BOMBARDIER
RECREATIONAL PRODUCTS

ski-doo Snowmobiles

MODEL NAME	SERIAL NUMBER

PREDELIVERY CHECK LIST

THIS CHECK LIST MUST BE USED IN CONJUNCTION WITH THE *PREDELIVERY BULLETIN* OF THE APPLICABLE SNOWMOBILE.

NOTE: Some items only apply to certain vehicles. For specific items refer to appropriate *Predelivery Bulletin*.

PARTS TO BE INSTALLED	✓
Battery	
Steering pad/cover	
Skis	
Bumper, front/rear (w/molding)	
Front/rear suspension components	
Backrest	
Drive belt	
Windshield	
Snow guard	
Other	

OPTIONS/ACCESSORIES	✓
High/low altitude kit	
Other	

LIQUIDS	✓
Brake fluid	
Battery electrolyte	
Fuel	
Injection oil (fill and bleed)	
Coolant	
Chaincase/gearbox oil	
Grease/lubricant	

ADJUSTMENTS	✓
Handlebar	
Track tension/alignment	
Front and rear suspensions	
Other	

GENERAL INSTRUCTIONS

FINAL INSPECTION	✓
Inspect movement and operation of:	
Throttle/brake lever/parking brake	
Ignition/emergency stop/tether cut-out switches	
Headlamp/taillight/brake light	
Dimmer switch/pilot lamps	
Accessories	
Test run snowmobile.	
Clean and polish snowmobile.	

AT SALE, EXPLAIN TO OWNER	✓
The *Operator Guide,* video, *Safety Handbook* and warranty and give same to customer.	

AT DELIVERY	✓
Complete and return warranty registration signed by owner.	

NOTE: File this document in vehicle file. Give a copy to owner.

PREPARED BY:	DATE: month / day / year
DEALER NO.:	
INSPECTED BY:	DATE: month / day / year
DEALER SIGNATURE: ✗	

The dealer named on this document has instructed me on the operation, maintenance, safety features and warranty policy, all of which I understand. I am also satisfied with the predelivery set-up and inspection of my snowmobile.

OWNER SIGNATURE: ✗	DATE: month / day / year
PRINT:	

Printed in Canada (Mbl2002-001a.fm GM)

Please route to :

Init.

- ☐ Service ☐
- ☐ Sales ☐
- ☐ Parts ☐

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-1**

Date: May 4, 2001

SUBJECT: Predelivery

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2002	Tundra™	3278	All

This bulletin must be used in conjunction with the *Predelivery Check List* enclosed in *Operator's Guide* bag. Make sure that *Predelivery Check List* is completed and signed.

⚠ WARNING

To obtain limited warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your dealer or distributor service representative and/or specific *Shop Manual* sections.

Please complete the *Predelivery Check List* for each snowmobile and return a customer signed copy. Make sure the customer receives the *Operator's Guide*, *Safety Handbook* and *Safety Videocassette*.

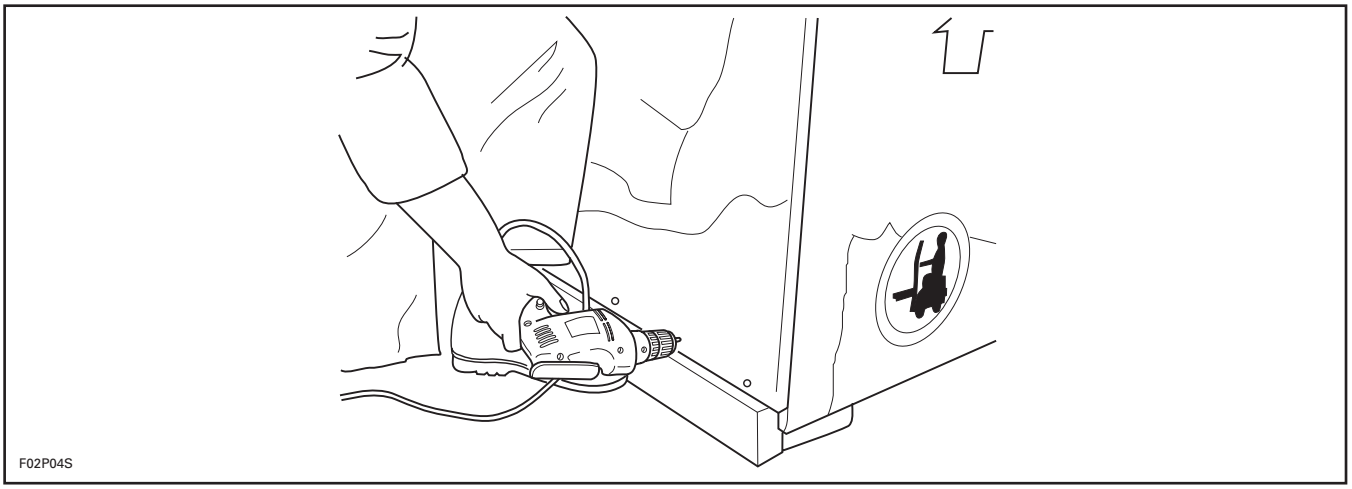
There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask the dealer to perform suspension adjustments according to riding style and vehicle load.

⚠ WARNING

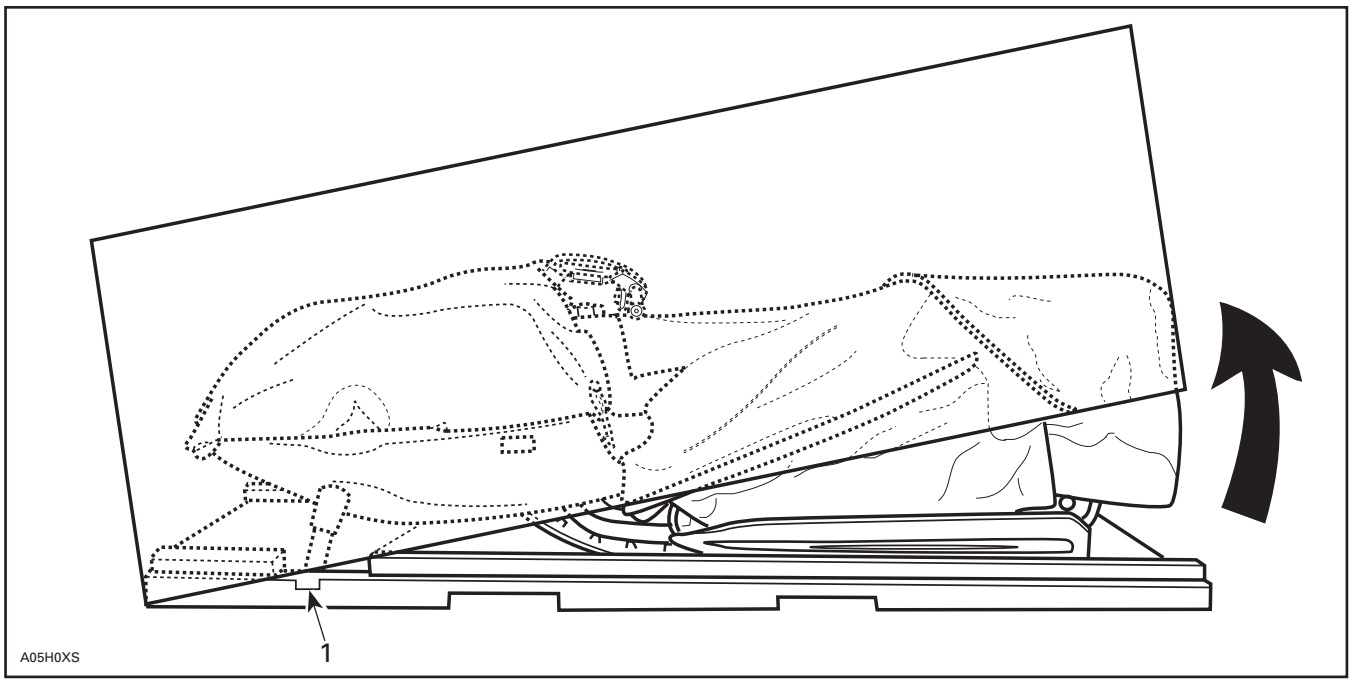
Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

Using a drill or screwdriver, remove all screws retaining crate cover to base.



Tip cover towards front of vehicle. There is a notch in crate base at front.



1. Notch

Detach parts to be installed (e.g. skis, windshield and front bumper) from the vehicle and crate's base.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

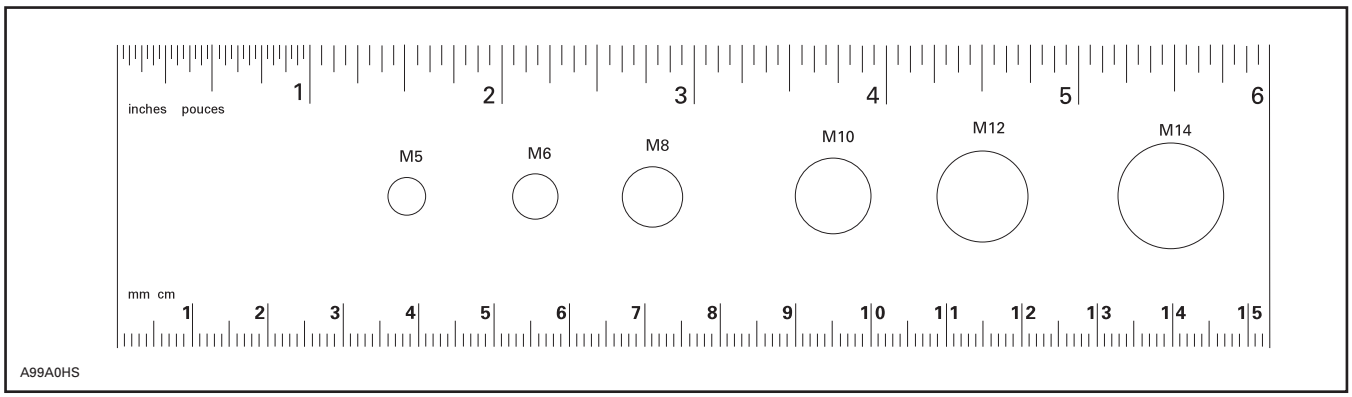
Detach ski legs from crate. Keep ski leg bolts to bolt skis to ski legs. Discard nuts and bushings.

Remove vehicle from base.

Remove predelivery kit from the tool box of engine compartment.

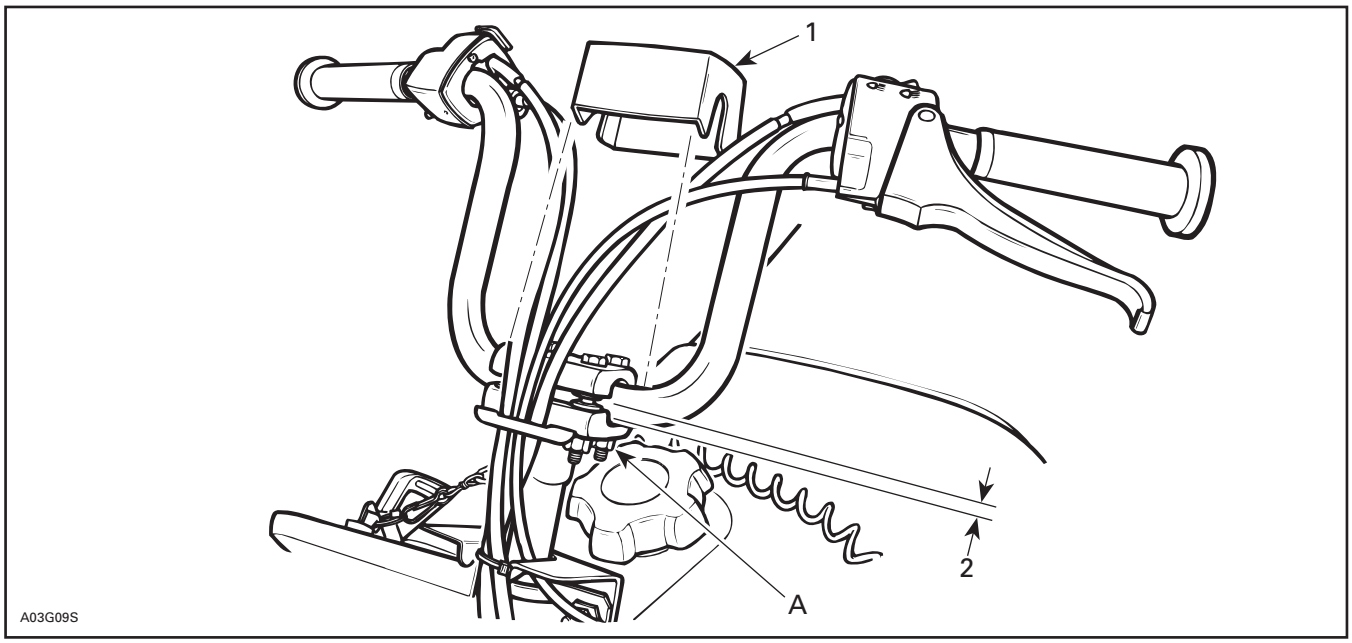
PREDELIVERY KIT P/N	MODEL
549 010 807	Tundra R

NOTE: This ruler can be helpful to identify fastener length/size.



Pull handle bar up and tighten bolts. Torque to 26 N•m (19 lbf•ft).

Install steering cover. The longest side of steering cover must be toward driver.

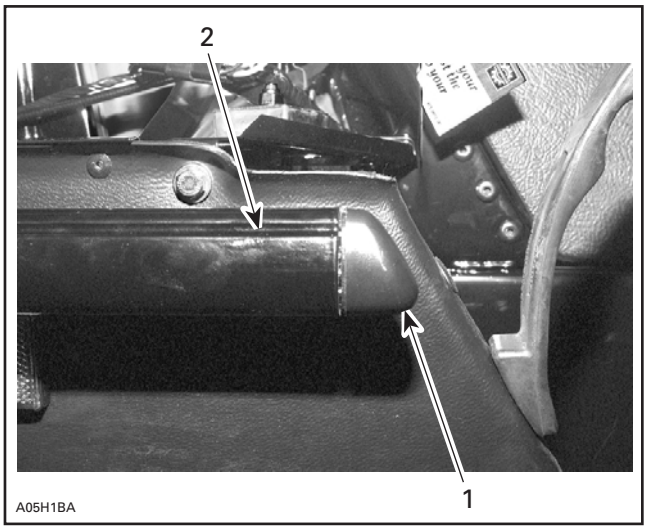


1. Steering cover (P/N 572 066 900) (on handlebar)
2. Equal gap all around
A. 26 N•m (19 lbf•ft)

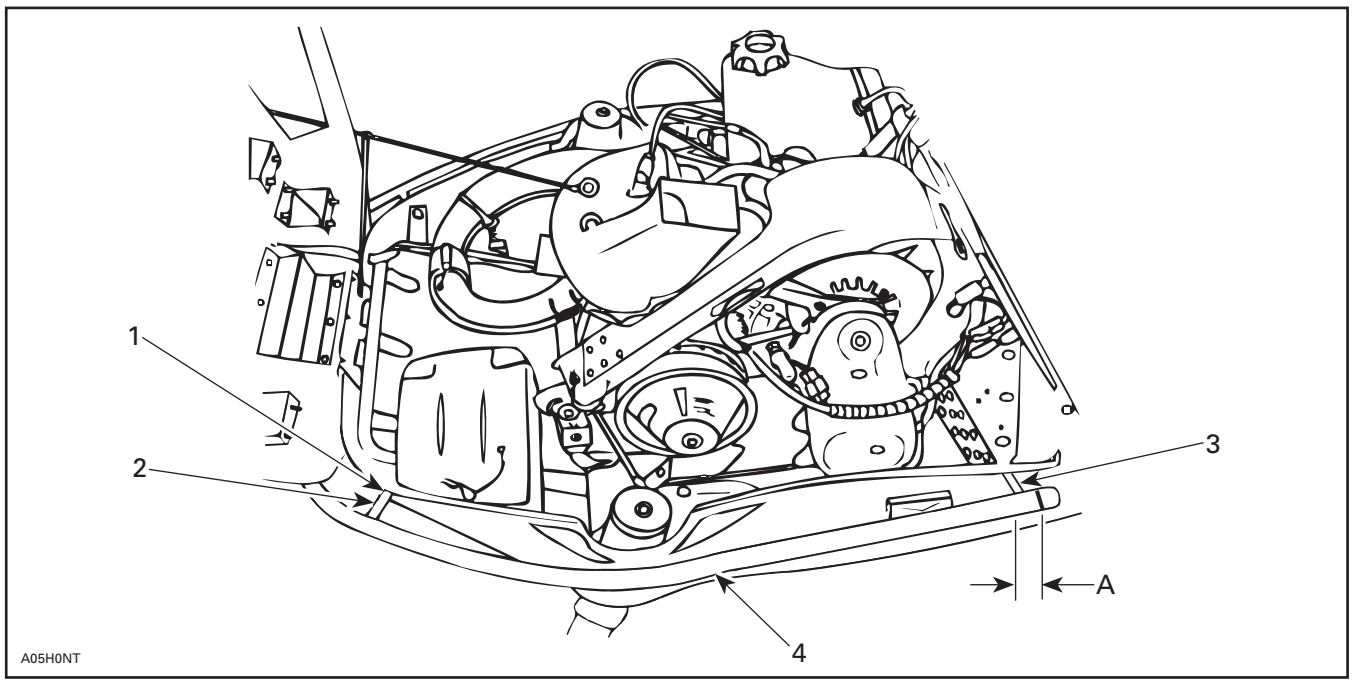
Unwrap front bumper.

Install bumper using bushings and elastic nuts provided in predelivery kit.

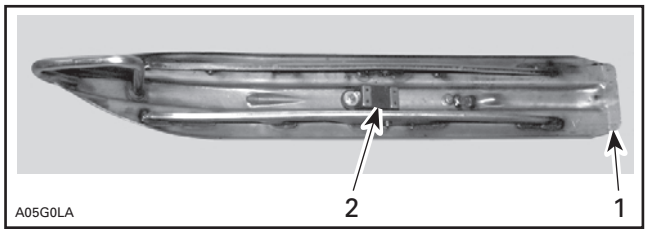
NOTE: Take care to install bumper with plastic ends pointing downward as per photo.



1. Bumper end downward
2. Groove on top



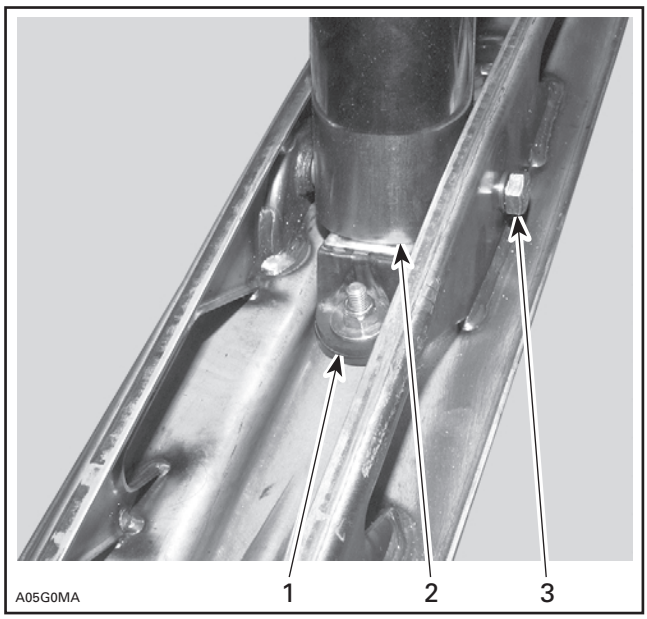
1. Elastic nut M8 x 1.25 (4) (P/N 232 581 414) (section no. 2). Torque to 15 N•m (11 lbf•ft)
2. Bushing (long) (2) (P/N 517 250 600) (section no. 3)
3. Bushing (short) (2) (P/N 517 250 700) (section no. 3)
4. Groove on top
A. 55 mm (2-1/8 in)



1. Upward curve at rear
2. Stopper already installed

Use bolt to secure ski to ski leg with elastic stop nut M10 (P/N 233 601 416) provided in section no. 1 of predelivery kit.

Torque to 30 N•m (22 lbf•ft).

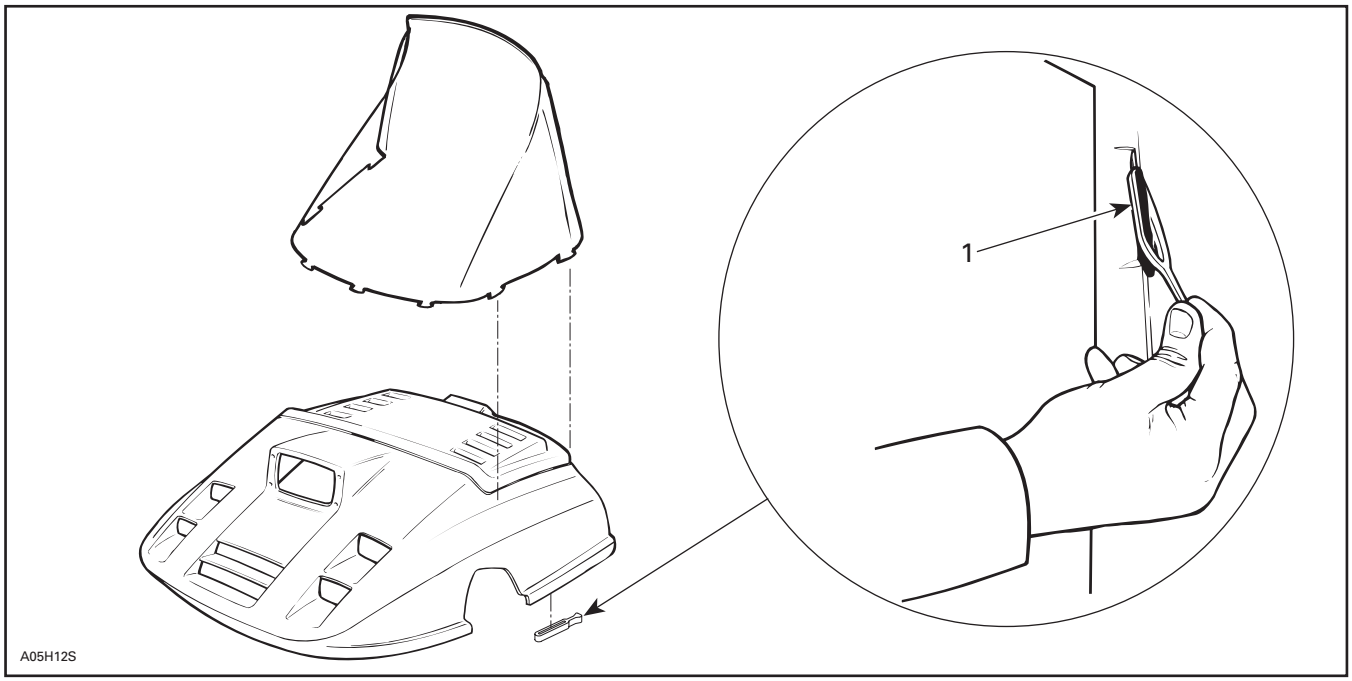


LEFT SKI SHOWN

1. Stopper already installed
2. Align on stopper
3. Secure with bolt

PARTS INSTALLATION
WINDSHIELD

Remove plastic films protecting windshield and secure with latches provided in predelivery kit.



1. Latch (9) (P/N 570 023 800) (section no. 3)

PARTS INSTALLATION
DRIVE BELT

At factory a protective coating for the shipping is applied on pulleys and disc brake. This protective coating must be removed at predelivery.

Clean pulleys and brake disc with a suitable cleaner such as degreaser (P/N 413 708 400) before installing drive belt.

Make sure the entire surface of the drive belt travel is clean; open and separate the driven pulley halves as required for cleaning.

CAUTION: Do not install a new drive belt without properly cleaning the pulleys.

OIL

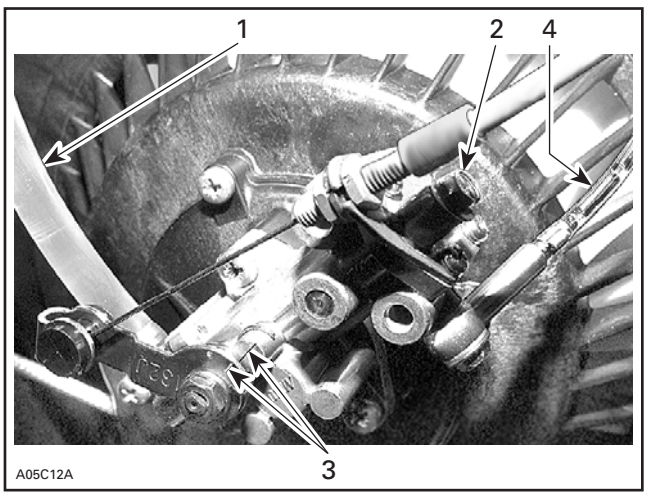
To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz) of BOMBARDIER-ROTAX injection oil (P/N 413 802 900 — 12 x 1 L) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

BLEEDING PROCEDURE

NOTE: Oil pump bleeding have been performed at factory. However, it is recommended to verify that no air bubble remains in lubrication system.

Bleed main oil line (between tank and pump) by loosening the bleeder screw until all air has escaped from the line.

