Scout 1992

operator's guide

BOMBARDIER ski-doo.

Version française au revers
Litho'd in Canada MMO-9205

414 7521 00

Model _____

V.I.N. _____

Purchase Date _____

Warranty Expiry Date _____

To be completed by dealer at time of sale

DEALER IMPRINT AREA

AFTER SALES SERVICE
BOMBARDIER INC.
VALCOURT (QUEBEC)
CANADA J0E 2L0

Scout

SAFETY WARNING

Disregarding any of the safety precautions and instructions contained in this *Operator's Guide* and the *Safety Handbook* could cause injury, including the possibility of death.

This *Operator's Guide* and the *Safety Handbook* should remain with the vehicle at the time of resale.

NOTICE

The *Operator's Guide* and the *Snowmobiler's Safety Handbook* have been prepared to acquaint the owner / operator or passenger of a new snowmobile with the various vehicle controls, maintenance and safe operating instructions. Each is indispensable for the proper use of the product, and should be kept with the vehicle at all times.

Should you have any questions pertaining to the warranty and its application, please consult the "Often Asked Question" section of this guide, or an authorized dealer.

This guide uses the following symbols.

◆ **WARNING : Identifies an instruction which, if not followed, could cause serious personal injuries including possibility of death.**

▼ **CAUTION : Denotes an instruction which, if not followed, could severely damage vehicle components.**

◯ **NOTE :** Indicates supplementary information needed to fully complete an instruction.

Although the mere reading of such information does not eliminate the hazard, your understanding of the information will promote its correct use.

The information and components / system descriptions contained in this guide are correct at time of publication. Bombardier Inc. however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured.

Bombardier Inc. reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations show the typical construction of the different assemblies and, in all cases, may not reproduce the full detail or exact shape of the parts shown, however, they represent parts which have the same or a similar function.

Most specifications are given in both metric and customary units. Where precise accuracy is not required, some conversions are rounded to even numbers for easier use.

A *Shop Manual* can be obtained for complete service, maintenance and repair information.

◆ **WARNING : The engine and components implemented in a particular model should not be used on other models. Use of Rotax® snowmobile engines in other than Ski-Doo snowmobiles is not recommended or authorized by Bombardier Inc.**

◆ **WARNING : Maintenance procedures and tightening torques must be strictly adhered to, never attempt repairs unless the appropriate tools are available.**

▼ **CAUTION : Most components of this vehicle are built with parts dimensioned in the metric system. Most fasteners are metric and must not be replaced by customary fasteners or vice versa. Mismatched or incorrect fasteners could cause damage to the vehicle or possible personal injury.**

Observe the following precautions :

- ◆ Throttle mechanism should be checked for free movement before starting engine.
- ◆ Do not operate vehicle near snow making equipment.
- • The snowmobile engine can be stopped by activating the emergency cut-out switch or tether switch or turning off the key.
- ◆ Clean and check operation of the headlight, taillight and brake light.
- ◆ Engine should be running only when belt guard and/or pulley 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.
- ◆ It can be dangerous to run engine with the hood removed.
- ◆ Fuel is flammable and explosive under certain conditions. Always manipulate in a well ventilated area. Do not smoke or allow open flames or sparks in the vicinity. If fuel fumes are noticed while driving, the cause should be determined and corrected without delay.
- ◆ Maintain your vehicle in top mechanical condition at all times.
- ◆ Your snowmobile is not designed to be driven or operated on black top, bare earth, ice, hard pack or other abrasive surfaces. On such surfaces, abnormal and excessive wear of critical parts is inevitable.
- ◆ Your snowmobile is not designed to be operated on public streets, road or highways. In most States and Provinces, it is considered an illegal operation.
- ◆ **Electric start models only :** Never charge or boost a battery while installed on vehicle.
- ◆ Installation of other than standard equipment, including ski-spreaders, bumpers, pack racks, etc., could severely affect the stability and safety of your vehicle. Avoid adding on accessories that alter the basic vehicle configuration.
- ◆ Whenever the vehicle is parked outdoors, overnight or for a long period, it is suggested to protect it against the inclemency of the weather with a snowmobile cover.
- ◆ 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 for all lubrication and maintenance procedures.
- • **Liquid cooled models only :** Since engine cooling is fully in effect only when the vehicle is in motion and driven on snow, it is not recommended that you allow the engine to idle for more than brief periods and/or you drive the vehicle on icy surfaces. Prolonged idling and/or continuous driving on ice may cause engine damage.
- ◆ **Liquid cooled models only :** When removing coolant tank cap, first place a cloth over cap then turn cap to its first step to release pressure. Never drain or refill the cooling system when engine is hot.
- ◆ Some models are designed for the driver only. No provisions have been made for a passenger.
- ◆ Should removal of a locking device be required when undergoing repairs/disassembly, always replace by new ones. Tighten fasteners as specified in the applicable *Shop Manual.*

TABLE OF CONTENTS

THE 1992 SNOWMOBILE LIMITED WARRANTY

1 - PERIOD

BOMBARDIER INC. as manufacturer, warrants FROM THE DATE OF DELIVERY TO THE FIRST CONSUMER, every 1992 BOMBARDIER® snowmobile, sold as NEW AND UNUSED, and predelivered by an authorized BOMBARDIER® dealer for a period of :

- 12 consecutive months.
- Warranty coverage on all new snowmobiles delivered between June 1st and December 1st of a year will expire on December 1st of the following year.

2 - WHAT BOMBARDIER INC. WILL DO

BOMBARDIER INC. will repair and/or replace, at its option, components defective in material and/or workmanship (under normal use and service), with a genuine BOMBARDIER® component without charge for parts or labour, at any authorized BOMBARDIER® dealer during said warranty period.

3 - CONDITION TO HAVE WARRANTY WORK PERFORMED

Present to the servicing dealer, the hard copy of the BOMBARDIER® Warranty Registration card or proof of purchase received by the customer from the selling dealer at time of delivery.

4 - EXCLUSIONS - ARE NOT WARRANTED

- Normal wear on all items such as, but not limited to :
  - drive belts
  - bulbs
  - slider shoes
  - runners on skis
  - spark plugs
- Replacement parts and/or accessories which are not genuine BOMBARDIER® parts and/or accessories.
- Damage resulting from installation of parts other than genuine BOMBARDIER® parts.
- Damage caused by failure to provide proper maintenance as detailed in the *Operator's Guide*. The labour, parts and lubricants costs of all maintenance services, including tune-ups and adjustments will be charged to the owner.
- Cold seizure and piston scuffing caused by insufficient warm-up.
- Vehicles designed and/or used for racing purposes.
- All optional accessories installed on the vehicle. (The normal warranty policy for parts and accessories, if any, applies).
- Damage resulting from accident, fire or other casualty, misuse, abuse or neglect.
- Damage resulting from operation of the snowmobile on surfaces other than snow.
- Damage resulting from modification to the snowmobile not approved in writing by BOMBARDIER INC.
- Damage incurred by track studs.
- Losses incurred by the snowmobile owner other than parts and labour, such as, but not limited to, transportation, towing, telephone calls, taxis, or any other incidental or consequential damage.

5 - BATTERY WARRANTY:

- 12 consecutive months (Prorated).
- 100% warranty coverage will start on the date the snowmobile was delivered and run to the following April 30th. The remainder of the 12-month period will be pro-rated as follows :
  - 50% from April 30th to December 1st.
  - 40% from December 1st to December 31st.
  - 30% from January 1st to end of warranty.

6 - EXPRESSED OR IMPLIED WARRANTIES

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. Where applicable this warranty is expressly in lieu of all other expressed or implied warranties of BOMBARDIER INC., its distributors and the selling dealer, including any warranty of merchantability or fitness for any particular purpose ; otherwise the implied warranty is limited to the duration of this warranty. However, some states or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply.

Neither the distributor, the selling dealer, nor any other person has been authorized to make any affirmation, representation or warranty other than those contained in this warranty, and if made, such affirmation, representation or warranty shall not be enforceable against BOMBARDIER INC. or any other person.

Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply.

BOMBARDIER INC. reserves the right to modify its warranty policy at any time, being understood that such modification will not alter the warranty conditions applicable to vehicles sold while the above warranty is in effect.

7 - CONSUMER ASSISTANCE

If a servicing problem or other difficulty occurs we suggest that you try to solve it with your selling dealer. Discuss your concern with the Service Manager or Owner. In most cases you will have your concern resolved at this level.

If you still have a service or product complaint, you may contact the Customer Service Department in Valcourt. Write or call to :

Bombardier Inc.
Ski-Doo® Service Department
Valcourt, Quebec Canada J0E 2L0

October 1990

OFTEN ASKED QUESTIONS

Q : Why must my snowmobile be registered at the factory? After all I do have my original invoice as proof of when I purchased my snowmobile.

A : Registration is very important and your dealer must register your snowmobile with Bombardier Inc. Make sure the card has been sent. All of this will allow you to :

a) have warranty work perfomed at any authorized Bombardier dealer in North America. Your registration card will provide the dealer with all the necessary data to complete warranty claim forms.

b) be advised by Bombardier should there be a safety recall or particular warranty campaign.

c) be contacted much faster by the police, the minute they find your stolen vehicle (if such a case occurs).

Q : Why must my snowmobile be registered with the governing body having jurisdiction over snowmobile use?

A : Snowmobile registration has two purposes : In many provinces or states it is mandatory to register a snowmobile in the same way as for a car. It allows the state or province to maintain records of existing snowmobiles and governmental agencies use part of the registration fees for establishing and maintaining trails.

Q : Where can I find information on the lubrication and maintenance of my snowmobile?

A : In this Operator's Guide *provided with the vehicle at the time of delivery.*

Q : Will the entire warranty be voided or cancelled, if I do not operate or maintain my new snowmobile exactly as specified in the *Operator's Guide?*

A : The warranty of the new snowmobile cannot be "Voided" or "Cancelled" if predelevered by an authorized dealer. However, if a particular failure is caused by operation or maintenance other than is shown in the Operator's Guide, *THAT failure may not be covered under warranty. This includes service work performed by the customer, especially the critical adjustments to ignition timing, carburation and oil injection/or oil mixture.*

Q : Would you give some examples of abnormal use or strain, neglect or abuse which may affect warranty?

A : These terms are general and overlap each other in areas. Some specific examples may include : running the machine out of oil, chain failure caused by a lack of lubrication, operating the machine with a broken or damaged part which causes another part to fail, and so on. If you have any specific questions on operation or maintenance, please contact your dealer for advice.

Q : What costs are my responsibility during the warranty period?

A : The customer's responsibility includes all costs of normal maintenance services, non-warranty repairs, accidents and collision damage, as well as oils, and spark plugs, and incidental or consequential damages costs as explained in the warranty.

Q : Are "Genuine" Bombardier replacement parts used in warranty repairs covered by warranty?

A : Yes. When installed by an authorized dealer, any "Genuine" Bombardier part used in warranty repairs assumes the remaining warranty that exists on the machine.

Q : If I sell my snowmobile within the warranty period, will the new owner qualify for the balance of the warranty?

A : Yes, provided the unit has been registered with the manufacturer.

Q : How can I receive the best owner assistance?

A : The satisfaction and goodwill of the owners of Bombardier products are of primary concern to your dealer and Bombardier Inc. Normally, any problems that arise in connection with the sales transaction or the operation of your snowmobile will be handled by your Dealers Sales or Service Departments. It is recognized, however, that despite the best intentions of everyone concerned, misunderstandings will sometimes occur. Frequently, complaints are the result of a breakdown in communications and can quickly be resolved by a member of the dealership management. If the problem already has been reviewed with the Sales Manager or Service Manager, contact the Dealer himself or the General Manager.

We are always pleased to receive your comments on the Ski-Doo snowmobile.

