



2003

**KÄYTTÄJÄN KÄSIKIRJA
ÄGAREHANDBOK
OWNER'S MANUAL**



2101453

WARNING!

Disregarding of the safety precautions and instructions contained in this Owner's Manual on-product warnings may result in injury, including the possibility of death.

OWNER'S MANUAL 2003

Forest Fox S

6900 FCE

GLX 5900 FCE

ST 600

ST 550 F

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1. Snowmobile can be dangerous. Careless and abnormal use may result to serious injuries.
2. Read this manual and follow all the instructions carefully.
3. Use always: Safety helmet, eye protectors or visor, and hearing protector.
4. Never use alcohol or any drugs before or while driving the snowmobile.

SAFETY MEASURES

- * Never start the engine in closed area or indoors.
- * For vehicle with a parking brake always engage brake when snowmobile is not in use.
- * Never leave the snowmobile on downhill with only parking brake engaged.
- * Throttle mechanism should be checked for free movement before starting engine.
- * The snowmobile engine can be stopped by activating the emergency cut-out button, pulling the tether cord or turning off the key.
- * Engine should be running only when belt guard is secured in place. Never run the engine without drive belt installed. Running an unloaded engine can prove to be dangerous.
- * Never run the engine when the track is raised off the ground or with the hood opened or removed.
- * Maintain your snowmobile in top mechanical condition at all times.
- * Your snowmobile is not designed to be operated on public streets, roads or highways. In most states and provinces, it is considered an illegal operation.
- * Never charge or boost a battery while installed on snowmobile.
- * Do not lubricate throttle and/or brake cables and housings.
- * Only perform procedures as detailed in this guide. Unless otherwise specified, engine should be turned OFF and cold for all lubrication and maintenance procedures.
- * Some snowmobiles are designed for the driver only and no provisions have been made for a passenger.

- * 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.
- * The engine and components used in particular model should not be used on other models. Use of Rotax snowmobile engines in other than Lynx snowmobiles is not recommended or authorized by Bombardier.
- * Clean the footrests from snow and ice. Slippery footrests can be dangerous.
- * Install the ball horn to the snowmobile. (Delivered with snowmobile).

HOW TO IDENTIFY YOUR SNOWMOBILE

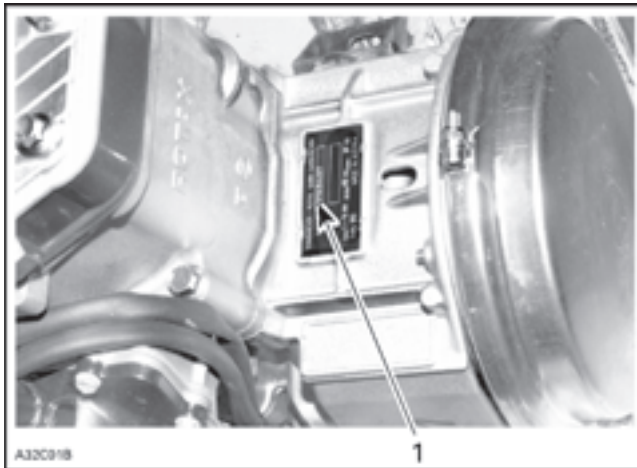
The main components of your snowmobile (engine and frame) are identified by different serial numbers. It may sometimes become necessary to locate these numbers for warranty purposes or to trace your snowmobile in the event of loss. These numbers are required by the Lynx dealers to complete warranty claims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

ON-SNOWMOBILE IMPORTANT INSTRUCTIONS

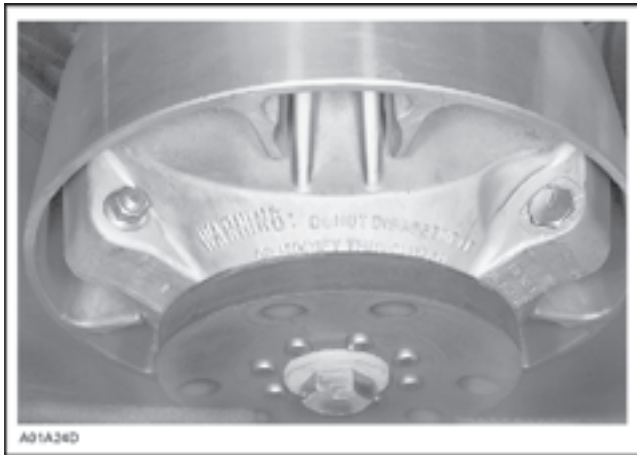
Please read the following instructions carefully before operating snowmobile.



CE-Decal

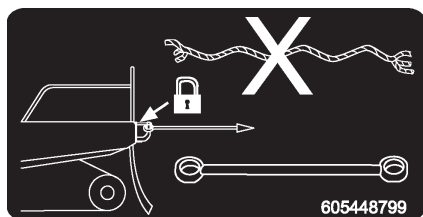


1. Engine serial number



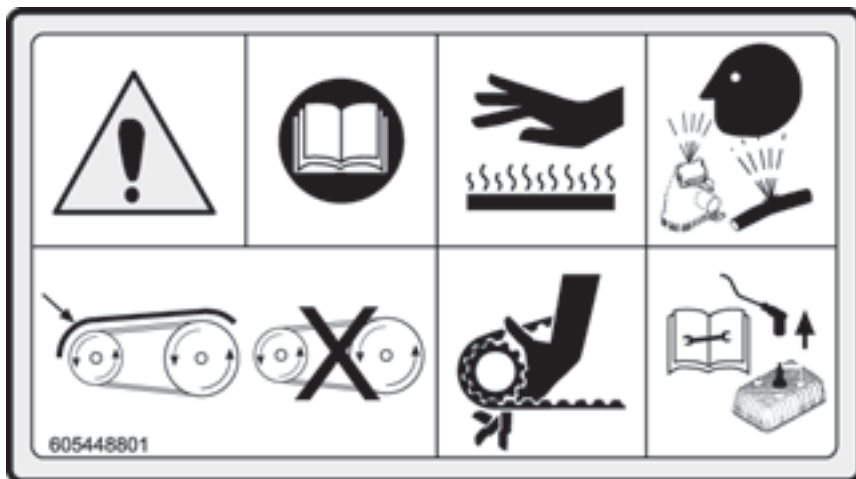
WARNING! Do not disassembly or modify this clutch

⚠	VAROITUS	⚠	⚠	VAROING	⚠	⚠	WARNING	⚠
<p>Älä tee säätöjä moottorin käydessä. Älä käynnistä moottoria, jos variaattorinhihna tai variaattorisuoja ei ole paikallaan. Teetä variaattorin säädöt valtuutetussa huhtoliikkeessä.</p>								
<p>Utför inga justeringar eller liknande i motorutrymme då motor går. Starta ej motorn utan att variatorern och variatorskydd är monterade. Låt en auktoriserad serviceverkstad utföra eventuella justeringar i variatorn.</p>								
<p>Do not carry out any adjustments when the engine is running. Do not start the engine if the fan belt or belt guard is not placed. Let an authorized service company carry out the variator adjustments.</p>								
								5647014



WARNING!

Never pull with rope, use firm drawbar, which matches with the hitch. Always lock the hitch with the lock pin. Disregarding this warning may cause accident or even a death.



605448801

WARNING!

Read this manual carefully and follow all the instructions.
 Never touch on hot parts with hands, you may get burned.
 Be aware of the moving parts, cover your face.
 Never start the engine without drive belt cover.
 Never put your hands inside of the drive belt.
 Stop the engine and remove the spark plug wire before maintenance procedures.

PROPOSITION 65 WARNING

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash hands after handling.**

AVERTISSEMENT PROPOSITION 65

Les bornes, contacts et autres accessoires contiennent du plomb et des alliages de plomb, produits chimiques considérés par l'état de Californie comme cancérigènes ou dangereux pour le fonctions reproductives. **Lavez-vous les mains après manipulation.**

ADVERTENCIA DE LA PROPOSICION 65

Los bornes, terminales y accesorios relacionados contienen plomo y compuestos del plomo, sustancias químicas que el Estado de California sabe que causan cáncer y daño a la reproducción. **Lávese las manos después de tocarlos.**