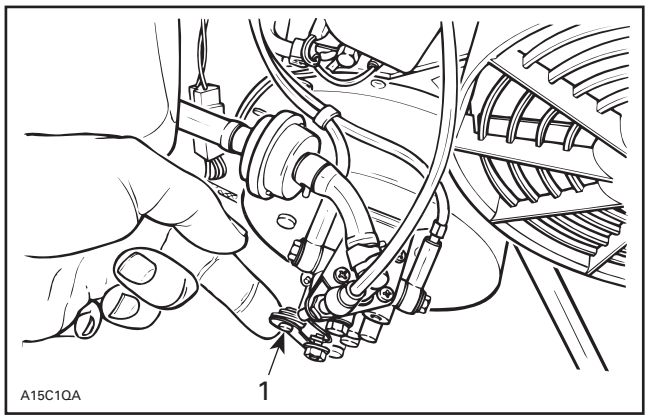
CAUTION: If air remains in conduits, oil may not route in lines and thus damages will occur to engine.



1. *Main oil line*
2. *Bleeder screw*
3. *Alignment marks*
4. *Small oil line*

Bleed the small line between pump and intake manifold by running engine at idle while holding the pump lever in fully open position.

Check also for proper oil level adjustment. Mark on oil pump lever must align with mark on pump body when throttle lever is activated just enough to take all cable play.



TYPICAL — ENGINE AT IDLE

1. *Fully open position*

ABOUT THE ELECTRONIC REVERSE

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

Shifting in reverse is an electronic operation consisting of a control module that will modify 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 in order to reverse the rotation of the crankshaft.

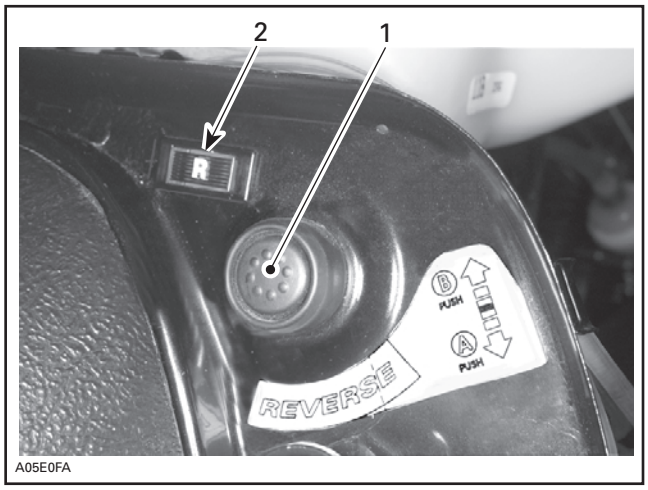
No mechanical action and gear change is involved.

No adjustment is needed.

Forward to Reverse Shifting Procedure

With the snowmobile completely stopped and engine running at idle, press and release the electronic reverse button. The engine RPM will decrease for a few seconds then the engine will start rotating in the opposite direction and return to its normal idle speed.

NOTE: A reverse indicator lamp will illuminate and a warning buzzer will sound when the snowmobile is engaged in reverse.



TUNDRA R

1. *Reverse button*
2. *Reverse indicator lamp*

⚠ WARNING

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

Apply throttle slowly and evenly. Allow drive pulley to engage then accelerate carefully.

CAUTION: Do not rev the engine when driving in reverse. This may cause the clutch system to operate erratically.

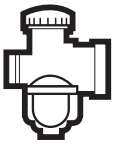
It is recommended to warm up the engine to its normal operating temperature before shifting.

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

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

TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Vehicles used at high altitudes, above 600 m (2000 ft) should be fitted with a high altitude kit. Further inquiries should be directed to your distributor service representative.

	MODEL			**TUNDRA R**
	Engine Type			277
	Maximum HP RPM ①		± 100 RPM	6900
	Carburetor Type			VM 34
	Main Jet			200
	Needle Jet			O-8 (159)
	Pilot Jet			40
	Needle Identification — Clip Position			6DH4-3
	Slide Cut-Away			2.5
	Float Adjustment		± 1 mm (± .04 in)	23.9 (.94)
	Air Screw Adjustment		± 1/16 turn	1
	Idle Speed		± 200 RPM	1650
	Gas Grade Octane Number ②		(R + M)/2	Regular unleaded 87
	Gas/Oil Ratio			Oil injection
	Ignition Timing BTDC ③		mm (in)	3.61 (0.142)
	Trigger Coil Air-Gap		mm (in)	0.5 - 0.7 (0.20 - 0.28)
	Engagement Speed		± 100 RPM	3000
	Pulley Distance	Z	(+ 0, - 1.5) mm ((+ 0, - 1/16) in)	37.0 (1-29/64)
	Offset	X	± 1.0 mm (± 1/32 in)	36.0 (1-27/64)
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X by 1 mm (1/32 in)
	Drive Belt Adjustment	Deflection	± 5 mm (± 13/64 in)	32 (1-1/4)
		Force ④	kg (lbf)	6.8 (15)
	Driven Pulley Preload		± 0.7 kg (± 1.5 lbf)	0.00
	Drive Chain Tension			Automatic (spring loaded)
	Track Adjustment	Deflection ⑤	mm (in)	35 - 40 (1.378 - 1.575)

① Engine speed at which maximum power is achieved.
② In most service station pump octane number corresponds to (R + M)/2 octane number.
③ At 3500 RPM (engine cold) with headlamp turned on.
④ Force applied midway between pulleys to obtain specified deflection.
⑤ Deflection with a 7.3 kg (16 lb) downward pull.

Please route to :

Init.

- Service
- Sales
- Parts

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-2**

Date: May 11, 2001

SUBJECT: Predelivery

YEAR	MODEL	PACKAGE	MODEL NUMBER	SERIAL NUMBER
2002	Mach Z	Tech Plus	1876/1877	All
2002	Mach Z	Sport	1878/1879	All

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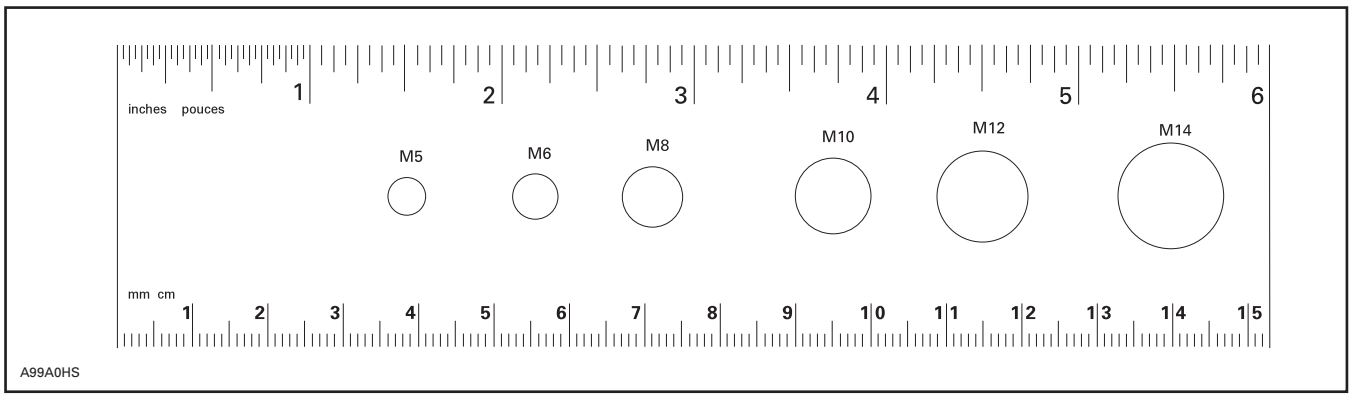
There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask dealer to perform suspension adjustments according to riding style and vehicle load.

NOTE: This ruler can be helpful to identify fastener length or size.



PREDELIVERY KIT P/N	MODEL
549 011 012	Mach Z Tech Plus
549 011 012	Mach Z Sport

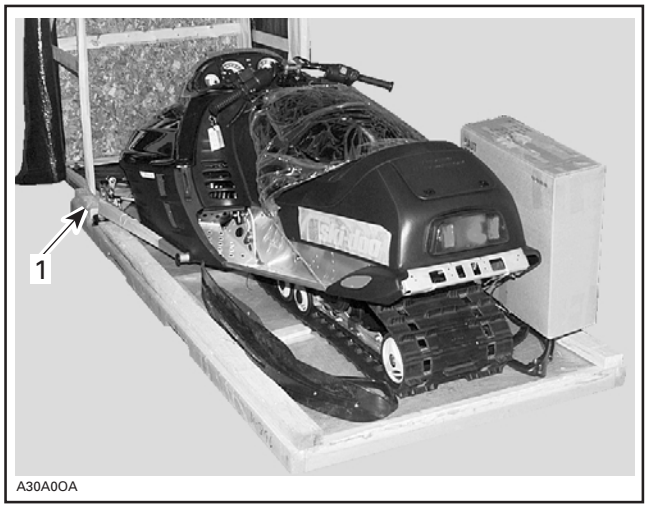
⚠ WARNING

Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

Remove all screws retaining cover to vehicle base. Tip cover toward front of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging the snow guard or taillight.



TYPICAL
1. Notch

Detach parts to be installed (e.g. skis, windshield, boxes) from the vehicle and its base.

Cut locking ties and ropes retaining windshield. Keep windshield latches for further installation.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Detach ski legs from crate. Keep ski leg bolts and bushings to bolt skis to ski legs. Discard crating spacers and nuts.

Remove vehicle from base.

Remove parts to be installed and predelivery kit from parts box. Note that shocks are behind a double bottom.

FRONT HOOK REMOVAL

Procedure

Apply parking brake.

Lift rear of vehicle so that a block or a box can be positioned under front wheel, as shown on the next photo.

EDGE OF BOX ALIGNED WITH WHEEL AXIS

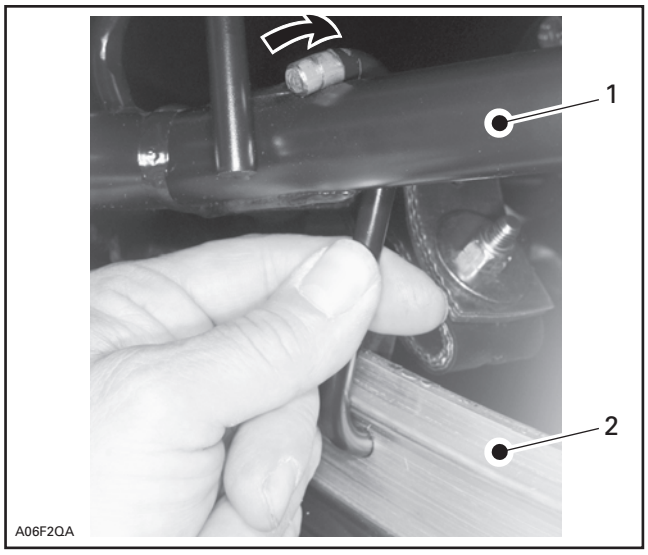
From left side of vehicle, cut locking tie retaining front hook, then apply pressure onto rear bumper with right hand, as shown on the following photo.

TYPICAL

Using left hand, cut tie wrap and remove hook from suspension, as shown on the following photo.

⚠ WARNING

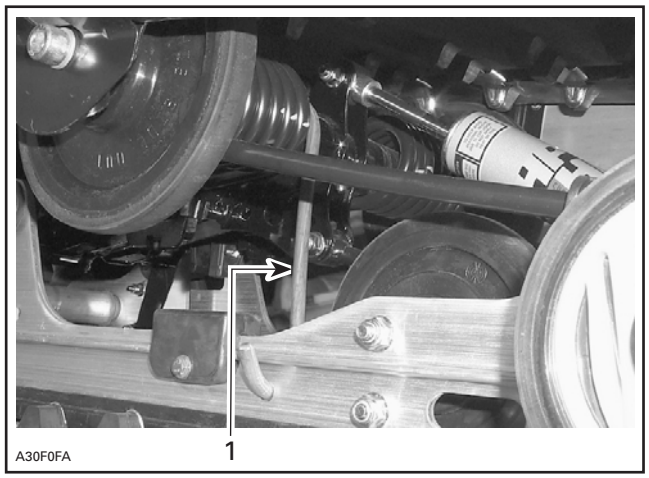
Before removing hook always verify that vehicle is properly supported and that parking brake is applied.



TYPICAL — REMOVE HOOK

1. *Front arm*
2. *Runner*

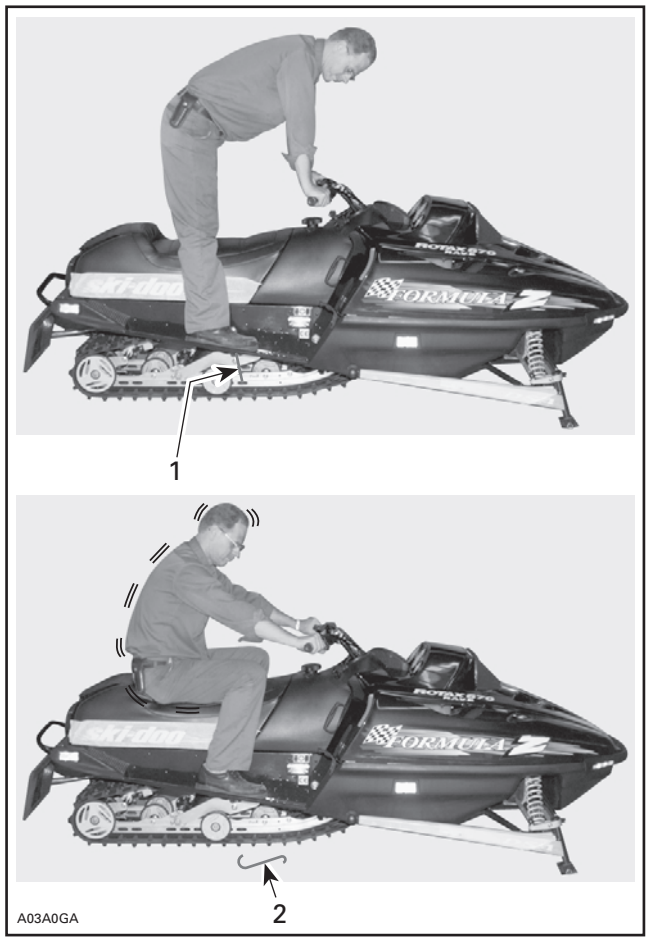
REAR HOOK REMOVAL



1. *Hook to be removed*

Lift front of vehicle to position bumper approximately 1 meter upward (35 to 40 inches).

Standing on footwells, sit roughly to free hook and make it fall as shown on next photo.



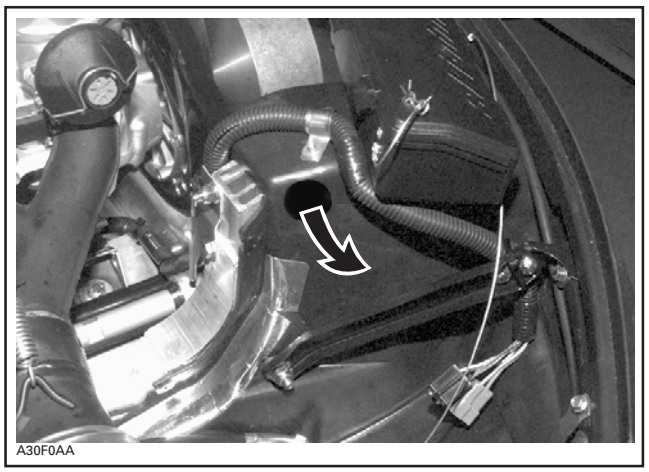
TYPICAL

1. *Remove hook on the rear portion of the suspension*
2. *Hook removed*

CAUTION: Both hooks must be removed to have snowmobile suspension operational.

Lift front of vehicle and block safely.

From inside engine compartment, remove caps as shown in the next photo.



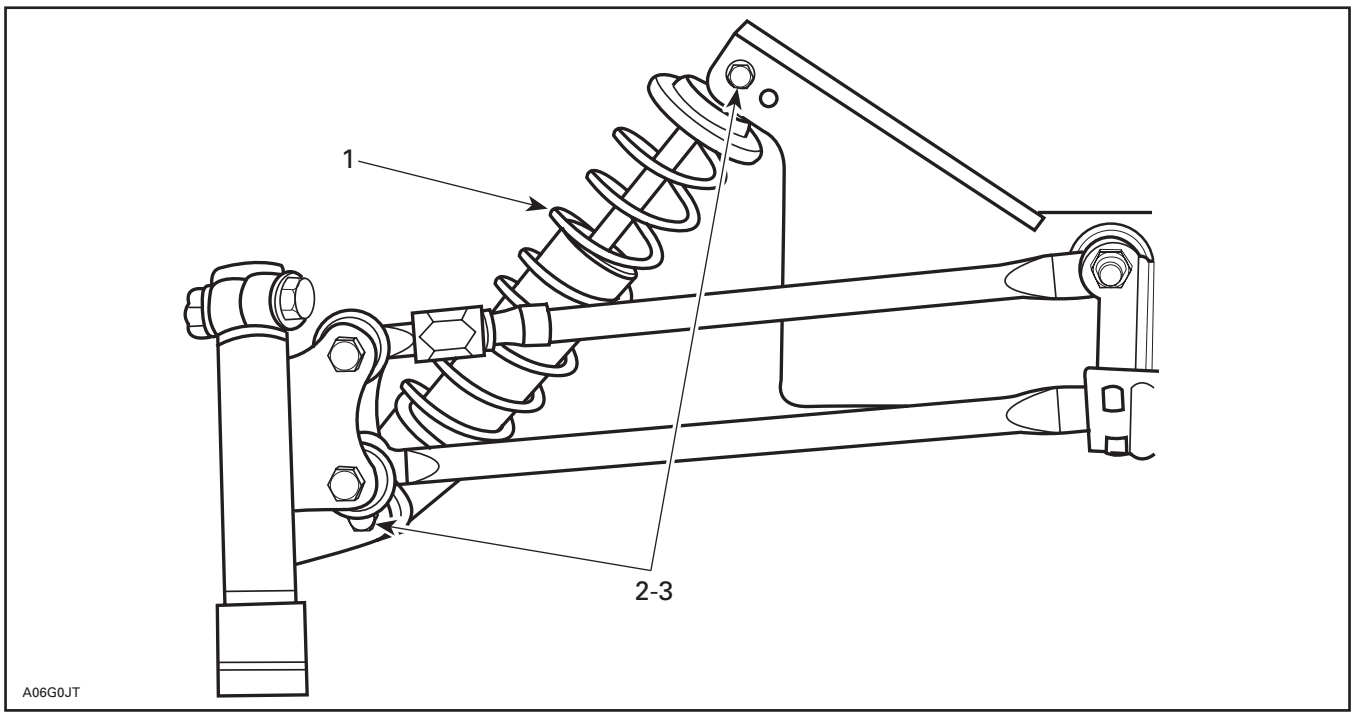
INSIDE ENGINE COMPARTMENT — PUSH AND REMOVE CAP

Remove and discard shipping brackets from suspension. Discard spring clips, keep screws.

Secure shock absorbers to suspension with their adjusting ring at bottom. Adjust them as per suspension adjustment chart on belt guard.

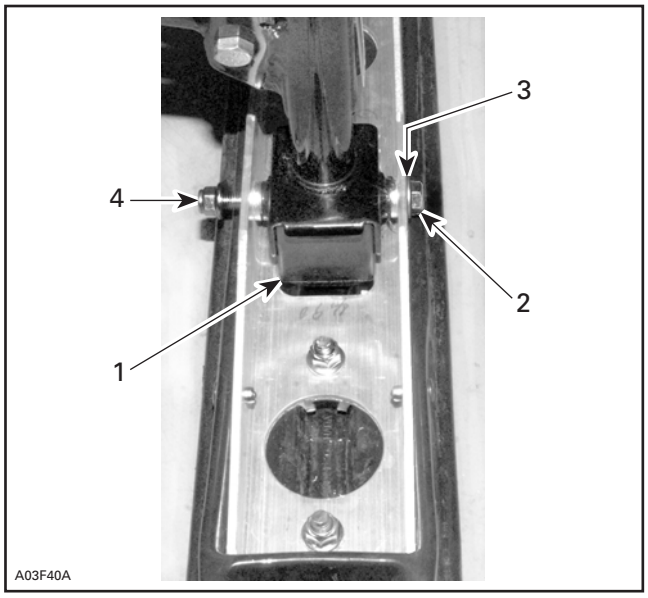
NOTE: Position bolt heads toward front.

Reinstall caps.



TYPICAL — RH SIDE SHOWN

1. *Shock absorber (2) (box)*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 3). Torque to 48 N•m (35 lbf•ft)*



LEFT SIDE SHOWN

1. *Ski stopper (2) (P/N 506 151 233) (section no. 3) higher side toward front*
2. *Bolt M12 (2) (ski leg)*
3. *Washer (4) (P/N 732 900 049) (section no. 2)*
4. *Elastic flanged nut M12 x 1.75 (2) (P/N 233 201 414) (section no. 2). Torque between 28 and 35 N•m (21 and 26 lbf•ft)*

Ensure ski leg bushings are still in ski legs.

Install skis on vehicle.

Replace vehicle on ground.

Mach Z Sport Model Only

Adjust handlebar temporarily and tighten nuts loosely for now.

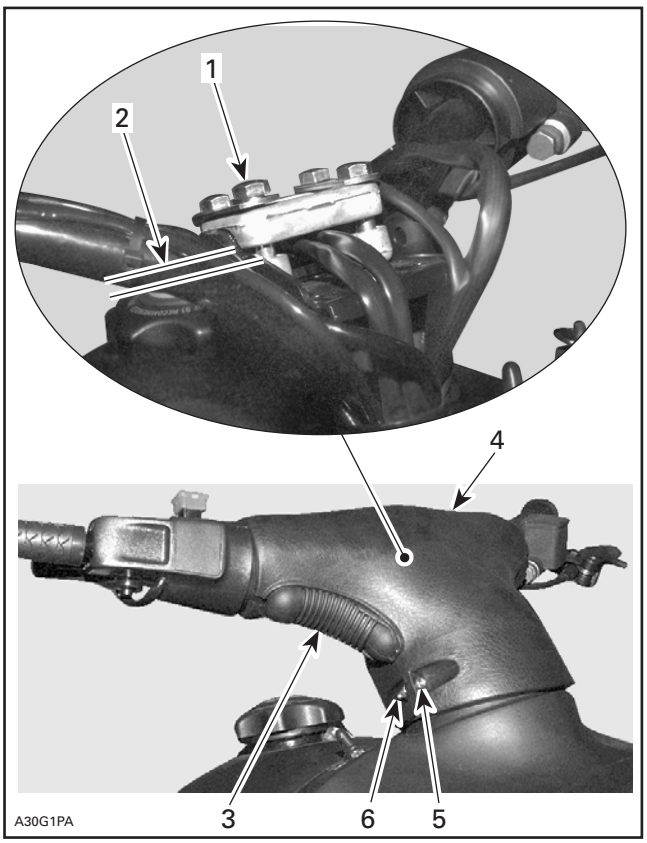
Loosen Allen screw of throttle and brake handle housings, at least 3 turns.

Install steering pad temporarily, and adjust for proper fit with console.

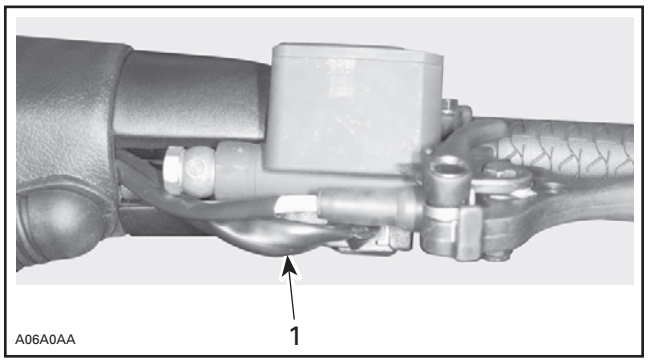
Remove steering pad and torque nuts between 21 and 28 N•m (16 and 20 lbf•ft) in a criss-cross sequence. Make sure gap is equal each side of clamps.

Reinstall steering pad, adjust and tighten throttle and brake handle housings.

NOTE: While reinstalling handlebar and pad, make sure brake oil reservoir cover is level.

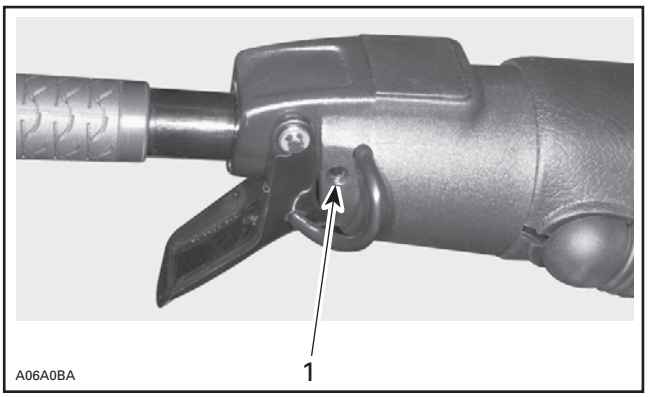


1. *Torque nuts between 21 and 28 N•m (16 and 20 lbf•ft)*
2. *Equal gap each side (both clamps)*
3. *Keyway (2) (P/N 572 106 200) (section no. 3)*
4. *Steering pad (box)*
5. *Bolt (2) (P/N 208 652 044) (section no. 4)*
6. *Nut (2) (P/N 233 251 414) (section no. 4)*



BRAKE HANDLE HOUSING

1. *Torque Allen screw to 2 N•m (18 lbf•**in**)*



THROTTLE HANDLE HOUSING

1. *Torque Allen screw to 2 N•m (18 lbf•**in**)*

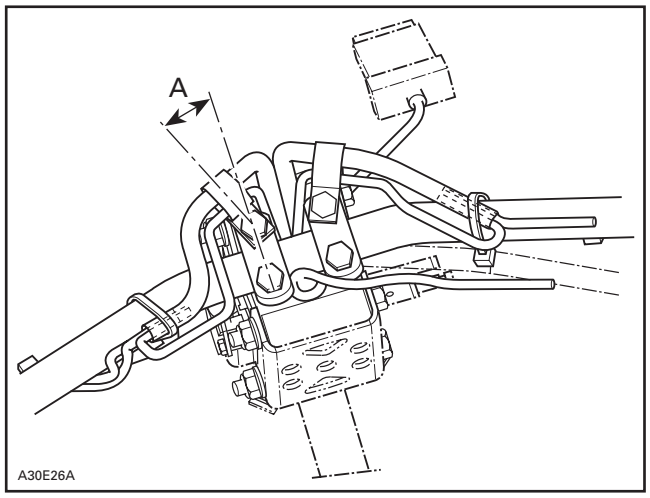
ADJUSTABLE STEERING

Mach Z Tech Plus Model Only

CAUTION: Never hang snowmobile by handlebar. This can impair adjustable steering mechanism.