LISTING OF AREA DISTRIBUTORS

CANADIAN DISTRIBUTORS

PROVINCE OF QUEBEC

SERVICE OFFICE
BOMBARDIER INC.
1350 Nobel Street
Boucherville, Quebec J4B 1A1
(514) 655-6121

SALES OFFICE
BOMBARDIER INC.
1350 Nobel street
Boucherville, Quebec J4B 1A1
(514) 655-6121

PROVINCE OF ONTARIO

SERVICE OFFICE
BOMBARDIER INC.
230 Bayview Drive
Barrie, Ontario L4N 5E9
(705) 728-8600

SALES OFFICE
BOMBARDIER INC.
230 Bayview Drive
Barrie, Ontario L4N 5E9
(705) 728-8600

MARITIMES

SERVICE OFFICE
BOMBARDIER INC.
P.O. Box 7060
Riverview, New Brunswick E1B 1V0
(506) 386-6117

SALES OFFICE
BOMBARDIER INC.
1350 Nobel Street
Boucherville, Quebec J4B 1A1
(514) 655-6121

ALBERTA, BRITISH COLUMBIA, MANITOBA, SASKATCHEWAN, YUKON

SERVICE OFFICE
BROOKS EQUIPMENT LIMITED
1616 King Edward Street
P.O. Box 985
Winnipeg, Manitoba R3C 2V8
(204) 633-7247

SALES OFFICE
BROOKS EQUIPMENT LIMITED
1616 King Edward Street
P.O. Box 985
Winnipeg, Manitoba R3C 2V8
(204) 633-7247

NEWFOUNDLAND, LABRADOR

SERVICE OFFICE
CHARLES R. BELL LIMITED
Riverside Drive P.O. Box 1050
Corner Brook, Newfoundland A2H 6J3
(709) 634-3533

SALES OFFICE
CHARLES R. BELL LIMITED
Riverside Drive P.O. Box 1050
Corner Brook, Newfoundland A2H 6J3
(709) 634-3533

NORTH-WEST TERRITORIES, FRANKLIN DISTRICT & KEEWATIN

SERVICE OFFICE
THE NORTH WEST CO. INC.
77 Main Street
Winnipeg, Manitoba R3C 2R1
(204) 934-1566

SALES OFFICE
THE NORTH WEST CO. INC.
77 Main Street
Winnipeg, Manitoba R3C 2R1
(204) 934-1566

AMERICAN DISTRIBUTORS

EAST-CENTRAL, CENTRAL REGIONS

SERVICE OFFICE

BOMBARDIER CORPORATION
4418 Grand Avenue
Duluth, MN 55807 U.S.A.
(218) 628-2881

OR

BOMBARDIER CORPORATION
7575 Bombardier Court
P.O. Box 8035
Wausau, WI
54402-8035
U.S.A.
(715) 842-8886

SALES OFFICE

BOMBARDIER CORPORATION
7575 Bombardier Court
P.O. Box 8035
Wausau, WI 54402-8035 U.S.A.
(715) 842-8886

WESTERN REGION

SERVICE OFFICE

BOMBARDIER CORPORATION
P.O. Box 1572
Golden, CO 80402-1572 U.S.A.
(303) 232-5284

SALES OFFICE

BOMBARDIER CORPORATION
7575 Bombardier Court
P.O. Box 8035
Wausau, WI 55402-8035 U.S.A.
(715) 842-8886

EASTERN REGION

SERVICE OFFICE

BOMBARDIER CORPORATION
East Main Street Road
Malone, NY 12953 U.S.A.
(518) 483-4411

OR

BOMBARDIER INC.
P.O. Box 7060
Riverview NB E1B 1V0
CANADA
(506) 386-6117

SALES OFFICE

BOMBARDIER CORPORATION
East Main Street Road
Malone, NY 12953 U.S.A.
(518) 483-4411

ALASKA

SERVICE OFFICE

THE BRYANT CORPORATION
NE. 190th & Woodinville
Snohomish Road
P.O. Box 389
Woodinville, Wa 98072 U.S.A.
(206) 483-0110

SALES OFFICE

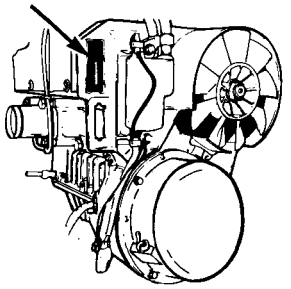
THE BRYANT CORPORATION
NE. 190th & Woodinville
Snohomish Road
P.O. Box 389
Woodinville, Wa 98072 U.S.A.
(206) 483-0110

HOW TO IDENTIFY YOUR SNOWMOBILE

The main components of your snowmobile (engine, track 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.

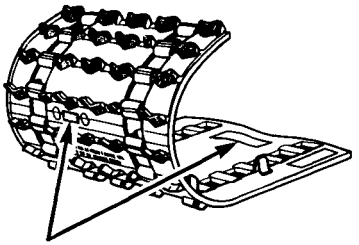
NOTE : We strongly recommend that you take note of all the serial numbers on your vehicle and supply them to your insurance company.

Engine serial number



A007 002 001

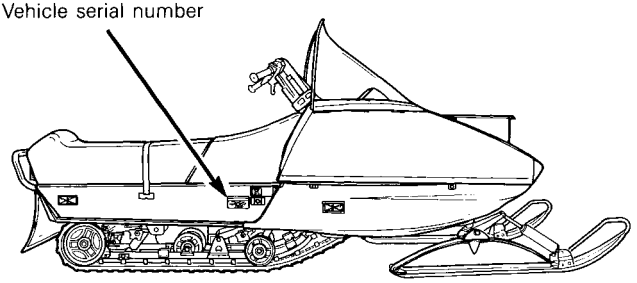
Track serial number



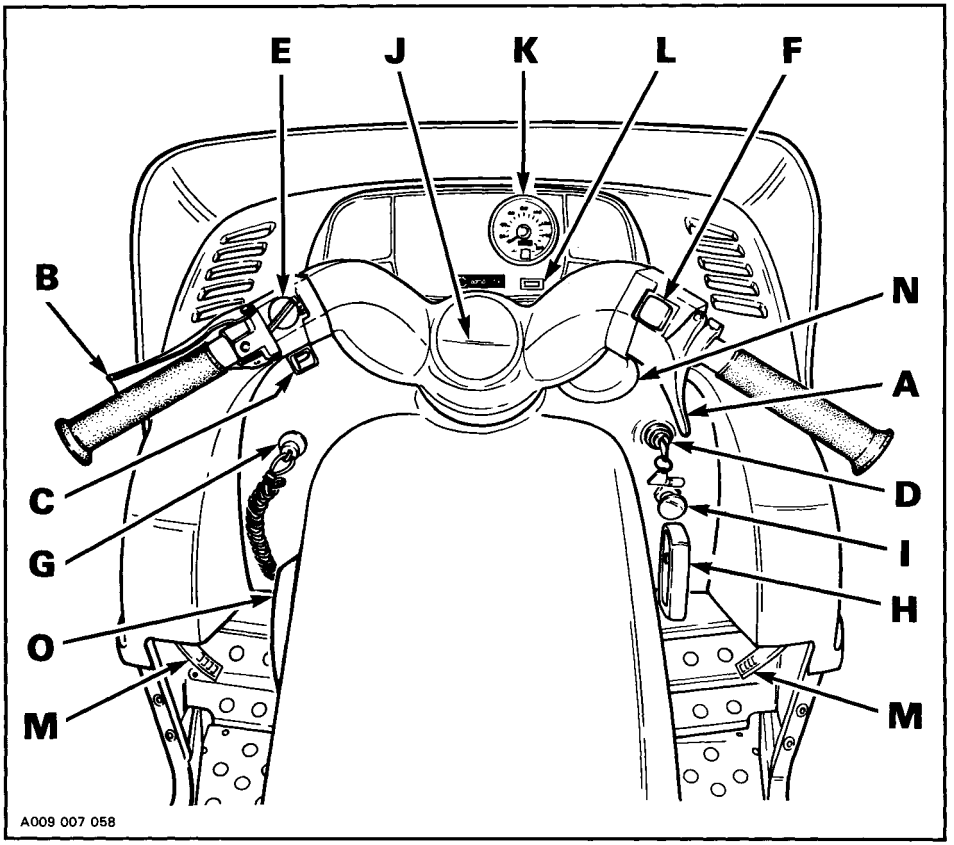
One of these locations

A009 005 002

Vehicle serial number



A009 007 057



A) Throttle Lever
B) Brake Lever
C) Parking Brake Button
D) Ignition Switch
E) Headlamp Dimmer Switch
F) Emergency Cut-Out Switch
G) Tether Cut-Out Switch
H) Rewind Starter Handle
I) Primer Button
J) Adjustable Steering Handle
K) Speedometer/Odometer
L) Injection Oil Level Pilot Lamp (red)
M) Hood Opening
N) Fuel Tank Cap
O) Fuel Level Indicator

A) 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.

B) Brake Lever

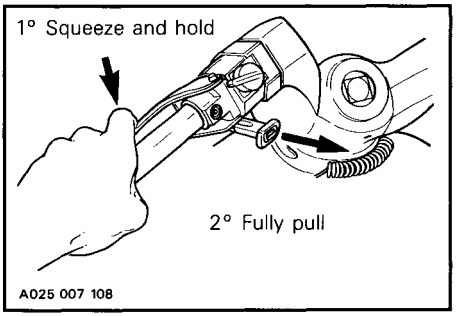
Located on the left side of handlebar. When compressed, the brake is applied. When released, it automatically returns to its original position. Braking effect is proportional to the pressure applied on the lever and to the type of terrain and its snow coverage.

C) Parking Brake Button

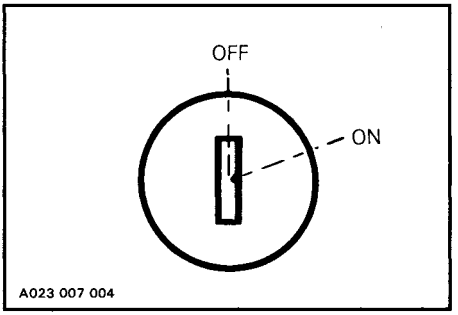
Located on left side of handlebar. Parking brake should be used whenever vehicle is parked.

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

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



D) Ignition Switch

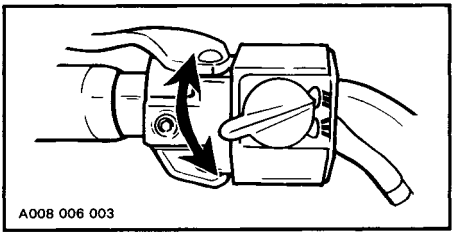


Key operated two-position switch. To start engine, first turn key to ON position. To stop engine, turn key to OFF position.

The lights are automatically ON whenever the engine is running.

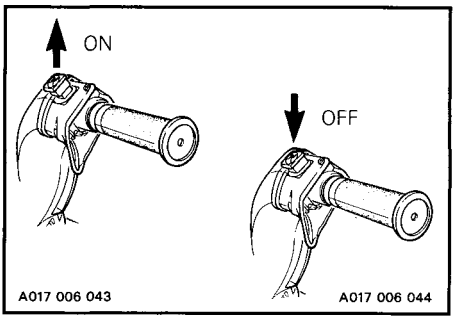
E) Headlamp Dimmer Switch

The dimmer switch allows correct selection of headlamp beam. To obtain high or low beam simply flick switch.



F) Emergency Cut-Out Switch

A push-pull type switch located on the 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 start engine, button must be at the upper ON position.



The driver of this vehicle should familiarize himself with the function of this device by using it several times on first outing. Thereby being mentally prepared for emergency situations requiring its use.

◆ **WARNING : If the switch has been used in an emergency situation the source of malfunction should be determined and corrected before restarting engine.**

G) Tether Cut-Out Switch

A pull switch located on left side of console. Attach tether cord to wrist or other convenient location then snap tether cut-out cap over receptacle before starting engine.

If emergency engine **shut off** is required, completely pull cap from safety switch and engine power will be automatically **shut off**.

◯ NOTE : The cap must be installed on the safety switch at all times in order to operate the vehicle.

◆ **WARNING : If the switch is used an emergency situation the source of malfunction should be determined and corrected before restarting engine.**

H) Rewind Starter Handle

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

I) Primer Button

Pull and push button two or three times to start a cold engine. Not necessary when engine is warm.

