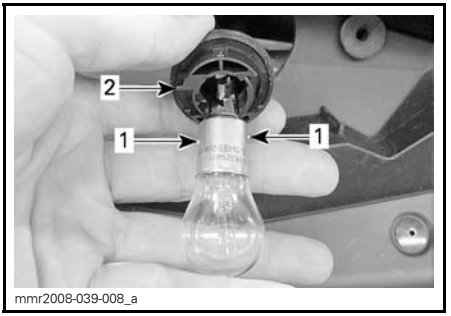


1. Taillight housing retaining pins
2. Retaining grommets
3. Light wire harness

NOTICE Do not pull taillight housing out too far to avoid damaging wiring.

2. Rotate bulb socket counterclockwise to remove it from taillight housing.
3. Push in and rotate bulb counterclockwise to remove it from its socket.
4. Install the new bulb by pushing it in the socket and turning it clockwise.

NOTE: Note position of bulb locking pins on its base, and socket alignment key.



1. Bulb locking pins
2. Bulb holder alignment key

Post-Operation Care

Remove snow and ice from rear suspension, track, front suspension, steering mechanism and skis.

⚠ WARNING

Make sure tether cord cap is away from engine cut-off switch before standing in front the vehicle, getting close to the track or rear suspension components.

Always cover your snowmobile when leaving it outside overnight or during extended periods of inactivity. This will protect it from frost and snow as well as help maintain its appearance.

Vehicle Cleaning and Protection

Wash snowmobile with water mixed with a mild detergent. Use only flannel cloths or an equivalent.

NOTICE **It is necessary to use flannel cloths or equivalent on windshield and hood to avoid scratching the surfaces.**

To remove grease, oil and grime, use BRP HEAVY DUTY CLEANER (P/N 293 110 001).

NOTICE **Do not use Heavy duty cleaner on decals or vinyl.**

To remove stubborn dirt from all plastic and vinyl surfaces, use XPS MULTI-PURPOSE CLEANER (P/N 219 701 709).

To remove scratches on windshield or hood use the SCRATCH REMOVER KIT (P/N 861 774 800).

NOTICE **Never clean plastic parts or hood with strong detergent, degreasing agent, paint thinner, acetone, products containing chlorine, etc.**

Wax painted portion of the vehicle for better protection.

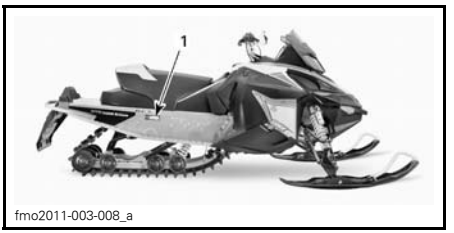
NOTE: Apply wax on glossy finish only.

TECHNICAL INFORMATION

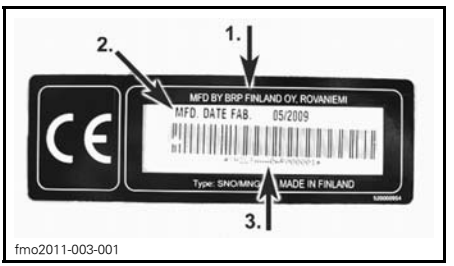
VEHICLE IDENTIFICATION

Vehicle Description Decal

Vehicle description decal is located on the right hand side of tunnel.



TYPICAL
1. *Vehicle description decal*



VEHICLE DESCRIPTION DECAL
1. *Manufacturer name*
2. *Manufacturing date*
3. *Vehicle identification number (VIN)*

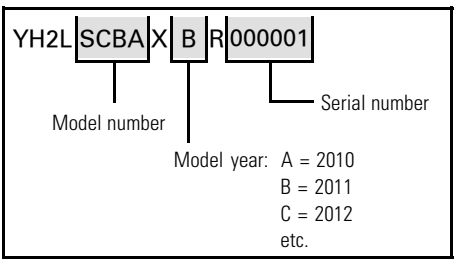
Identification Numbers (Serial Numbers)

The main components of your snowmobile (engine and frame) are identified by different identification numbers. It may sometimes become necessary to locate these numbers for warranty purposes or to trace your snowmobile in the event of loss. These numbers are required by the authorized Lynx dealer to complete warranty claims properly. No warranty will be allowed by BRP if the engine identification number or vehicle identification number (V.I.N.) is removed or mutilated in any way. We strongly recommend that you take note of all the identification numbers on your snowmobile and supply them to your insurance company.