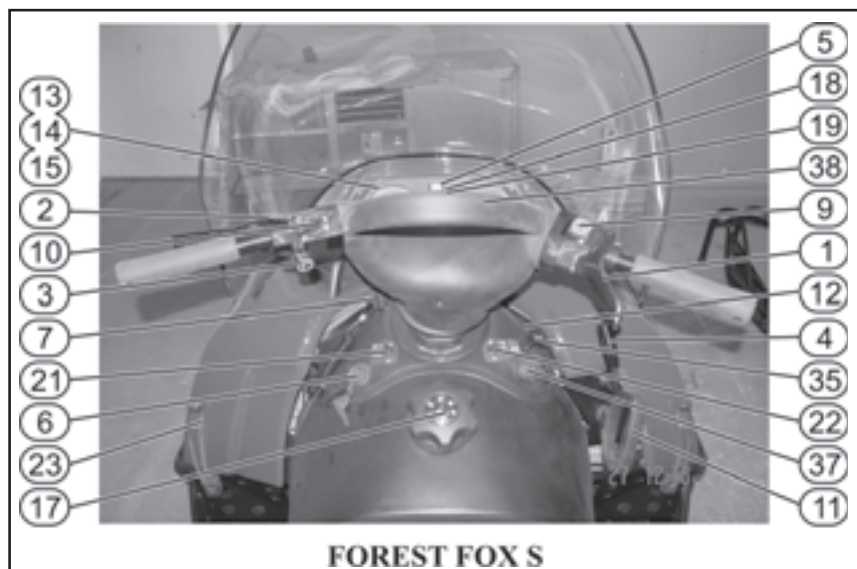
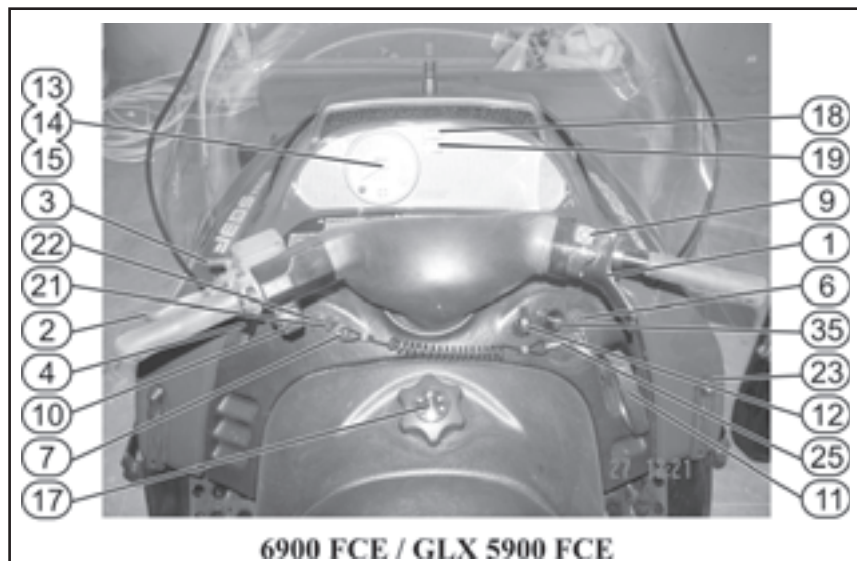
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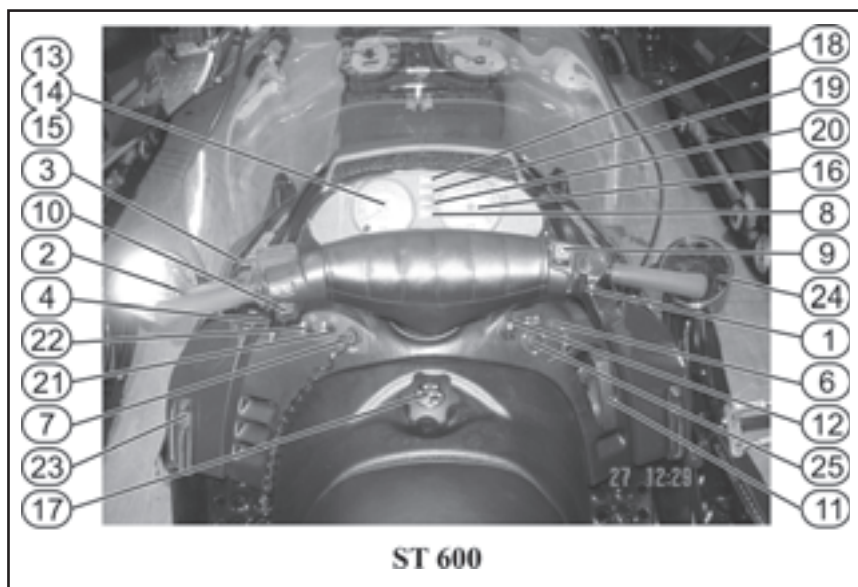
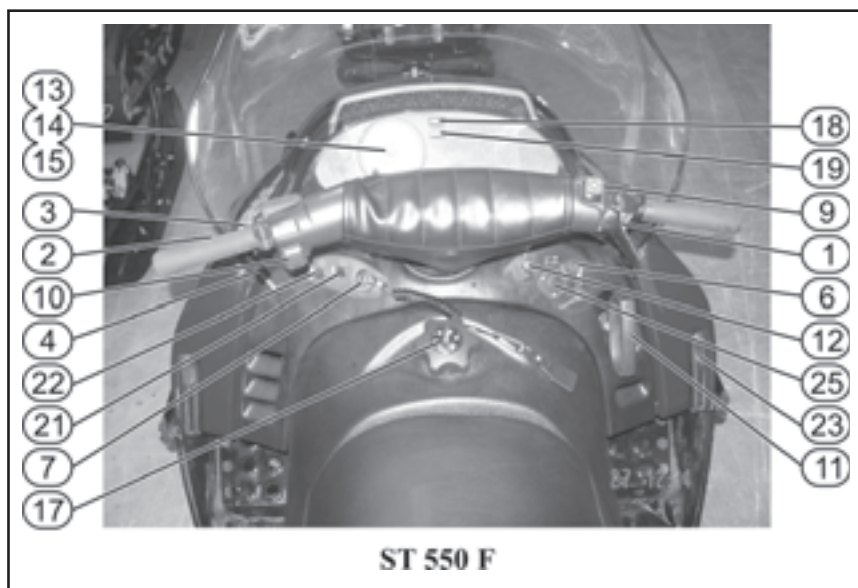


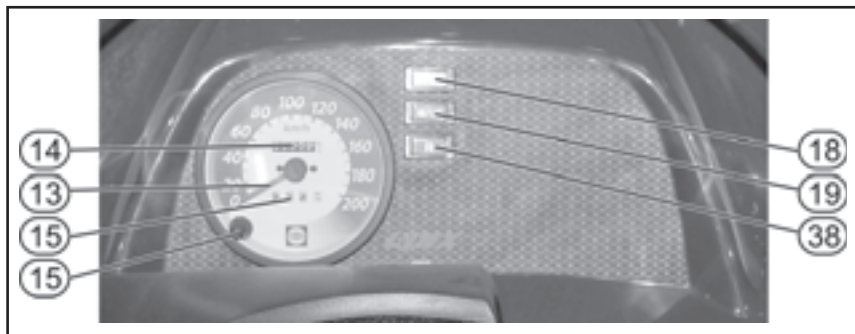
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CONTROLS / INSTRUMENTS

NOTE! Some controls/instruments do not apply to some models. In these cases their reference numbers are deliberately missing in the illustrations. Some controls/instruments are optional on some models.







1. THROTTLE LEVER

Located on the right side of handlebar. When compressed, it controls the engine speed and the engagement of the transmission. When released, engine speed returns automatically to idle.

2. BRAKE LEVER

Located on the left side of handlebar. When compressed, the brake is applied. When released, it automatically returns to its original position. Braking effect is proportional to the pressure applied on the lever and to the type of terrain and its snow coverage.

WARNING!

Excessive or repetitive use of brakes for high speed stops will cause an overheated brake system. This overheated condition could cause sudden loss of brakes and/or fire.

3. PARKING BRAKE BUTTON

Located on left side of handlebar. Parking brake should be used whenever snowmobile is parked. Whenever parking brake is applied and engine is running, injection oil level/parking brake pilot lamp lights up to remind you that it is engaged. Never leave your snowmobile on downhill only with parking brake engaged.

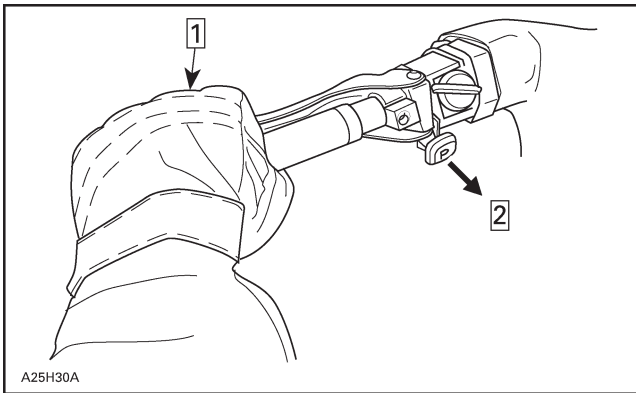
CAUTION

Make sure parking brake is fully disengaged before operating the snowmobile.

MECHANICAL BRAKE

To engage mechanism, squeeze brake lever and maintain while pulling button with the other hand. There are 2 retaining notches on button lever; pull button into locks on a notch then release brake lever.

To release mechanism, squeeze brake lever then fully push parking brake button. Always release parking brake before riding.



Step 1: Squeeze and hold

Step 2: Fully pull

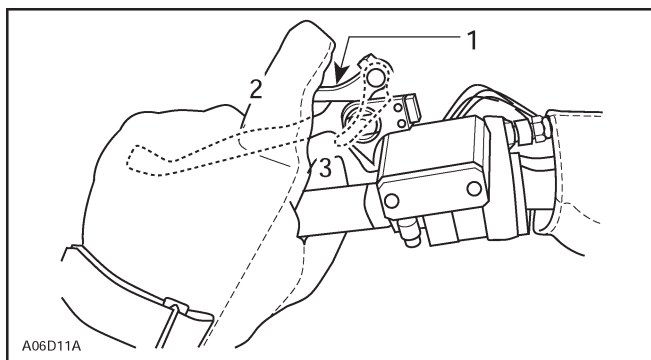
WARNING!

Parking brake button is not meant to be used as a parking brake and it should not be used longer than 5 minutes at time. Parking brake button keeps parking brake engaged and by that way it maintains pressure against the parking device. This pressure may however decrease step by step so low that it does not hold snowmobile in place. Never leave the snowmobile on downhill with parking brake engaged.