J) Adjustable Steering Handle

Steering handle height is adjustable, see an authorized dealer.

K) Speedometer/Odometer

The speedometer is linked directly to the drive axle. Direct-reading dial indicates the speed of the vehicle in kilometers or in miles per hour. Odometer records the total distance travelled in kilometers or in miles.

L) Injection Oil Level Pilot Lamp (Red)

Will light up when injection oil level is low. Check level and replenish as soon as possible.

▼ **CAUTION : Do not run engine out of oil. Serious engine damage will occur.**

◯ NOTE : Whenever brake lever is actuated, oil injection level pilot lamp should light up. If not replace lamp.

M) Hood Opening

Pull down the latches to unlock the hood from the anchors.

NOTE : Always lift hood gently up until stopped by restraining device.

WARNING : It is dangerous to run an engine with the hood opened, unfastened or removed.

N) Fuel Tank Cap

Unscrew to fill up tank then fully tighten.

WARNING : Never use open flame to check fuel level.

O) Fuel Level Indicator

Mounted on left side of the fuel tank, it provides visual indication of fuel level in tank.

Seat Strap

Located on middle of seat. Provides a grip for the rear passenger.

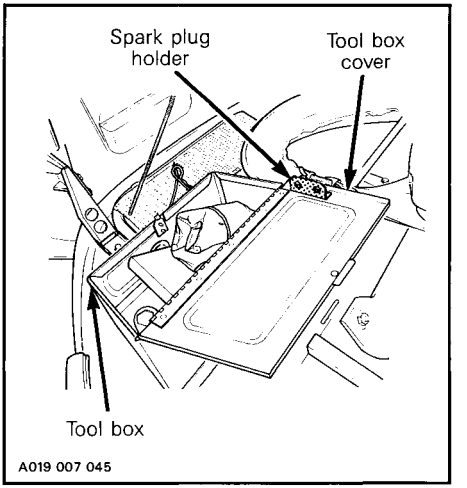
Tool Box

Located under the hood. To gain access, tilt hood. Ideal location for spare spark plugs, rope, first aid kit, flashlight, etc.

Spark Plug Holder

To keep spark plugs dry and prevent shocks that might affect the adjustment or break them, a holder is provided in the inside of the tool box cover.

Fully tighten them into the holder.



Accessories

Some optional accessories might be added to your vehicle such as speedometer, tachometer, hitch, electric starter, etc., if not standard on your vehicle. Ask an authorized dealer for more information.

NOTE : During the break-in period, engine requires a richer fuel/oil mixture. Refer to break-in section.

Recommended Fuel

Use regular unleaded gasoline, available from most service stations or gasohol containing less than 10% of ethanol.

WARNING : Never top up the fuel tank before placing the vehicle in a warm area. As temperature increases, fuel expands and might overflow. Fuel is flammable and explosive under certain conditions. Always handle in a well ventilated area. Do not smoke or allow open flames or sparks in the vicinity. If fumes are noticed while driving, the cause should be determined and corrected without delay. Never add fuel while engine is running. Avoid skin contact with fuel when temperature is below freezing point. Always wipe off any fuel spillage from the vehicle.

CAUTION : Never experiment with other fuels or fuel ratios. The use of fuel containing methanol, or similar products including naphta is not recommended. The use of unrecommended fuel can result in vehicle performance deterioration and damage to critical parts in the fuel system and engine components.

Recommended Oil

Use BOMBARDIER Snowmobile Injection Oil (P/N 496 0133 00 - 1 liter) available from the authorized dealer. This type of oil will flow at temperatures as low as minus 40°C (−40°F).

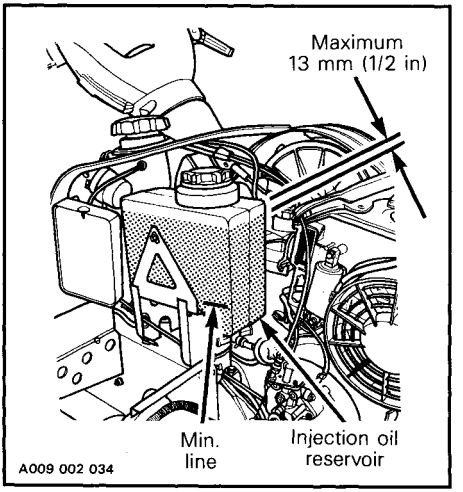
If BOMBARDIER Snowmobile Injection Oil is unavailable, substitute with BLIZZARD Oil (P/N 496 0135 00).

CAUTION : Never mix brands of two-cycle oil as serious chemical reaction can cause severe damage. Never use outboard or straight mineral oils.

Oil Injection System

Always maintain a sufficient amount of BOMBARDIER Snowmobile Injection Oil in the injection oil reservoir.

CAUTION : Never allow oil level to drop below min. line.



CAUTION : Check level and refill every time you refuel. Do not overfill. Wipe off any spillage.

NOTE : For initial engine break-in, add 500 mL (18 oz) of BLIZZARD oil or the same quantity of BOMBARDIER Injection Oil to the first full filling of fuel tank.

BREAK-IN PERIOD

Engine

With Rotax® snowmobile engines, a break-in period is required before running the vehicle at full throttle. Engine manufacturer's recommendation is 10 to 15 operating hours. During this 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.

NOTE : To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz) of BLIZZARD Oil (P/N 496 0135 00) or the same quantity of BOMBARDIER Injection Oil (P/N 496 0133 00) should be added to fuel for the first full filling of fuel tank.

CAUTION : Remove and clean spark plugs after engine break-in.

Belt

A new drive belt requires a break-in period of 25 km (15 miles).

10 - Hour Inspection

As with any precision piece of mechanical equipment, we suggest that after the first 10 hours of operation or 30 days after the purchase, whichever comes first, your vehicle be checked by an authorized dealer. This inspection will give you the opportunity to discuss the unanswered questions you may have encountered during the first hours of operation.

The 10-hour inspection is at the expense of the vehicle owner.

10-HOUR INSPECTION CHECKLIST	✓
Engine timing	
Fan belt tension	
Spark plugs condition (remove and clean)	
Carburetor adjustment	
Oil injection pump adjustment	
Engine head nuts	
Drive pulley screw (torque)	
Engine mount nuts	
Muffler attachment	
Chaincase oil level	
Injection system oil level	
Brake operation and lining condition	
Ski alignment/runner condition	
Handlebar bolts, retorque to 26 N•m (19 lbf•ft)	
Pulley alignment and drive belt condition	
Track condition, tension and alignment	
Lubrication (steering, suspension, etc.)	
Electrical wiring (wiring and connections)	
Tighten all loose bolts, nuts and linkage	
Operation of lighting system (HI / LO beam, brake light, etc.), test operation of emergency cut-out switch and tether switch	

We recommend that you have your dealer sign this inspection list.

Date of 10-hour inspection

Dealer signature

PRE-START CHECK

Check Points

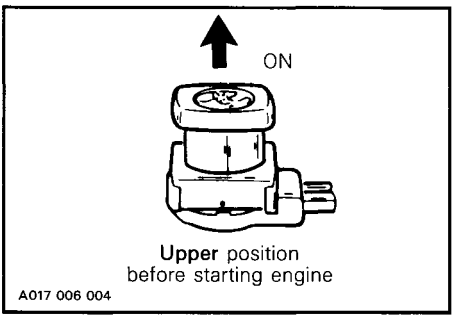
- ACTIVATE THE THROTTLE CONTROL LEVER SEVERAL TIMES to check that it operates easily and smoothly. It must return to idle position when released.
- Check that the skis and the track are not frozen to the ground or snow surface and that steering operates freely.
- Activate the brake control lever and make sure the brake fully applies before the brake control lever touches the handlebar grip. It must fully return when released.
- Check injection oil level.
- Check fuel level.
- Verify that the path ahead of the vehicle is clear of bystanders and obstacles.
- Clean and check operation of the headlight, taillight and brake light.

◆ **WARNING : Only start your snowmobile once all components are checked and functioning properly.**

STARTING PROCEDURE

Test throttle control lever operation.

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



Upper position
before starting engine

A017 006 004

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

Activate the primer two or three times.

◯ **NOTE :** Priming is not necessary when engine is warm. To prime, activate button until a pumping resistance is felt. This indicates that fuel has reached primer valve. From this point, pump two or three times to inject fuel in intake manifold. After priming, ensure that primer button is pushed all the way in to avoid fuel from draining.

▼ **CAUTION : Use of ether and/or other types of fluid as a starting aid can cause damage to engine components and is not recommended.**

On models equipped with an electric starter, follow either manual or electric starting procedure.

Manual Starting

Insert the key in the ignition switch and turn to ON position.

Grasp manual starter handle firmly and pull slowly until a resistance is felt then pull vigorously. Slowly release the rewind starter handle.

◆ **WARNING : Do not apply throttle while starting.**

Before Riding

Check operation of the emergency cut-out switch and tether switch. Restart engine.

◆ **WARNING : If engine does not shut-off when applying the emergency cut-out switch and/or when pulling the tether cut-out cap, stop the engine by turning OFF the ignition key. Do not operate the vehicle further, see an authorized dealer.**

Allow the engine to warm before operating at full throttle.

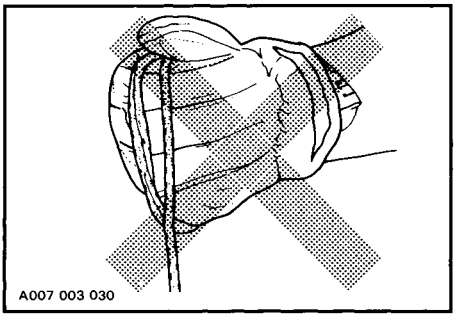
◯ **NOTE :** Let engine idling three to five minutes for warm-up.

◆ **WARNING : This snowmobile is propelled by a revolving track which must be partially exposed for proper operation. Serious injuries may be caused by operator carelessness, resulting in hands, feet or clothing becoming entangled in the track.**

Emergency Starting

Should the rewind starter rope fray and break, the engine can be started with the emergency starter rope supplied with the tool kit.

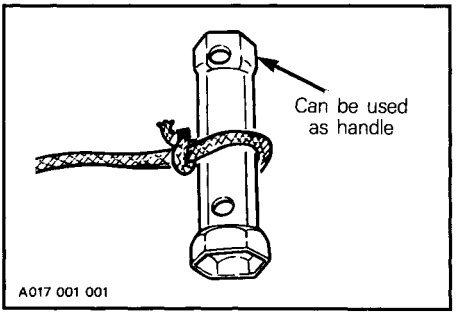
◆ **WARNING : Do not wind starting rope around your hand. Hold rope by the handle only.**



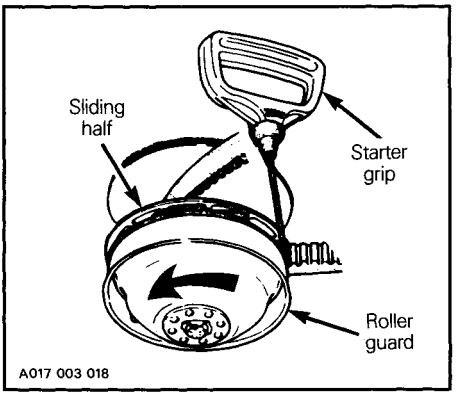
◆ **WARNING : Do not start the vehicle by the drive pulley unless it is a true emergency situation. Have the vehicle repaired as soon as possible.**

Attach emergency rope to any available handle.

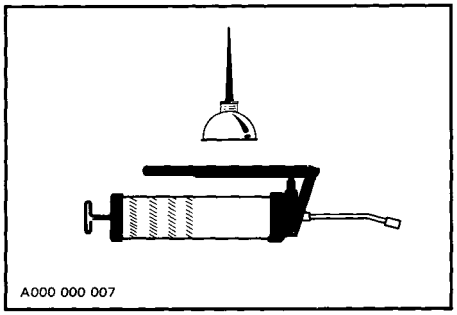
◯ **NOTE :** The spark plug socket can be used as an emergency starter grip.