Vehicle Identification Number (V.I.N.)

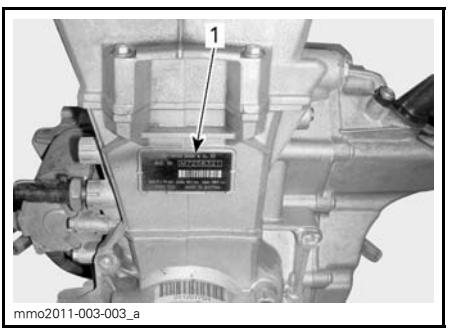
V.I.N. is scribed on the vehicle description decal. See above. It is also engraved on the tunnel, near the vehicle description decal.

Model number and model year are part of the information found in the V.I.N. See illustration.



Engine Identification Number

Refer to the following illustration to locate the engine identification number on the applicable engine.



600 ACE ENGINE
1. *Engine identification number*

Vibrations in the seat (EN 1032, ISO 5008), is less than 0,5 m/s^2.

Vibrations in the handle (EN 1032, ISO 5008), is less than 2,5 m/s^2.

SPECIFICATIONS

MODEL			600 ACE
ENGINE			
Engine type			Rotax 602, liquid cooled, 4-stroke, D.O.H.C., dry sump
Cylinders			2
Displacement			600 cm^3 (36.6 in^3)
Bore			74 mm (2.9 in)
Stroke			69.7 mm (2.74 in)
Maximum horsepower RPM			7250 RPM
Exhaust system			Double front pipe, baffle muffler
Engine oil			XPS 4-STROKE SYNTHETIC OIL (ALL CLIMATE) (P/N 619 590 114) or SAE 0W 40 API SM synthetic oil
Engine oil capacity			Oil change, 2.1 L (2.2 qt (U.S. liq.))
Engine coolant			Ethyl glycol/water mix (50% coolant, 50% distilled water). Use BRP premix coolant or coolant specifically designed for aluminum engines
FUEL SYSTEM			
Fuel injection system			Multi point EFI, 46 mm throttle body
Recommended fuel			Regular unleaded
Minimum octane rating	RON		95 E10
Fuel tank capacity			39 L (10.3 U.S. gal.)
ELECTRICAL SYSTEM			
Lightning system output			420 Watts @ 6000 RPM
Headlights bulb HI/LOW beam		Spark plug	2 x 60/55 Watts (H-4)
Taillight bulb			2 x P 21/5 W
Spark Plug	Type		NGK CR7EB
	Gap		.8 mm (.031 in)

MODEL		600 ACE
ELECTRICAL SYSTEM (cont'd))		
Fuses and relays	F1: Main	30 A
	F2: Start button, relays, clock	5 A
	F3: Fuel pump, starter solenoid	10 A
	F4: Fan	15 A
	F5: ignition coils, fuel injectors	10 A
	F6: ECM, gauge	10 A
	F7: Accessories, heating elements	15 A
	F8: Headlights, taillight, brake light	20 A
	R1: Fuses 3, 5, 6	F6: ECM, gauge
	R2: Fuse 8	-
	R3: Fuse 7	F5: ignition coils, fuel injectors
DRIVE SYSTEM		
Drive pulley type		eDrive
Driven pulley type		QRS
Engagement		2200 RPM
Chaincase oil	Type	XPS SYNTHETIC CHAINCASE OIL (P/N 413 803 300)
	Capacity	500 ml (16.9 U.S. oz)
Drive belt part number	Rave Xtrim Adventure LX	414 860 700 (1)
	49 Ranger	417 300 127 (1)
Small sprocket number of teeth	Xtrim Adventure LX 49 Ranger	21
	Rave	24
Large sprocket number of teeth	Rave Xtrim Adventure LX 49 Ranger	51
Drive sprocket number of teeth	Rave Xtrim Adventure LX	8
	49 Ranger	7