HYDRAULIC BRAKE

To engage mechanism, squeeze brake lever and maintain while pulling locking lever with a finger. Brake lever is now compressed halfway applying brakes.

To release mechanism, squeeze brake lever. Locking lever will automatically return to its original position. Brake lever now returns to rest position. Always release parking brake before riding.



1. Locking lever
2. OFF
3. ON

4. GEAR SHIFT LEVER

WARNING!

snowmobiles are capable of a fast reverse. Always remain seated and apply the brake before shifting. Come to a complete stop then change gear. Ensure the path behind you is clear of obstacles or bystanders. Fast reverse while turning, could result in loss of stability.

Shifting

It is recommended to warm up the engine to its normal operating temperature before shifting.

Shifting procedure will take place only when the engine is running.

Engine will automatically shift into forward when starting after stopping or stalling.

Operation

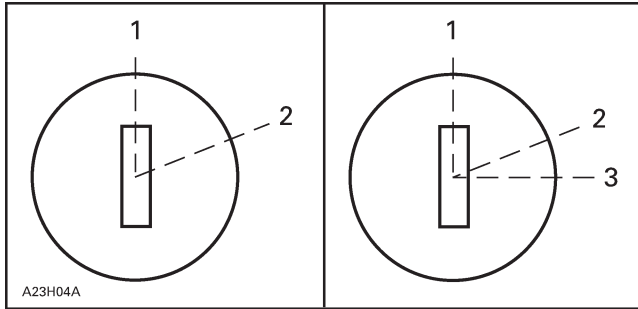
The engine RPM will decrease for a few seconds then the engine will start rotating in the opposite direction and will return to its normal idle speed.

5. REVERSE INDICATOR LIGHT

This indicator light up when reverse is selected.

6. IGNITION SWITCH

The lights are automatically ON whenever the engine is running.



Manual starting

1. OFF
2. ON

Electric starting

1. OFF
2. ON
3. START

Manual starting

Key operated, 2-position switch. To start the engine, first turn the key to ON position then, pull rewind starter grip. To stop the engine, turn the key to OFF position.

Electric starting

Key operated, 3-position switch. To start the engine, turn key to START position and hold.

CAUTION

Do not hold key at START position more than 30 seconds. Holding key in START position when engine has started could damage starter mechanism.

Release key immediately when engine has started. Key returns to ON position as soon as it is released. If engine does not start on first try, turn key back to ON position before restarting. To stop engine, turn key to OFF position.

NOTE: Engine may be started manually with rewind starter if necessary.

If starter does not operate, check starting system fuse condition. (Refer to: FUSES)

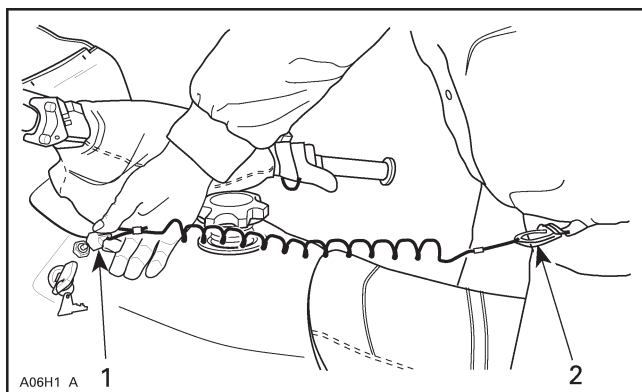
7. TETHER CUT-OUT SWITCH

Lights are automatically ON whenever the engine is running.

The tether cut-out system shuts-off engine if the driver accidentally falls off the snowmobile.

Operation

Attach tether cord to wrist or clothing then snap tether cut-out cap over receptable before starting engine.



1. Snap over receptacle
2. Attach to eyelet

If emergency engine shut off is required, completely pull cap from safety switch.

DESS

DESS (Digitally Encoded Security System) system is a deterrent against theft. The tether cord provided with your snowmobile is dealer programmed and is the only one that allows engine to turn more than 3000 RPM.

If an incorrectly programmed tether cord is installed the engine can not reach engagement speed required to move snowmobile.

Several tether cords can be programmed for snowmobile MPM unit. For practical reasons we recommend You to buy an extra tether cord from Your Lynx dealer. It is useful if the snowmobile has several users or if the tether cord disappears.

SIGNAL AND PILOT LAMP CODES

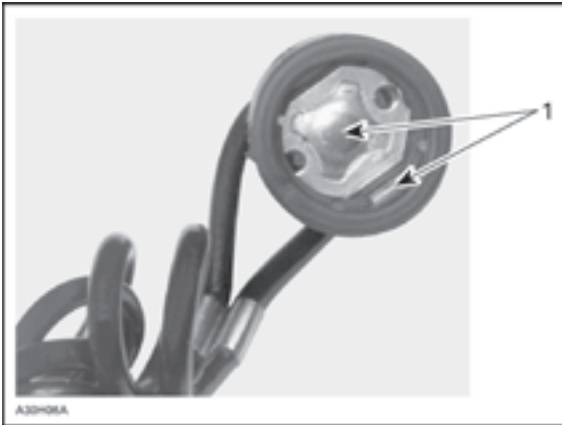
Models with electric starter

When the engine has been started, two signals is heard and pilot lamp blinks twice, at which time the MPM unit has recognized DESS tether cord. Snowmobile can be driven normally.

One signal per 3 seconds and DESS pilot lamp blinking simultaneously is a mark of a bad connection. Snowmobile can not be driven.

To check for bad connection, remove tether cord. Make sure it is free of dirt or snow. Reinstall tether cord and restart engine. If a blink per 3 seconds still occurs contact an authorized Lynx service shop.

NOTE! Signal is only heard on models, which are equipped with a reverse buzzer.



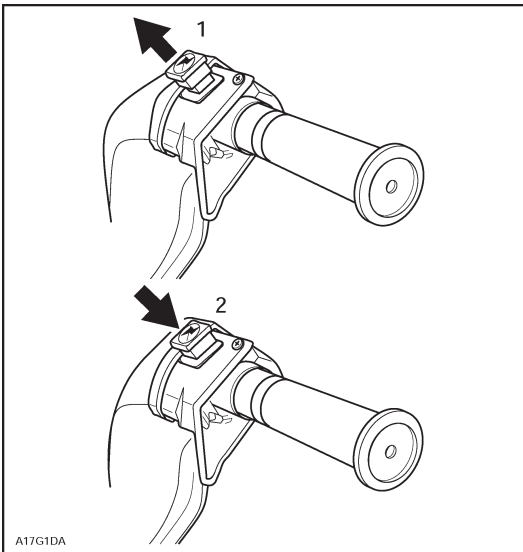
1. Free of dirt and snow

8. DESS PILOT LAMP

This lamp will light up to confirm DESS status. Refer to previous paragraphs for description.

9. EMERGENCY CUT-OUT SWITCH

A push-pull type switch located on right side of the handlebar. To stop the engine in an emergency, push the button to the lower OFF position and simultaneously apply the brake. To restart, button must be at upper ON position.



1. ON
2. OFF

WARNING!

After using cut-out switch, do not let it hit to rotating device. Set the pulley cover down carefully and lock it. Keep your hands and clothings far away from pulleys and rotating device. Do not operate the snowmobile with pulley cover open. This may cause serious personal injuries.

All drivers of the snowmobile should familiarize themselves with the function of this device by using it several times on first outing and to stop the engine there after. Thereby being mentally prepared for emergency situations requiring its use.

WARNING!

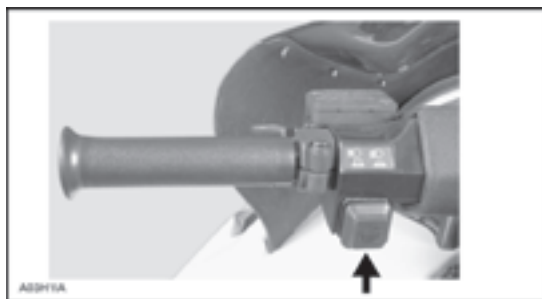
If the switch has been used in a mechanical malfunction, the source of malfunction should be determined and corrected before restarting engine.

10. HEADLAMP DIMMER SWITCH

Located on left side of handlebar, allows of headlamp beam.

WARNING!

Do not use the snowmobile if the headlamp beam is not correct. Faulty beamed headlight lights poorly.



11. REWIND STARTER HANDLE

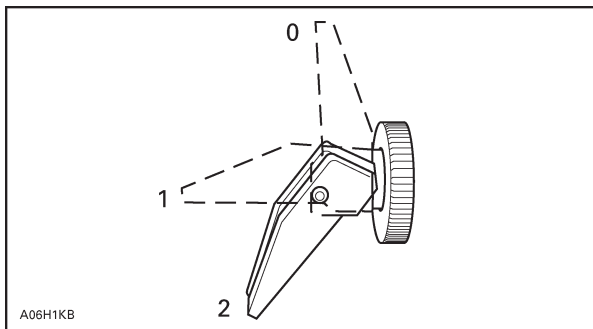
Auto-rewind type located on right hand side of snowmobile. To engage mechanism, pull handle slowly until a resistance is felt then pull vigorously. Slowly release handle.

WARNING!

Do not pull the rewind starter handle totally out and do not let it return freely. Keep the handle and allow handle to return slowly. Otherwise the starter handle may get damaged.

12. CHOKE LEVER

This device features 3-position lever to facilitate cold start.



1. OFF
2. Position 1
3. Position 2

WARNING!