Wind the emergency rope tightly around the drive pulley between the sliding half and the roller guard. Wind it so that when pulled, pulley will rotate counter-clockwise (same direction as the track).



Start engine as per usual manual starting.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Frequency

Routine maintenance is necessary for all mechanized products, and snowmobiles are no exception. A weekly vehicle inspection greatly contributes to the life span of the snowmobile.

It is recommended that the steering system and suspension be lubricated monthly or every 40 hours of operation. If the vehicle is operated in wet snow or in severe conditions these items should be lubricated more frequently.

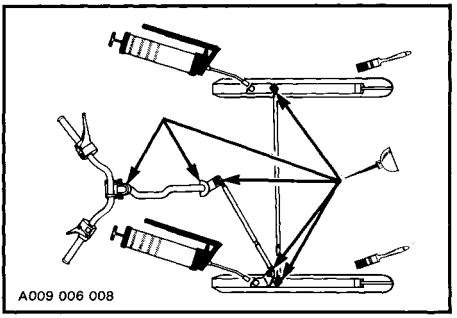
NOTE : When lubricating through grease fittings, slowly pump grease gun until grease appears at joints. Always use low temperature grease (P/N 413 7061 00).

WARNING : Only perform such procedures as detailed in this guide. It is recommended that dealer assistance be periodically obtained on other components/systems not covered in this guide. Unless otherwise specified, engine should be turned OFF for all lubrication and maintenance procedures. Do not lubricate throttle and/or brake cables and housings.

Steering Mechanism

Lubricate the ski legs at grease fittings until new grease appears at joints. Coat spring slider cushion with grease. Oil spring coupler bolts.

Oil ball joints and steering column bushings.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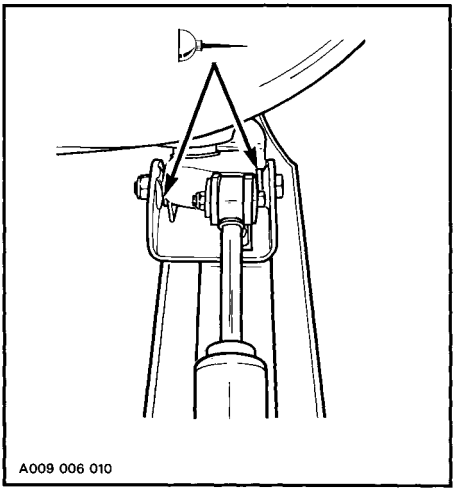
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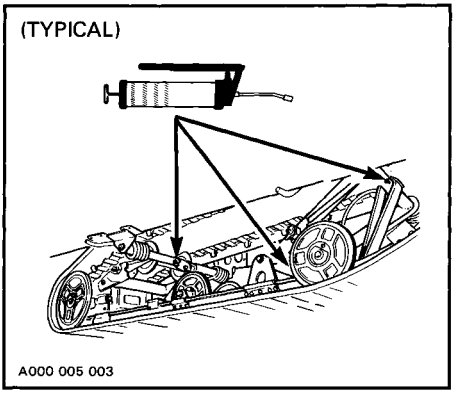
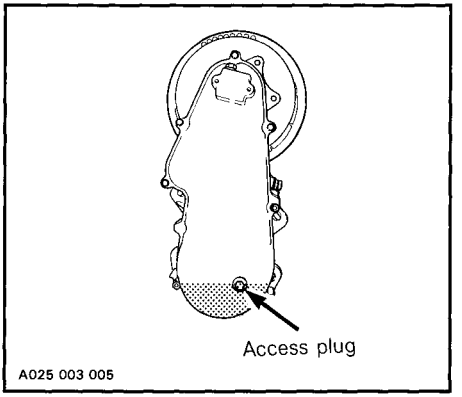
Slide Suspension

Lubricate front and rear arms at grease fittings until grease appears at joints. Use low temperature grease only.



Chaincase Oil Level

Check the oil level by removing the level access plug. The oil level should be equal with the bottom of the hole. Refill as required using Bombardier chaincase oil (P/N 413 8019 00 - 250 mL (9 oz)).

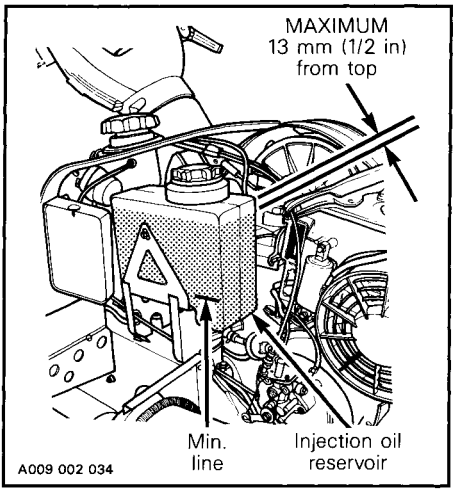


NOTE : The chaincase oil capacity is approximately 250 mL (9 oz).

Oil Injection System

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

CAUTION : Never allow oil level to drop below min. line.



CAUTION : Check level and refill every time you refuel. Do not overfill. Wipe off any spillage.

Driven Pulley

Remove belt guard and slip off drive belt. Open the driven pulley, (push and twist sliding half.)

Thoroughly clean the driven pulley shaft.

Apply a light film of low-temperature grease on the shaft. Always wipe off surplus.

NOTE : Activate the sliding half several times to distribute lubricant over full length of shaft. Be careful that lubricant does not get on inner halves of pulley.

Brake Caliper

See an authorized dealer for proper lubrication of brake caliper ratchet wheel.

WARNING : Do not lubricate throttle and/or brake cables and housings.

MAINTENANCE

The following Maintenance Chart indicates regular servicing sheduled to be performed by you or an authorized dealer. If these services are performed as suggested, your snowmobile will provide many years of use.

NOTE : Shadow areas in chart indicate recommended frequency.

WARNING : Only perform such procedures as detailed in this guide. It is recommended that dealer assistance be periodically obtained on other components/systems not covered in this guide. Unless otherwise specified, engine should be turned OFF for all lubrication and maintenance procedures.

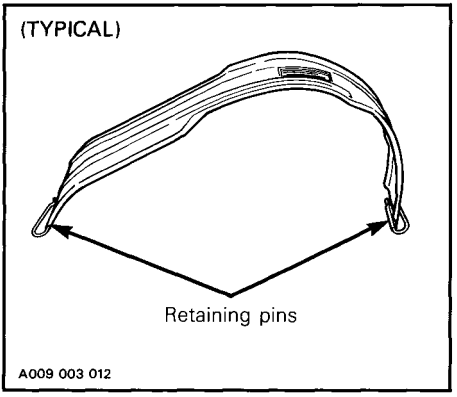
MAINTENANCE CHART	Weekly or every 240 km (150 m.)	Monthly or every 800 km (500 m.)	Once a year or every 3200 km (2000 m.)	Refer to page
Drive belt condition	■			27
Brake condition	■			28
Brake adjustment		■		28
Spark plugs		■		29
Suspension condition		■		29
Suspension stopper strap condition			■	29
Suspension adjustment	(as required)			30
Track condition		■		32
Track tension and alignment	(as required)			33
Drive pulley		■		34
Steering mechanism		■		35
Ski and runner wear and condition	■			35
Steering adjustment		■		35
Muffler attachment		■		36
Engine head nuts			■	36
Engine mount nuts			■	37
Carburetor adjustment			■	37
Injection oil filter condition		■		38
Oil injection pump adjustment			■	39
Fan belt		■		39
Headlamp beam aiming			■	39
General inspection		■		40

NOTE : The 10-hour inspection is a very important part of proper service and maintenance.

Belt Guard Removal

WARNING : Engine should be running only when belt guard is secured in place.

1. Remove ignition key.
2. Tilt the hood.
3. Pull out both retaining pins on ends of belt guard.

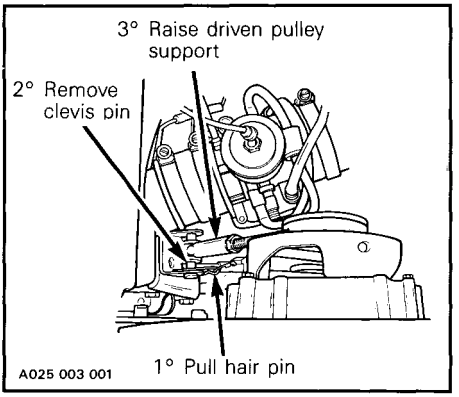


4. Lift and remove the belt guard.

Drive Belt Removal and Installation

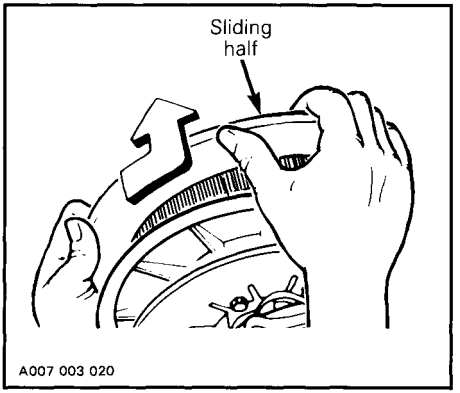
WARNING : Never start or run engine without the drive belt installed. Running an unloaded engine is dangerous.

1. Remove the belt guard.
2. Unlock and raise driven pulley support.

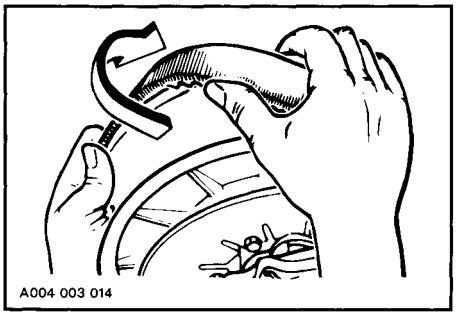


NOTE : Removal and installation of drive belt is easier when driven pulley is held with parking brake on.

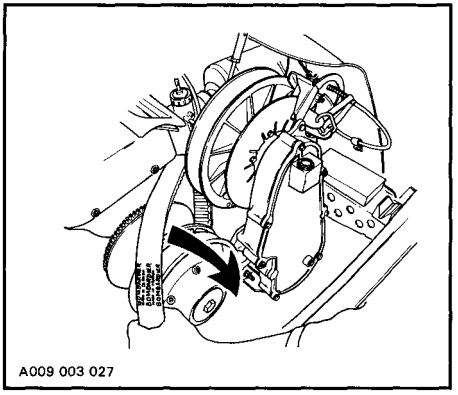
3. Open the driven pulley by twisting and pushing the sliding half. Hold in fully open position.



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

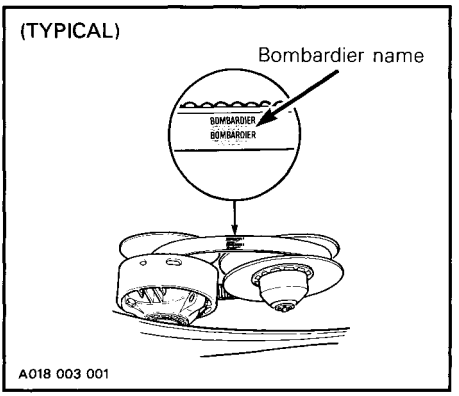


5. Slip the belt out from the drive pulley and remove completely from vehicle.



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

Maximum drive belt life span is achieved when belt runs in the same direction. Always install drive belt so Bombardier name can be read when facing pulleys.



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

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 distorted spare belt. Contact an authorized dealer.

Check the drive belt width. Replace if less than 32 mm (1-1/4 in).