MODEL			600 ACE
DRIVE SYSTEM (cont'd)			
Track nominal width	Rave Adventure LX		380 mm (14.961 in)
	Xtrim 49 Ranger		406 mm (15.984 in)
Track nominal length	Rave		3 052 mm (120.157 in)
	Xtrim		3 705 mm (145.866 in)
	Adventure LX		3 487 mm (137.283 in)
	49 Ranger		3 923 mm (154.449 in)
Track profile height	Rave		25.4 mm (1 in)
	Xtrim 49 Ranger		39 mm (1.535 in)
	Adventure LX		34 mm (1.339 in)
Track tension	Deflection	Rave	30 mm to 35 mm (1-3/16 in to 1-3/8 in)
		Xtrim 49 Ranger Adventure LX	40 mm to 45 mm (1-1/2 in to 1-9/16 in)
	Force [1]		7.3 kg (16 lb)
Track alignment			Equal distance between edges of track guides and slider shoes
BRAKE SYSTEM			
Brake system type			Hydraulic, REX™ brake type
Brake fluid			DOT 4
SUSPENSION			
Front suspension			A-LFS
Front shock	Adventure LX		Motion control
	Rave Xtrim 49 Ranger		HPG 36
Front suspension max. travel			242 mm (9.528 in)

MODEL		600 ACE
SUSPENSION (cont'd)		
Rear suspension	Rave	PPS 3000
	Xtrim	PPS 3700
	Adventure LX	PPS 3500
	49 Ranger	PPS3900
Center shock	Rave Xtrim 49 Ranger	HPG 36
	Adventure LX	Motion control
Rear shock	Rave Xtrim Adventure LX 49 Ranger	HPG 36
Rear suspension max. travel	Rave Xtrim	390 mm (15.354 in)
	Adventure LX 49 Ranger	340 mm (13.386 in)
WEIGHT AND DIMENSIONS		
Dry weight	Rave	222 kg (489.4 lb)
	Xtrim	234 kg (515.9 lb)
	Adventure LX	241 kg (531.3 lb)
	49 Ranger	252 kg (555.6 lb)
Vehicle overall length	Rave	2 870 mm (112.992 in)
	Xtrim	3 230 mm (127.165 in)
	Adventure LX	2 950 mm (116.142 in)
	49 Ranger	3 230 mm (127.165 in)
Vehicle overall width	Rave	1 225 mm (48.228 in)
	Xtrim	1 120 mm - 1 162 mm (44.094 in - 45.748 in)
	Adventure LX	1 230 mm (48.425 in)
	49 Ranger	1 070 mm - 1 112 mm (42.126 in - 43.78 in)

MODEL		600 ACE
WEIGHT AND DIMENSIONS (cont'd)		
Ski stance	Rave Adventure LX	1 080 mm (42.52 in)
	Xtrim	975 mm (38.386 in)(+ adj. 42 mm (1.654 in))
	49 Ranger	895 mm (35.236 in) (+42 mm (1.654 in))

(1) Drive belt height must be adjusted every time a new drive belt is installed. Confirm drive belt part number application with an authorized LYNX dealer.

TROUBLESHOOTING

TROUBLESHOOTING GUIDELINES

STARTER DOES NOT WORK

1. Engine stop switch in OFF position or tether cord cap (D.E.S.S. key) away from post.
   – *Place engine stop switch in the ON position and install tether cord cap (D.E.S.S. key) on post.*
2. Throttle applied while attempting an engine start.
   – *Release throttle while cranking.*

ENGINE RPM DOES NOT REACH CLUTCH ENGAGEMENT POINT

1. D.E.S.S. did not read tether cord cap (D.E.S.S. key) code. D.E.S.S. pilot lamp blinks (slow short beeps/repetitive).
   – *Properly install tether cord cap (D.E.S.S. key).*
2. D.E.S.S. has read a different code than the one programmed. D.E.S.S. pilot lamp blinks rapidly (fast short beeps/repetitive).
   – *Install a tether cord cap (D.E.S.S. key) for which this snowmobile was programmed.*