Before starting the engine, remember to attach the tether-cord to your clothing. Otherwise the snowmobile may strike out by itself and cause accident.

Initial cold starting

Do not operate the throttle lever with the choke lever on.

Move the choke lever to position 2 and start the engine. As soon as the engine starts move the lever to position 1. After a few (5) seconds move the choke lever to OFF.

NOTE: In severe cold weather, colder than -20° (-4°F) you may need to flip choke lever from OFF to position 1 a couple of times once engine is started.

Warm engine starting

Start the engine without choke. If the engine will not start after two pulls of the rope or two attempts with the electric starter move choke lever to position 1. Start the engine without activating the throttle lever. As soon as the engine starts move the choke lever to OFF.

13. SPEEDOMETER

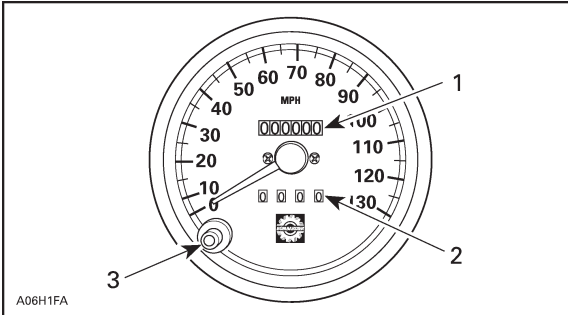
Direct-reading dial indicates the speed of the snowmobile in kilometers per hour.

14. ODOMETER

Odometer records the total distance travelled in kilometers.

15. TRIP METER

Records distance travelled in kilometers until it is reset. It can be used to record a fuel tank range or distance between 2 relays for instance.



1. Odometer
2. Trip meter
3. Reset button

16. TACHOMETER

Direct reading dial indicates the amount of engine RPM/minute.

17. FUEL TANK CAP/GAUGE

Unscrew to fill up tank then fully tighten.

WARNING!

Fuel may be pressurized, open cap slowly. Fuel is flammable and explosive. Never use an open flame to check fuel level. Never smoke or allow flame or spark in vicinity. Never top up the fuel tank before placing the snowmobile in a warm area. As temperature increases, fuel expands and may overflow. Always wipe off any fuel spillage from the snowmobile.

18. HIGH BEAM PILOT LAMP (BLUE)

Lights when headlamp is HIGH beam.

19. INJECTION OIL LEVEL PILOT LAMP (RED)

Lights when injection oil is low. Check oil level and replenish as soon as possible.

20. ENGINE OVERHEAT WARNING LAMP (RED)

If this lamp glows, reduce snowmobile speed and run snowmobile in loose snow or stop engine immediately. Also track rotating improves cooling if overheating appears.

21. HEATED GRIP SWITCH

Three-position toggle switch. Select desired position to keep your hands at a comfortable temperature.

22. HEATED GRIPS

Three-position toggle switch. Select the desired position to keep your hands and right thumb at a comfortable temperature.

22. HEATED THROTTLE LEVER SWITCH

Three-position toggle switch. Select the desired position to keep your right thumb at a comfortable temperature.

23. HOOD LATCHES

Unhook the latches to unlock the hood from its anchors. Always lift hood gently until stopped by retaining device. Close hood slowly then hook up latches.

24. ADJUSTABLE MIRRORS

Each mirror can be adjusted to suit driver's preference.

25. ELECTRIC OUTLET

Electric outlet is equipped on models with electric starter. Plug voltage is 12 VDC.

26. FUSES

Starting system fuse

Starting system is protected with a 20 ampere rated fuse. If starter does not operate, check fuse and replace if necessary.

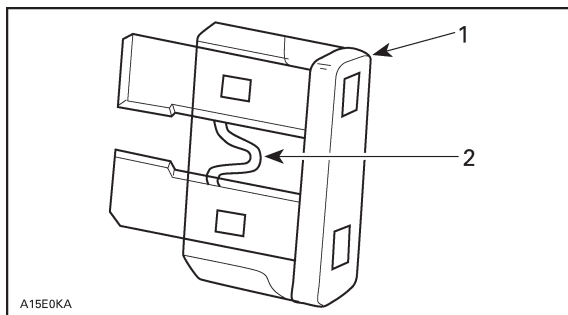
CAUTION

Do not use a higher rated fuse as this can cause severe damage to electric components and/or fire.

WARNING!

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

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



1. Fuse
2. Check if melted

27. FRONT BUMPER

CAUTION

Vehicles with plastic front bumper: Do not use front bumper to pull or lift snowmobile. It may get damaged. Use skis.

28. STORAGE COMPARTMENT

WARNING!

All storage compartments must be properly latched and they must not contain any heavy or breakable objects.

Depending on model, a storage compartment is provided in engine compartment, under the seat or inside of the seat.

A storage compartment is provided the seat. To open compartment, lift seat latch then tip seat over.

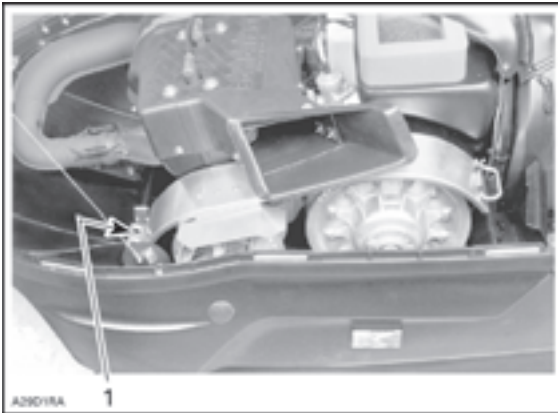
29. TOOL KIT

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

30. SPARK PLUG HOLDER

To keep spare spark plugs dry and prevent shocks that might affect the adjustment or break them, a holder is provided in engine compartment.

Firmly tighten them into the holder with spark plug socket (in tool kit) to ensure that they will not be loosened by vibrations.



1. Spark plug holder

NOTE: Spare spark plugs are not supplied with snowmobile.

31. SEAT STRAP

Seat strap provides a grip for the passenger.

32. ADJUSTABLE BACKREST

The backrest position and support angle may be adjusted to suit driver or passenger convenience.

WARNING!

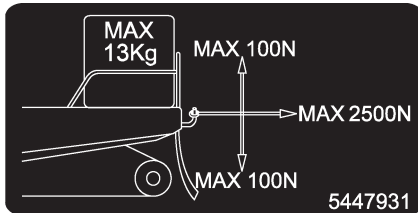
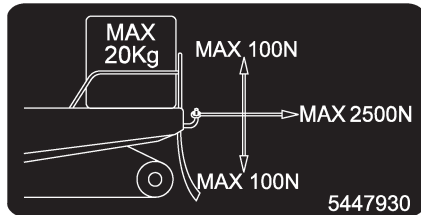
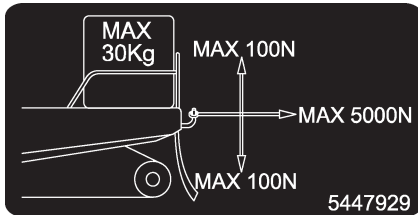
Adjust with snowmobile at rest in a safe place. Adjust to provide maximum lower back support. Always consider your passenger's comfort and safety. Securely tighten all adjustment locks and knobs.

Avoid strong accelerations when driving with a passenger.

33. HITCH

The hook-type hitch can be used to pull most equipment. Use always slipnoose which is compatible with hitch hook.

NOTE! Remember to lock the hitch hook locking latch with lock pin.



Check the decal on your own snowmobile: Maximum load for storage compartment and pulling capacity of the hitch.

34. HOLDING STRAP

Holding strap provides a grip for driver when side-hilling.

WARNING!

This strap is not for towing, lifting or other purpose than temporary use as a grab bar during side-hilling. Always keep at least one hand on handlebar.

35. PRIMER BUTTON

Pull and push button. It is not necessary when engine is warm.

To prime, activate button until a pumping resistance is felt. From this point, pump 2 or 3 times to inject fuel in intake manifold. After priming, ensure that primer button is pushed back.

NOTE: In very cold temperature, it is recommended to rotate primer button 3-4 turns prior to it. This will eliminate the possibility of sticking.

36. ADJUSTABLE SUSPENSION

For factory recommended adjustments refer to decal on belt guard.

37. RER ELECTRONIC REVERSE

Some models are equipped with a ROTAX ELECTRONIC REVERSE (RER) controlled by a reverse button.

Driving in reverse is achieved by changing the direction of engine rotation.

Shifting in reverse is an electronic operation consisting of a control module that modifies the ignition timing of the engine.

When depressing the reverse button, a signal will slow down the engine RPM enough to modify the ignition timing advance. This reverses crankshaft rotation. No mechanical action and gear change is involved.

No adjustment is needed except for high altitude. See RER Modification at High Altitude later in this book.

39. RER PILOT LAMP

This lamp indicates when RER is engaged.

GENERAL

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.

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

GUIDELINES TO ADJUSTMENT SUSPENSION

The best way to set up suspension, is to start from factory settings then customize each adjustment one at a time in the right order (steps 1-4). Then, test run the snowmobile always with the same conditions; trail, speed, snow, driver riding position etc. Change adjustment and retest. Proceed methodically until you get satisfied.

CAUTION

Come always to a complete end before adjusting suspensions.

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.

Rear springs-comfort

When driver and passenger (if so applicable) take place rear of snowmobile should collapse by 50 to 75 mm.

CAUTION

Always turn the left side adjustment cam in a clockwise direction, the right side cam in a counterclockwise direction. Left and right adjustment cams may be at different settings.