New Drive Belt

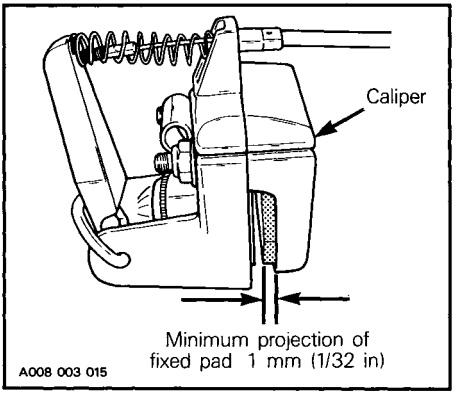
When installing a new drive belt, break-in period of 25 km (15 miles) is strongly recommended.

NOTE : Always store a spare belt in a manner to allow its natural shape to be maintained.

Brake Condition

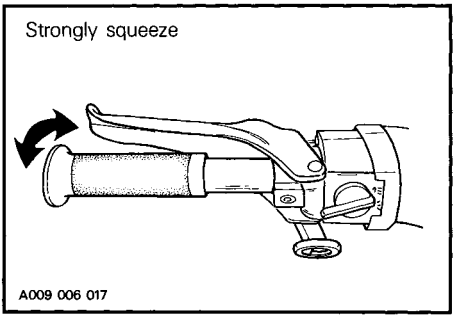
The brake mechanism on your snowmobile is an essential safety device. Keep this mechanism in proper working condition. Above all, do not operate the snowmobile without an effective brake system.

WARNING : Brake pads must be replaced when fixed pad projects only by 1 mm (1/32 in) from caliper. Replacement must be performed by an authorized dealer.

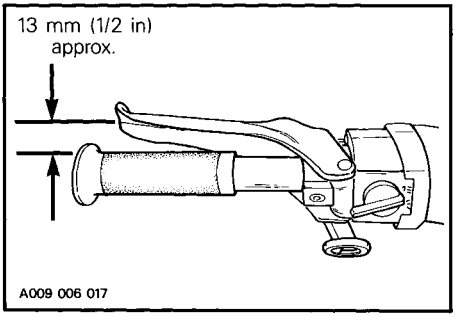


Brake Adjustment

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

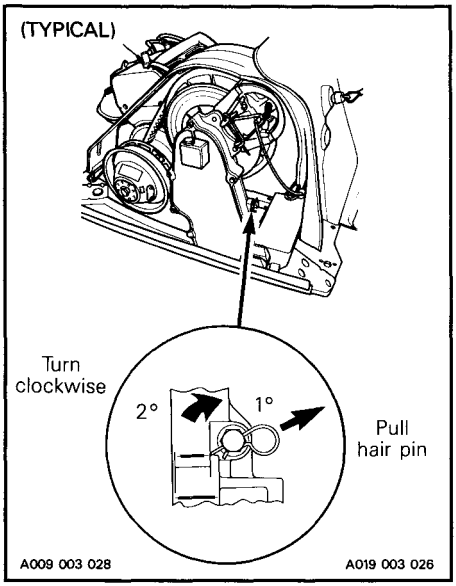


After the adjustment, brake should apply fully when lever is approximatively 13 mm (1/2 in) from handlebar grip. If not, do not tamper with the brake, contact an authorized dealer.



Drive Chain Tension

Run vehicle forward so that true free-play can be taken. To adjust, remove the adjusting screw hair pin. Fully tighten adjusting screw **by hand** then back off only far enough for hair pin to engage in locking hole and install hair pin.



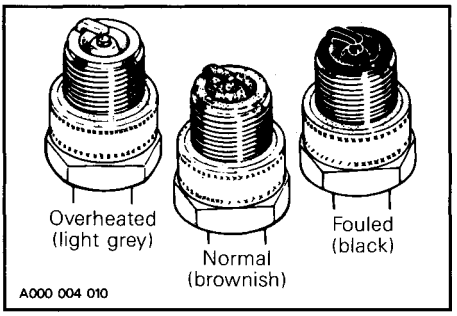
WARNING : If specified free-play is not reached with the tensioner screw fully tightened, consult an authorized dealer.

Spark Plugs

Disconnect the spark plug wires and remove the spark plugs.

Check the condition of the plugs.

- A brownish tip reflects ideal conditions (carburetor adjustments, spark plug heat range, etc., are correct).
- A black insulator tip indicates fouling caused by : carburetor idle speed mixture and/or high speed mixture too rich, incorrect oil injection pump adjustment, wrong type of spark plug (heat range), or excessive idling.
- A light grey insulator tip indicates a lean mixture caused by : carburetor high speed mixture adjusted too lean, wrong spark plug heat range, oil injection pump adjustment, or a leaking seal or gasket.



CAUTION : If spark plug condition is not ideal, contact your authorized dealer.

Check spark plug gap using a wire feeler gauge. It should be 0.45 mm (.018 in).

Reinstall spark plugs and connect wires.

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.

Stopper Strap Condition

Inspect strap for wear and cracks, bolt and nut for tightness. If loose inspect holes for deformation. Replace as required. Torque nut to 10 N•m (89 lbf•**in**).

Suspension Adjustment

The rear suspension is adjustable. It includes four adjustment blocks - two at front and two at rear - and each gives four positions of adjustment. There is also an adjustable stopper strap.

The front portion is adjustable for surface condition and steering effects.

The stopper strap is adjustable for vehicle weight transfer control.

The rear portion is adjustable for driver's weight.

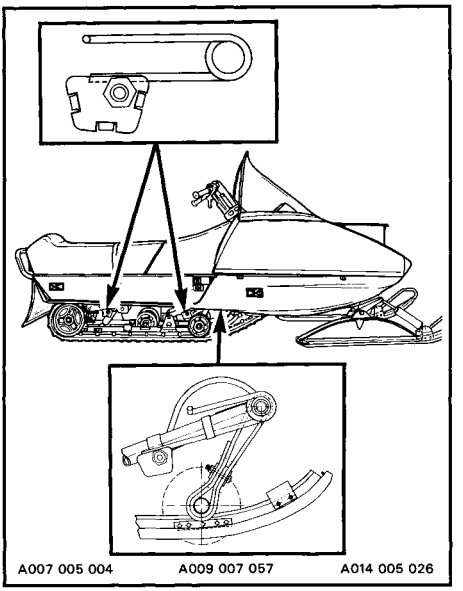
Choice of suspension adjustments depends on carrying load, driver's weight, personal preference, riding speed and field condition.

Block position	Soft ——→ Stiff
Operator's weight	Light ——→ Heavy
Riding speed	Low ——→ High
Field condition	Flat ——→ Bumpy

Slight suspension bottoming occuring under the worst riding conditions indicates a good choice of preload adjustment (block position).

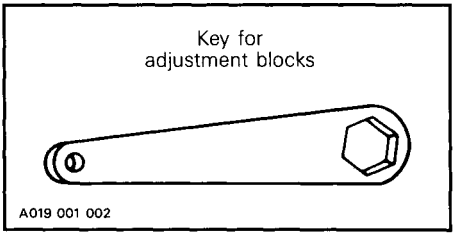
Optional different rate springs are available for your convenience. Ask an authorized dealer for more information.

Suspension is adjusted as outlined in the following lines.

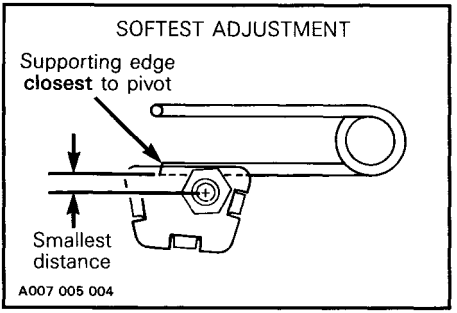


Adjustment Block Tool

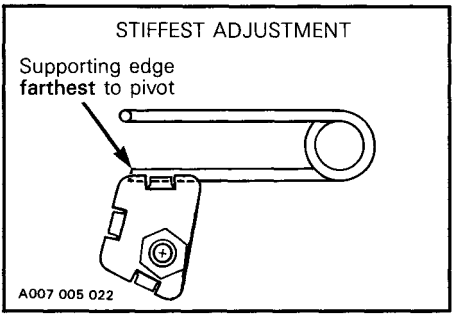
To adjust rear suspension adjustment blocks, use the special key supplied in tool kit.



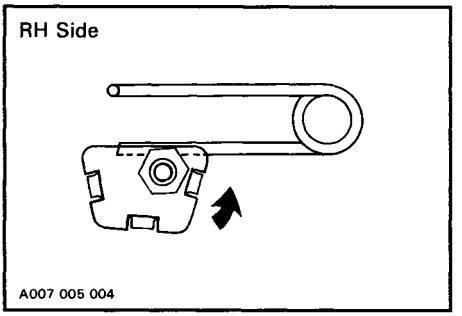
Turning adjustment block moves edges of block supporting spring rod. The softest adjustment is reached when the supporting edge of block is the closest to pivot of block.

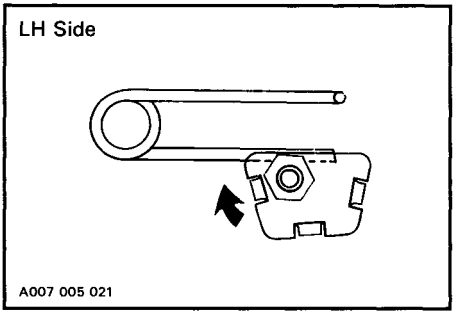


The stiffest adjustment is reached when the supporting edge of block is the farthest to pivot of block.



▼ CAUTION : Always turn the left side adjustment block in a clockwise direction, the right side block in a counterclockwise direction. Left and right adjustment blocks must always be set at the same position.





Rear Suspension Adjustment

Front Adjustment Blocks

When the adjustment blocks are set at the softest adjustment, more vehicle weight is distributed to the skis thus giving a more positive steering. Track lead angle will be reduced in this position.

Steering stiffness can be reduced by setting adjustment blocks at their stiffest adjustment.

Rear Adjustment Blocks

The position of adjustment blocks can be adjusted as follows :

DISTANCE BETWEEN BLOCK PIVOT AND ITS SUPPORTING EDGE	DRIVER'S WEIGHT kg (lb)	
	FROM	UP TO
Closest	—	68 (150)
Intermediate	68 (150)	82 (180)
Farthest	82 (180)	—

Stopper Strap

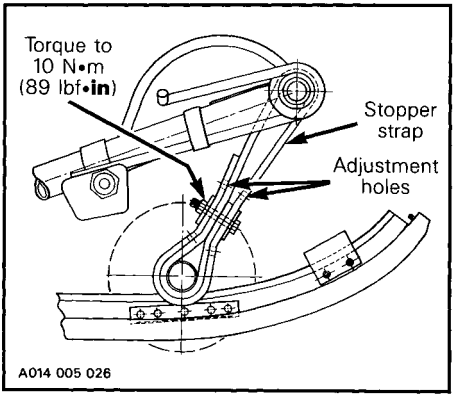
The function of the suspension stopper strap is to control the transfer of vehicle weight during acceleration and to control track lead angle.

The longer the belt, the more the weight will be transfered to the track to provide a better traction. The shorter the belt, the lesser the weight transferred to the track, thus maintaining a more positive direction.

The longer the belt, the greater will be the track lead angle. A shorter belt will reduce track lead angle which may help when negociating a particular snow condition.

Adjustment holes on the stopper strap allow to adjust it according to driver's requirements, field and/or snow conditions.

◆ **WARNING : Always torque the nut to 10 N•m (89 lbf•in).**



▼ **CAUTION : Whenever stopper strap length is changed, track tension must be readjusted to prevent any possibility of operating vehicle with a too loose or a too tight track tension.**

Deep Snow Operation

When operating the vehicle in deep snow, it may be necessary to vary position of adjustment blocks, shock absorber spring cams, stopper strap and/or driver's 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.

Track Condition

Lift the rear of the vehicle 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 dealer.