ENGINE OVERHEATS

1. Insufficient snow or hard packed snow.
   – *Drive in loose snow. If there is no loose snow near, pull over, stop engine and let it cool down. Once engine has cooled down, reach loose snow as soon as possible.*
2. Low coolant level.
   – *Check coolant level, see MAINTENANCE PROCEDURES*
3. Clogged heat exchangers
   – *Clean heat exchangers.*
4. Rear suspension adjusted too high (too much distance between the snow guard and the ground)

ENGINE LACKS POWER

1. Drive and driven pulleys require servicing.
   – *Contact an authorized Lynx dealer.*
2. Drive belt worn too thin.
   – *If the drive belt has lost more than 3 mm (1/8 in) of its original width, it will affect vehicle performance.*
   – *Replace drive belt.*
3. Incorrect track adjustment.
   – *See MAINTENANCE INFORMATION and/or an authorized Lynx dealer for proper alignment and tension adjustments.*

ENGINE SPEED IS LIMITED TO 3000 RPM

1. Defective brake switch or vehicle operated with brake lever activated for a prolonged period.
   – *See an authorized Lynx dealer.*

ENGINE MISFIRES

1. Water in fuel.
   – *Drain fuel system and refill with fresh fuel.*

NO RESPONSE FROM THE THROTTLE LEVER INPUTS. MESSAGE DISPLAYED: PRESS START TO GO

1. Engine management system has detected a sensor problem.
   – *Press and hold the start button in order to move vehicle. Contact an authorized Lynx dealer.*

HEATED GRIPS/THUMB WARMERS ARE NOT WORKING

1. Engine RPM is too low.
   – *Make sure engine RPM is above 2000.*

ENGINE HAS SHUT DOWN WHILE IDLING.

1. The engine shuts down after long periods of idling.
   – *Do not let engine idle too long. Refer to VEHICLE WARM-UP in OPERATING INSTRUCTION.*

Pilot Lamps, Messages and Beeper Codes

Gauge pilot lamp(s) will inform you if an anomaly occurs or to inform you of a particular condition.

TYPICAL — PILOT LAMPS

Pilot lamp can flash alone or in combination with another lamp.

Beeper codes will be emitted to catch your attention.

See table below for details.

NOTE: Some of the listed pilot lamps do not apply to all models.

PILOT LAMP(S) ON	BEEPER	DESCRIPTION
	4 short beeps every 30 seconds	Engine is overheating, reduce snowmobile speed and run in loose snow or stop engine immediately and let engine cool down. Check coolant level, refer to *MAINTENANCE*. If coolant level is correct and overheating persists, contact an authorized Lynx dealer. Do not run the engine if condition persists.
	Short beeps repeating rapidly	Critical overheat. Stop engine immediately and let engine cool down. Check coolant level, refer to *MAINTENANCE*. If coolant level is correct and overheating persists, contact an authorized Lynx dealer. Do not run the engine if condition persists.
	4 short beeps every 5 minutes	Indicate a low or high battery voltage condition. See an authorized Lynx dealer as soon as possible.
	4 short beeps	Engine fault, see an authorized Lynx dealer as soon as possible.
—	4 short beeps every 5 minutes	Engine RPM limited for protection when certain faults occur.
—	Short beeps repeating rapidly	Shutdown procedure in force due to engine overheating or fuel pump problem, remove tether cord cap from engine cut-off switch and contact an authorized Lynx dealer.
DESS	2 short beeps	Good key, vehicle ready to operate.
	2 short beeps, repeating slowly	Unable to read key (bad connection). Make sure the key is clean and correctly snapped on post.
	Short beeps repeating rapidly	Invalid key or key not programmed. Use the proper key for the vehicle or have the programmed.
 **(blinking)**	—	Fuel level sender problem.

WARRANTY

BRP FINLAND OY INTERNATIONAL LIMITED WARRANTY: 2012 LYNX® SNOWMOBILES

1) SCOPE OF THE LIMITED WARRANTY

BRP Finland Oy ("BRP") warrants its 2012 LYNX snowmobiles from defects in material or workmanship for the period and under the conditions described below.