Center spring-steering behavior

Ride at moderate speed on a trail with bumpy conditions. If steering is easy to turn. Adjust center spring accordingly.

Stopper strap – weight transfer

Ride at low speed then fully accelerate. Note steering behavior. Adjust stopper strap length accordingly. At rest, stopper strap should have a free play of 12 mm

CAUTION

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



Suspended extension adjustment

Suspended extension can be adjusted according to the load and snow conditions.

For deep snow adjustment

Loosen lock nut then tighten nut $\frac{3}{4}$ turn after contacting washers. Retighten lock nut. Adjust the same on both sides.

For trail riding with or without a load and for pulling a load

First loosen lock nut. Turn to a maximum preload of 3 turns after nut touching washers. Retighten lock nut. Adjust the same on both sides.

Shackle movement limiter

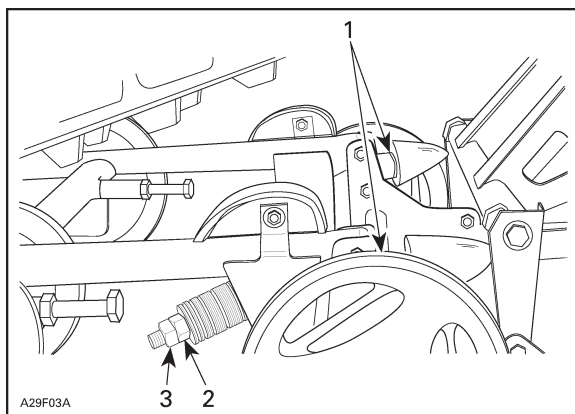
For deep snow riding, do not install horse shoe washers nor rubber stoppers.

For trail riding with passenger and/or weight, install 1 horse shoe washer under each rubber stoppers.

For trail riding with heavy load and/or pulling a load, use 2 horse shoe washers under each rubber stoppers.

CAUTION

Always install same amount of washers on both sides.



1. *Horse shoe washer (-s)*
2. *Nut*
3. *Lock nut*

Front springs-handling

Ride at moderate speed and check for proper handling.
Adjust front springs accordingly.

CAUTION

Always adjust both front springs to same position.

In deep snow

When operating the snowmobile in deep snow, it may be necessary to vary the position of front spring adjustment cam (rear suspension) stopper strap 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.

FUEL AND OIL

Recommended fuel

Use 98E gasoline.

When snowmobile is used in powder snow condition and/or at temperatures from and below -10° (14°F), we highly recommend the use of gas line antifreeze in a proportion 150 mL of gas line antifreeze added to 40 liters of gas.

This precaution is in order to reduce the risk of frozen carburetor(s) which may lead, in certain cases, to high fuel consumption or severe damage to engine.

CAUTION

Never experiment with other fuels or fuel ratios. The use of unrecommended fuel can result in snowmobile performance deterioration and damage to critical parts in the fuel system and engine components. Never use old fuel. Octane content decreases 5 degrees in 6 months. Always use fresh fuel.

WARNING!

Never top up the fuel tank before placing the snowmobile in a warm area. As temperature increases, fuel expands and may overflow. Always wipe off any fuel spillage from the snowmobile.

Recommended oil

CAUTION

Do not mismatch oil reservoir cap with fuel tank cap. Oil reservoir cap is identified OIL.

Oil is contained in the oil injection reservoir.

Use Bombardier snowmobile injection oil (P/N 1471599 20x1l) or synthetic injection oil. Synthetic oil is strongly recommended when riding slowly long travels at moderate speed.

CAUTION: Add injection oil ever time you refuel.

WARNING!

Fuel may be pressurized, open cap slowly. Fuel is flammable and explosive. Never use an open flame to check fuel level. Never smoke or allow flame or spark in vicinity.

COLD WEATHER CARBURETION MODIFICATIONS

All snowmobiles have been calibrated for -20°C (-4°F). They can be operated at higher winter temperature without problems.

CAUTION

For colder temperatures than -20°C (-4°F), carburetor(s) must be recalibrated to avoid engine damage. Refer to an authorized Lynx service shop.

BREAK-IN PERIOD

Engine

CAUTION

A break-in period of 10 to 15 operating hours-500 km –is required before running the snowmobile at full throttle.

During break-in period, maximum throttle should not exceed 3/4. However, brief full acceleration and speed variations contribute to a good break-in. Continued wide open throttle accelerations, prolonged cruising speeds and engine overheating are detrimental during the break-in period.

To assure additional protection during the initial engine break-in, 500 ml recommended injection oil (P/N 1471599, 20x1l) should be added fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

Belt

A new drive belt requires a break-in period of 50 km. Avoid strong acceleration/deceleration, pulling a load or high speed cruising.

10-hour inspection

As with any precision piece of mechanical equipment, we suggest that after the first 10 hours of operation-500 km-or 30 days after the purchase, whichever ever comes first, your snowmobile be checked by an authorized Lynx service shop.

This inspection will give you the opportunity to discuss the unanswered questions you may have encountered during the first hours of operation.

NOTE! The 10 hour inspection is at the expense of the snowmobile owner.

PRE-OPERATION CHECK

- Activate the throttle control lever several times to check that it operates easily and smoothly. It must return to idle position when released.
- Activate the brake control lever and make sure the brake fully applies before the brake control lever touches the handlebar grip. It must fully return when released.

- Verify that skis and steering operate freely. Check corresponding action skis versus handlebar.
- Verify track and idler wheels are unfrozen and free to turn.
- Check fuel and injection oil for levels. Replenish as necessary and see an Lynx authorized service shop in case of any leaks.
- Verify that air filter(s) is free of snow, if so equipped.
- Check gear shift lever position.
- Check coolant level.
- Check operation of ignition switch, headlight switch (HI-LO), tail light, brake light, indicator lights and tether and emergency cut-out switches.
- Remove snow and ice from footboards.

CAUTION

Proceed with pre-operation check list before riding.

STARTING THE ENGINE

WARNING!

Never run engine in an enclosed area.

WARNING!

Operator and passenger (if applicable) must be properly seated before starting engine.

Check throttle lever operation

Ensure that the emergency cut-out switch is in ON position.

Ensure the tether cut-out cap is in position and that the cord is attached to your clothing.

PRIMER equipped snowmobiles

Activate the primer 2 or 3 times.

NOTE: Priming is not necessary when engine is warm.

Initial cold starting

NOTE: Do not operate the throttle lever with the choke lever on.

Move the choke lever to position 2 and start the engine. As soon as the engine starts move the lever to position 1. After a few seconds (10 seconds maximum) move the choke lever to OFF.

NOTE: In severe weather, colder than -20° (-4°F) you may need to turn the choke on and off a couple of times to position 1 once engine is started.

Warm engine starting

Start the engine without any choke. If the engine will not start after two pulls the rope or two 5 second attempts with the electric starter move choke lever to position 1. Start the engine without activating the throttle lever. As soon as the engine starts move the choke lever to OFF.

Manual starting

Insert the key in the ignition switch and turn to ON position.
Grasp manual starter handle firmly and crank engine.

WARNING!

Do not apply throttle while starting.

Electric starting models

Insert key in ignition switch.
Turn key clockwise until starter engages.
Release key immediately when engine has started.

CAUTION

Do not hold key at "START" position more than 15 seconds.

If for any reason, the snowmobile cannot be started electrically, place ignition key to position ON and start engine manually.

Emergency starting

The engine can be started with the emergency starter rope or strap supplied with the tool kit.

Remove belt guard

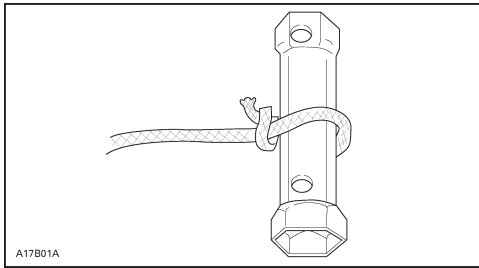
WARNING!

Do not wind starting rope or strap around your hand. Hold rope or strap by the handle only. Do not start the snowmobile by the drive pulley unless it is a true emergency situation. Have the snowmobile repaired as soon as possible.

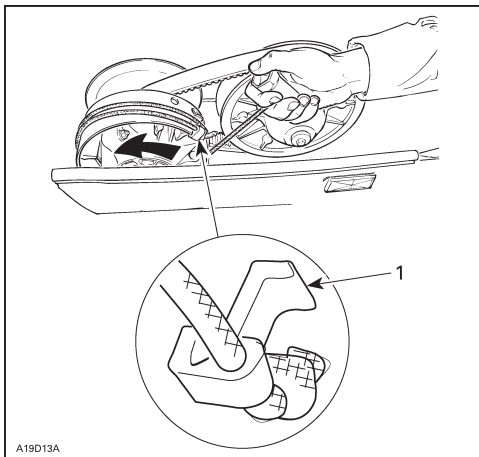


Attach one end of emergency rope or strap to rewind handle.

NOTE: The spark plug socket can be used as an emergency handle.



Attach the other end of emergency rope to the starter clip supplied in the tool kit.
Hook up on drive pulley.
Wind the rope tightly around drive pulley. When pulled, pulley must rotate counterclockwise.



1. Clip (TRA drive pulley)

Pull the rope or strap using a sharp, crisp pull so the rope or strap comes free of the drive pulley.
Start engine as per usual manual starting.

WARNING!