◆ **WARNING : Do not operate a snowmobile with a cut, torn or damaged track.**

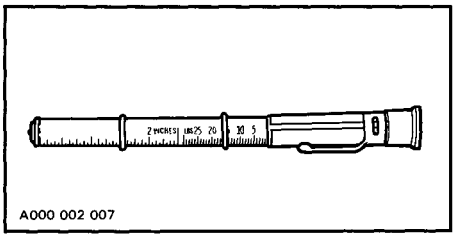
Track Tension and Alignment

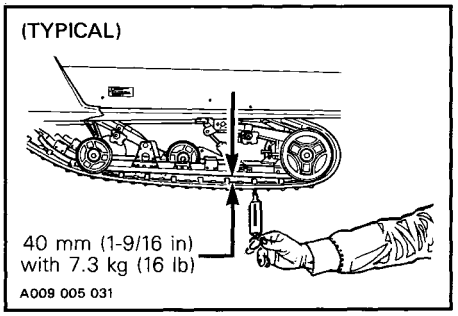
Tension

Lift the rear of vehicle and support with a mechanical stand. Allow the suspension to extend normally and check gap half-way of slider shoe.

The gap should be 13 mm (1/2 in) between the slider shoe and the bottom inside of the track.

NOTE : A belt tension tester (P/N 414 3482 00) may be used to measure deflection as well as force applied.

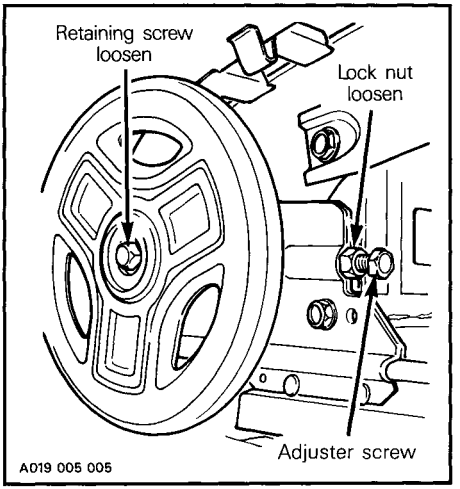




If the track tension is too loose, the track will have a tendency to thump.

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

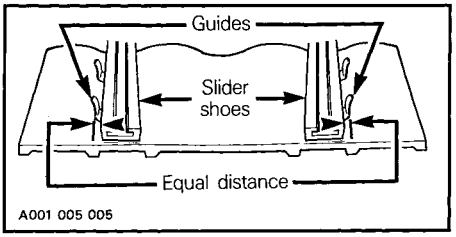
If adjustment is necessary, loosen the rear idler wheel retaining screw and the adjusting screw lock nut ; then loosen or tighten the adjusting screw located on the inner side of the rear idler wheels. If correct tension is unattainable, contact an authorized dealer.



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

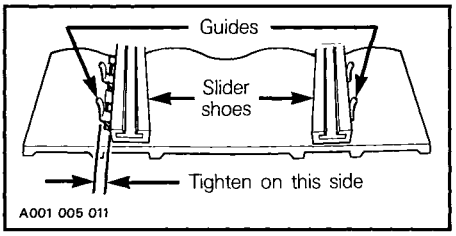
Alignment

Start the engine and accelerate slightly so that track turns **slowly**. This must be done in a short period of time (one to two minutes). Check that the track is well centered (equal distance on both sides between edges of track guides and slider shoes).

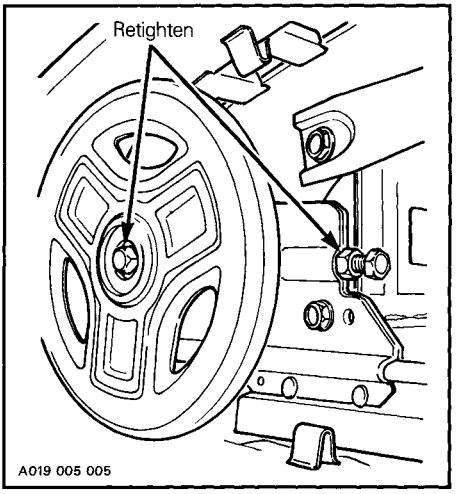


WARNING : Before checking track alignment, ensure that the track is free of all particles which could be thrown out while track is rotating. Keep hands, tools, feet and clothing clear of track. Ensure no one is standing in close proximity to the vehicle.

To correct, **stop the engine**, loosen the rear idler wheels retaining screws then loosen the lock nuts and tighten the adjuster bolt on side where the slider shoe is the farthest from the track insert guides.



Tighten lock nuts and the idler wheel retaining screws.



Restart engine, rotate track **slowly** and recheck alignment.

Drive and Driven Pulleys

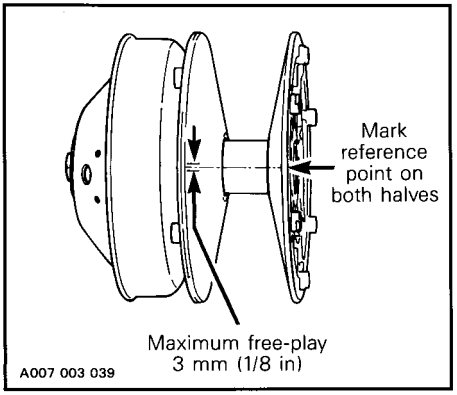
These are complex mechanisms which operate at high rotational speeds. Each pulley is dynamically balanced at the factory. Any tempering by the owner may disrupt this precision balancing and create an unstable condition.

Pulleys are factory-adjusted to provide the best performance under most riding conditions. However certain conditions, such as deep snow, high altitude, pulling a load, etc. may require different adjustments. Contact an authorized dealer for adjustment.

WARNING : The drive and driven pulleys must be inspected and cleaned by an authorized dealer at least annually.

Drive Pulley

Inspect the bushing condition by checking the free-play of the sliding half pulley. This is achieved by restraining the inner half and checking if the sliding half moves in the direction of the arrows more than 3 mm (1/8 in). If so, contact an authorized dealer.

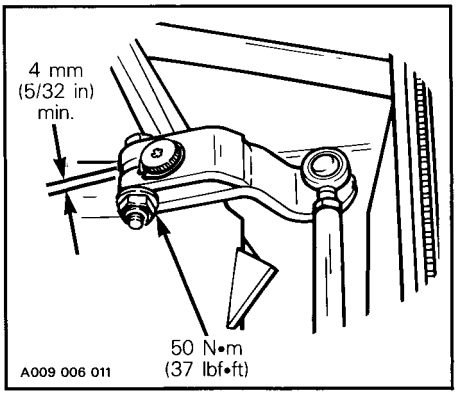


Steering Mechanism

Inspect the steering mechanism for tightness of components (steering arms, tie rods, ball joints, spring coupler bolts, etc.) or wear. If necessary, replace or retighten.

◆ **WARNING : Check the condition of skis, ski runners and leaf springs, replace if weak. Replace runners if they are more than half worn.**

Torque steering arm bolt as illustrated below making sure to keep a minimum gap of 4 mm (5/32 in) between lugs.

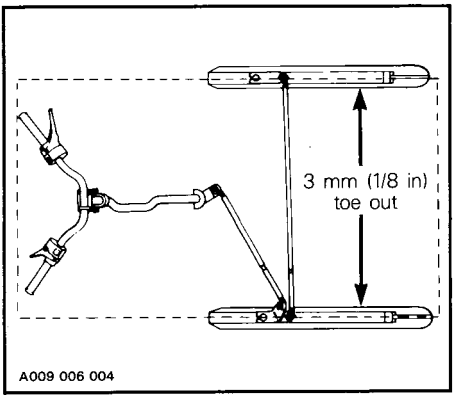


Steering Adjustment

Skis should have a toe out of 3 mm (1/8 in).

To check, measure the distance between each ski at the front and rear of the leaf springs. The front distance should be 3 mm (1/8 in) more than the rear when the handlebar is horizontal.

IMPORTANT : Close the front of the skis manually to eliminate all slack from the steering mechanism using a rubber strap.



If adjustment is required :

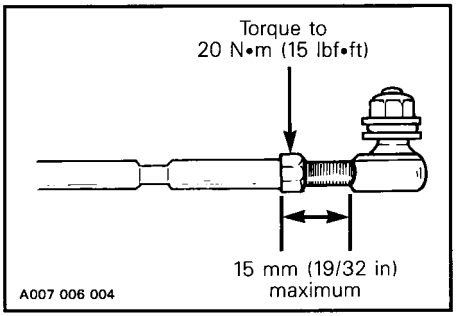
Loosen the lock nuts of the longest tie rod. Turn the tie rod manually until the skis are properly aligned. Firmly re-tighten the lock nuts.

The handlebar should also be horizontal when the skis are pointed toward the front.

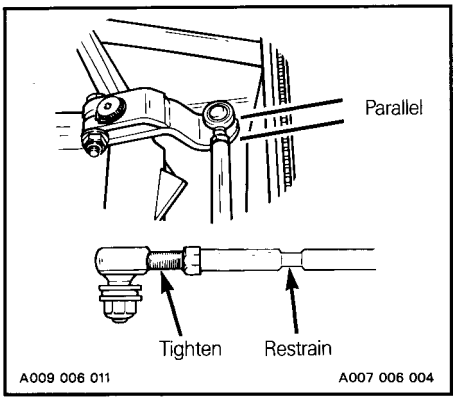
To adjust :

Loosen the lock nuts of the shortest tie rod. Turn the tie rod manually until the handlebar is horizontal. Retighten the lock nuts firmly.

◆ **WARNING : The maximum ball joint external threaded length not engaged in the tie rod end must not exceed 15 mm (19/32 in). Torque lock nut to 20 N•m (15 lbf•ft).**



◆ **WARNING : The ball joint socket must run parallel with the steering arm. The tie rod must be restrained when tightening the tie rod end lock nuts.**



Exhaust System

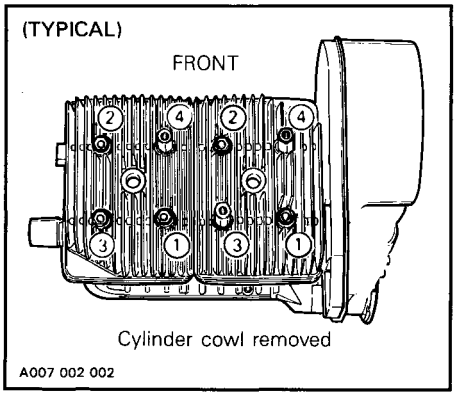
Replace any components which have developed cracks or holes. Ensure muffler is properly secured in its mount and the ends of retaining springs have not been over-stretched. The tail pipe of the muffler should be centered with the exit hole in the bottom pan.

▼ **CAUTION : Do not operate vehicle with muffler disconnected otherwise serious engine damage will occur.**

Engine Head Nuts

With the engine cold, check that the engine head nuts are tight and equally torqued to 22 N•m (16 lbf•ft).

Respect tightening sequence as follows :



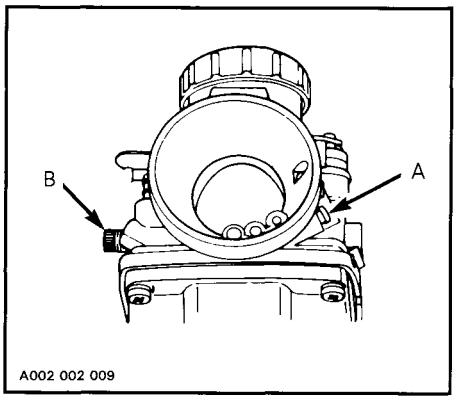
IMPORTANT : The engine head nut torque should be checked after the first 10 hours of operation.

Engine Mount Nuts

Check the engine mount nuts for tightness. Torque to 38 N•m (28 lbf•ft) if necessary.

Carburetor Adjustment

▼CAUTION : Never operate your snowmobile with the air intake silencer disconnected. Serious engine damage will occur if this notice is disregarded.



A) Air Screw Adjustment

Slowly close the **air** screw (until a slight seating resistance is felt) then back off screw 1-1/2 turn.