All genuine LYNX parts and accessories, installed by an authorized BRP distributor/dealer (as hereinafter defined) at the time of delivery of the 2012 LYNX snowmobile, carry the same warranty as that of the snowmobile.

Use of the product for racing or any other competitive activity, at any point, even by a previous owner, will render this warranty null and void.

2) WARRANTY COVERAGE PERIOD

This warranty will be in effect from the date of delivery to the first retail consumer or the date the product is first put into use, whichever occurs first and for a period of:

A) TWELVE (12) CONSECUTIVE MONTHS, for private use owners

B) TWELVE (12) CONSECUTIVE MONTHS, for commercial use owners

C) TWENTY FOUR (24) CONSECUTIVE MONTHS, for private use owners when product was sold in a member state of the European Union and Russia. The repair or replacement of parts or the performance of service under this warranty does not extend the life of this warranty beyond its original expiration date.

3) CONDITIONS TO HAVE WARRANTY COVERAGE

This warranty coverage is available only on 2012 LYNX snowmobile purchased as new and unused by its first owner from a BRP distributor/dealer authorized to distribute LYNX products in the country in which the sale occurred ("BRP distributor/dealer"), and then only after the BRP specified pre-delivery inspection process is completed and documented. Warranty coverage only becomes available upon proper registration of the product by an authorized BRP distributor/dealer. Moreover, this warranty coverage is only available if the LYNX snowmobile is purchased in the country in which the purchaser resides. BRP will not honor this limited warranty to any private use owner or commercial use owner if the preceding conditions have not been met. Such limitations are necessary in order to allow BRP to preserve both the safety of its products, and also that of its consumers and the general public.

Routine maintenance outlined in the Operator's Guide must be timely performed in order to maintain warranty coverage. BRP reserves the right to make warranty coverage contingent upon proof of proper maintenance.

4) WHAT TO DO TO OBTAIN WARRANTY COVERAGE

The customer must notify a servicing BRP distributor/dealer within two (2) months of the appearance of a defect, and provide it with reasonable access to the product and reasonable opportunity to repair it. The customer must also present to the authorized BRP distributor/dealer, proof of purchase of the product and must sign the repair/work order prior to starting the repair in order to validate the warranty repair. All parts replaced under this limited warranty become the property of BRP.

5) WHAT BRP WILL DO

BRP's obligations under this warranty are limited to, at its sole discretion, repairing parts found defective under normal use, maintenance and service, or replacing such parts with new genuine LYNX parts without charge for parts and labor, at any authorized BRP distributor/dealer during the warranty coverage period.

BRP reserves the right to improve or modify products from time to time without assuming any obligation to modify products previously manufactured.

6) EXCLUSIONS

The following are not warranted under any circumstances:

- Normal wear and tear;
- Routine maintenance items, tune ups, adjustments;
- Damage caused by failure to provide proper maintenance and/or storage, as described in the Operator's Guide;
- Damage resulting from removal of parts, improper repairs, service, maintenance, modifications or use of parts not manufactured or approved by BRP or resulting from repairs done by a person that is not an authorized servicing BRP distributor/dealer;
- Damage caused by abuse, abnormal use, neglect, use of the product on surfaces other than snow, or operation of the product in a manner inconsistent with the recommended operation described in the Operator's Guide;
- Damage resulting from accident, submersion, fire, theft, vandalism or any act of God;
- Operation with fuels, oils or lubricants which are not suitable for use with the product (see the Operator's Guide);
- Snow or water ingestion;
- Incidental or consequential damages, or damages of any kind including without limitation towing, storage, telephone, rental, taxi, inconvenience, insurance coverage, loan payments, loss of time, loss of income; and
- Damage resulting from studs installed on tracks if the installation does not conform to BRP's instructions.

7) LIMITATIONS OF LIABILITY

THIS WARRANTY IS EXPRESSLY GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT THAT THEY CANNOT BE DISCLAIMED, THE IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIFE OF THE EXPRESS WARRANTY. INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM COVERAGE UNDER THIS WARRANTY. SOME STATES/ PROVINCES DO NOT ALLOW FOR THE DISCLAIMERS, LIMITATIONS AND EXCLUSIONS IDENTIFIED ABOVE, AS A RESULT, THEY MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS, AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS WHICH MAY VARY FROM STATE TO STATE, OR PROVINCE TO PROVINCE.