When starting the snowmobile in an emergency situation, using drive pulley, do not reinstall the belt guard and return slowly to have snowmobile repaired.

Shutting off the engine

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

Shut off the engine using either ignition switch, emergency cut-out switch or tether cut-out switch.

WARNING!

Never leave key and tether cord on snowmobile when not in operation.

POST OPERATION CARE

Shut off the engine. Install rear of snowmobile on a snowmobile mechanical stand.

Remove snow and ice from rear suspension, track, front suspension, steering mechanism and skis. Protect snowmobile with a cover.

ENGINE OVERHEATING

Fan cooled models

Shut off the engine.

Check for clogged air duct passages. Remove any foreign materials. Check for proper fan belt condition and tension. See an authorized Lynx service shop.

Liquid cooled models

Engine overheating indicator will light up if engine is too hot.

Reduce snowmobile speed and run snowmobile in loose snow or stop engine immediately.

Check for adequate coolant level.

FUEL FLOODED ENGINE

Remove spark plugs, dry or replace them if needed.

Restart the engine. If engine fails to start, repeat the procedure.

REAR SUSPENSION SLIDER SHOE STICKING

Shut off the engine.

Slider shoes are cooled and lubricated by snow.

When riding at moderate or high speed on a thin –snow-covered surface, slider shoes may stick on track metallic guides.

Let slider shoes cool down. Restart engine and run snowmobile on a surface covered by snow or drive snowmobile at very low speed. Have slider shoes inspected by authorized Lynx service shop.

FLUID LEVELS

CAUTION

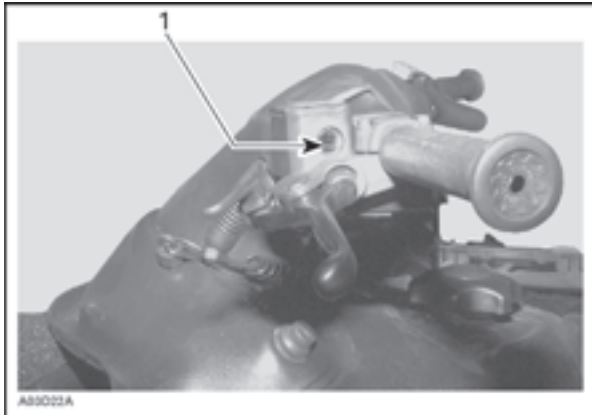
Snowmobile must be on a level surface before checking any fluid levels.

Brake system

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

CAUTION

Use only DOT 4 brake fluid from a sealed container. Never use any other types of fluid.



1. Minimum (Brake fluid reservoir)

Chaincase oil level

Check the oil level by removing the chaincase oil dipstick.

The oil level should be between the lower and upper marks.
Refill as required using Bombardier chaincase oil (P/N 413 801 900).

Gearbox oil level

Check the oil level by removing the gearbox oil dipstick.

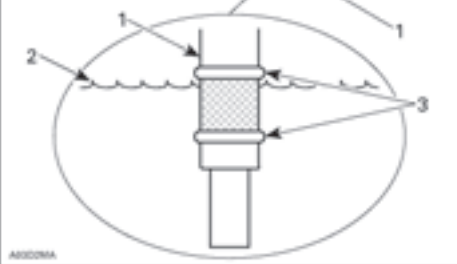
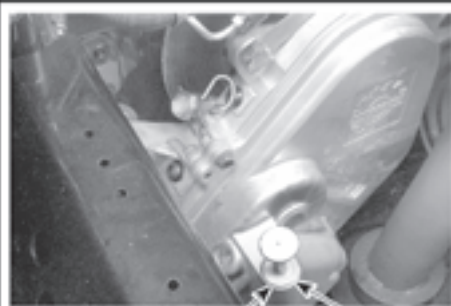
The oil level should be between the lower and upper marks.
In gearbox (2 gears forward and reverse/RER) has to be used gearbox oil (P/N 320007 or equivalent, SAE 75W-140 API GLS Hypoid S solid synthetic oil)

With snowmobile on a level surface, check the oil level by removing dipstick. Oil level must be between lower and upper marks.

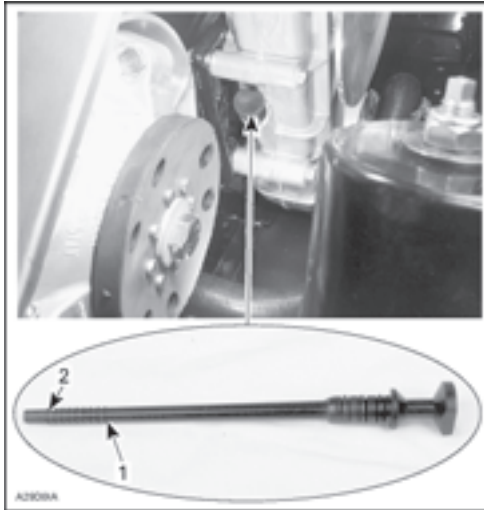
It is normal to find metallic particles stuck to dipstick magnet. If bigger pieces of metal are found, see an authorized Lynx service shop.
Remove metal particles from magnet.

WARNING!

Do not use unrecommended other types of oil when servicing. Do not mix synthetic oil with other types of oil.



1. Dipstick
2. Oil level
4. Level between marks



1. Full level mark
2. Lower level mark

OIL INJECTION SYSTEM

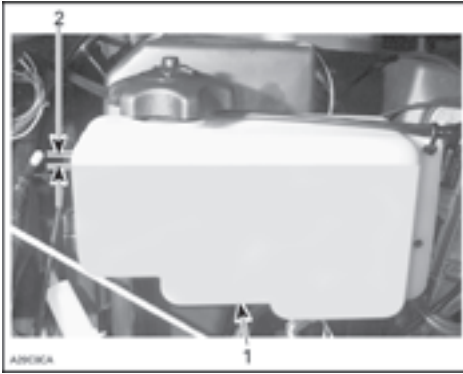
Always maintain a sufficient amount of Bombardier injection oil in the injection oil reservoir.

CAUTION

Never allow oil reservoir to be almost empty.

WARNING!

Check level and refill every time you refuel. Do not overfill. Wipe off any spillage. Oil is highly flammable.



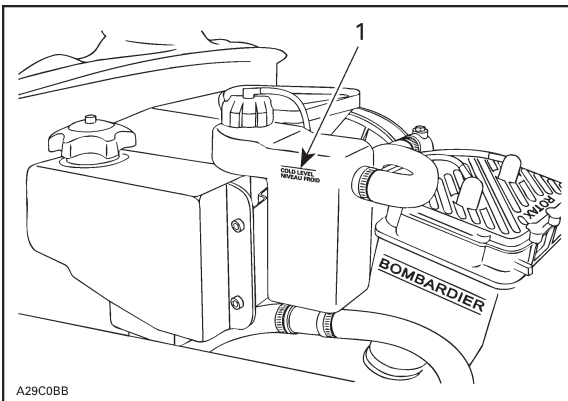
1. Injection oil reservoir
2. Maximum level: 13 mm from top

COOLING SYSTEM

Check coolant level at room temperature. Liquid should be at COLD LEVEL line (engine cold) of coolant tank.

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

If additional coolant is necessary or if entire system has to be refilled, refer to and authorized Lynx service shop.



1. Cold level

BATTERY

Removal

WARNING!

Never roll snowmobile on right side, if snowmobile is equipped with acid battery. Battery electrolyte gets in engine compartment and damage the engine seriously

WARNING!

The BLACK negative cable has to be removed first and reinstalled the last.

WARNING!

Never charge or boost battery while installed. Battery electrolyte contains sulfuric acid which is corrosive and poisonous. In case of contact with skin, flush with water and call a physician immediately.

Remove the battery fastening strap.

WARNING!

Use suitable gloves when removing battery bay hands. Gloves may not be absorbent material.

Remove the battery out from snowmobile.

Cleaning

Clean the battery, battery casing, cables and battery posts with baking-soda solution.

Remove rust form battery cable connectors and battery posts using firm wire brush.

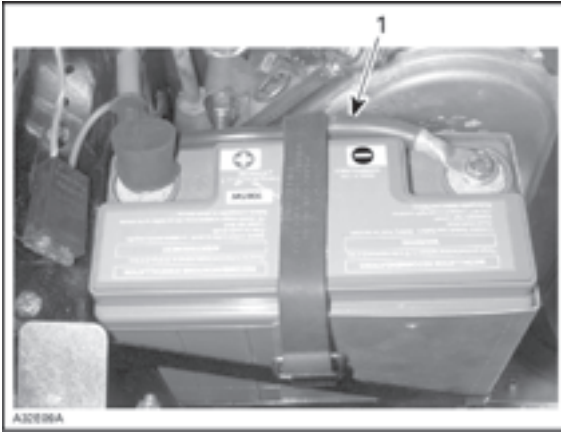
WARNING!

Never place the battery near the open flame.

Installation

Place the battery to battery holder.

Attach the battery fastening strap and make sure that negative cable is installed as shown in the picture below.



1. Negative cable under the battery strap

WARNING!

Always connect the battery cables exactly specified order. Connect RED positive cable first, then BLACK negative ground cable.

Add dielectric grease (P/N 413 701 700) on battery posts and connectors.

Battery charging

Battery electrolyte amount has to be between upper and lower marks.
If the liquid gets under MIN-mark, add distilled water up to MAX-mark.