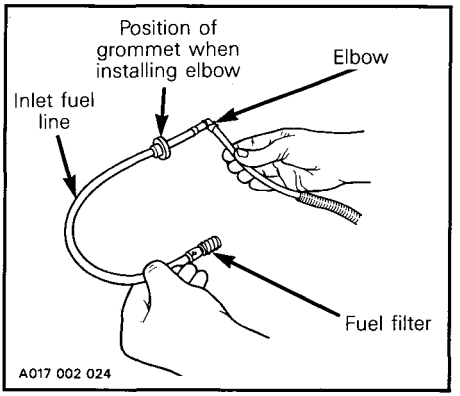
B) Idle Speed Adjustment

Turn the **idle speed** screw clockwise until it contacts the throttle slide then continue turning two additional turns. This will provide a preliminary idle speed setting. Start engine and allow it to warm up. Adjust the idle speed to 1800-2000 RPM by turning the idle speed screw clockwise or counterclockwise.

Fuel Filter Replacement

Drain fuel tank.

Remove fuel line grommet of fuel tank and pull out inlet fuel line from tank.



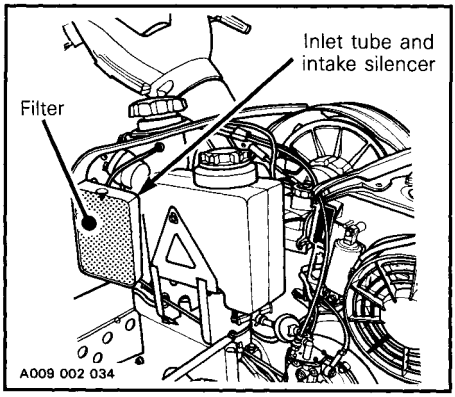
Replace fuel filter. To facilitate the fuel line installation, slide grommet on fuel line about 50 mm (2 in) away from elbow then install grommet on fuel tank and push elbow through grommet.

Engine Compartment

Keep clean of grass, twigs, clothes, etc. These are combustible under certain conditions.

Air Filter

Lift hood and remove air filter from air intake silencer inlet tube.



To clean the filter, shake the snow out of it then, dry it out.

Check that the intake silencer and inlet tube are clean and dry and properly reinstall the filter.

▼ CAUTION : These vehicles have been calibrated with the filter installed. Operating the vehicle without it may cause engine damage.

High Altitude Kit

Snowmobiles used in high altitude areas (1200 m (4000 ft) and up) are subjected to lose power as temperature, elevation and snow condition are different.

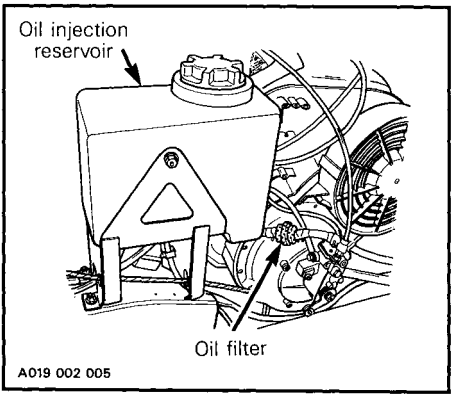
The carburetor and power train have to be recalibrated to meet those particular requirements. See an authorized dealer for more information on high altitude kit installation.

▼ CAUTION : Do not change original jetting if vehicle is used below 1200 m (4000 ft).

Oil Injection System

Injection Oil Filter Condition

Inspect oil filter at least once a month. Insure that filter is not obstructed by foreign particles ; if so, see an authorized dealer.



▼ CAUTION : An obstructed injection oil filter will cause oil starvation resulting in serious engine damage.

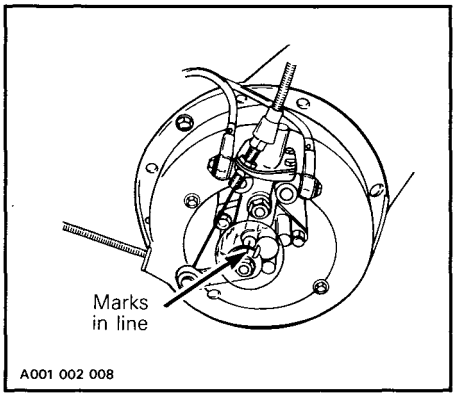
◯ NOTE : After a storage period, it is important that a dealer replace the injection oil filter, that he verifies the oil flow of the injection pump and adjust it.

Injection Pump Adjustment

Proper oil injection pump adjustment is very important. Any delay in the opening of the pump can result in serious engine damage.

▼ CAUTION : The carburetor must be adjusted before adjusting the oil injection pump. Make sure idle speed is 1800-2000 RPM.

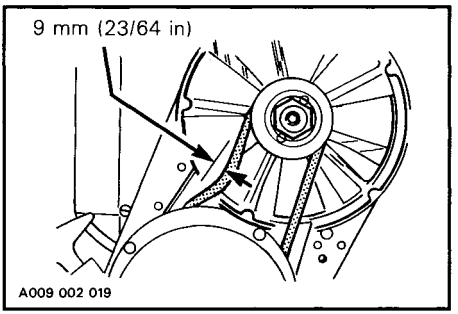
To check adjustment : Eliminate the throttle cable free-play by pressing the throttle lever until a slight resistance is felt then hold in place. The aligning marks on the pump casting and lever must align perfectly. If not, contact an authorized dealer.



NOTE : Injection pump should be adjusted by an authorized dealer.

Fan Belt

Inspect belt for cracks, uneven wear, etc. Check fan belt tension by measuring its deflection. Deflection should be 9 mm (23/64 in) when applying a force of 5 kg (11 lbf) between pulleys.

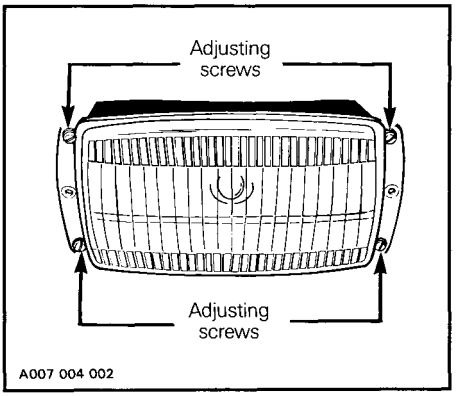


If belt seems damaged or if deflection is incorrect, contact an authorized dealer immediately.

◆ WARNING : If fan protector is removed, always reinstall after servicing.

Headlamp Beam Aiming

To adjust, remove the four caps outside of hood, turn upper or lower adjusting screws to obtain desired beam position.

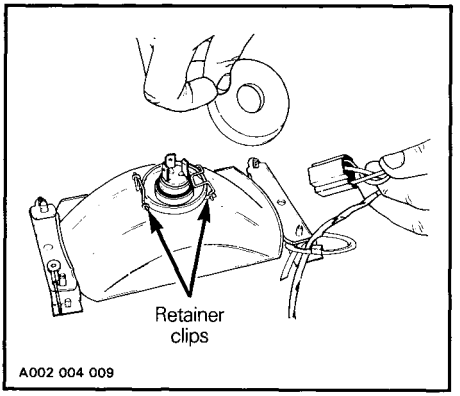


Bulb Replacement

◆ **WARNING : Always check light operation after bulb replacement.**

Headlight

If the headlight bulb is burnt, tilt hood, unplug the connector from the headlight. Remove the protector cap and unfasten bulb retainer clips. Detach the bulb and replace. Properly reinstall parts.



Taillight Bulb

If taillight bulb is burnt, expose the bulb by removing the red plastic lens. To remove, unfasten the two screws.

Wiring Harnesses, Cables and Lines

Ensure each routing is well secured with proper fasten device (locking tie, clip, grommet, etc.) away from hot or rotating components.

General Inspection

Check electrical wiring and components, retighten loose connections. Check for stripped wires or damaged insulation. Thoroughly inspect the vehicle and tighten loose bolts, nuts and linkage. Inspect skis and ski runners for wear.

◆ **WARNING : Check condition of skis, ski runners and leaf springs, replace if weak. Replace ski runners if more than half worn.**

It is during summer, or when a vehicle is not in use for more than one month that proper storage is a necessity.

◆ **WARNING : Only perform such procedures as detailed in this guide. It is recommended that dealer assistance be periodically obtained on other components/systems not covered in this guide. Unless otherwise specified, engine should be turned OFF for all lubrication and maintenance procedures.**

Controls

Lubricate the steering mechanism. Inspect all components for tightness. Oil moving joints of the brake mechanism.

◆ **WARNING : Do not lubricate throttle and/or brake cables or housings. Avoid getting oil on the brake pads.**

Coat all electrical connections and switches with silicone dielectric grease (P/N 413 7017 00). If unavailable, use petroleum jelly.

Track

Lift rear of vehicle until track is clear of the ground and support with a brace or trestle.

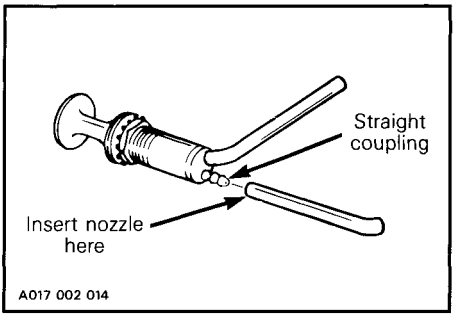
◯ NOTE : Do not release track tension.

Engine

Engine internal parts must be lubricated to protect them from possible rust formation during the storage period.

To perform the storage procedures proceed as follows :

1. Start the engine and allow it to run at idle speed until the engine reaches its operating temperature.
2. Stop the engine.
3. To prevent fuel from draining, primer button should be pushed all the way in.
4. Disconnect the outlet primer hose from the primer valve (straight coupling).



5. Insert storage oil (P/N 496 0141 00) can nozzle into primer outlet hose.
6. Restart engine and run at idle speed.
7. Inject storage oil until the engine stalls or until a sufficient quantity of oil has entered the engine (approximately half a can).
8. With the engine stopped, remove the spark plugs and spray storage oil (P/N 496 0141 00) into each cylinder.
9. Crank slowly two or three revolutions to lubricate cylinders.
10. Reinstall the spark plugs and the outlet primer hose.

◆ **WARNING : This procedure must only be performed in a well ventilated area. Do not run engine during storage period.**

Drive and Driven Pulleys

Remove belt guard and slip off drive belt.

Spray antirust product on pulleys.

Fuel Tank and Carburetor

A fuel stabilizer, such as STA-BIL® (or equivalent), can be added in fuel tank to prevent fuel deterioration and avoid draining fuel system for storage. Follow manufacturer's instructions for proper use.

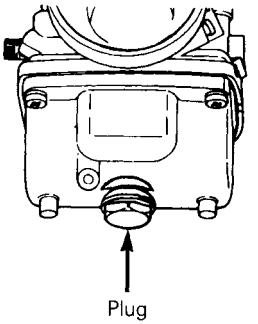
If above fuel stabilizer is not used, drain fuel system as described below.

Remove the cap and using a syphon, drain fuel tank.

◆ **WARNING : Fuel is flammable and explosive under certain conditions. Always handle in a well ventilated area. Do not smoke or allow open flames or sparks in the vicinity.**

The carburetor must be dried out completely to prevent gum formation during the storage period.

Once the fuel tank is emptied, remove the float chamber drain plug from carburetor. Drain carburetor and reinstall plug.



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Chaincase

Drain the chaincase then refill to proper level, using fresh chaincase oil (P/N 413 8019 00 - 250 mL (9 oz)). To drain, remove the chaincase cover.

◯ NOTE : Chaincase oil capacity is about 250 mL (9 oz).

General Inspection

Grease or oil at all recommended lubrication points. Wipe off surplus.

Block air intake hole and exhaust system hole using clean cloths.

Remove any dirt or rust.

To clean the entire vehicle, use only flannel clothes or Kimtowels® wipers no. 58-380 from Kimberly-Clark.

To clean the entire vehicle, including metallic parts with a **thick** coat of grease, use "Endust" imported by Bristol Myers, available at hardware stores or supermarkets.

To clean the entire vehicle, including metallic parts with a **thin** coat of grease, use "Simple Green" from Sunshine Makers Inc., available at hardward stores or at automotive parts retailer.