Neither the distributor, any BRP distributor/dealer nor any other person has been authorized to make any affirmation, representation or warranty regarding the product, other than those contained in this limited warranty, and if made, shall not be enforceable against BRP.

BRP reserves the right to modify this warranty at any time, being understood that such modification will not alter the warranty conditions applicable to the products sold while this warranty is in effect.

8) TRANSFER

If the ownership of a product is transferred during the warranty coverage period, this warranty shall also be transferred and be valid for the remaining coverage period provided BRP or an authorised BRP distributor / dealer receives a proof that the former owner agreed to the transfer of ownership, in addition to the co-ordinates of the new owner.

9) CONSUMER ASSISTANCE

1. In the event of a controversy or a dispute in connection with this limited warranty, BRP suggests that you try to resolve the issue at the dealership level. We recommend discussing the issue with the authorized distributor/dealer's service manager or owner.
2. If further assistance is required, the distributor's service department should be contacted in order to resolve the matter.
3. If the matter still remains unresolved then contact BRP by writing to us at the address below.

ADDRESS:

BRP-FINLAND OY
SERVICE DEPARTMENT
P.O. BOX 8040
FIN–96101 ROVANIEMI
FINLAND

CUSTOMER INFORMATION

PRIVACY INFORMATION

BRP wishes to inform you that your coordinates will be used for safety and warranty related purposes. Furthermore, BRP and its affiliates may use its customer list to distribute marketing and promotional information about BRP and related products.

To exercise your right to consult or correct your data, or to be removed from the addressee-list for direct marketing, please contact BRP.

FOR SCANDINAVIAN AND EUROPEAN COUNTRIES:

BRP FINLAND OY
Service Department
Isoaavantie 7
FIN-96320 Rovaniemi
Finland
Fax +358 16 3420 316

CHANGE OF ADDRESS/OWNERSHIP

If your address has changed or if you are the new owner of the Snowmobile, be sure to notify BRP by either:

– Mailing one of the change of address cards on the following pages.
– Notifying an authorized Lynx dealer.

In case of change of ownership, please join a proof that the former owner agreed to the transfer.

Notifying BRP, even after the expiration of the limited warranty, is very important as it enables BRP to reach the Snowmobile owner if necessary, like when safety recalls are initiated. It is the owner's responsibility to notify BRP.

STOLEN UNITS: If your personal Snowmobile is stolen, you should notify BRP or an authorized Lynx dealer. We will ask you to provide your name, address, phone number, the vehicle identification number and the date it was stolen.

FOR SCANDINAVIAN AND EUROPEAN COUNTRIES:

BRP FINLAND OY
Service Department
Isoaavantie 7
FIN-96320 Rovaniemi
Finland
Fax: +358 16 3420 316

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CHANGE OF ADDRESS ❑ CHANGE OF OWNERSHIP ❑

VEHICLE IDENTIFICATION NUMBER

Model Number | Vehicle Identification Number (V.I.N.)

OLD ADDRESS OR PREVIOUS OWNER:

NAME

NO. STREET APT

CITY STATE/PROVINCE ZIP/POSTAL CODE

COUNTRY TELEPHONE

NEW ADDRESS OR NEW OWNER:

NAME

NO. STREET APT

CITY STATE/PROVINCE ZIP/POSTAL CODE

COUNTRY TELEPHONE

E-MAIL ADDRESS

V00A2F

CHANGE OF ADDRESS ❑ CHANGE OF OWNERSHIP ❑

VEHICLE IDENTIFICATION NUMBER

Model Number | Vehicle Identification Number (V.I.N.)

OLD ADDRESS OR PREVIOUS OWNER:

NAME

NO. STREET APT

CITY STATE/PROVINCE ZIP/POSTAL CODE

COUNTRY TELEPHONE

NEW ADDRESS OR NEW OWNER:

NAME

NO. STREET APT

CITY STATE/PROVINCE ZIP/POSTAL CODE

COUNTRY TELEPHONE

E-MAIL ADDRESS

V00A2F

NOTES

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