Adjust handlebar when the mechanism is in the middle position.

Adjust retaining tabs to 25° ± 10° and tighten nuts between 21 and 28 N•m (16 and 20 lbf•ft).

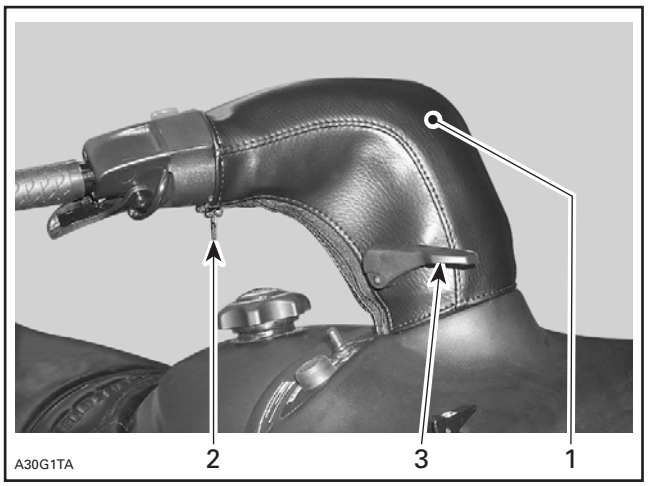


A. 25° ± 10°

Install steering foam properly to make it fit with console.

Cover steering foam with steering pad and zip it both sides.

Install lever with screw (section no. 3) using an Allen key. Torque from 2.5 to 3.0 N•m (23 to 27 lbf•**in**).



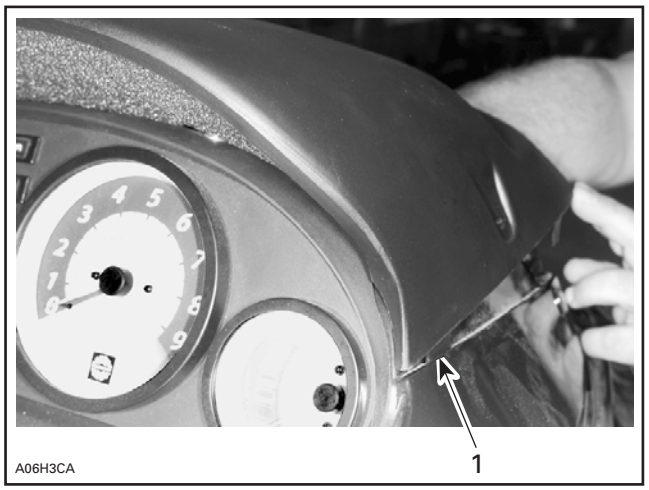
1. *Steering Pad*
2. *Zipper*
3. *Steering Adjustment Lever*

Adjust and tighten throttle and brake handle housings (if needed).

NOTE: Air deflector with foam must be installed before windshield.

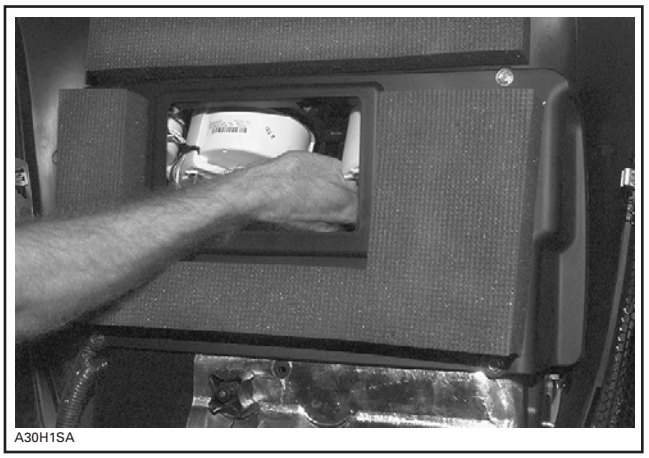
AIR DEFLECTOR

Position air intake deflector tabs (left and right side) into hood slots, as shown in the next photo.



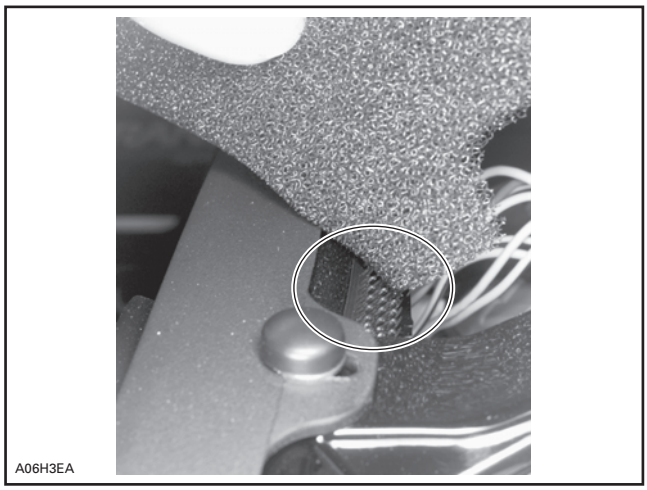
1. Air intake deflector tabs (right side)

Holding air intake deflector, insert one hand underneath hood, in gauges housing and attach air intake foam to hood Velcro.



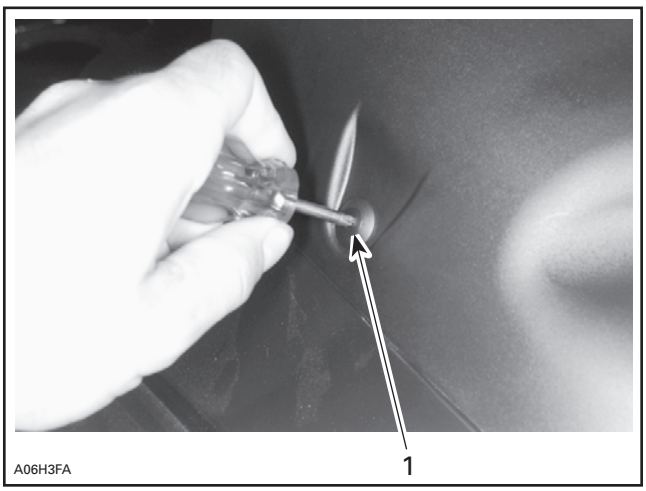
FROM UNDERNEATH HOOD, GOING THROUGH GAUGES HOUSING, ATTACH FOAM TO VELCRO

NOTE: Ensure that air intake foam is properly attached to Velcro. See next photo.



AIR INTAKE DEFLECTOR HAS BEEN REMOVED TO SHOW WHERE AND HOW TO ATTACH AIR INTAKE FOAM TO HOOD

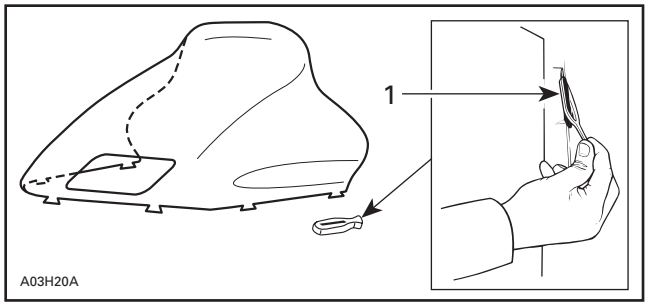
Secure air intake deflector using darts (one on each side), as shown in the next photo.



1. Dart (P/N 414 745 900) (section no. 5). Push to set in place

Remove protective films and install windshield on dashboard. Secure with windshield latches.

TYPICAL — WINDSHIELD INSTALLED ON DASHBOARD

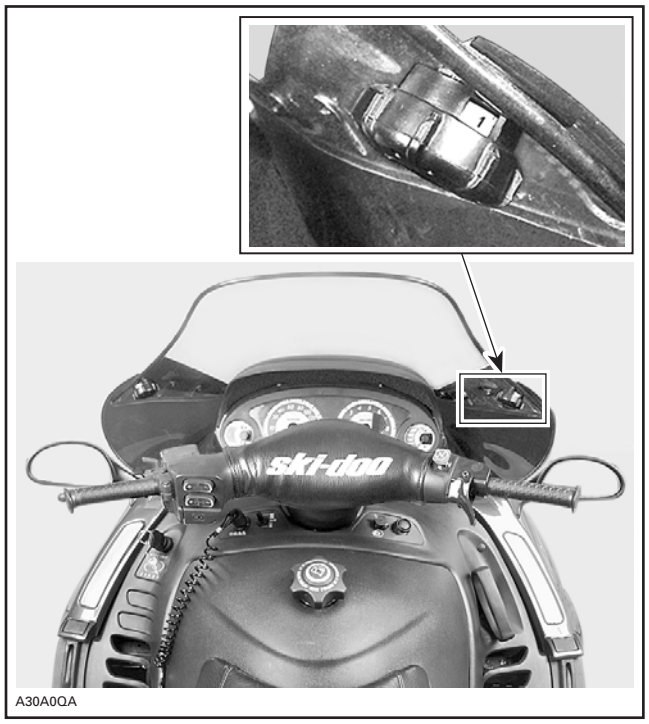


1. Latch (6) (P/N 570 023 800) (4 in section no. 5)

WINDSHIELD ADJUSTMENT

Mach Z Tech Plus Model Only

To adjust windshield, always sit on snowmobile and turn both adjustment buttons at the same time. Failure to do so may jam the mechanism.

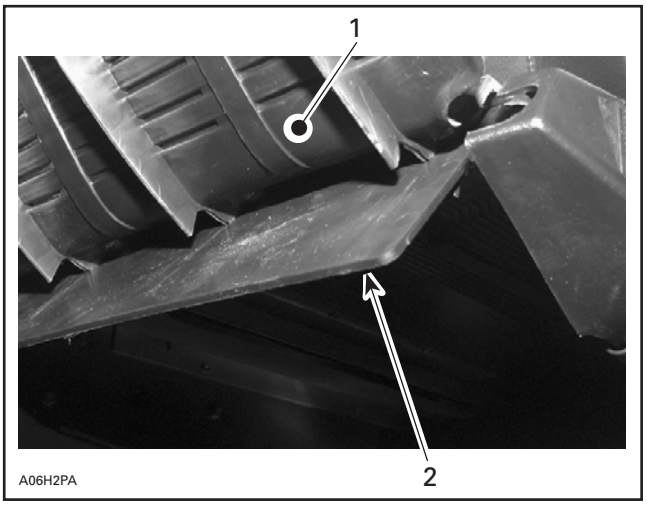


BOTH LEFT AND RIGHT BUTTON MUST BE TURNED AT THE SAME TIME

NOTE: Customers must be advised of this item prior to snowmobile delivery.

Insert and position snow guard onto chassis, between rear moldings.

Slide and position snow guard protector pad between snow guard and chassis.

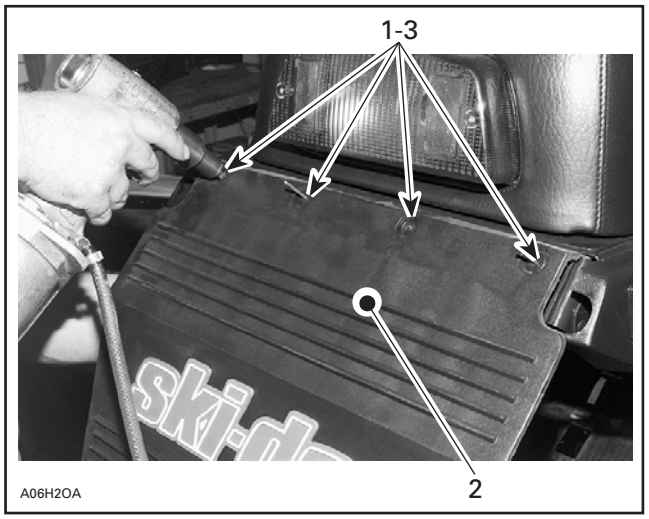


TYPICAL — VIEW FROM UNDER SNOW GUARD

1. *Snow guard (box)*
2. *Snow guard protector pad (box)*

Secure the two parts with rivets.

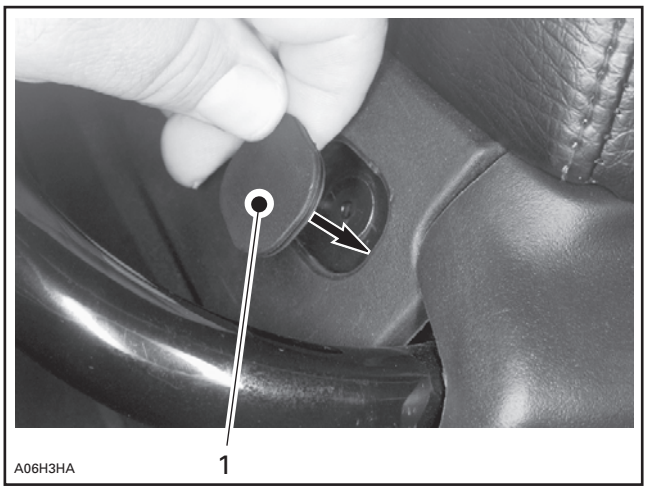
NOTE: Place washers inside tunnel.



TYPICAL

1. *Rivet (4) (P/N 390 908 000) (section no. 3)*
2. *Snow guard (box)*
3. *Washer (4) (P/N 517 225 900) (section no. 3). Position washer inside tunnel*

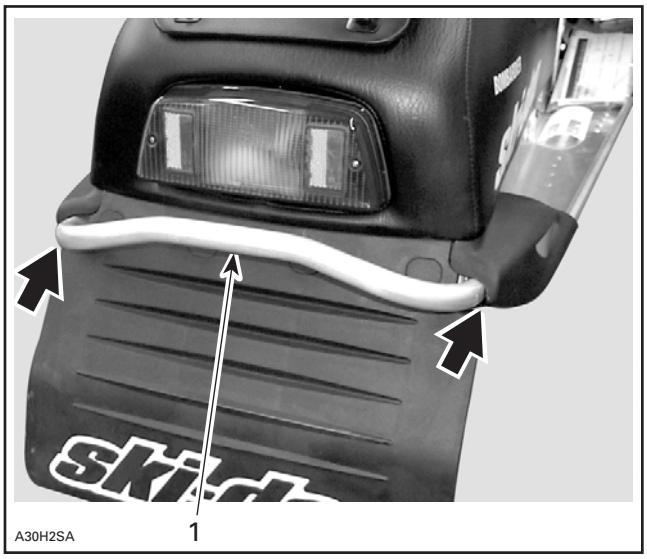
Finalize snow guard installation with caps, as shown in the next photo.



1. *Cap (4) (P/N 415 073 300) (section no. 3)*

PARTS INSTALLATION
REAR BUMPER

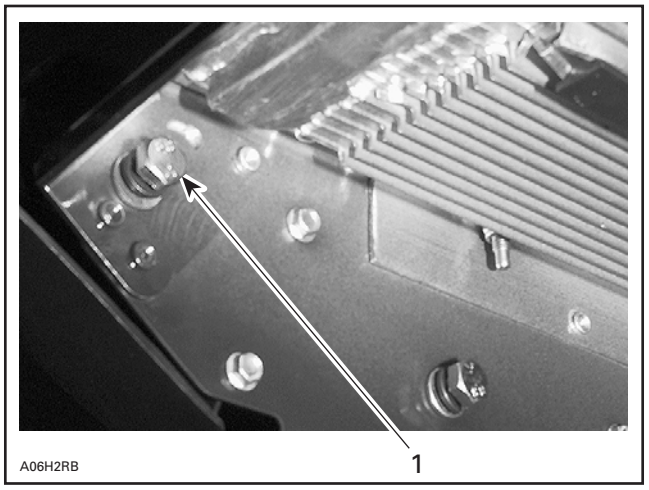
Install rear bumper to chassis.



SLIDE BUMPER INSIDE REAR MOLDINGS

1. Rear bumper (box)

Secure bumper from inside of tunnel.



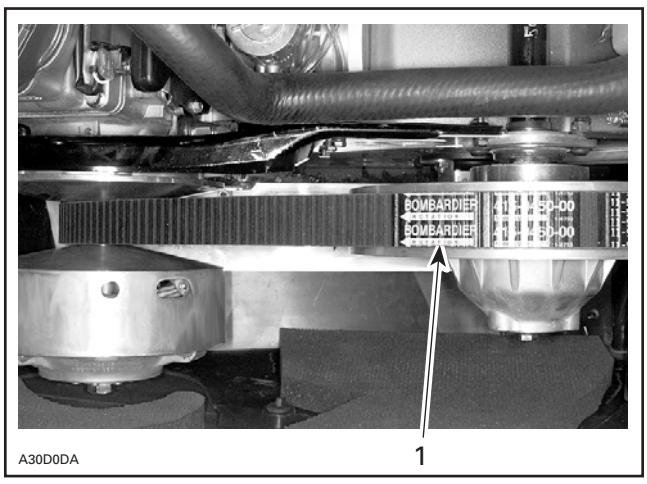
TYPICAL — VIEW FROM INSIDE OF TUNNEL

1. Bolt M8 (4) (P/N 207 182 044) (section no. 1). Torque to 15 N•m (11 lbf•ft)

PARTS INSTALLATION
DRIVE BELT

Clean pulleys and disc brake with a suitable cleaner such as Loctite Parts Cleaner (P/N 413 711 809) before installing drive belt.

NOTE: Take care to install belt so that arrows point toward front of snowmobile.



1. Arrows pointing toward front

BREAK-IN PERIOD

Supplemental Oil

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz) of BOMBARDIER injection oil (P/N 413 802 900 — 12 x 1 L) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

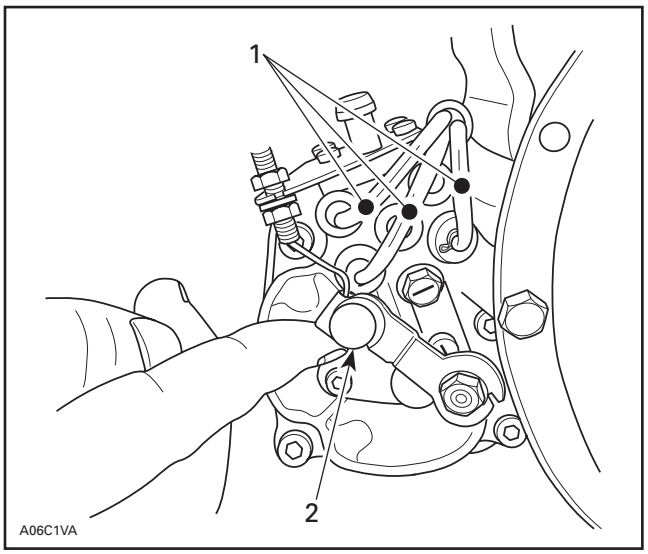
Bleeding Procedure

Check for air bubbles in main line. If huge bubbles or if no oil is found, bleed main line as described in *Shop Manual*. Add injection oil in oil tank as required.

Although set in factory, check also for proper oil lever adjustment. Mark on pump body must align with mark on lever when throttle lever is activated just enough to take all cable play.

Bleed the small oil lines between pump and engine crankcase by running engine at idle while holding the pump lever in fully open position.

NOTE: To ease pump lever holding, make a J hook out of mechanical wire to lift the lever.

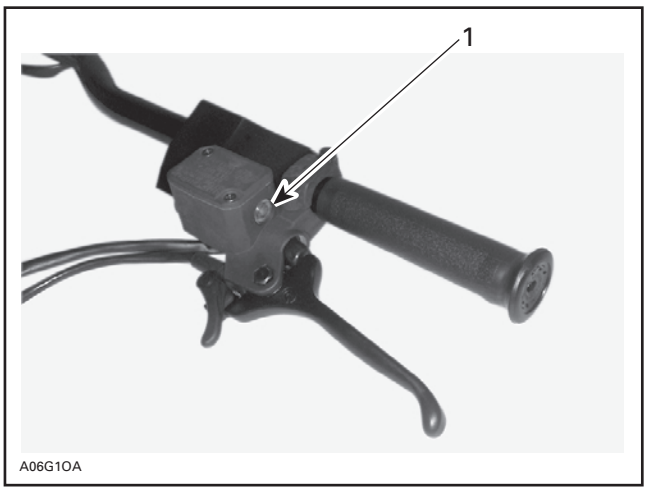


TYPICAL

1. *Small oil line*
2. *Engine at idle (fully open position)*

Check brake fluid in reservoir on handlebar for proper level. Add fluid (DOT 4) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partial bottle of brake fluid.



1. *Minimum level window*

ADJUSTMENTS
SUSPENSION

Rear suspension is calibrated at factory. At predelivery, mechanics should perform suspension adjustments according to customer riding style and vehicle load as described on suspension adjustment chart which is located on belt guard.

1. *Adjustment chart*
2. *Belt guard*

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

When track adjustment is completed, install wheel caps provided in predelivery kit (section no. 4).

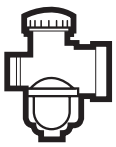
NOTE: If lubricant is needed to help cap installation, use lens cleaner instead of soapy water to avoid cap to get out from its location due to soap residual.

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Vehicles used at high altitudes, above 600 m (2000 ft) should be fitted with a high altitude kit. Further inquiries should be directed to your distributor service representative.

A dot (•) on right indicates changes from 2001 model.

	MODELS			MACH Z TECH PLUS	MACH Z SPORT
	Engine Type			809	
	Maximum HP RPM ①		± 100 RPM	8300	
	Reed Valve		P/N	420 924 519	
	Carburetor Type			PTO TM 38 - C317 CTR TM 38 - C317 MAG TM 38 - C317	
	Main Jet			PTO 290 CTR 290 MAG 290	
	Needle Jet			O-2 (327)	
	Pilot Jet			50	
	Needle Identification — Clip Position			8ADY1/41-3	
	Slide Cut-Away			2.0	
	Float Adjustment		± 1 mm (± 0.04 in)	21.0 (0.83)	
	Air Screw Adjustment		± 1/16 turn	4.5	
	Idle Speed RPM		± 200 RPM	2000	
	Gas Grade Octane Number		(R + M)/2	Super unleaded 91	
	Gas/Oil Ratio			Injection	
	Ignition Timing BTDC ② ③		mm (in)	2.59 (.102)	1.94 (0.076)
	Trigger Coil Air Gap		mm (in)	0.55 - 1.20 (.022 - .048) •	
	Gear Ratio		Teeth	26/43	
	Engagement Speed		± 100 RPM	4200	
	Drive Pulley Calibration Screw Position			2 •	
	Pulley Distance	Z ④	(+ 0, - 0.5) mm ((+ 0, - 1/64) in)	121.0 (4-3/4)	
	Offset	X	± 0.5 mm (± 1/64 in)	35.5 (1-13/32)	
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X of 1.5 mm (1/16 in) •	
	Drive Belt Adjustment	Deflection	mm (in)	38 (1-1/2)	
		Force ⑤	kg (lbf)	11.50 (25.4)	
	Driven Pulley Preload		± 0.7 kg (± 1.5 lbf)	0.0	7.0 (15.4)
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation	
	Track Adjustment	Deflection		30 to 35 mm (1-3/16 to 1-3/8 in) with a 7.3 kg (16 lb) downward pull	

① Engine speed at which maximum power is achieved.

② At 3500 RPM (engine cold) with headlamp turned on.

③ During the first 8 hours, the timing curve is retarded by 2° between 4500 RPM and maximum RPM. Because checking ignition timing is done at lower RPM, this will not affect the 3500 RPM timing specification.

④ Distance to be adjusted after a 10-hours break-in period.

⑤ Force applied midway between pulleys to obtain specified deflection.

BTDC: Before Top Dead Center
ATDC: After Top Dead Center
PTO: Power Take OFF side
CTR: Center
MAG: Magneto side

Please route to :

Init.

- ☐ Service ☐
- ☐ Sales ☐
- ☐ Parts ☐

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-3**

Date: August 10, 2001

SUBJECT: Predelivery

YEAR	MODEL	PACKAGE	MODEL NUMBER	SERIAL NUMBER
2002	Summit® 800 R	Sport	2121/2122/2123/2124	All
2002	Summit 800	Sport	1973/1974/1975/1976	All
2002	Summit 700 R	Sport	1981/1982/1983/1984/ 2208/2209	All
2002	Summit 700	Sport	1977/1978/1979/1980	All
2002	Summit 600 R	Sport	1989/1990/1991/1992/2133	All
2002	Summit 600	Sport	1985/1986/1987/1988	All

This bulletin must be used in conjunction with the *Predelivery Check List* enclosed in the bag with the *Operator's Guide*. Make sure that *Predelivery Check List* is completed and signed.

⚠ WARNING

To obtain limited warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your distributor service representative and/or specific *Shop Manual* sections. Please complete the *Predelivery Check List* for each snowmobile and retain a customer signed copy. Make sure the customer receives the *Operator's Guide, Safety Handbook, Predelivery Check List* signed copy and *Safety Videocassette*.