MAINTENANCE

Belt guard removal and installation

Some models:

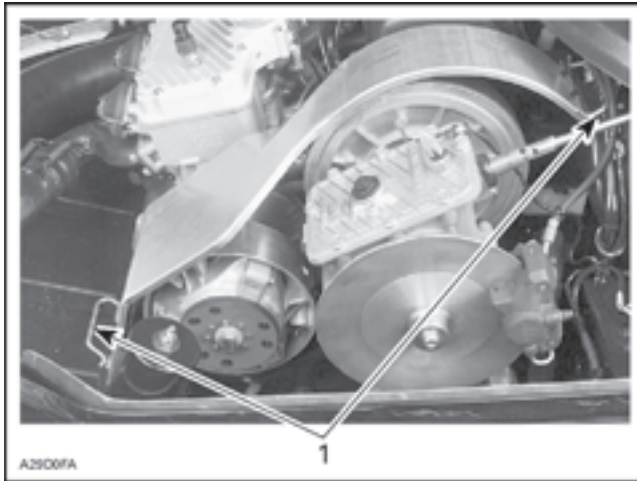
Remove tether cord cap.

Open hood. Remove guard retaining pins and lift off the guard.

Some models:

Remove tether cord cap. Open hood.

Open retainer to release pin the lift belt guard. Proceed one side at a time.

**1. Retaining pins**

Belt guard is purposely made slightly oversize to maintain tension on their pins and retainer preventing undue noise and vibration. It is important that this tension be maintained when reinstalling.

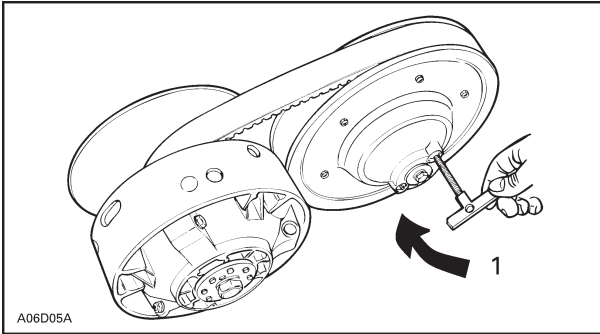
Drive belt removal and installation

Removal and installation of drive belt is easier when driven pulley is held with brake so that it can not rotate. Apply parking brake, for this purpose.

Open hood and remove belt guard.

Open drive pulley with special tool included in tool box.

Screw tool in the threaded hole and tighten to open the pulley. Remove belt.



1. Tighten to open pulley

Open the driven pulley by twisting and pushing the sliding half. Hold in fully open position.

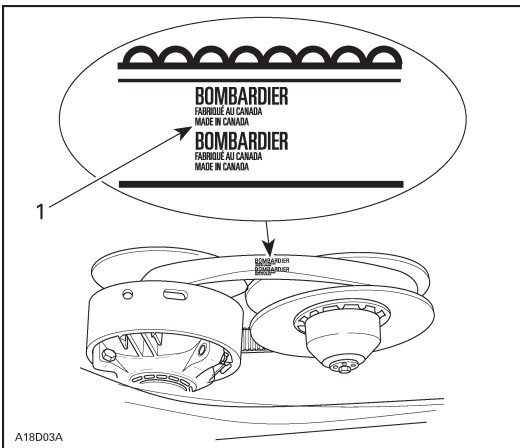
WARNING!

Never rotate the drive/driven pulleys when emergency cut-out switch is at OFF position.

Slip the belt over the top edge of the sliding half, as shown.

To install drive belt, reverse the removal procedure, however pay attention to the following:

The maximum drive belt life span is obtained when the belt has the proper rotation direction. Install it so that the Bombardier name on the belt can be read when facing pulleys.



1. Bombardier-name

CAUTION

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

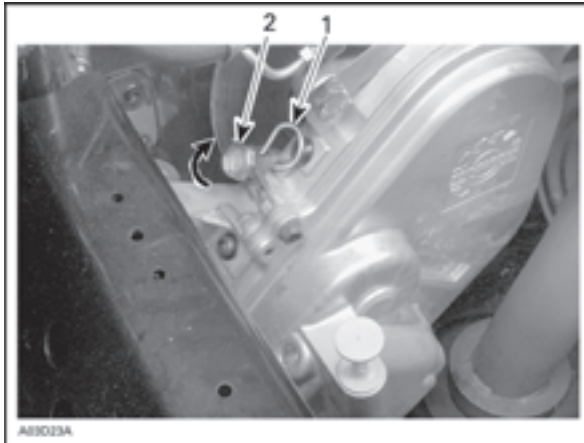
Reposition and lock driven pulley support. On models so equipped, remove belt installer. Reinstall belt guard.

Drive chain tension

Models with chaincase

Remove hair pin.

Fully tighten tensioner adjustment screw by hand, then back off only far enough for hair pin to engage in locking hole.

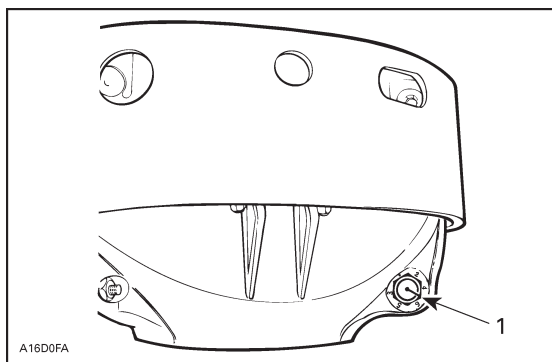


1. Hair pin
2. Adjustment screw

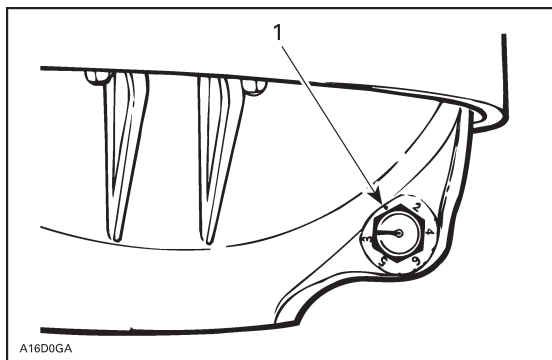
TRA drive pulley adjustment

The drive pulley is factory calibrated to transmit maximum engine power at a predefined RPM. Refer to SPECIFICATIONS at the end of this guide.

Factors such as ambient temperature, altitude or surface condition may vary this critical engine RPM thus affecting snowmobile efficiency.



Governor cup has 6 positions numbered 2 to 6. Note that in position 1 the number is substituted by a dot (due to its location on casting).



1. Position 1 (no number)

Each number modifies maximum engine RPM by about 200 RPM. Lower numbers decrease engine RPM in steps of 200 RPM and higher numbers increase it in steps of 200 RPM.

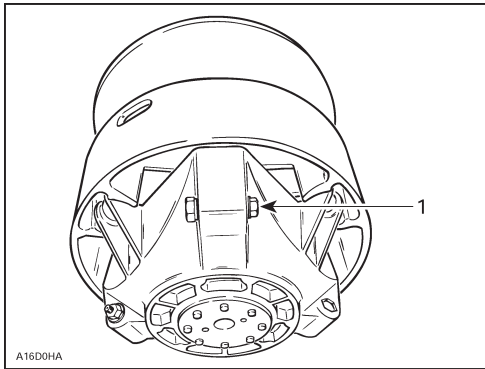
EXAMPLE: Calibration screw is set at position 4 and is changed to position 6. So maximum engine RPM is increased by 400 RPM.

To adjust:

Just loosen locking nut enough to pull calibration screw partially out and adjust to desired position. Do not completely remove the locking nut. Torque locking nuts to 10 Nm.

CAUTION

Do not completely remove calibration screw or its inside washer will fall off. Always adjust all 3 calibration screws and make sure they are all set at the same number.



1. Loosen just enough to permit rotating of calibrate screw

WARNING!

Always reinstall belt guard. Do not operate engine with hood open or poor adjustment may affect drive pulley performance and belt life. Always refer to Lynx service shop advice before servicing or modifying the drive or driven pulleys. Always respect maintenance schedules.

Drive belt condition

Inspect 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 belt or disorted spare belt. Contact an authorized LYNX service shop.

Check the drive belt width. Replace the drive belt if width is less than the minimum width recommended in TECHNICAL DATA section.

Brake condition

The brake mechanism on your snowmobile is an essential safety device. Keep this mechanism in proper working condition. Above all. Do no operate the snowmobile without an effective brake system. Periodically verify the condition/wear of the brakes.

Brake adjustment

Mechanical brake

The brake mechanism is self-adjusting type. If a quicker brake response is desired, strongly squeeze the brake lever several times, this will actuate the adjusting mechanism.

Hydraulic brake

No adjustment is provided for hydraulic brake. See an authorized Lynx service shop if any problems.

Rear suspension condition

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

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 9 Nm.

Track condition

Lift rear of the snowmobile and support it off the ground. 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 service shop.

WARNING!

Do not operate or rotate a track if torn, damaged or excessively worn.

Track tension and alignment

Ride the snowmobile in snow about 15 to 20 minutes prior to adjusting track tension. Lift rear of snowmobile and support it with a snowmobile mechanical stand.

Allow the suspension to extend normally and check gap half-way along slider shoe. The gap should be as given in the TECHNICAL DATA section in the end of this guide. If the track tension is too loose, track will have a tendency to thump.

WARNING!

Too much tension will result in power loss and excessive stresses on suspension components.

CAUTION

Too much tension will result in power loss and excessive stresses on suspension components.

To adjust tension:

Loosen the rear idler wheel retaining screws.