To remove scratches on windshield or hood : Start with "Slip Streamer Motocylcle Windshield Heavy Duty Scratch Remover". Finish with "Slip Streamer Motorcycle Cleaner and Polish".

NOTE : The latest product may be use alone if only light scratches are noticeable.

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

Inspect the hood and repair any damage. Touch up all metal spots where paint has been scratched off. Spray all metal parts with antirust product. Wax the hood and the painted portion of the frame for better protection.

NOTE : Apply wax on glossy finish only. Protect the vehicle with a cover to prevent dust accumulation during storage.

CAUTION : The snowmobile has to be stored in a cool and dry place and covered with an opaque tarpaulin. This will prevent sun rays and grime from affecting plastic components and vehicle finish.

PRE-SEASON PREPARATION

We cannot overstress the importance of proper pre-season preparation. We have drawn up a chart which indicates service points to be performed by an authorized dealer. Make an appointment before first snow.

PRE-SEASON PREPARATION CHART	To be performed by dealer ● To be performed by owner ○	Refer to page
Change spark plugs*	○	29
Check chaincase oil level	○	23
Check drive chain tension	○	28
Check fuel lines and attaching points	○	–
Replace fuel filter (located inside fuel tank)	○	37
Remove cloths from air intake and exhaust system holes	○	47
Check track tension and alignment	○	33
Check and lubricate suspension	○	38
Inspect drive belt and install	○	26
Check steering alignment and ski runner wear	●	35
Inspect condition of starting rope	○	20
Check tightness of all bolts, nuts and linkage	○	23
Refill fuel tank	○	40
Check throttle cable condition and free operation	●	43
Check electrical wiring and connections	○	13
Inspect seals for possible cuts or leaks	○	–
Replace injection oil filter	●	Shop man.
Refill injection oil tank	○	16
Inspect brake condition and operation, lubricate ratchet wheel	●	Shop man.
Check engine timing	●	Shop man.
Check pulleys, verify components and clean, lubricate driven pulley	●	Shop man.
Adjust carburetor	●	Shop man.
Adjust oil injection pump	●	Shop man.
Check fan belt condition and tension	●	39

○ *NOTE : Before installing new spark plugs, it is suggested to burn excess storage oil by starting the engine with the old spark plugs. Only perform this operation in a well ventilated area.

TROUBLESHOOTING

SYMPTOMS	POSSIBLE CAUSES	WHAT TO DO
Engine turns over but fails to start.	1. Ignition switch, emergency cut-out switch or tether switch is in the OFF position.	Place all switches in the RUN or ON position.
	2. Mixture not rich enough to start cold engine.	Check fuel tank level and check starting procedure, particularly use of the primer.
	3. Flooded engine (spark plug wet when removed).	Do not overprime. Remove wet spark plug, turn ignition switch to OFF and crank engine several times. Install clean dry spark plug. Start engine following usual starting procedure. If engine continues to flood, see an authorized dealer.
	4. No fuel to the engine (spark plug dry when removed).	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 dealer.
	5. Spark plug/ignition (no spark).	Check that emergency cut-out switch is at the upper position ON and the tether cut-out switch cap is snapped over the receptacle. Check for fouled or defective spark plug. Disconnect spark plug wire, unscrew plug and remove from cylinder head. Reconnect wire and ground exposed plug on a metallic part of engine **being careful to hold away from spark plug hole**. Follow engine starting procedure and check for sparks. If no spark appears, replace spark plug. If trouble persists, contact an authorized dealer.

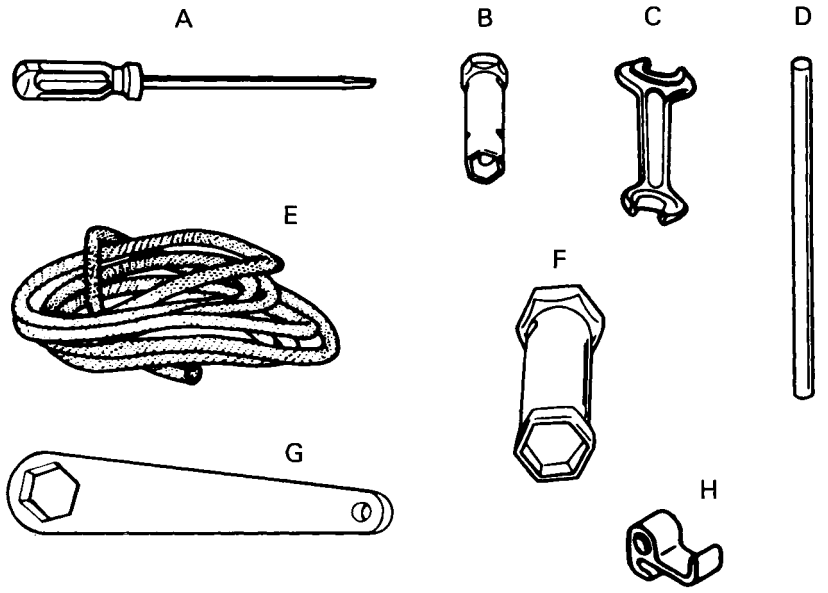
SYMPTOMS	POSSIBLE CAUSES	WHAT TO DO
	6. Engine compression.	As the engine is pulled over with the rewind starter, "cycles" of resistance should be felt as piston goes past top dead center (each piston on twin-cylinder engines). If no pulsating resistance is felt, it suggests a major loss of compression. Contact an authorized dealer.
Engine lacks acceleration or power.	1. Fouled or defective spark plug.	Check item 5 of "Engine turns over but fails to start."
	2. Lack of fuel to engine.	Check item 4 of "Engine turns over but fails to start."
	3. Carburetor adjustments.	Contact an authorized dealer.
	4. 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.
	5. Drive and driven pulleys require servicing.	Contact an authorized dealer.
	6. 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 heating persists, contact an authorized dealer.

SYMPTOMS	POSSIBLE CAUSES	WHAT TO DO
Engine backfires.	1. Faulty spark plug.	See item 5 of "Engine turns over but fails to start".
	2. Water in fuel.	Drain fuel system and refill with clean fuel.
	3. Engine is running too hot.	See item 6 of "Engine lacks acceleration or power".
	4. Ignition timing is incorrect or there is an ignition system failure.	Contact an authorized dealer.
Snowmobile cannot reach full speed.	1. Drive belt.	Check item 4 of "Engine lacks acceleration or power".
	2. Incorrect track adjustment.	See maintenance section for proper alignment and tension adjustments.
	3. Pulleys misaligned.	Contact an authorized dealer.
	4. Engine.	See items 1, 2, 3 and 6 of "Engine lacks acceleration or power".

TOOLS

As standard equipment each new snowmobile is supplied with basic tools such as screwdriver, wrenches, emergency starting rope, etc.

Standard Tools



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DESCRIPTION	PART NUMBERS
A. Screwdriver	414 6424 00
B. Socket 10/13 mm	414 6426 00
C. Open end wrench 10/13 mm	414 6428 00
D. Socket wrench handle	414 6427 00
E. Emergency starting rope	412 5001 00
F. Socket 21/26 mm	414 6425 00
G. Hexagonal wrench (rear suspension adjuster blocks)	529 0024 00
H. Emergency starter clip (not applicable to Scout)	420 8523 40

SPECIFICATIONS

	SAFARI SCOUT
ENGINE	
Type	377
No. of cylinders	2
Bore	62 mm (2.441")
Stroke	61 mm (2.402")
Displacement	368.3 cm^3 (22.48 in^3)
Compression ratio (corrected)	6.9:1
Maximum horsepower RPM*	6750 RPM
Carburetor type	Variable venturi, float type
Carburetor adjustment :	
— air screw	1-1/2 turn
— idle speed	1800-2000 RPM
Fan belt deflection	9 mm (23/64") when applying a force of 5 kg (11 lbf) between pulleys
Torque :	
— engine head nuts	M8 : 22 N•m (16 lbf•ft)
— crankcase nuts	M6 : 10 N•m (90 lbf•in) M8 : 22 N•m (16 lbf•ft)
— magneto ring nut	M22 : 85 N•m (63 lbf•ft)
— fan nut	M16 : 65 N•m (48 lbf•ft)
— crankcase/engine support nuts	M10 : 38 N•m (28 lbf•ft)
— exhaust manifold bolts	M8 : 22 N•m (16 lbf•ft)
CHASSIS	
Overall length	266.7 cm (105")
Overall width	96.5 cm (38")
Overall height	106.4 cm (42")
Ski stance (center to center)	81.9 cm (32.25")
Ski alignment (toe out)	3 mm (1/8")
Torque :	
— steering arm/ski leg bolt	50 N•m (37 lbf•ft)
— steering column/handlebar	26 N•m (19 lbf•ft)
Weight	180 kg (397 lb)
Bearing area	7065 cm^2 (1095 in^2)
Ground pressure	2.50 kPa (.363 lb/in^2)
BRAKE	
Type	Disc, self-adjusting
Lining minimum thickness	Fixed pad must projects 1 mm (1/32") minimum from caliber
Control lever adjustment	13 mm (1/2") minimum distance from handlebar grip when fully applied

N.A. : Not applicable

**The maximum horse RPM is applicable with engine on the vehicle. It may vary under certain circumstances. Bombardier Inc. reserves the right to modify it without any obligation.*

	SAFARI SCOUT
POWER TRAIN	
Track :	
– width	41.9 cm (16 1/2")
– length	290 cm (114")
– tension	40 mm (1-9/16") between slider shoe and bottom inside of track with a downward pull of 7.3 kg (16 lbf).
– alignment	Equal distance between edges of track guides and slider shoes
Standard chaincase gears (small/large)	20/44
Drive belt :	
– number	414 5233 00
– maximum width	35 mm (1-3/8")
– minimum width	32 mm (1-1/4")
Chaincase oil capacity	250 mL (9 oz)
ELECTRICAL	
Lighting system (output)	12 V 170 W AC
Bulb :	
– headlamp	60/60 W
– tail/stop	8/26 W
– speedometer	5 W
Spark plug :	
– type	NGK BR9ES
– gap	0.45 mm (0.018")
FUEL	
Gas type	Regular unleaded
Fuel tank capacity :	
– SI	28.6 liters
– Imp.	6.3 gallons
– U.S.	7.6 gallons
Injection oil	Bombardier snowmobile injection oil
Oil tank capacity :	
– SI	2.55 liters
– Imp.	90 oz
– U.S.	86 oz

Bombardier Inc. reserves the right to make changes in design and specifications and/or to make additions to, or improvements in its product whithout imposing any obligation upon itself to install them on its products previously manufactured.

SI* METRIC INFORMATION GUIDE

BASE UNITS

DESCRIPTION	UNIT	SYMBOL
length	meter	m
mass	kilogram	kg
force	Newton	N
liquid	liter	L
temperature	Celsius	°C
pressure	kilopascal	kPa
torque	Newton meter	N•m
speed	kilometer per hour	km/h

PREFIXES

PREFIX	SYMBOL	MEANING	VALUE
kilo	k	one thousand	1 000
centi	c	one hundredth	0.01
milli	m	one thousandth	0.001
micro	μ	one millionth	0.000 001

CONVERSION FACTORS

TO CONVERT	TO †	MULTIPLY BY
in	mm	25.4
in	cm	2.54
in^2	cm^2	6.45
in^3	cm^3	16.39
ft	m	0.3
oz	g	28.35
lb	kg	0.45
lbf	N	4.4
lbf•**in**	N•m	0.11
lbf•ft	N•m	1.36
lbf•ft	lbf•**in**	12
PSI	kPa	6.89
imp. oz	U.S. oz	0.96
imp. oz	mL	28.41
imp. gal	U.S. gal	1.2
imp. gal	L	4.55
U.S. oz	mL	29.57
U.S. gal	L	3.79
MPH	km/h	1.61
Fahrenheit	Celsius	(°F − 32) ÷ 1.8
Celsius	Fahrenheit	(°C × 1.8) + 32

* *The international system of units abbreviates SI in all languages.*

† *To obtain the inverse sequence, divide by the given factor. To convert "mm" to "in", divide by 25.4.*

NOTE