There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask dealer to perform suspension adjustments according to riding style and vehicle load.

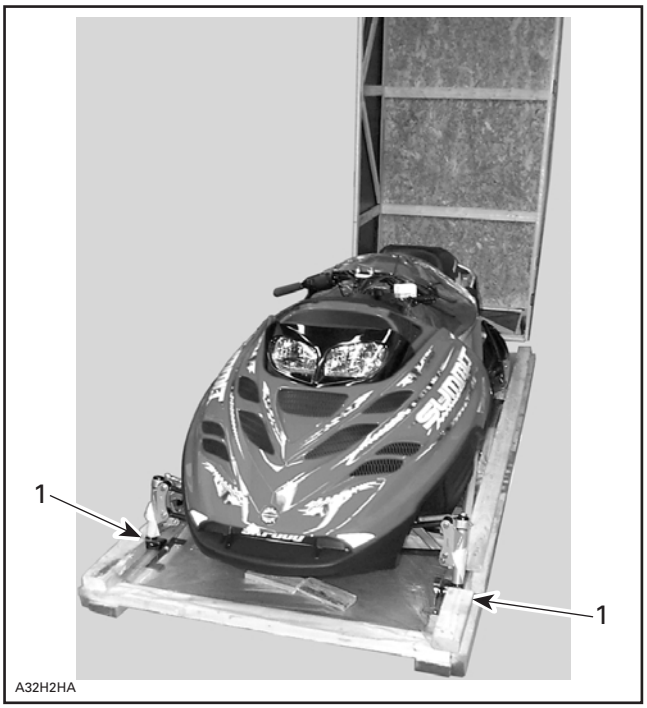
⚠ WARNING

Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

Remove all screws retaining cover to crate base. Tip cover toward front or rear of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging any part of the snowmobile.



1. Notch

Detach parts to be installed (e.g. skis, windshield) from the vehicle and its base.

Remove ropes and cut locking ties retaining windshield.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Keep ski leg bolts and bushings to bolt skis to ski legs. Discard crating spacers and nuts.

Remove vehicle from base.

Remove steering pad, drive belt, predelivery kit and shock absorbers from engine compartment.

FRONT HOOK REMOVAL

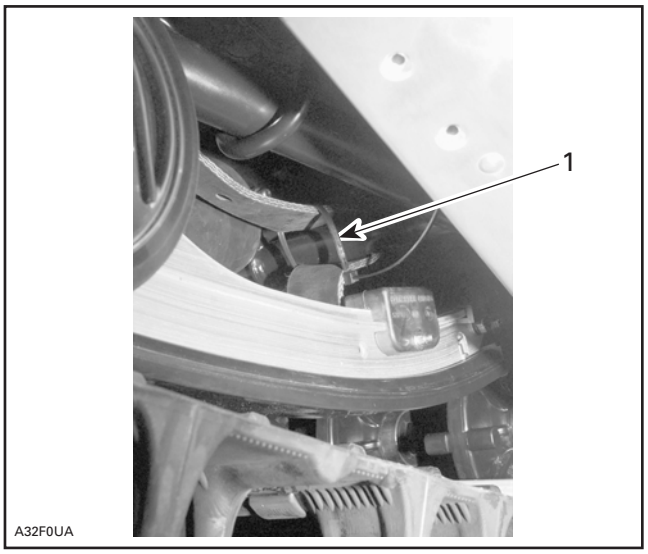
Procedure

Apply parking brake.

Lift rear of vehicle so that a block or a box can be positioned under front wheel, as shown on the next photo.

EDGE OF BOX ALIGNED WITH WHEEL AXIS

On both sides, cut locking ties holding stopper straps.



1. Cut locking ties on both sides

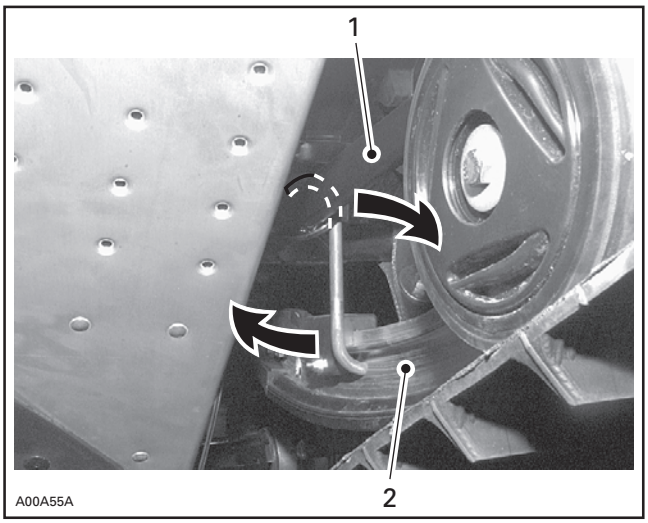
From left side of vehicle, cut locking tie, then apply pressure onto rear bumper with right hand, as shown on the following photo.

TYPICAL

Using left hand, remove hook from suspension, as shown on the following photo.

⚠ WARNING

Before removing hook always verify that vehicle is properly supported and that parking brake is applied.



TYPICAL — REMOVE HOOK

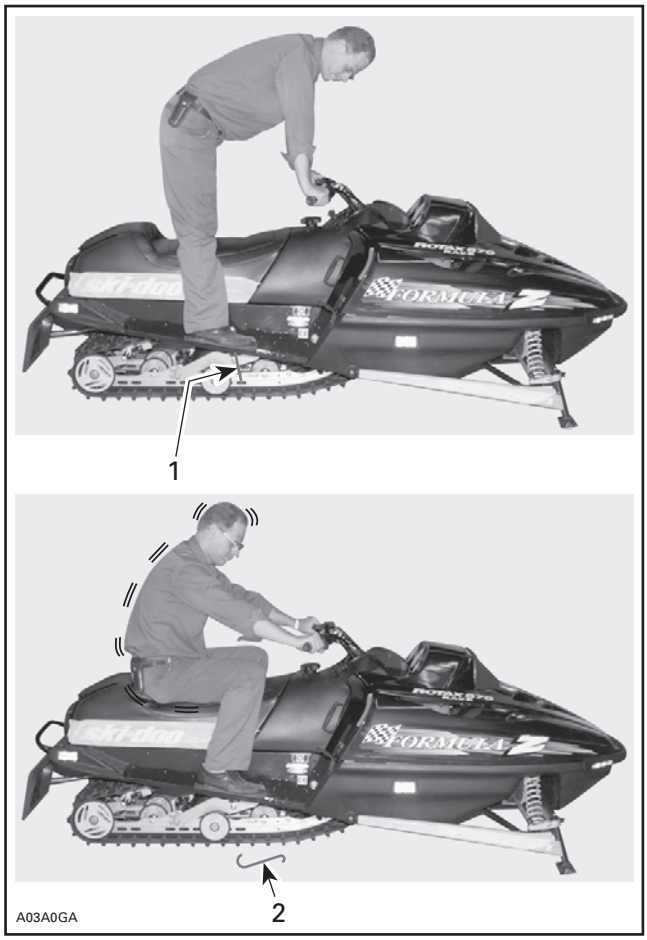
1. Front arm
2. Runner

REAR HOOK REMOVAL

To remove hook, stand on running boards.

Using a fast and strong movement, sit down on snowmobile seat. This will allow suspension to compress and hooks to detach. See the next photo.

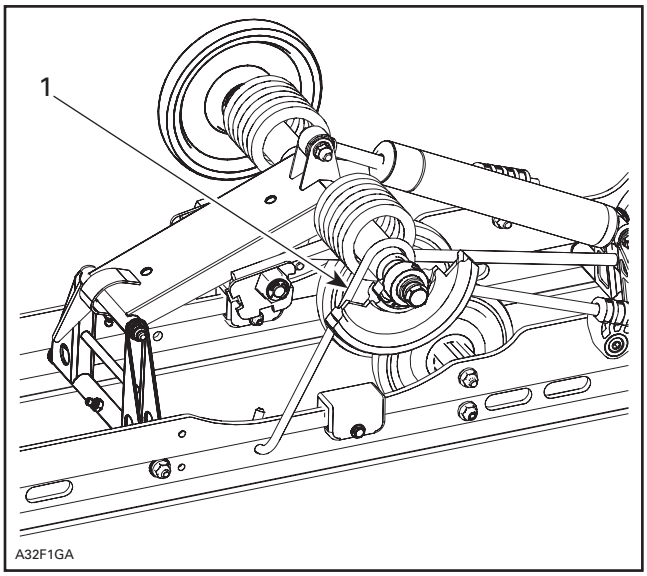
CAUTION: To avoid damaging seat storage compartment and cover, always sit on seating surface.



TYPICAL — STAND ON RUNNING BOARDS THEN SIT DOWN ON SEAT

1. *Hook to be removed (both sides)*
2. *Hook removed*

NOTE: Hook may detach from top only. In that case remove hook from runner by hand or with tongs.



TYPICAL

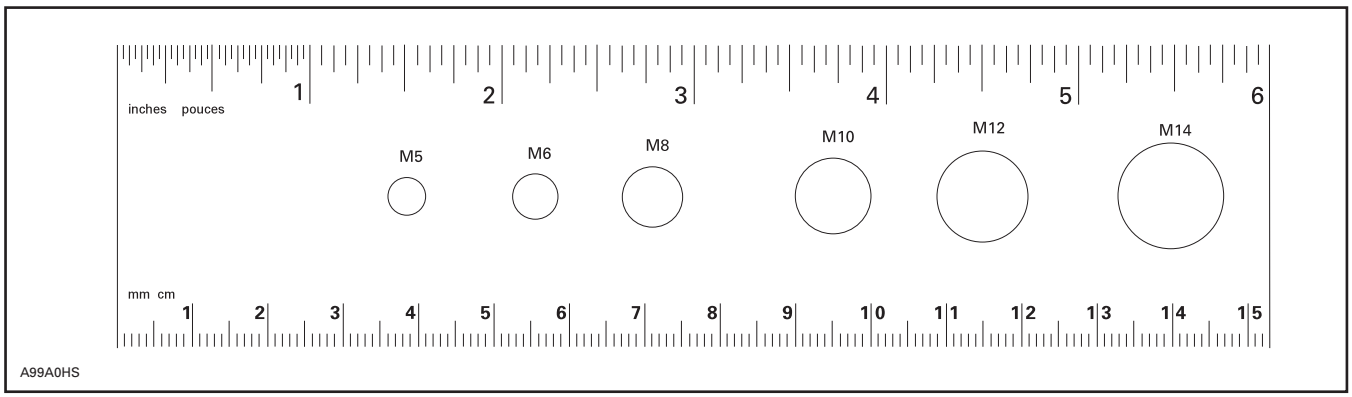
1. *Remove hook*

You can also ask two persons to push down rear bumper to compress suspension and remove hook by hand, laying on seat.

⚠ WARNING

Shipping hooks must be removed to have snowmobile suspension operational.

PREDELIVERY KIT P/N	MODELS
549 011 016	Summit 800/800 R Summit 700/700 R
549 010 029	Summit 600/600 R



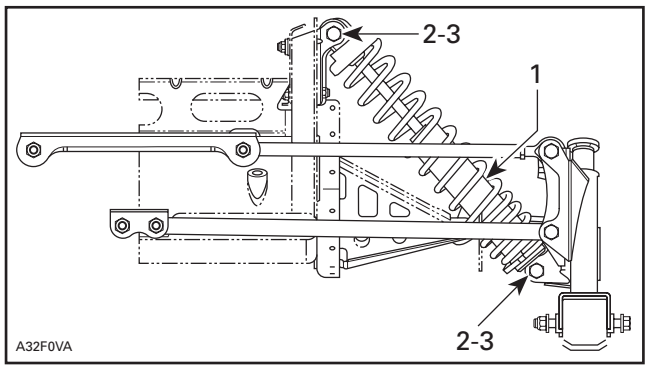
NOTE: This ruler can be helpful to identify fastener length or size.

Lift front of vehicle and block safely.

Remove and discard shipping brackets from suspension. Discard spring clips, keep screws.

Secure shock absorbers to suspension with their adjusting ring at bottom.

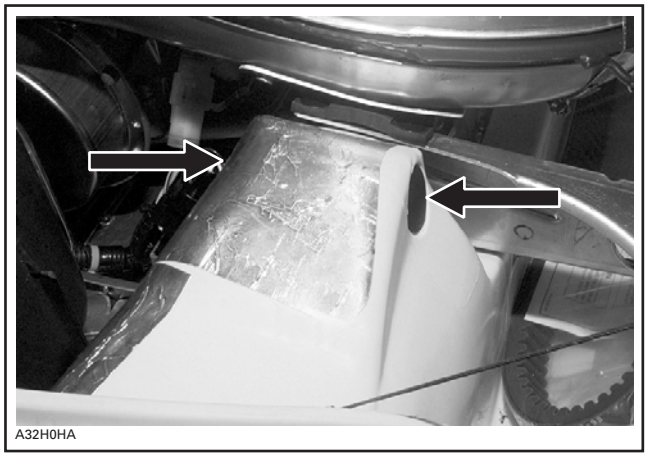
NOTE: Position top screw head toward rear of vehicle and bottom screw heads toward front of vehicle and secure with nuts provided in predelivery kit (section no. 3).



TYPICAL — RH SIDE SHOWN

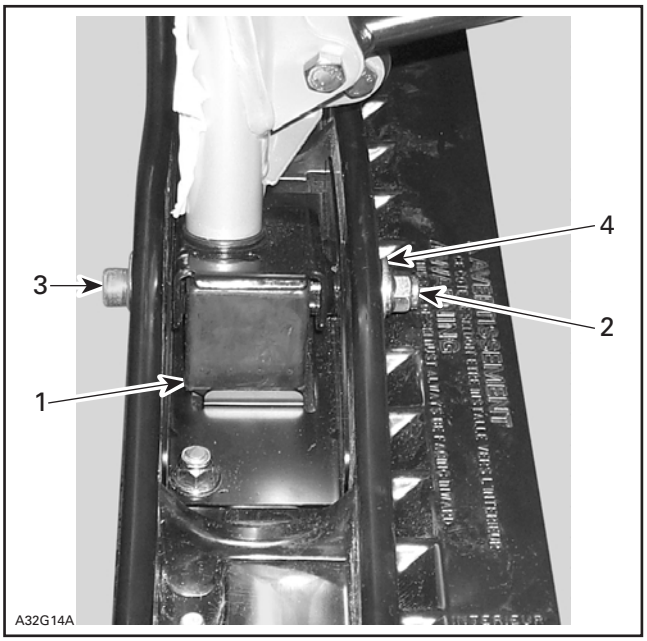
1. *Shock absorber (2) (engine compartment) adjusting ring at bottom*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Elastic flanged nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 3). Torque to 48 N•m (35 lbf•ft)*

Install caps provided in predelivery kit on bottom pan, each side of upper bolts.



SNAP PROVIDED CAPS (SECTION NO. 3) EACH SIDE OF MOLDING

Install skis on vehicle.

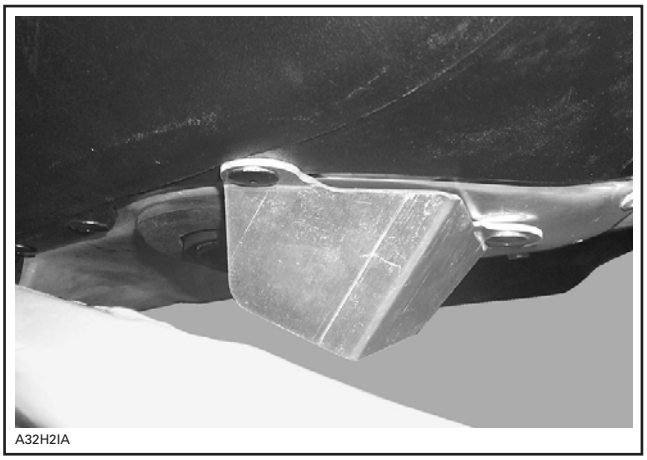


LEFT SIDE SHOWN — MOUNTAIN SKI

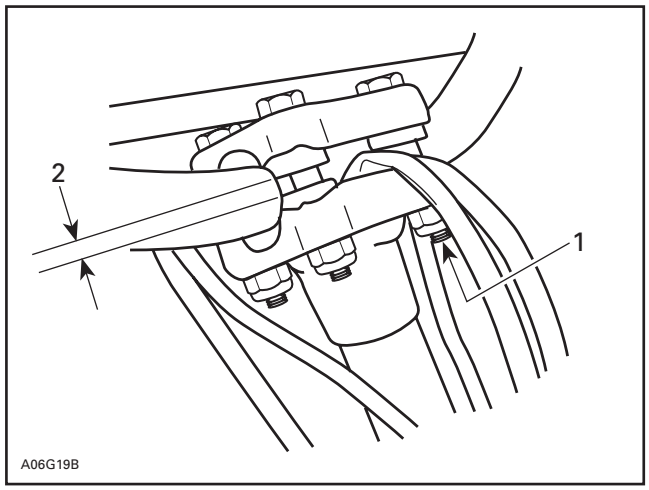
1. *Ski stopper (2) (P/N 506 151 233) (section no. 3) with higher side toward front*
2. *Flanged nut M10 (2) (section no. 2). Torque to 32 N•m (24 lbf•ft)*
3. *Bolt M10 (2) (ski leg)*
4. *Washer (2) (section no. 1). Installed on nut side*

While front of vehicle is lifted, install exhaust protector (section no. 3) on bottom pan using rivets provided (section no. 5).

NOTE: On Summit 600/600 R models, the protector is secured with a black and a silver rivets. The black one should be fixed on the black plastic bottom pan and the silver one should be fixed on metallic tunnel. See photo.



Adjust handlebar and torque nuts between 21 and 28 N•m (16 and 20 lbf•ft).



TYPICAL

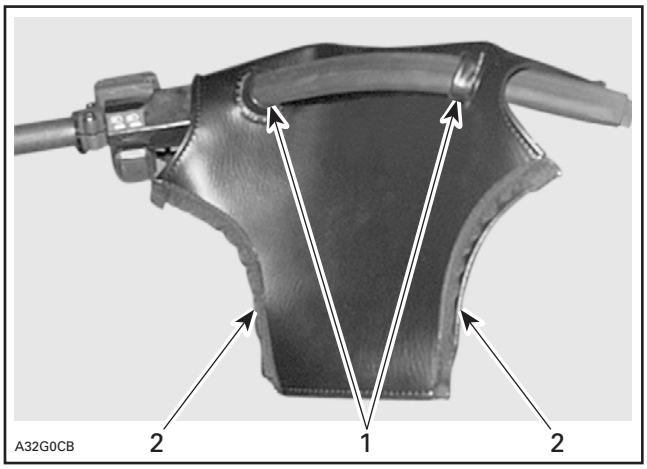
1. *Torque between 21 and 28 N•m (16 and 20 lbf•ft)*
2. *Equal gap each side (both clamps)*

Loosen, at least 3 turns, Allen screw of throttle and brake handle housings.

STEERING HOLDING STRAP

Cut locking tie retaining right side strap end.

Insert strap through holes provided in steering padding, as shown in the next photo.

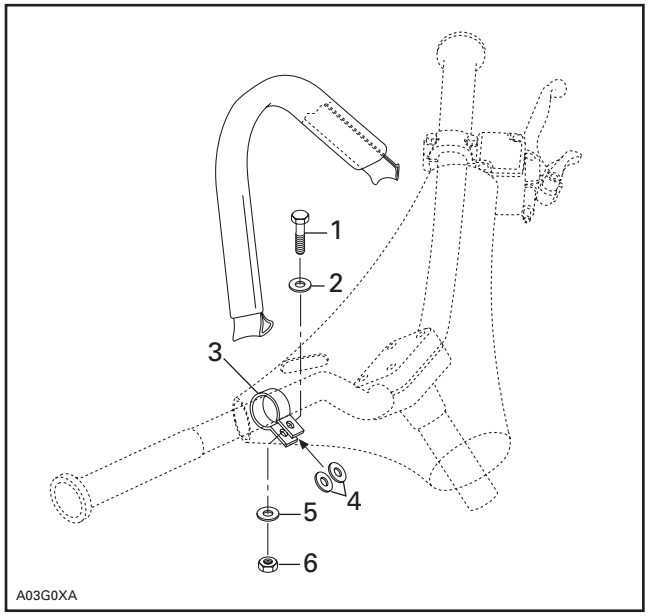


TYPICAL

1. *Strap inserted through both steering pad cover holes*
2. *Velcro strips must be seen from driver's place*

Secure right side strap end with retaining clip and tighten firmly using bolt and nut (section no. 4) and washers (section no. 2) in the sequence shown on drawing below. Torque to 10 - 12 N•m (89 - 106 lbf•**in**).

NOTE: Keep wires out of clamp to avoid pinching.



1. *Bolt*
2. *Washer*
3. *Retaining clip*
4. *Washers*
5. *Washer*
6. *Nut*

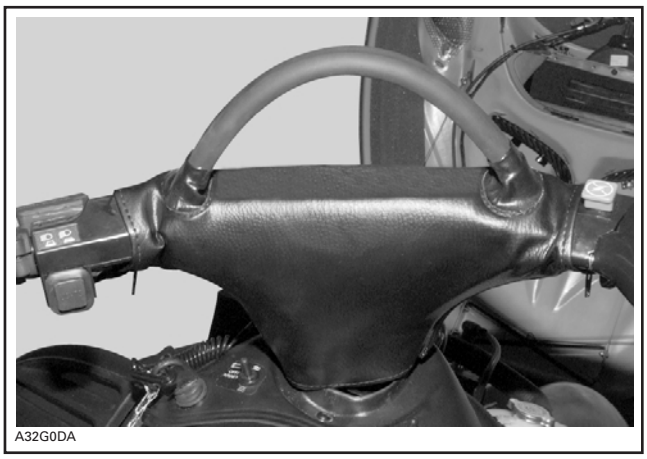
Properly position foam and padding in place, as shown in the next photo.

NOTE: As a tip, place narrow side of padding on rear side.

MAKE SURE FOAM AND PADDING WRAP STEERING PROPERLY

Fasten padding with velcro strips to complete installation.

Install the pad with velcro.



TYPICAL — FINAL INSTALLATION

Remove headlamp protector from hood.

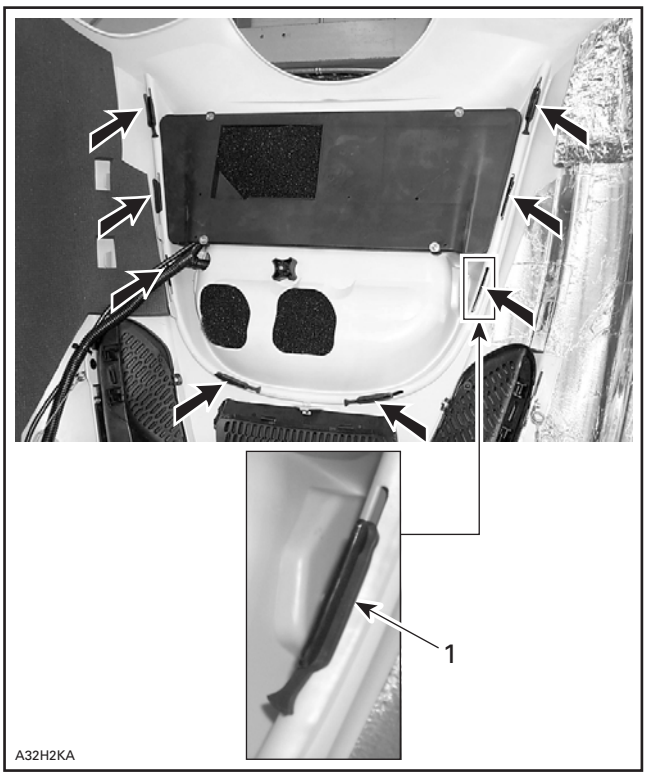
Unclip inner protector from headlamp protector.

Insert tabs of headlamp protector in windshield square holes.

Clip inner protector in place.

Secure windshield assembly on hood using latches.

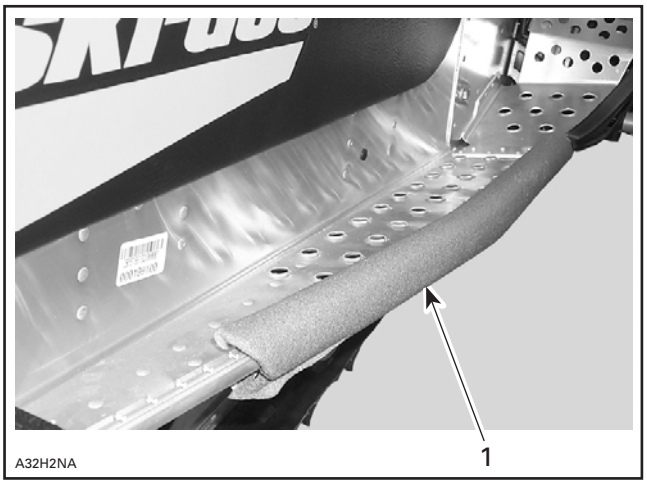
1. *Headlamp protector*
2. *Windshield*
3. *Inner protector*



1. *Latch (8) (P/N 570 023 800) (4 already on headlamp protector, 2 on windshield and 2 on section no. 5)*

TYPICAL — WINDSHIELD INSTALLED

Remove protective footrest foams.