Loosen the lock nuts (on some models only) then turn adjustment screws to adjust.

If correct tension is unattainable, contact an authorized Lynx service shop.

WARNING!

Do not check the track tension when engine is ON. Turn the ignition key to OFF position. Rotating track is dangerous.

Alignment

Track tension and alignment are inter-related. Do not adjust one without the other.

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. Ensure no one is standing in close proximity to the snowmobile.

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

To correct, stop the engine: Loosen the lock nuts (some models only) and tighten the adjustment screw on side where the slider shoe is the farthest from the track insert guides.

Tighten lock nuts and adjustment screws.

WARNING!

If lock nuts or retaining screws are not tightened properly, the adjusting screws could loosen causing the track to become extremely loose and, under some operating conditions, allow the idler wheels to climb over the track lugs forcing the track against the tunnel causing the track to "lock".

Restart engine and rotate track slowly to recheck alignment.
Reposition snowmobile on ground.

Steering and front suspension mechanism

Visually inspect steering and front suspension mechanism for tightness of components (steering arms, control arms and links, tie rods, ball joints, ski coupler bolts, etc)
If necessary, contact Lynx service shop.

Wear and condition of skis and runners

Check the condition of the skis, ski runners and ski runner carbides if so equipped. If worn, contact your authorized Lynx service shop.

WARNING!

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

EXHAUST SYSTEM

The exhaust system is designed to reduce noise and to improve the total performance of the engine. If any exhaust system component is removed from the engine, severe engine damage will result.

WARNING!

Never touch exhaust system parts. Parts are dangerously hot and may cause skin burn.

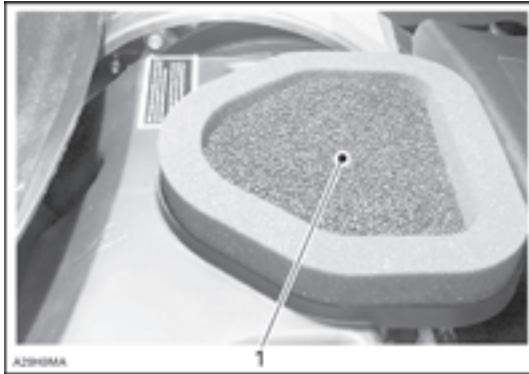
AIR FILTER CLEANING

When riding in deep powder snow, periodically stop then shake the snow from the filter and reinstall filter.

Leaving the snowmobile uncovered during a snowfall or riding in deep powder snow may block air filter and choke the engine.

While riding in deep powder snow, periodically stop then shake the snow from the filter and reinstall filter.

Check that the air box is clean and dry and properly reinstall the filter.



1. Air filter installed on top of air silencer

CAUTION

Snowmobile engines have been calibrated with the filter installed. Operating the snowmobile without it may cause engine damage.

HEADLIGHT

CAUTION

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.

If headlamp is burnt , tilt hood. Unplug connector from headlamp. Remove protector cap and unfasten bulb retainer clips. Detach bulb and replace.

New bulb installing: Open the hood, remove the connector from headlamp and turn the headlamp off, change new headlamp.

INSTRUMENTS

Bulb socket is always behind the instrument under a black rubber boot. Pull rubber and socket to expose bulb. Pull bulb out of socket.

TAILLIGHT

If taillight bulb is burnt, expose the bulb by removing the red plastic lens. To remove, unscrew the 2 lens.

STORAGE

It is during summer, or when a snowmobile is not in use more than one month that proper storage is a necessity. To prepare your snowmobile, follow the PERIODIC MAINTENANCE CHART section.

TROUBLESHOOTING

Sympton: Engine turns over but fails to start

POSSIBLE CAUSES

Ignition switch, emergency cut-out switch or tether-switch s in the OFF position

Mixture not rich enough to start cold engine.

Flooded engine (spark plug wet when removed).

No fuel to the engine (spark plug dry when removed)

Spark plug/ignition (no spark).

WHAT TO DO

Place all switches in the ON position

Check fuel tank level and check starting procedure. particularly use of the primer or the choke.

Do not prime or choke. Remove wet spark plug, turn ignition switch to OFF and crank engine several times. Install clean dry spark plug continues to flood, see an authorized Lynx service shop.

Check fuel tank level; turn fuel valve on if applicable; check fuel filter; replace if clogged; check condition of fuel and impulse lines and their connections. A failure of the fuel pump or carburetor has occurred. Contact an authorized Lynx service shop.

Remove spark plug(s) then reconnect to spark plug. Check that emergency cut-out switch is at the ON position and the tether cut-out switch cap is snapped over the receptacle. Start engine with spark plug(s) grounded to engine away from spark plug hole. If no spark appears, replace spark plug. If trouble persists, contact an authorized Lynx service shop.

Engine compression.

As the engine is pulled over with the rewind starter, "cycles" of resistance should be felt as piston past top dead center (each piston on twin-cylinder engines). If no pulsating resistance is felt, it suggests a major loss of compression. Contact an authorized Lynx service shop.

SYMPTON: Engine lacks acceleration or power

POSSIBLE CAUSES

WHAT TO DO

Fouled or defective spark plug

Check item "Engine turns over but fails to start"

Lack fuel to engine

Check item "Engine turns over but fails to start"

Carburetor adjustments

Contact an authorized Lynx service shop.

Drive belt worn too thin

If the drive belt has lost more than 3 mm of its original width, it will affect snowmobile performance.

Drive and driven pulleys require servicing

Contact an authorized Lynx service shop.

Engine is overheating

On liquid cooled engines; check coolant level, pressure cap, thermostat and for air locks in cooling system. On fan cooled engines, check fan belt and its tension; clean cooling fins of engine; if overheating persists, contact an authorized Lynx service shop.

SYMPTON: Engine backfires

POSSIBLE CAUSES

Faulty spark plug (carbon accumulation)

Engine is running too hot

Ignition timing is incorrect or there is an ignition system failure.

WHAT TO DO

See item "Engine turns over but fails to start".

See item "Engine lacks acceleration or power".

Contact an authorized Lynx service shop.

SYMPTON: Engine misfires

POSSIBLE CAUSES

Fouled/defective/worn spark plugs

Too much oil supplied to engine

Water in fuel

WHAT TO DO

Clean/verify spark plug and heat range. Replace as required.

Improper oil pump adjustment, refer to an authorized Lynx service shop. Improper fuel/oil mixture. Drain fuel tank and refill with appropriate mixture ratio.

Drain fuel system and refill with fresh fuel.

SYMPTOM: Snowmobile cannot reach full speed

POSSIBLE CAUSES

WHAT TO DO

Drive belt

Check item "Engine lacks acceleration or power"

Incorrect track adjustment

See maintenance section and/or Lynx service shop for proper alignment and tension adjustments.

Pulleys misaligned

Contact an authorized Lynx service shop.

Engine

See item "Engine lacks acceleration or power"

TEKNISET TIEDOT 2003
TEKNISKA DATA 2003
TECHNICAL DATA 2003

	6900 FCE	ST 600	GLX ST 550 F	GLX 5900 FCE	FOREST FOX SYNCR0
Moottori/Motor/Engine					
Max teho/max. effekti/max power	6600	7100	7100	6800	6900
Syfytystulppaitähdystif/spark plug					
Tyypit/tyypit/type	BR9ES 0,45	BR9ECS 0,5	BR9ES 0,45	BR9ES 0,45	BR9ES 0,45
Kärkivälit/gap/gap					
Telamatto/drivband/track					
Leveys x pituus/breed x längd/width x length	600x3968	500x3968	500x3968	500x3968	380x3968
Kireys/träckning/tension 1)	40-50	40-50	40-50	40-50	17-18
Nesteet/vätskor/fluids					
Polttoaine/bränsle/gas	98E	98E	98E	98E	98E
Öljyalaatu/ölje typ/oil type	BOMBARDIER-ROTAX TUOREVOITELUÖLJY / INJ.OILJA / INJ.OIL				
Öljyalaatu vaiht./ölje typ växell./oil type gearbox	SAE 75W-140 API GL5 Hypoidi S	50/50			
Neste/vesiseos	-	-	-	-	-
Tilavuudet/volyymen/volumes					
Polttoainesäiliö/bränsle tank/gas tank	42	42	42	42	37
Öljysäiliö/ölje tank/oil tank	2,5	2,5	2,5	2,5	2,5
Nestetilavuus/vätske volume/liquid volume	-	4	-	-	-
Öljytil. vaiht./ölje volume växell./oil volume gearb.	0,4	0,4	0,4	0,4	0,4
Termostaatti/termostat/termostat	-	42	-	-	-
Tuulettimen hihna/fläktrem/fan belt	10x610	-	10x610	10x610	10x610
Variaattorin hihna/variatorrem/variator belt	35x1118	35x1118	35x1118	35x1118	35x1118
Ajovalo/strålkastare/headlight	H4 60/55	2 x H4 60/55	2 x H4 60/55	2 x H4 60/55	H4 60/55
Takavalo/bakljus/rearlight	5	5	5	5	5
Jarruvalo/bromslysbaklight	21	21	21	21	21

1) Mittarako, joka jää liukukiskon ja maton sisäpuolen väliin, kun telamattoa kuormitetaan keskeltä 7,3 kg voimalla alaspäin.

1) Mät avståndet mellan drivbandets insida och glidskena när drivbandet dras nedåt med en kraft på 7,3 kg.

1) Measure gap between slider shoe and bottom inside of track when exerting a downward pull of 7,3 kg to the track.

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