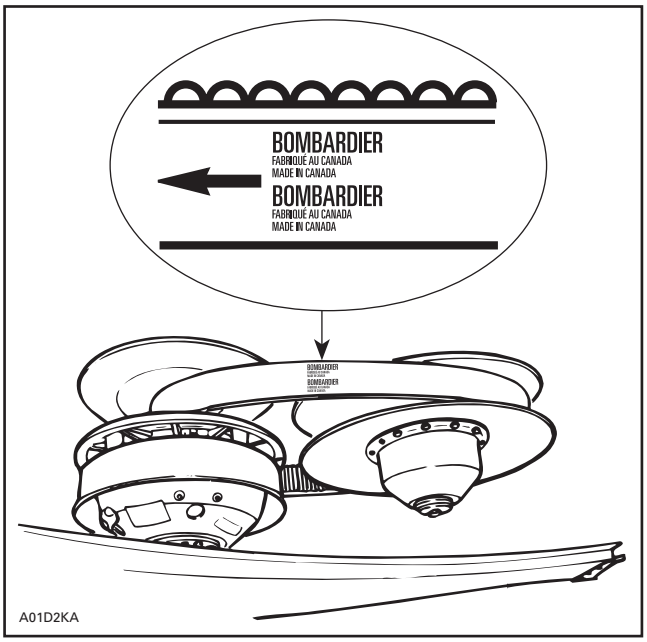
1. Remove protective footrest foam

PARTS INSTALLATION
DRIVE BELT

Clean pulleys and disc brake with a suitable cleaner such as Loctite Parts Cleaner (P/N 413 711 809) before installing drive belt.

To ensure maximum drive belt life span, the new drive belt must be installed so that the Bombardier name can be read when facing pulleys.

CAUTION: The arrow indicates the direction of rotation.



CORRECT INSTALLATION

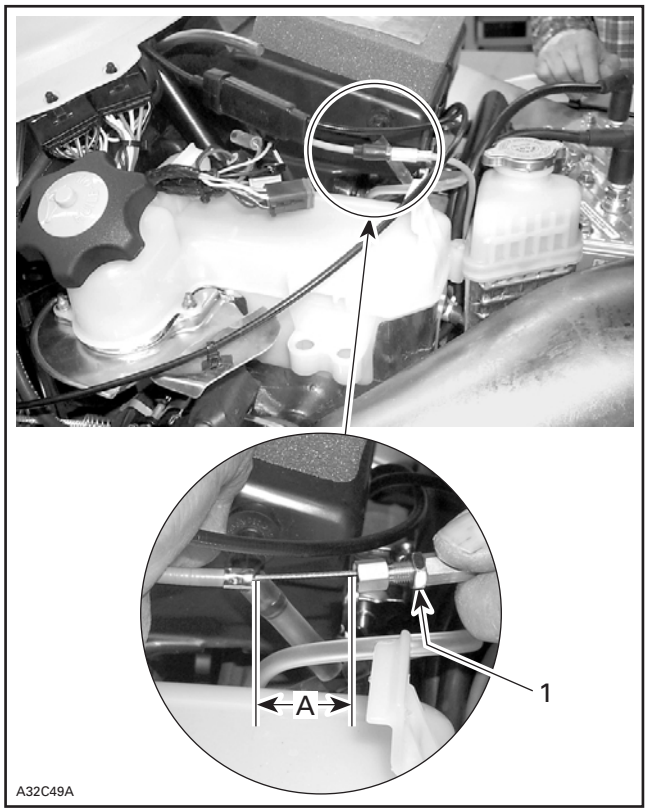
SUPPLEMENTAL OIL

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz.) of BOMBARDIER injection oil (P/N 413 803 000) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

PUMP ADJUSTMENT

Oil injection pump is factory set. However, if adjustment needs to be checked or modified, refer to *2002 Ski-Doo Shop Manual, Volume 3* (P/N 484 200 037).

Stretch cable sheath to fully open oil pump. Wire length must be 28 mm (1-3/32 in). If necessary, turn adjustment nut to reach this measure.



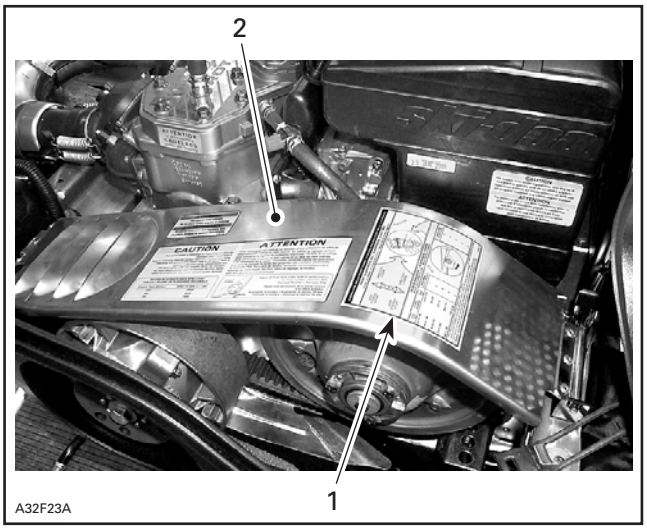
1. Adjustment nut
A. 28 mm (1-3/32 in)

Check brake fluid in reservoir on handlebar for proper level. Add fluid (DOT 4) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partially filled bottle of brake fluid.

ADJUSTMENTS
SUSPENSION

Rear suspension is calibrated at factory. At predelivery, mechanics should perform suspension adjustments according to customer riding style and vehicle load as described on suspension adjustment chart which is located on pulley guard.



TYPICAL

1. *Adjustment chart*
2. *Pulley guard*

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

When operation is done, install wheel caps provided with the predelivery kit (section no. 4) on rearmost wheels.

NOTE: If lubricant is needed to help cap installation, use lens cleaner instead of soapy water to avoid cap to get out from its location due to soap residual.

ADJUSTMENTS
DRIVEN PULLEY

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Further inquiries should be directed to your distributor service representative.

When Summit 600 snowmobiles are to be used at sea level, at an altitude of 600 m (2000 ft) or less, it is of the utmost importance to install the appropriate sea level kit.

CAUTION: To avoid severe engine damage, the sea level kit must be installed when the vehicle is used at sea level, at an altitude of 600 m (2000 ft) or less.

Refer to Sea Level Service Bulletin (to be published later) to know which parts are to be changed for sea level riding.

A dot (•) on right indicates changes from 2001 model.

	MODEL			SUMMIT 600/600 R	SUMMIT 700/700 R	SUMMIT 800/800 R
	Engine Type			593	693	793
	Maximum HP RPM ①		± 100 RPM	8000	8000	7900 •
	Reed Valve		P/N	420 924 519	420 867 870	420 867 873 •
	Carburetor Type			TM 40-B157 with DPM	TM 40-B163 with DPM	TM40-B175
	Main Jet			500	510N •	520N •
	Needle Jet			P-0		
	Pilot Jet			20	17.5	17.5
	Needle Identification			9HGY1-58 ② •	9ZLY3 - 58 ②	9ZLY2-58 ②
	Slide Cut-Away			2.0		
	Float Adjustment		± 1 mm (± 0.04 in)	—		
	Air Screw Adjustment		± 1/16 turn	—		
	Idle Speed RPM		± 200 RPM	1500		
	Gas Grade/Pump Octane Number		(R + M)/2	Regular unleaded/87		
	Gas/Oil Ratio			Oil injection		
	Ignition Timing BTDC ③		mm (in)	3.0 (0.118)	3.36 (0.132)	3.51 (0.138)
	Trigger Coil Air-Gap		mm (in)	0.55 - 1.45 (.022 - .057)		
	Gear Ratio		Teeth	19/43	21/43	21/43
	Engagement Speed		± 100 RPM	4000 •	4100 •	4000 •
	Drive Pulley Calibration Screw Position			1		•
	Pulley Distance	Z ④	± 0.5 mm (± 1/64 in)	16.5 (21/32)		
	Offset	X	± 0.5 mm (± 0.02 in)	35.5 (1.398)		
		Y	± 0.5 mm (1/64 in)	Dimension Y must exceed X by 1.5 mm (1/16 in) •		
	Driven Pulley Preload		± 0.7 kg (± 1.5 lbf)	7.5 (16.5) ⑤ •	7.5 (16.5) ⑤ •	0.0 •
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation		
	Track Adjustment	Deflection	mm (in)	30 to 35 (1-3/16 to 1-3/8) with a 7.3 kg (16 lb) downward pull		

① Engine speed at which maximum power is achieved.
② Needle with one groove only (no adjustment).
③ At 3500 RPM (engine cold) with headlamp turned on.
④ Z dimension without torque rod preload. After Z dimension adjustment, hand tight torque rod until plastic pad cannot be turned, then turn torque rod an additional half turn. Lock jam nut.
⑤ Preload is 0.0 for models with reverse.
BTDC: Before Top Dead Center

Please route to :

Init.

- ☐ Service ☐
- ☐ Sales ☐
- ☐ Parts ☐

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-4**

Date: August 17, 2001

SUBJECT: Predelivery

YEAR	MODEL	PACKAGE	MODEL NUMBER	SERIAL NUMBER
2002	MX Z 700 R	Adrenaline	1898/1899/1900/ 1901/1902/1903	All
2002	MX Z 700 R	Sport	2108/2109/2110/2111	All
2002	MX Z 700	Sport	1920/1921/1922/1923	All
2002	MX Z 700	Trail	1936/1937/1938/1939	All
2002	MX Z 600 R	Adrenaline	1904/1905/1906/ 1907/1908/1909	All
2002	MX Z 600 R	Sport	2112/2113/2114/2115	All
2002	MX Z 600	Sport	1924/1925/1926/1927	All
2002	MX Z 600	Trail	1940/1941/1942/1943	All
2002	MX Z 500 R	Sport	2116/2117/ 2118/2119/2128	All
2002	MX Z 500	Sport	1928/1929/ 1930/1931/2127	All
2002	MX Z 500	Trail	1944/1945/1946/1947	All

This bulletin must be used in conjunction with the check list enclosed in the bag with the *Operator's Guide*. Make sure that *Predelivery Check List* is completed and signed.

⚠ WARNING

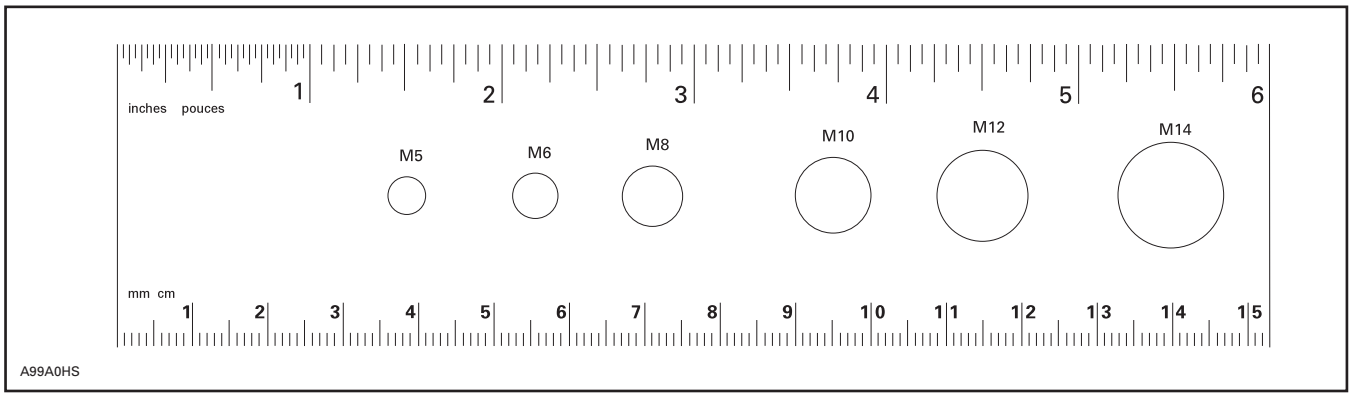
To obtain limited warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer/distributor. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

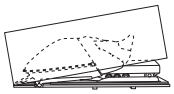
The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your distributor service representative and/or specific *Shop Manual* sections. Please complete the *Predelivery Check List* for each snowmobile and retain a customer signed copy. Make sure the customer receives the *Operator's Guide, Safety Handbook, Predelivery Check List* signed copy and *Safety Videocassette*.

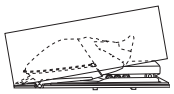
There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask dealer/distributor to perform suspension adjustments according to riding style and vehicle load.



NOTE: This ruler can be helpful to identify fastener length or size.



UNCRATING



PREDELIVERY KIT P/N	MODELS
549 010 880	MX Z 700 R/MX Z 700 MX Z 600 R/MX Z 600 MX Z 500 R/MX Z 500

⚠ WARNING

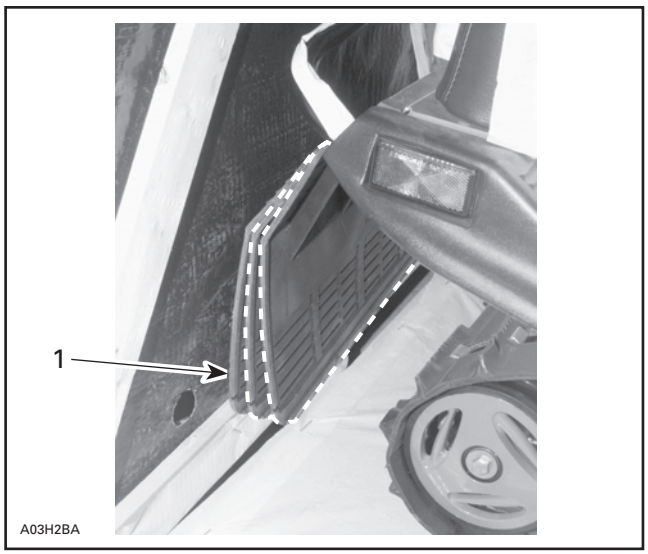
Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

Remove all screws retaining cover to vehicle base. Tip cover toward front or rear of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging any part of the snowmobile.

NOTE: If cover is tilted toward front of vehicle, snow guard may interfere with crate cover, as shown in the following photo. Push on snow guard when lifting cover.



IF CRATE COVER IS TILTED TOWARD FRONT OF VEHICLE, FROM OUTSIDE CRATE PUSH ON SNOW GUARD TO ALLOW COVER TO LIFT WITHOUT DAMAGING SNOW GUARD

1. Snow guard interfering with crate cover

1. Notch

Detach parts to be installed (e.g. skis, windshield) from the vehicle and its base.

Remove ropes and cut locking ties retaining windshield.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Detach ski legs from crate. Keep ski leg bolts and slider cushions in order to bolt skis to ski legs. Discard crating spacers and nuts.

Remove vehicle from base.

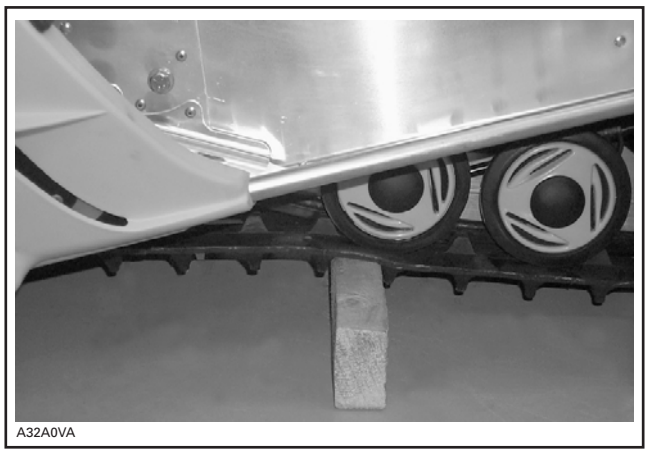
Remove steering pad, predelivery kit, shock absorbers and drive belt from engine compartment.

HOOK REMOVAL

Procedure

Apply parking brake.

Lift rear of vehicle so that a block can be positioned under front wheel, as shown on the next photo.



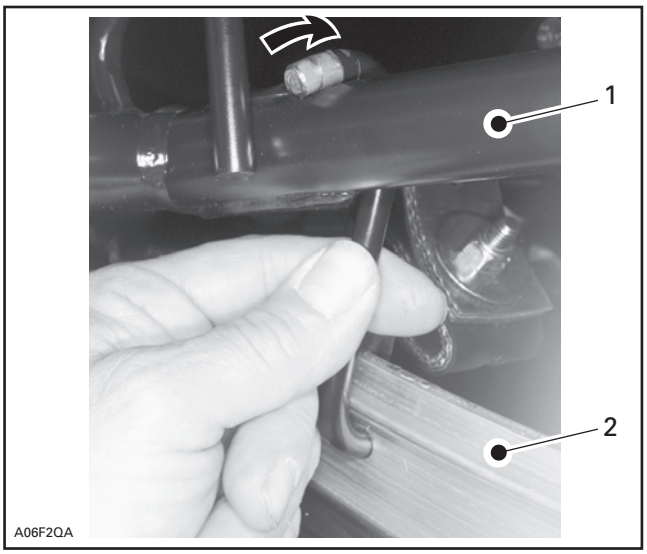
EDGE OF BLOCK ALIGNED WITH WHEEL AXIS

From left side of vehicle, cut locking tie retaining hook, then lay on seat and ask another person to apply pressure onto rear bumper.

Remove hook from suspension, as shown on the following photo.

⚠ WARNING

Before removing hook always verify that vehicle is properly supported and that parking brake is applied.



TYPICAL — REMOVE HOOK

1. Front arm
2. Runner

⚠ WARNING

Hook must be removed to have snowmobile suspension operational.

Make sure parking brake is applied.

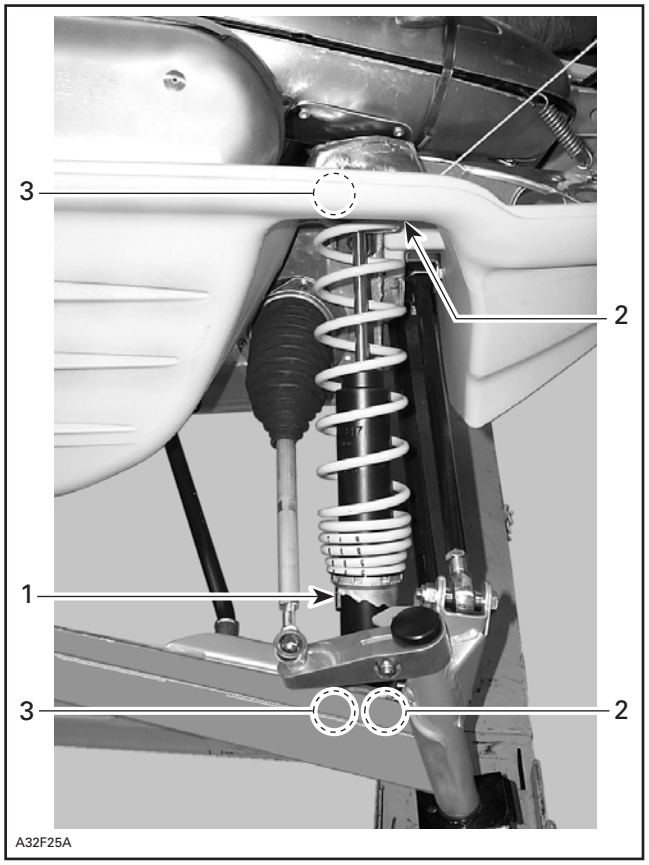
Lift front of vehicle and block safely.

Remove and discard shipping brackets from suspension. Discard spring clips, keep screws.

Models with Trail Package

Secure shock absorbers to suspension with their adjusting ring at bottom.

NOTE: Position screw heads toward front of vehicle and secure with nuts provided in predelivery kit (section no. 3).



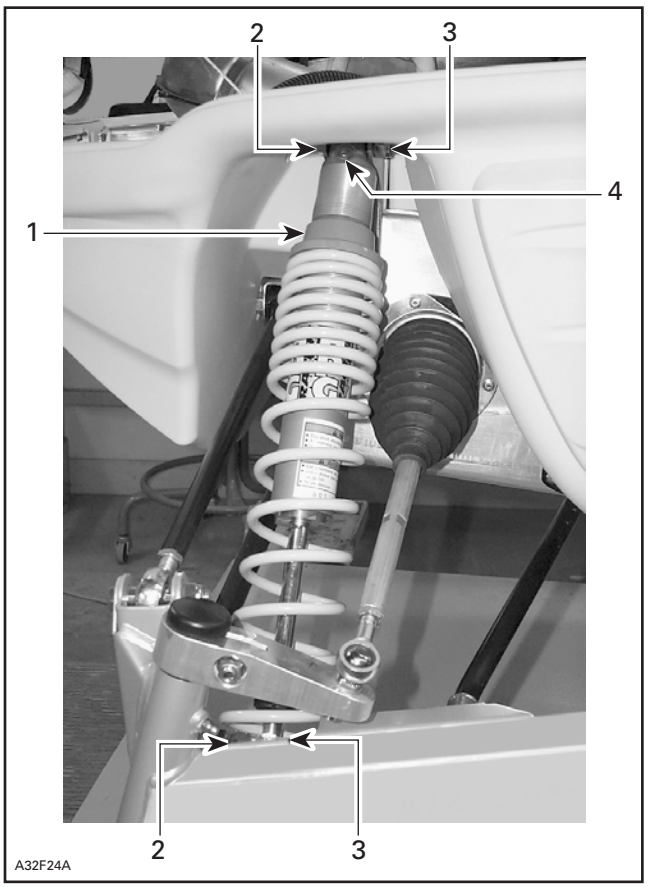
RH SIDE SHOWN

1. *Shock absorber (2) (predelivery box) adjusting ring at bottom*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Elastic nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 3). Torque to 48 N•m (35 lbf•ft)*

All Models Except Trail Package

Secure shock absorbers to suspension with their adjusting ring at top. Valve must be toward outside of vehicle.

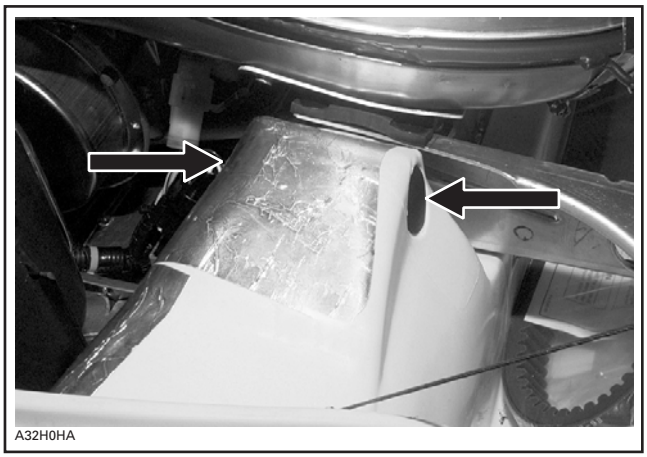
NOTE: Position screw heads toward front of vehicle and secure with nuts provided in predelivery kit (section no. 3). Make sure decal edges are toward inside vehicle.



LH SIDE SHOWN

1. *Shock absorber (2) (predelivery box) adjusting ring at top*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Elastic nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 3). Torque to 48 N•m (35 lbf•ft)*
4. *Valve*

Install caps provided in predelivery kit on bottom pan, each side of upper bolt.



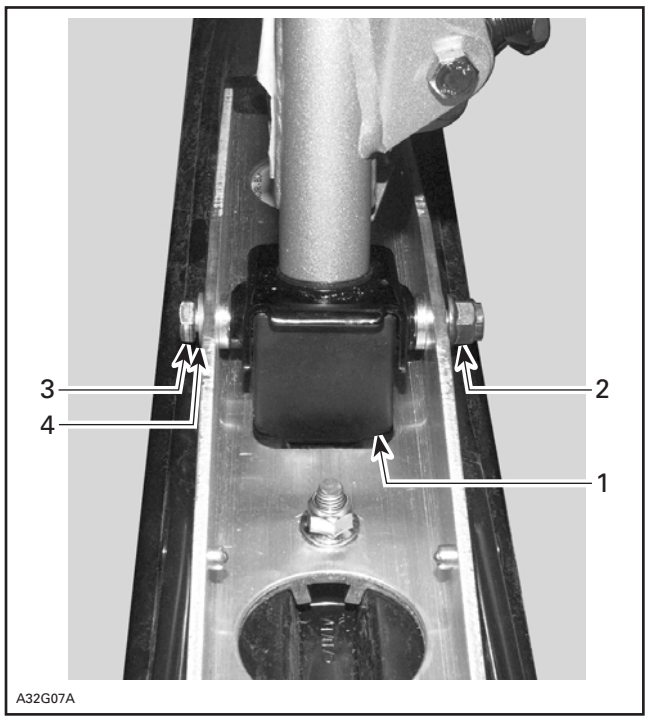
SNAP PROVIDED CAP (SECTION NO. 5) (P/N 414 916 600) EACH SIDE OF MOLDING

PARTS INSTALLATION
SKIS

Ensure ski leg bushings are still on ski legs.

Install skis on vehicle. Make sure bolt head is toward outside.

Put back vehicle on ground.

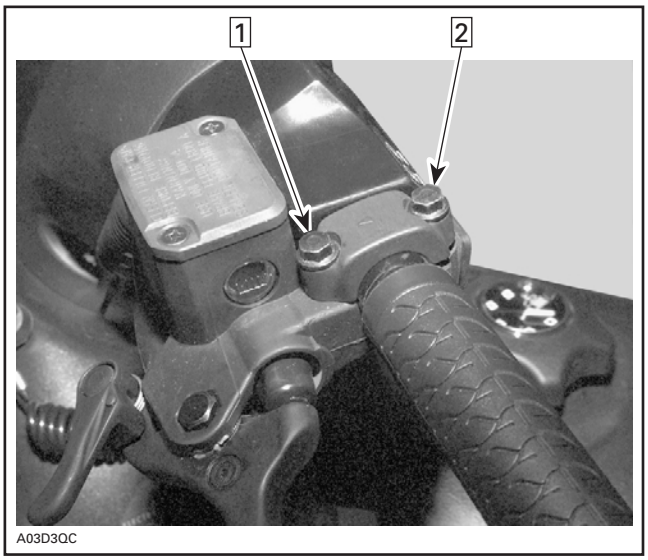


TYPICAL — TRAIL PACKAGE — RIGHT SIDE SHOWN

1. *Ski stopper (2) (section no. 3) (P/N 506 151 233) with higher side toward front*
2. *Flanged nut M10 (2) (section no. 3) (P/N 732 610 084). Torque to 32 N•m (27 lbf•ft)*
3. *Bolt M10 (2) (ski leg)*
4. *Washer (2) (section no. 3) (P/N 732 900 049) installed on bolt head side*

Adjust handlebar and tighten nuts between 21 and 28 N•m (16 and 20 lbf•ft).

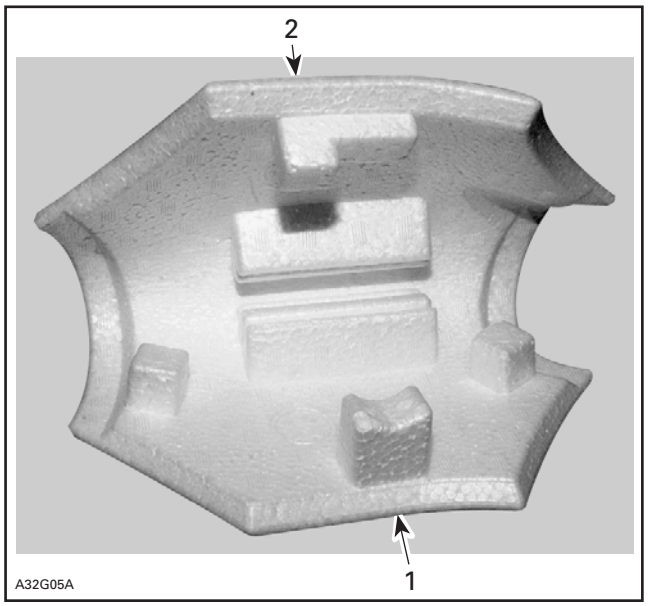
Turn brake housing to level brake oil reservoir. Secure front screw first, then rear screw. See photo.



Step 1: Screw this bolt first to a torque between 7 and 10 N•m (5.25 and 7.5 lbf•ft)
Step 2: Secure housing with this bolt (same torque)

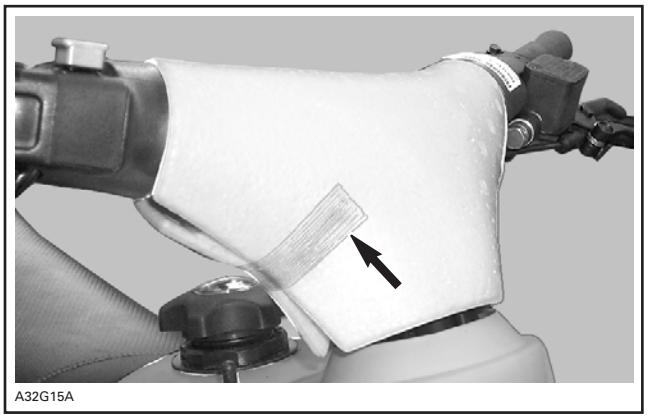
Install steering foam and adjust for proper fit with console. Fit steering padding and set in place with velcros.

NOTE: Take care to install foam in the proper side.



TYPICAL
1. *Driver's side*
2. *Engine side*

Hint: Steering foam can be secured with a device such as filament tape to ease installation.



STEERING FOAM TEMPORARILY INSTALLED WITH FILAMENT TAPE

Remove headlamp protector from hood.

Unclip inner protector from headlamp protector.

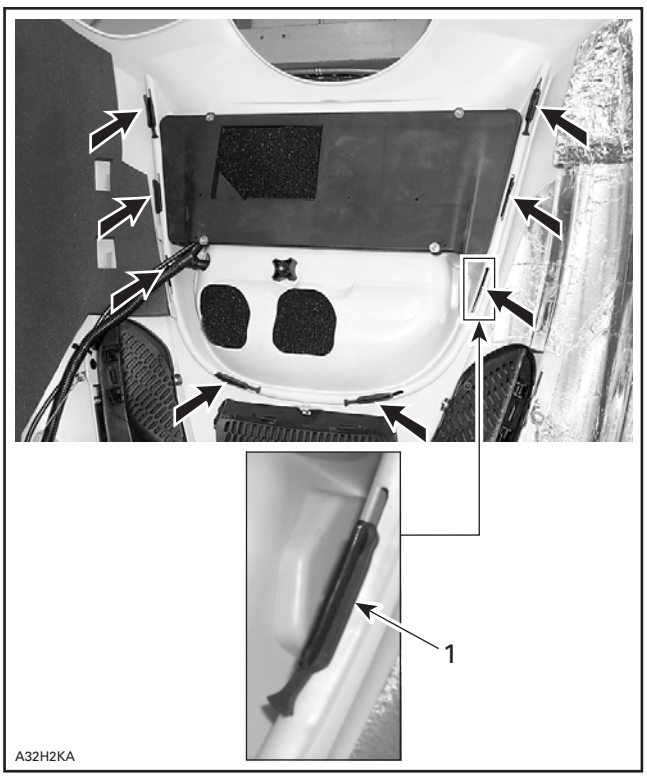
Remove protective films from windshield.

Insert tabs of headlamp protector in windshield square holes.

Clip inner protector in place.

Secure windshield assembly on hood using latches.

1. *Headlamp protector*
2. *Windshield*
3. *Inner protector*



1. *Latch (8) (P/N 570 023 800) (4 already on headlamp protector, 2 on windshield and 2 on section no. 2)*

WINDSHIELD INSTALLED

PARTS INSTALLATION
DRIVE BELT

Clean pulleys and disc brake with a suitable cleaner such as Loctite Parts Cleaner (P/N 413 711 809) before installing drive belt.

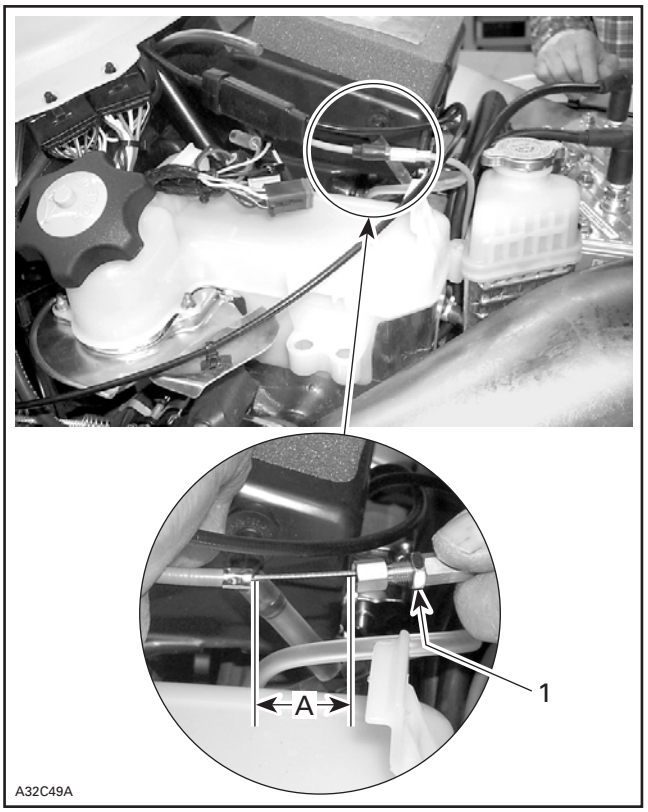
LIQUIDS
OIL INJECTION PUMP BLEEDING

BREAK-IN PERIOD SUPPLEMENTAL OIL

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz) of BOMBARDIER injection oil (P/N 413 802 900 — 12 x 1 L) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

PUMP ADJUSTMENT

Oil injection pump is factory set. However, if adjustment needs to be checked or modified, refer to *2002 Ski-Doo Shop Manual, Volume 3* (P/N 484 200 037). Stretch cable sheath to fully open oil pump. Wire length must be 28 mm (1-3/32 in). If necessary, turn adjustment nut to reach this measure.



1. Adjustment nut
A. 28 mm (1-3/32 in)

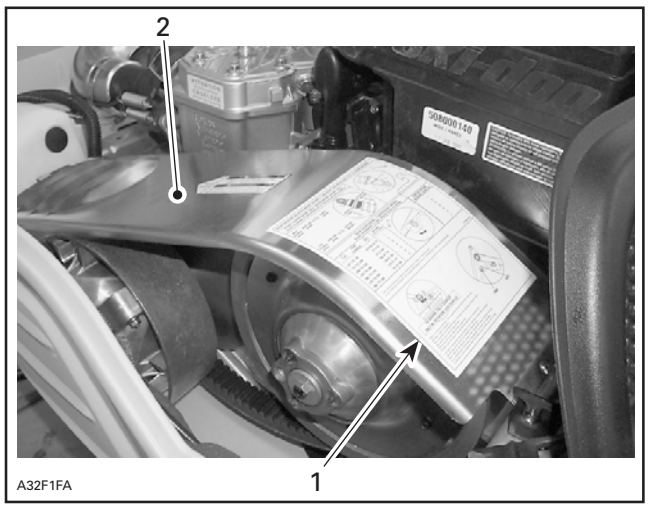
LIQUIDS
BRAKE FLUID LEVEL

Check brake fluid in reservoir on handlebar for proper level. Add fluid (DOT 4) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partial bottle of brake fluid.

ADJUSTMENTS
SUSPENSION

Rear suspension is calibrated at factory. At predelivery, mechanics should perform suspension adjustments according to customer riding style and vehicle load as described on suspension adjustment chart which is located on pulley guard.



TYPICAL

1. *Adjustment chart*
2. *Pulley guard*

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

When completed, install wheel caps (P/N 570 063 600) provided in predelivery kit (section no. 4).

NOTE: If lubricant is needed to help cap installation, use lens cleaner instead of soapy water to avoid cap to get out from its location due to soap residual.

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Vehicles used at high altitudes, above 600 m (2000 ft) should be fitted with a high altitude kit. Further inquiries should be directed to your distributor service representative.

A dot (•) on right indicates changes from 2001 model.

	MODELS			MX Z 500 PACKAGES: SPORT TRAIL	MX Z 600 PACKAGES: ADRENALINE SPORT TRAIL	MX Z 700 PACKAGES: ADRENALINE SPORT TRAIL
	Engine Type			493	593	693
	Maximum HP RPM ①		± 100 RPM	8000		
	Reed Valve		P/N	420 924 519	420 924 519	420 867 873 •
	Carburetor Type			PTO/MAG TM 40-B151 •	PTO/MAG TM 40-B154 ② •	PTO/MAG TM 40-B160 ② •
	Main Jet			PTO/MAG 500 •	PTO/MAG 500	PTO/MAG 510N •
	Needle Jet			P-0 •	P-0 •	P-0
	Pilot Jet			17.5 •	20	17.5
	Needle Identification — Clip Position			9HGY1-58 ⑥ •	9HGY1-58 ⑥ •	9ZLY3-58 ⑥
	Slide Cut-Away			2.0 •	2.0	2.0
	Float Adjustment		± 1 mm (in)	N.A. •	N.A.	N.A.
	Air Screw Adjustment		± 1/16 turn	N.A. •	N.A.	N.A.
	Idle Speed RPM		± 200 RPM	1600 •	1600	1500
	Gas Grade/Octane Number		(R + M)/2	Regular unleaded/87		
	Gas/Oil Ratio			Oil injection		
	Ignition Timing BTDC ③ ④		mm (in)	3.0 (0.118)	3.0 (0.118)	3.36 (0.132)
	Trigger Coil Air Gap		mm (in)	0.55 - 1.45 (.022 - .057)		
	Gear Ratio		Teeth	22/43	24/43	25/43
	Engagement Speed		± 100 RPM	4400 •	4100	3800
	Drive Pulley Calibration Screw Position			4 (3 for models with RER) •	4 (3 for models with RER) •	3
	Pulley Distance	Z ⑤	± 0.5 mm (± 0.020) in	16.5 (21/32)		
	Offset	X	± 0.5 mm (± 1/64 in)	35.5 (1-13/32)		
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X of 1.5 mm (1/32 in) •		
	Driven Pulley Preload		± 0.7 kg (± 1.5 lbf)	7.0 ⑦ (15.43) •	7.0 ⑦ (15.43) •	8.0 ⑦ (17.643) •
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation		
	Track Adjustment	Deflection	mm (in)	30 to 35 (1-3/16 to 1-3/8) with a 7.3 kg (16 lb) downward pull		

① Engine speed at which maximum power is achieved.
② Adrenaline packages also have a DPM.
③ At 3500 RPM (engine cold) with headlamp turned on.
④ During the first 8 hours, the timing curve is retarded between 4500 RPM and maximum RPM. Because checking ignition timing is done at lower RPM, this will not affect the 3500 RPM timing specification.
⑤ Z dimension without torque rod preload. After Z dimension adjustment, hand tight torque rod until plastic pad cannot be turned, then turn torque rod an additional half turn. Lock jam nut.
⑥ Needle with one groove only (no adjustment).
⑦ No preload (0.0 kg or 0.0 lbf) for models with a reverse.

BTDC: Before Top Dead Center
PTO: Power Take OFF side
MAG: Magneto side
N.A.: Not Applicable

Please route to :

Init.

- ☐ Service ☐
- ☐ Sales ☐
- ☐ Parts ☐

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-5**

Date: August 17, 2001

SUBJECT: Predelivery

YEAR	MODEL	PACKAGE	MODEL NUMBER	SERIAL NUMBER
2002	MX Z 800 R	Adrenaline	1892/1893/1894/ 1895/1896/1897	All
2002	MX Z 800 R	Sport	2104/2105/2106/2107	All
2002	MX Z 800	Sport	1916/1917/1918/1919	All
2002	MX Z 800	Trail	1932/1933/1934/1935	All

This bulletin must be used in conjunction with the check list enclosed in the bag with the *Operator's Guide*. Make sure that *Predelivery Check List* is completed and signed.

⚠ WARNING

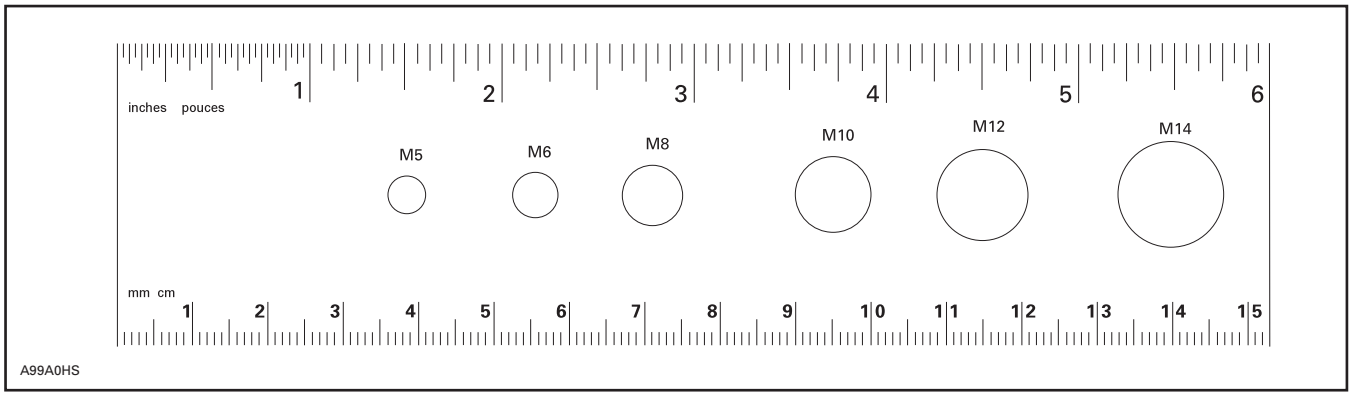
To obtain limited warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

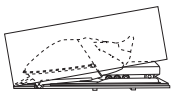
The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your distributor service representative and/or specific *Shop Manual* sections. Please complete the *Predelivery Check List* for each snowmobile and retain a customer signed copy. Make sure the customer receives the *Operator's Guide, Safety Handbook, Predelivery Check List* signed copy and *Safety Videocassette*.

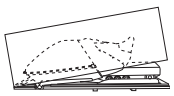
There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask dealer to perform suspension adjustments according to riding style and vehicle load.



NOTE: This ruler can be helpful to identify fastener length or size.



UNCRATING



PREDELIVERY KIT P/N	MODEL
549 010 880	MX Z 800

⚠ WARNING

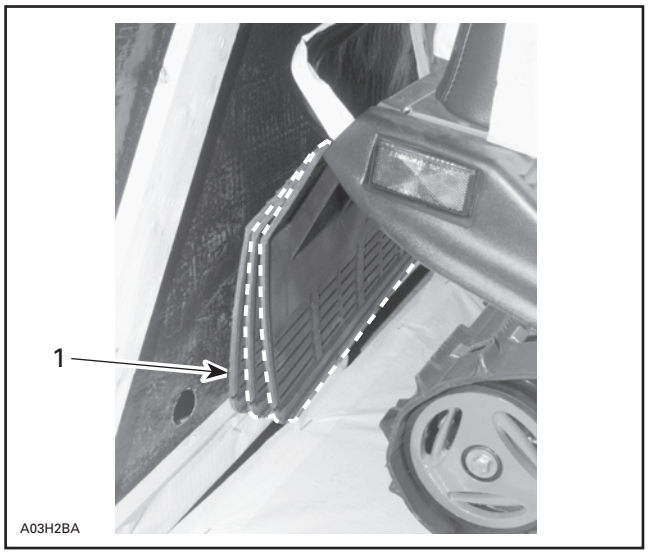
Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

Remove all screws retaining cover to vehicle base. Tip cover toward front or rear of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging any part of the snowmobile.

NOTE: If cover is tilted toward front of vehicle, snow guard may interfere with crate cover, as shown in the following photo. Push on snow guard when lifting cover.



IF CRATE COVER IS TILTED TOWARD FRONT OF VEHICLE, FROM OUTSIDE CRATE PUSH ON SNOW GUARD TO ALLOW COVER TO LIFT WITHOUT DAMAGING SNOW GUARD

1. Snow guard interfering with crate cover

TYPICAL

1. Notch

Detach parts to be installed (e.g. skis, windshield) from the vehicle and its base.

Remove ropes and cut locking ties retaining windshield.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Detach ski legs from crate. Keep ski leg bolts and slider cushions in order to bolt skis to ski legs. Discard crating spacers and nuts.

Remove vehicle from base.

Remove steering pad, predelivery kit, shock absorbers and drive belt from engine compartment.

HOOK REMOVAL

Procedure

Apply parking brake.

Lift rear of vehicle so that a block or a box can be positioned under front wheel, as shown on the next photo.

EDGE OF BOX ALIGNED WITH WHEEL AXIS

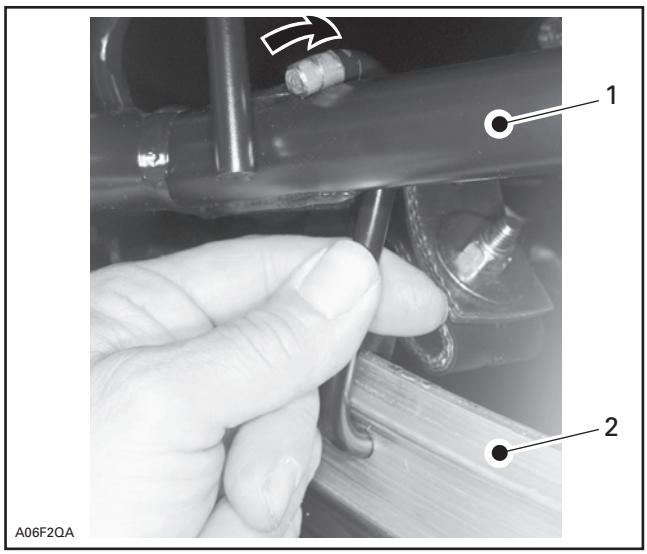
From left side of vehicle, cut locking tie retaining hook, then apply pressure onto rear bumper with right hand, as shown on the following photo.

TYPICAL

Using left hand, remove hook from suspension, as shown on the following photo.

⚠ WARNING

Before removing hook always verify that vehicle is properly supported and that parking brake is applied.



TYPICAL — REMOVE HOOK

1. *Front arm*
2. *Runner*

⚠ WARNING

Hook must be removed to have snowmobile suspension operational.

Lift front of vehicle and block safely.

Remove and discard shipping brackets from suspension. Discard spring clips, keep screws.

MX Z 800, Trail Package

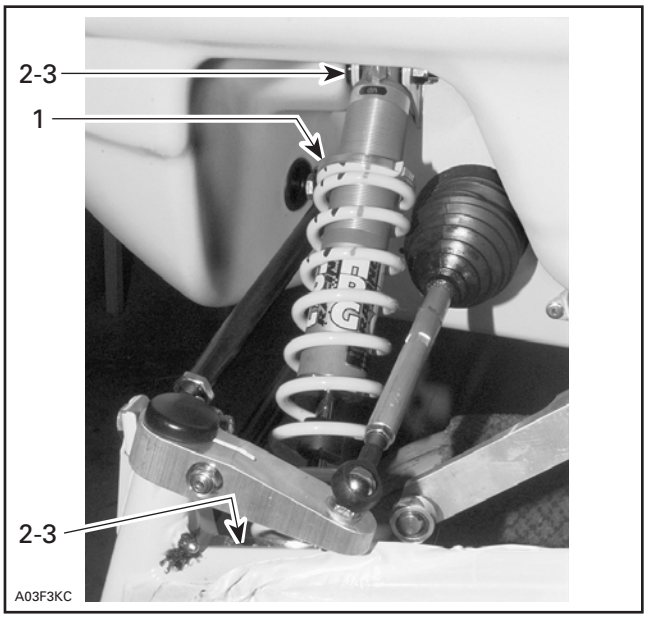
Secure shock absorbers to suspension with their adjusting ring at bottom.

NOTE: Position top bolt head toward rear of vehicle and bottom head bolt toward front of vehicle and secure with nuts provided in predelivery kit (section no. 3).

All Models except MX Z 800, Trail Package

Secure shock absorbers to suspension with their adjusting ring at top.

NOTE: Position top bolt head toward rear of vehicle and bottom head bolt toward front of vehicle and secure with nuts provided in predelivery kit (section no. 3).

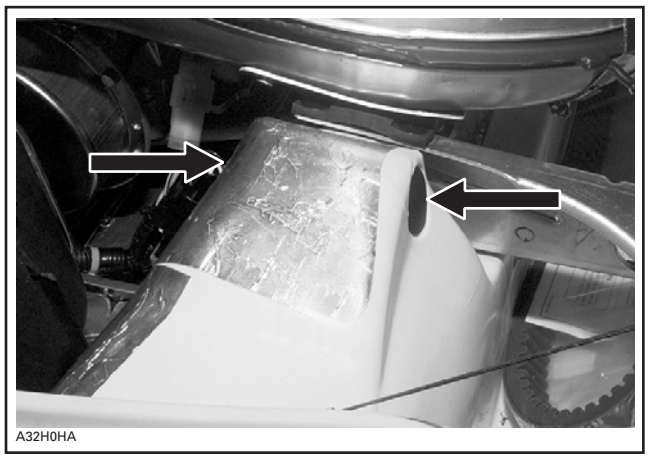


TYPICAL — LH SIDE SHOWN

1. *Shock absorber (2) (predelivery box) adjusting ring at top*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Elastic nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 3). Torque to 48 N•m (35 lbf•ft)*

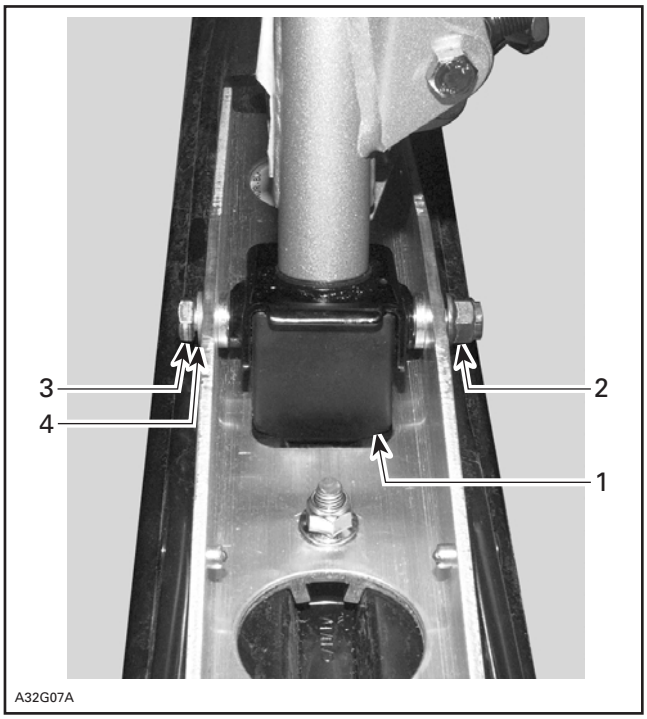
All Models

Install caps provided in predelivery kit on bottom pan, each side of upper bolt.



SNAP PROVIDED CAP (SECTION NO. 5) (P/N 414 916 600) EACH SIDE OF MOLDING

Install skis on vehicle.

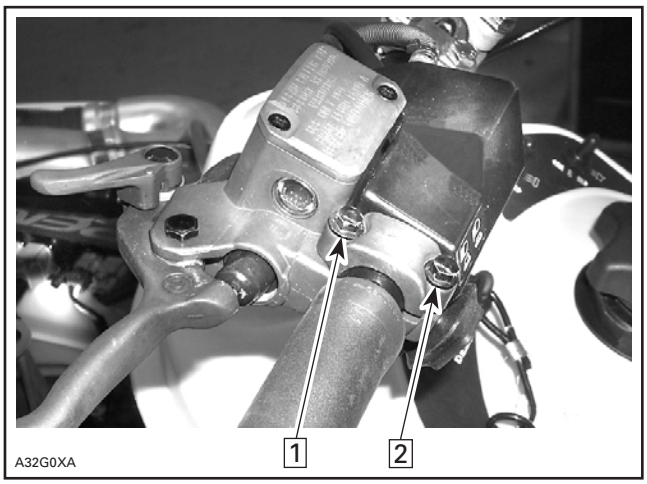


RIGHT SIDE SHOWN

1. *Ski stopper (2) (section no. 3) (P/N 506 151 233) with higher side toward front*
2. *Flanged nut M10 (2) (section no. 3) (P/N 732 610 084). Torque to 32 N•m (27 lbf•ft)*
3. *Bolt M10 (2) (ski leg)*
4. *Washer (2) (section no. 3) (P/N 732 900 049) installed on bolt head side*

Adjust handlebar and tighten nuts between 21 and 28 N•m (16 and 20 lbf•ft).

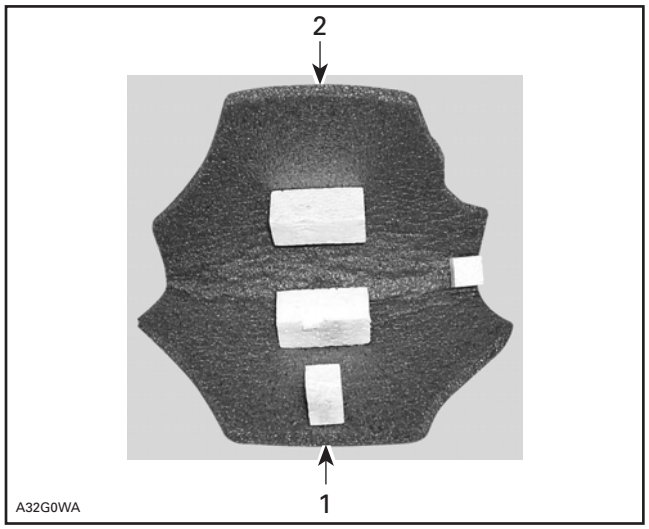
Turn brake housing to level brake oil reservoir. Secure front bolt first, then rear bolt. See photo.



Step 1: Screw this bolt first to a torque between 7 and 10 N•m (5.25 and 7.5 lbf•ft)
Step 2: Secure housing with this bolt (same torque)

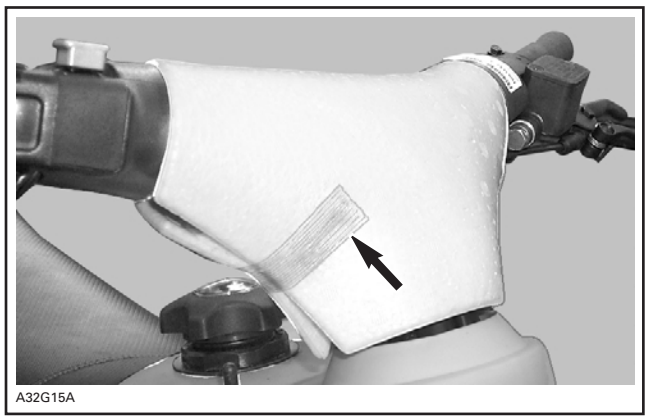
Install steering foam and adjust for proper fit with console. Fit steering padding and set in place with velcros.

NOTE: Take care to install foam in the proper side.



TYPICAL
1. *Driver's side*
2. *Engine side*

Hint: Steering foam can be secured with a device such as a filament tape to ease installation.



STEERING FOAM TEMPORARILY INSTALLED WITH FILAMENT TAPE

Remove headlamp protector from hood.

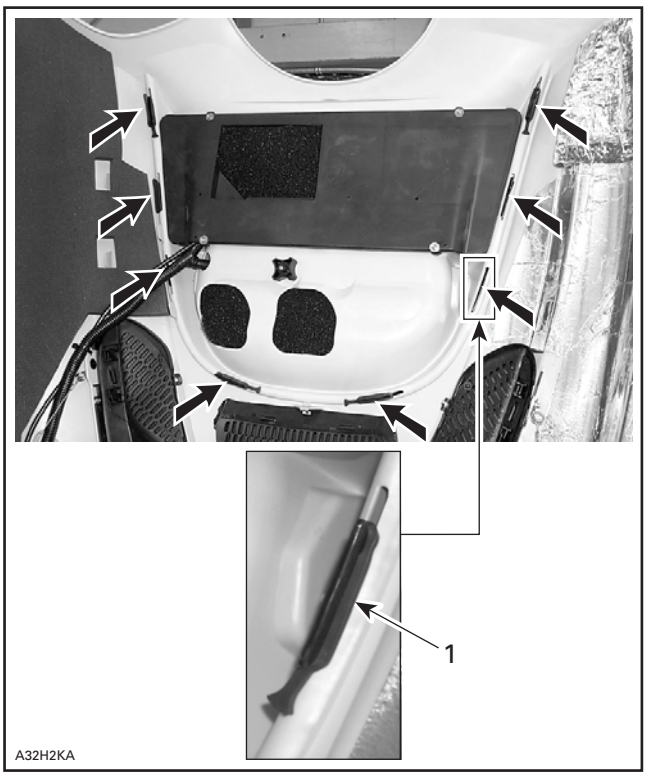
Unclip inner protector from headlamp protector.

Insert tabs of headlamp protector in windshield square holes.

Clip inner protector in place.

Secure windshield assembly on hood using latches.

1. *Headlamp protector*
2. *Windshield*
3. *Inner protector*



1. *Latch (8) (P/N 570 023 800) (4 already on headlamp protector, 2 on windshield and 2 on section no. 2)*

WINDSHIELD INSTALLED

Clean pulleys and disc brake with a suitable cleaner such as Loctite Parts Cleaner (P/N 413 711 809) before installing drive belt.

LIQUIDS
OIL INJECTION PUMP BLEEDING

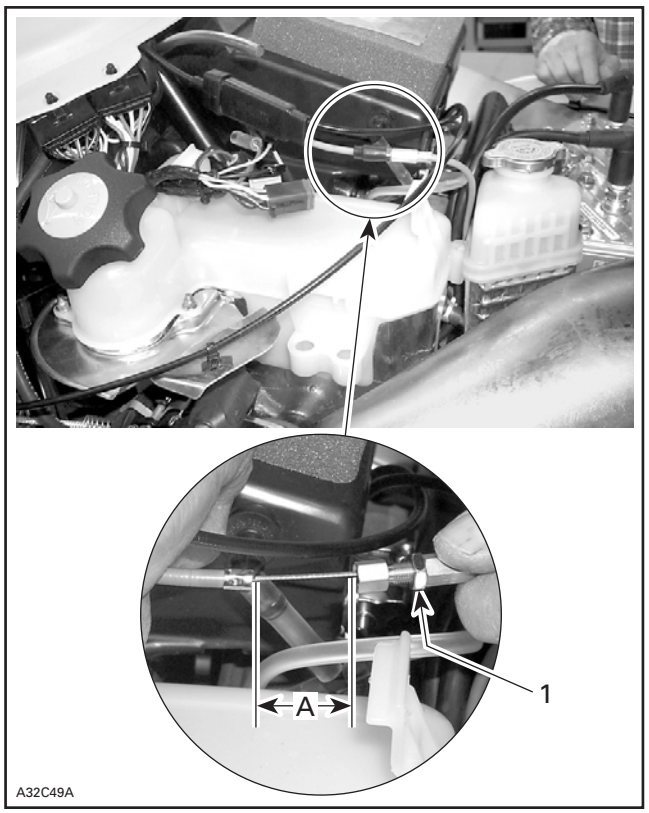
BREAK-IN PERIOD SUPPLEMENTAL OIL

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz) of BOMBARDIER injection oil (P/N 413 802 900 — 12 x 1 L) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

PUMP ADJUSTMENT

Oil injection pump is factory set. However, if adjustment needs to be checked or modified, refer to appropriate *Shop Manual*.

Unscrew sheath screw and stretch it to fully open oil pump. Wire length must be 28 mm (1-3/32 in). If necessary, turn adjustment nut to reach this measure.



1. Adjustment nut
A. 28 mm (1-3/32 in)

⚠ WARNING

Make sure cable is free to swivel in lever end.

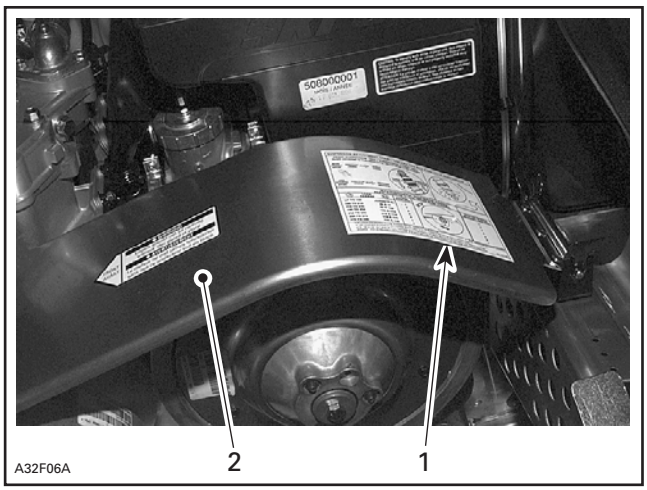
LIQUIDS
BRAKE FLUID LEVEL

Check brake fluid in reservoir on handlebar for proper level. Add fluid (DOT 4) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partial bottle of brake fluid.

ADJUSTMENTS
SUSPENSION

Rear suspension is calibrated at factory. At predelivery, mechanics should perform suspension adjustments according to customer riding style and vehicle load as described on suspension adjustment chart which is located on pulley guard.



TYPICAL

1. *Adjustment chart*
2. *Pulley guard*

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

When completed, install wheel caps (P/N 570 063 600) provided in predelivery kit (section no. 4).

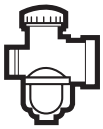
NOTE: If lubricant is needed to help cap installation, use lens cleaner instead of soapy water to avoid cap to get out from its location due to soap residual.

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Vehicles used at high altitudes, above 600 m (2000 ft) should be fitted with a high altitude kit. Further inquiries should be directed to your distributor service representative.

A dot (•) on right indicates changes from 2001 model.

	MODEL			MX Z 800 (ADRENALINE PACKAGE)	MX Z 800 (TRAIL AND SPORT PACKAGES)
	Engine Type			793	
	Maximum HP RPM ①		± 100 RPM	7900	•
	Reed Valve		P/N	420 867 873	420 867 870
	Carburetor Type			TM-40-B166 with DPM	
	Main Jet			520	•
	Needle Jet			P-0	
	Pilot Jet			17.5	
	Needle Identification — Clip Position			9ZLY2-58	•
	Slide Cut-Away			2.0	
	Float Adjustment		± 1 mm (in)	—	
	Air Screw Adjustment		± 1/16 turn	—	•
	Idle Speed RPM		± 200 RPM	1500	
	Gas Grade/Octane Number		(R + M)/2	Regular unleaded/87	
	Gas/Oil Ratio			Oil injection	
	Ignition Timing BTDC ② ③		mm (in)	3.51 (0.138)	
	Trigger Coil Air Gap		mm (in)	0.55 - 1.45 (.022 - .057)	
	Gear Ratio		Teeth	26/43	•
	Engagement Speed		± 100 RPM	3800	
	Drive Pulley Calibration Screw Position			3	
	Pulley Distance	Z ④	± 0.5 mm (± 0.020 in)	16.5 (21/32)	
	Offset	X	± 0.5 mm (± 1/64 in)	35.5 (1-13/32)	
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X from 1.5 mm (1/16 in)	•
	Driven Pulley Preload		± 0.7 kg (± 1.5 lbf)	0.0 (17.6)	•
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation	
	Track Adjustment	Deflection	mm (in)	30 to 35 (1-3/16 to 1-3/8) with a 7.3 kg (16 lb) downward pull	

① Engine speed at which maximum power is achieved.

② At 3500 RPM (engine cold) with headlamp turned on.

③ During the first 8 hours, the timing curve is retarded by 3° between 4500 RPM and maximum RPM. Because checking ignition timing is done at lower RPM, this will not affect the 3500 RPM timing specification.

④ Z dimension without torque rod preload. After Z dimension adjustment, hand tight torque rod until plastic pad cannot be turned, then turn torque rod an additional half turn. Lock jam nut.

BTDC: Before Top Dead Center

Please route to :

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- ☐ Sales ☐
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ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-6**

Date: September 14, 2001

SUBJECT: Predelivery

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2002	Mini Z	2103	All

This bulletin must be used in conjunction with the check list enclosed in the bag with the *Operator's Guide*. Make sure that *Predelivery Check List* is completed and signed.

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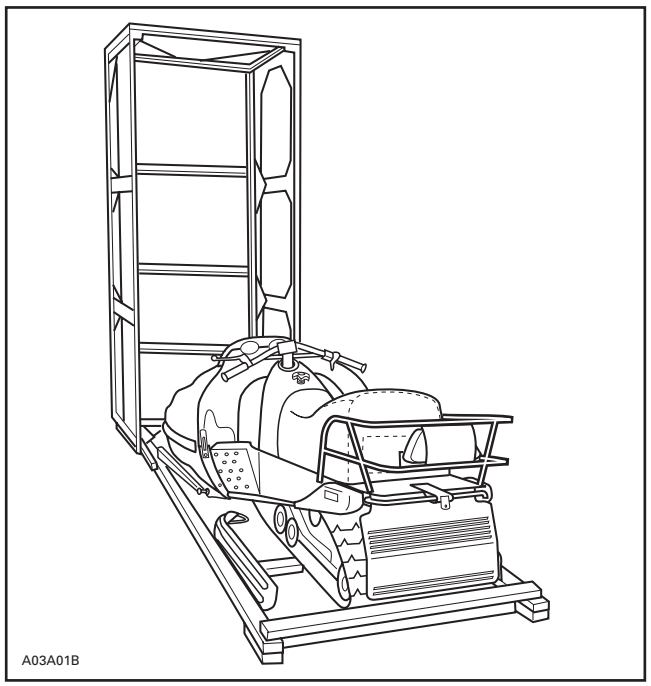
⚠ WARNING

Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

Remove all screws retaining cover to crate base. Tip cover toward front of vehicle. Lift cover slowly to avoid damaging the snow guard or taillight.

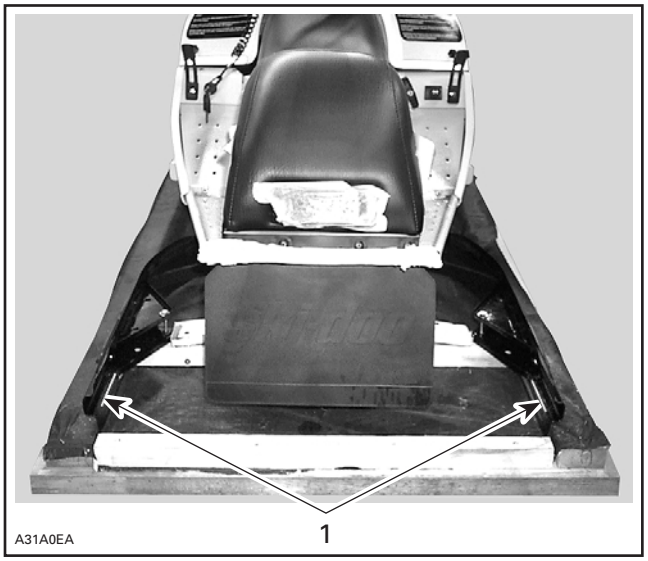


TYPICAL

Remove predelivery bag from engine compartment.

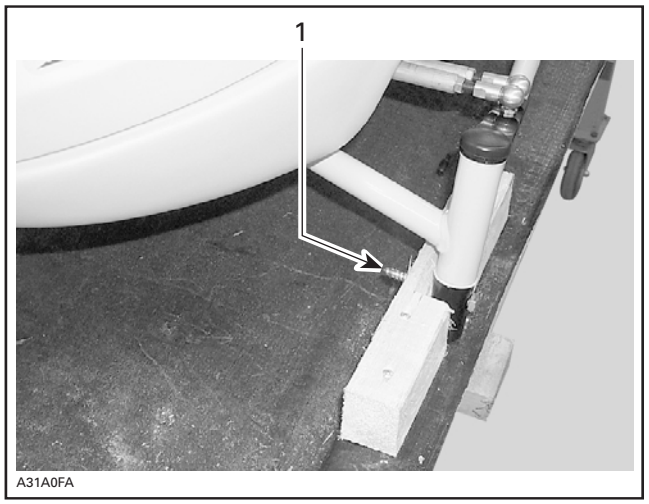
CAUTION: Make sure vehicle is properly supported before removing ski legs from crate brackets.

Detach skis from the crate base.



1. Detach skis from crate

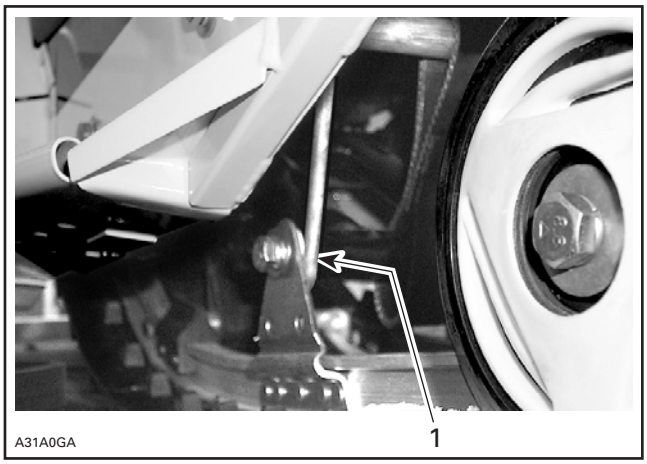
Detach ski legs from crate. Discard screws.



1. Remove screws

Remove vehicle from base.

Lean on vehicle seat to apply pressure on rear suspension and remove hook from rear portion of suspension.



1. Hook to be removed

⚠ WARNING

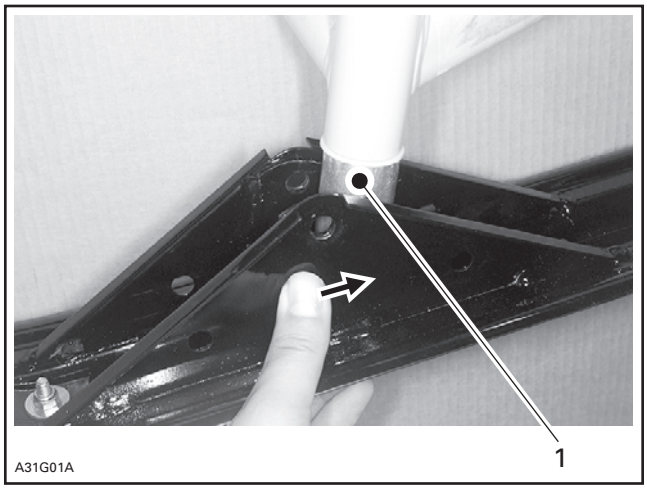
Hook must be removed to have snowmobile suspension operational.

PARTS INSTALLATION
SKIS

Lift front of vehicle to install skis.

Make sure that ski leg spacers are still on ski legs.

Slide ski on ski leg as shown in the next photo.

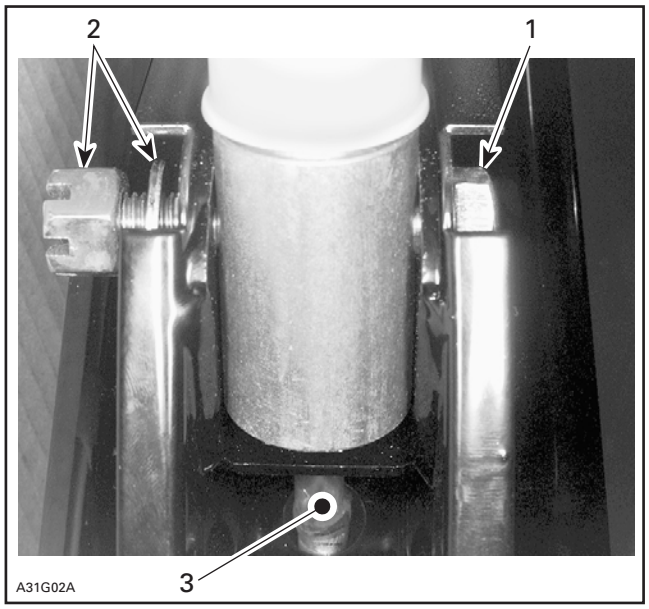


SLIDE SKI

1. Ski leg spacer

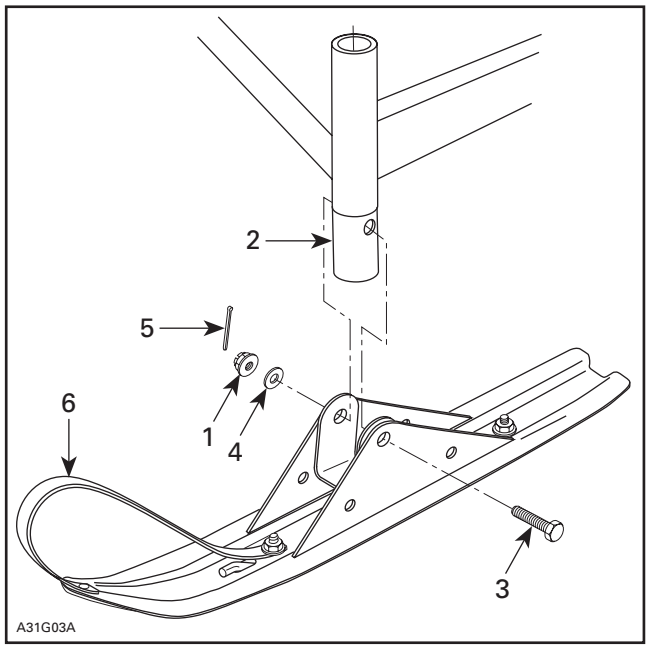
Ensure that ski pin is properly centered into ski leg, as shown in the following photo.

Install ski bolt, washer, nut and cotter pin.



1. Bolt head toward OUTSIDE of vehicle
2. Washer, nut and cotter pin (not shown) toward inside of vehicle
3. Ski pin centered into ski leg

Replace vehicle on ground.



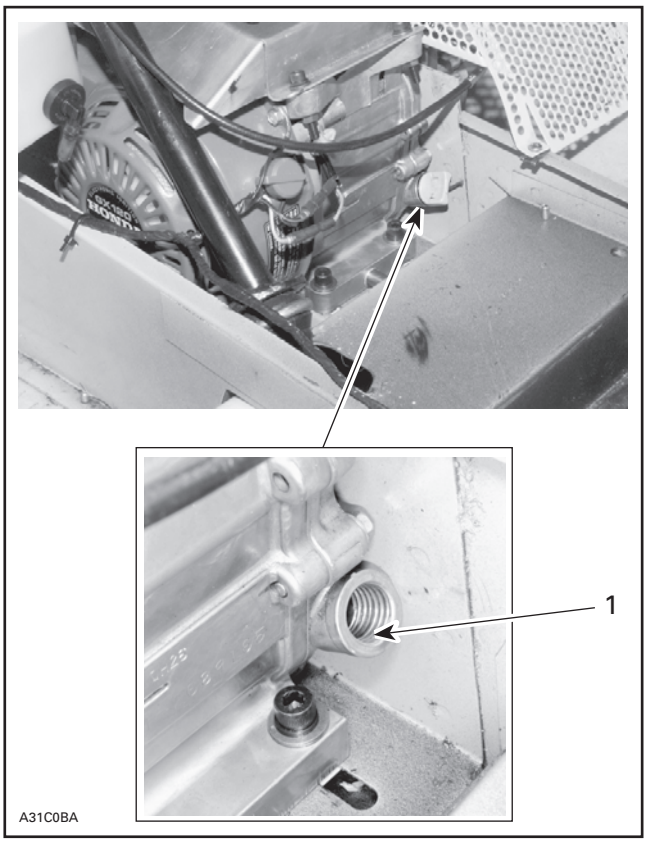
LEFT SIDE SHOWN

1. *Nut M10 (2) (P/N 232 201 414 in predelivery bag). Torque to 3 N•m (27 lbf•**in**)*
2. *Spacer (2) (ski leg)*
3. *Bolt M10 (2) (P/N 505 070 178). Bolt head from outside vehicle*
4. *Washer M10 (4) (P/N 234 001 410)*
5. *Cotter pin (2) (P/N 371 801 000 in predelivery bag)*
6. *Twist ski to ease bolt installation*

PARTS INSTALLATION
WINDSHIELD

Peel off protective film from windshield.

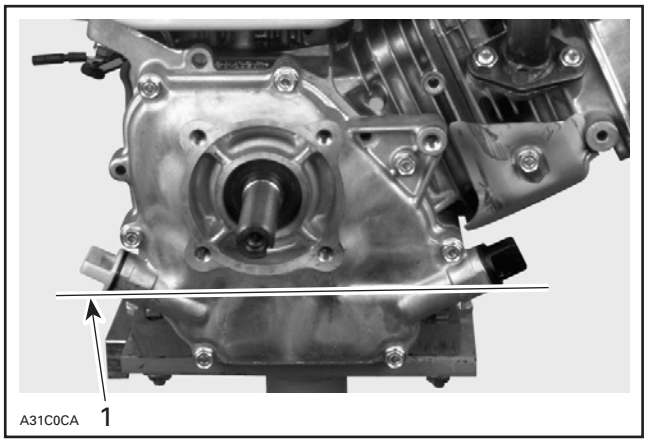
Check engine oil level. Add SAE 5W/30 recommended oil as required. Refer to the following photos.



ADD OIL UNTIL IT REACHES THE TOP OF THE OIL FILLER NECK

1. Top of the oil filler neck

CAUTION: When checking engine oil level in crankcase, ensure vehicle is on level ground.



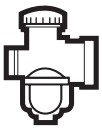
1. Proper oil level

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. Also, see TECHNICAL DATA section at the end of this bulletin.

TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Further inquires should be directed to your dealer distributor service representative.

	MODEL		MINI Z
	Engine Type		4-stroke, overhead valves single cylinder, inclined at 25°, QB26, Model GX120K1 by Honda
	Maximum HP/RPM (engine speed at which maximum power is achieved)		4.0 HP at 4000 RPM
	Lubricating System/Oil Capacity		Splash Type (oil bath)/0.6 L
	Carburetor Type		Horizontal Type, Butterfly Valve
	Main Jet		# 68 (externally vented carb. bowl)
	Float Height		13.7 mm (.539 in)
	Pilot Screw Opening		2 turns out (externally vented carb. bowl)
	Idle Speed RPM	± 150 RPM	1400 (RPM)
	Gas Grade/Pump Octane Number	(R + M)/2	Regular Unleaded/87
	Ignition Timing		25° (fixed)
	Spark Plug Type/Gap		NGK BPR6 ES/ 0.7 - 0.8 mm (.028 - .031 in)
	Drive Sprocket/Driven Sprocket	teeth	10/48
	Drive Sprocket Diameter	mm (in)	101.6 (4.0)
	Clutch Type		Automatic Centrifugal
	Chain Type		Standard Rollers Type 40/78
	Chain Pitch	mm (in)	12.7 (0.5)
	Track Alignment		Equal distance between edges of track guides and slider shoes
	Track Deflection		35 mm (1-3/8 in) Measure gap between slider shoe and bottom inside of track when exerting a downward pull of 7.3 kg (16 lb) to the track

Please route to :

Init.

- ☐ Service ☐
- ☐ Sales ☐
- ☐ Parts ☐

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-7**

Date: September 14, 2001

SUBJECT: Predelivery

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2002	MX Z® 800 R Renegade	1993/1994/1996/ 2134/2143	All
2002	MX Z 700 R Renegade	1997/1998/1999/2000/ 2135/2157	All
2002	MX Z 600 R Renegade	2005/2006/2007/2008	All

This bulletin must be used in conjunction with the *Predelivery Check List* enclosed in the bag with the *Operator's Guide*. Make sure that *Predelivery Check List* is completed and signed.

⚠ WARNING

To obtain limited warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your distributor service representative and/or specific *Shop Manual* sections.

Please complete the *Predelivery Check List* for each snowmobile and retain a customer signed copy. Make sure the customer receives the *Operator's Guide, Safety Handbook, Predelivery Check List* signed copy and *Safety Videocassette*.

There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask dealer to perform suspension adjustments according to riding style and vehicle load.

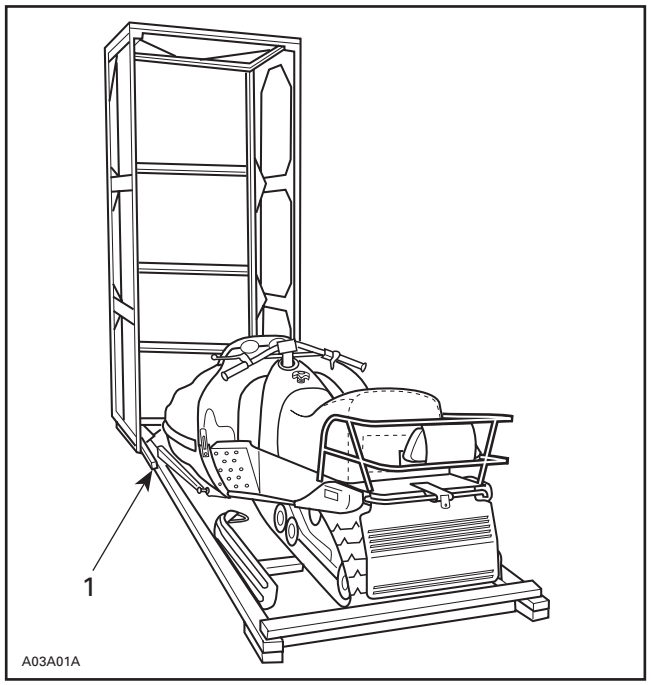
⚠ WARNING

Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

Remove all screws retaining cover to crate base. Tip cover toward front or rear of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging any part of the snowmobile.



TYPICAL
1. Notch

Detach parts to be installed (e.g. skis, windshield) from the vehicle and its base.

Remove ropes and cut locking ties retaining windshield.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Keep ski leg bolts and spacers to bolt skis to ski legs. Discard crating spacers and nuts.

Remove vehicle from base.

Remove steering pad, drive belt, predelivery kit and shock absorbers from parts box.

FRONT HOOK REMOVAL

Procedure

Apply parking brake.

Lift rear of vehicle so that a block or a box can be positioned under front wheel, as shown on the next photo.

EDGE OF BOX ALIGNED WITH WHEEL AXIS

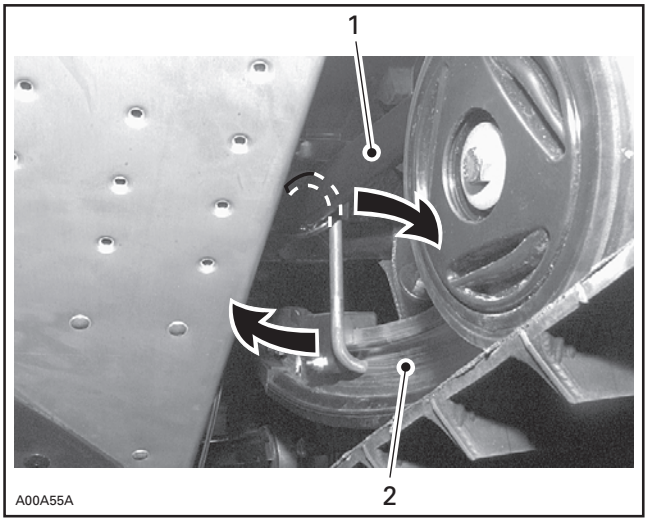
From left side of vehicle, cut locking tie, then apply pressure onto rear bumper with right hand, as shown on the following photo.

TYPICAL

Using left hand, remove hook from suspension, as shown on the following photo.

⚠ WARNING

Before removing hook always verify that vehicle is properly supported and that parking brake is applied.



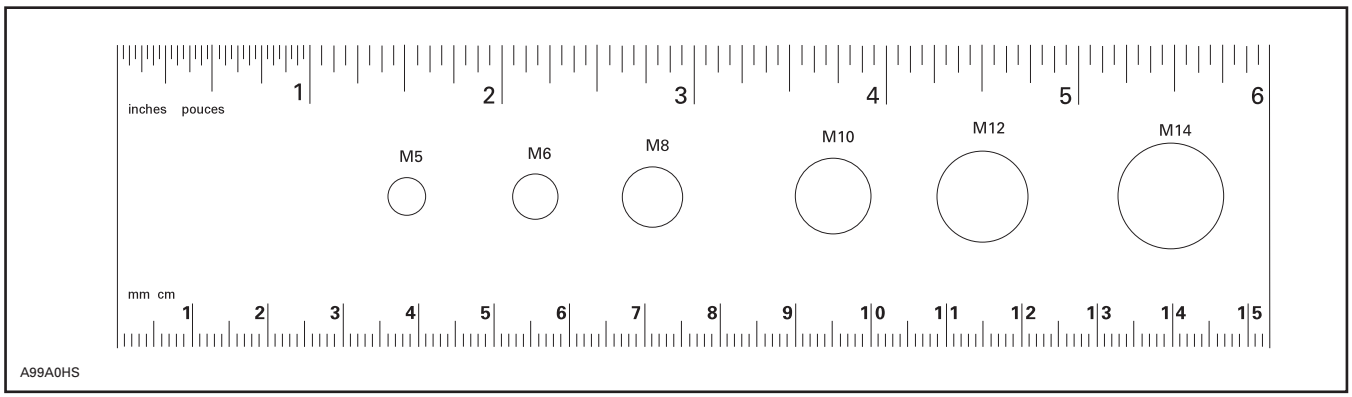
TYPICAL — REMOVAL HOOK

1. *Front arm*
2. *Runner*

⚠ WARNING

Shipping hook must be removed to have snowmobile suspension operational.

PREDELIVERY KIT P/N	MODEL
549 011 027	MX Z 800 R Renegade MX Z 700 R Renegade MX Z 600 R Renegade



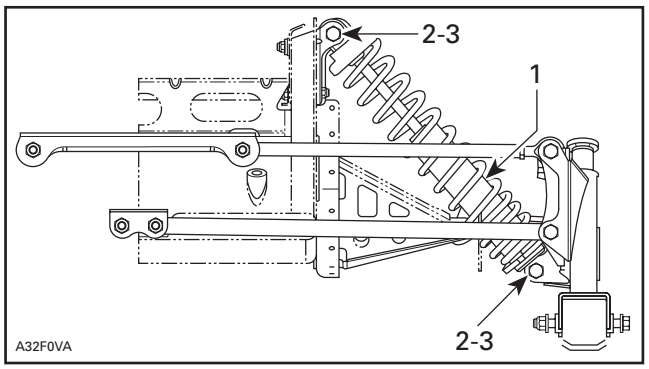
NOTE: This ruler can be helpful to identify fastener length or size.

Lift front of vehicle and block safely.

Remove and discard shipping brackets from suspension. Discard spring clips, keep screws.

Secure shock absorbers to suspension with their adjusting ring at top.

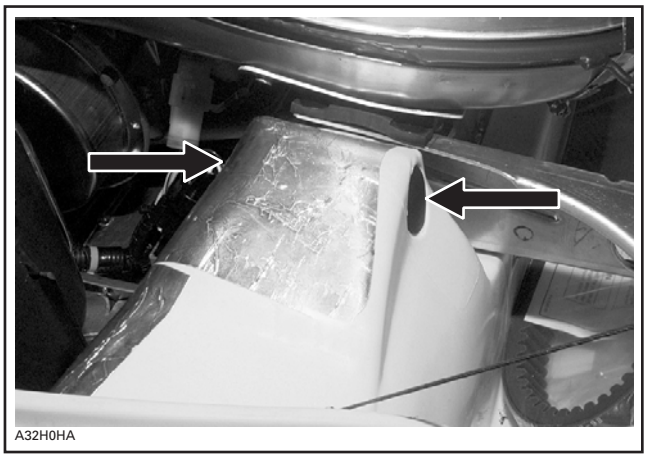
NOTE: Position top bolt head toward rear of vehicle, bottom bolt head toward front of vehicle and secure with nuts provided in predelivery kit (section no. 3).



TYPICAL — RH SIDE SHOWN

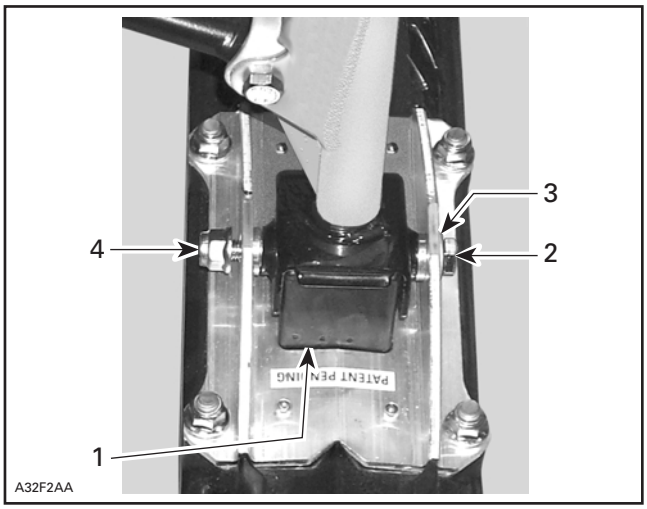
1. *Shock absorber (2) (engine compartment) adjusting ring at top*
2. *Bolt M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Elastic flanged nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 3). Torque to 48 N•m (35 lbf•ft)*

Install caps provided in predelivery kit on bottom pan, each side of molding.



SNAP PROVIDED CAPS (SECTION NO. 3) EACH SIDE OF MOLDING

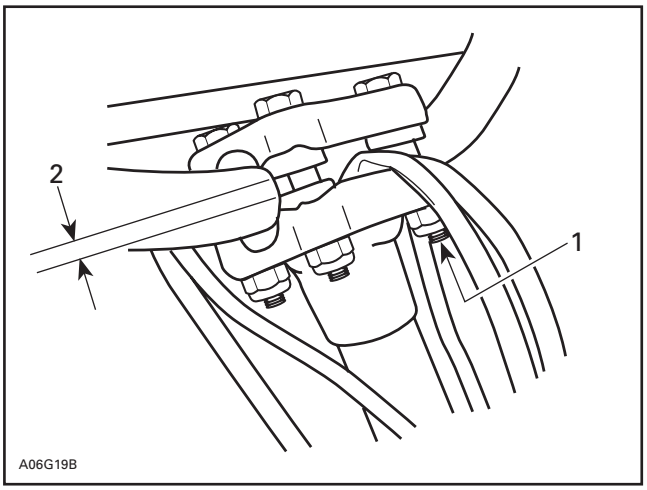
Install skis on vehicle.



LEFT SIDE SHOWN

1. *Ski stopper (2) (P/N 506 151 233) (section no. 3) with higher side toward front*
2. *Bolt M10 (2) (ski leg)*
3. *Washer (2) (section no. 1). Installed on bolt head side*
4. *Flanged nut M10 (2) (section no. 2). Torque to 32 N•m (24 lbf•ft)*

Adjust handlebar and torque nuts between 21 and 28 N•m (16 and 20 lbf•ft).



TYPICAL

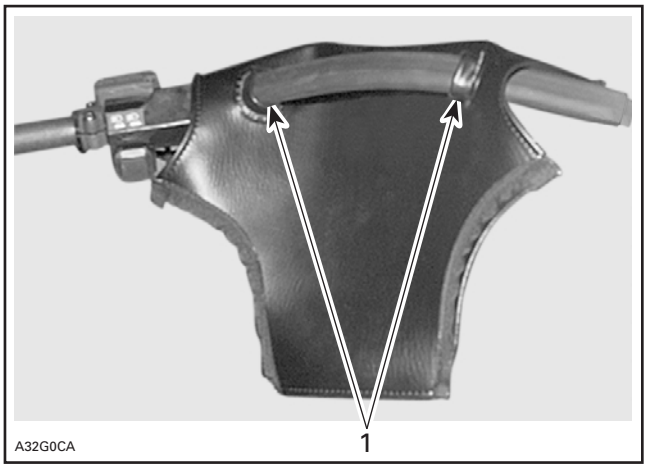
1. *Torque between 21 and 28 N•m (16 and 20 lbf•ft)*
2. *Equal gap each side (both clamps)*

Loosen, at least 3 turns, Allen screw of throttle and brake handle housings.

STEERING HOLDING STRAP

Cut locking tie retaining right side strap end.

Insert strap through holes provided in steering padding, as shown in the next photo.

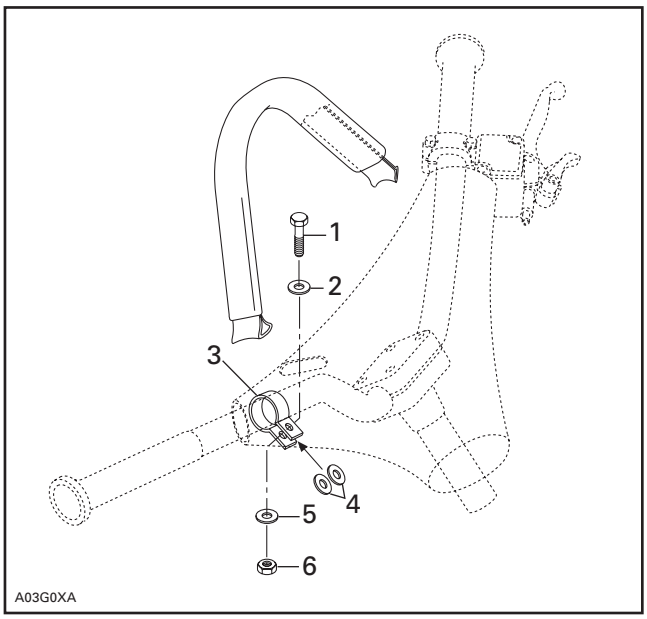


TYPICAL

1. Strap inserted through both steering pad cover holes

Secure right side strap end with retaining clip and tighten firmly using bolt, nut and washers in the sequence shown on drawing below. Torque to 10 - 12 N•m (89 - 106 lbf•**in**).

NOTE: Wires route along handlebar. To avoid pinching them, take care to keep wires out of retaining clip.

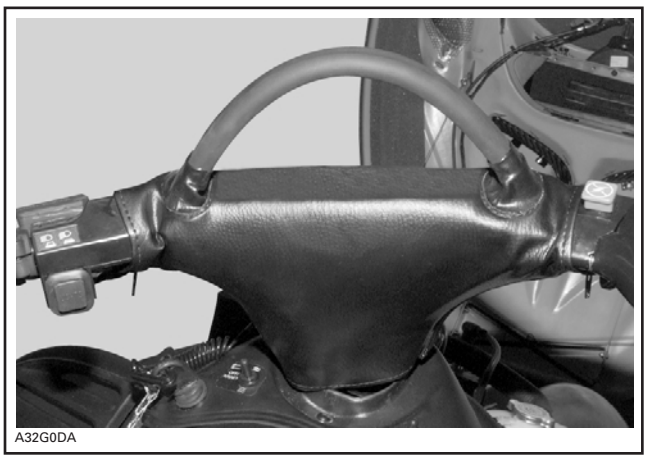


1. Bolt (section no. 4)
2. Washer (section no. 2)
3. Retaining clip
4. Washers (section no. 2)
5. Washer (section no. 2)
6. Nut (section no. 4)

Properly position foam and padding in place, as shown in the next photo.

MAKE SURE FOAM AND PADDING WRAP STEERING PROPERLY

Fasten padding with velcro strips to complete installation.



TYPICAL — FINAL INSTALLATION

Remove headlamp protector from hood.

Unclip inner protector from headlamp protector.

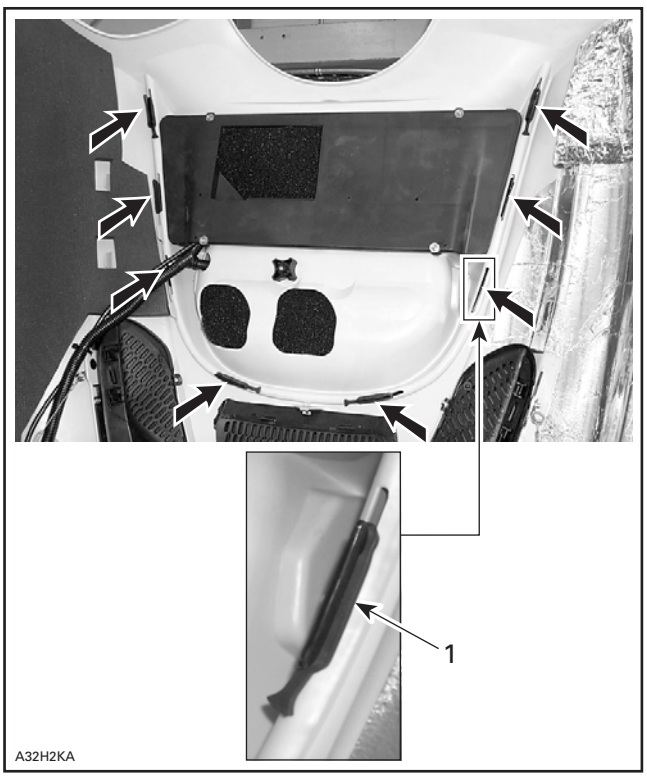
Remove blue protector films from windshield.

Insert tabs of headlamp protector in windshield square holes.

Clip inner protector in place.

Secure windshield assembly on hood using latches.

1. *Headlamp protector*
2. *Windshield*
3. *Inner protector*

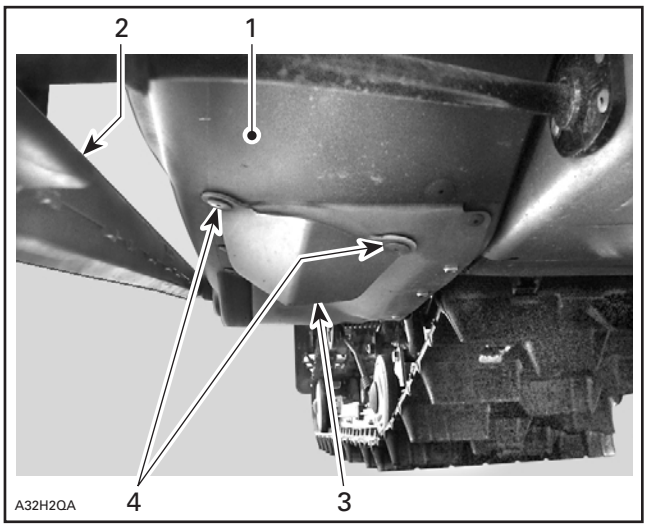


1. *Latch (8) (P/N 570 023 800) (4 already on headlamp protector, 2 on windshield and 2 in section no. 5)*

WINDSHIELD INSTALLED

PARTS INSTALLATION
EXHAUST DEFLECTOR

While front of vehicle is lifted attach exhaust deflector (section no. 3) to bottom pan using rivets found in section no. 5. See photo.



1. Bottom pan
2. Swing arm
3. Deflector
4. Rivets

PARTS INSTALLATION
DRIVE BELT

Clean pulleys and disc brake with a suitable cleaner such as Loctite Parts Cleaner (P/N 413 711 809) before installing drive belt.

BREAK-IN PERIOD SUPPLEMENTAL OIL

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz.) of BOMBARDIER injection oil (P/N 413 803 000) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

PUMP ADJUSTMENT

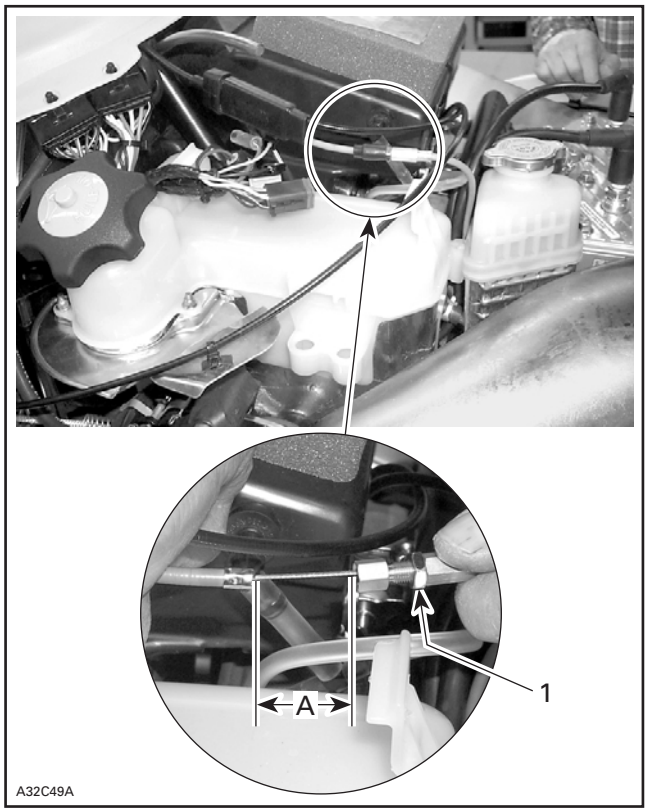
Oil injection pump is factory set. However, if adjustment needs to be checked or modified, refer to the appropriate *Ski-Doo Shop Manual*. Stretch cable sheath to fully open oil pump. Wire length must be 28 mm (1-3/32 in). If necessary, turn adjustment nut to reach this measure.

⚠ WARNING

Torque wrench tightening specifications must be strictly adhered to. Locking devices (ex.: locking tab, elastic stop nut, self-locking fasteners, etc.) must be installed or replaced with new ones where specified. If the efficiency of a locking device is impaired, it must be renewed.

⚠ WARNING

Make sure cable is free to swivel in lever end.



1. Adjustment nut
A. 28 mm (1-3/32 in)

Check brake fluid in reservoir on handlebar for proper level. Add fluid (DOT 4) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partially filled bottle of brake fluid.

ADJUSTMENTS
SUSPENSION

Rear suspension is calibrated at factory. At predelivery, mechanics should perform suspension adjustments according to customer riding style and vehicle load as described on suspension adjustment chart which is located on pulley guard.

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

When operation is done, install wheel caps provided with the predelivery kit (section no. 4) on rearmost wheels.

NOTE: If lubricant is needed to help cap installation, use lens cleaner instead of soapy water to avoid cap from getting out its location due to soap residual.

ADJUSTMENTS
DRIVEN PULLEY

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Further inquiries should be directed to your distributor service representative.

A dot (•) on right indicates changes from 2001 model.

	MODEL			MX Z 800 R	MX Z 700 R	MX Z 600 R
	Engine Type			793	693	593
	Maximum HP RPM ①		± 100 RPM	7900 •	8000	8000
	Reed Valve		P/N	420 867 870		
	Carburetor Type			TM 40 - B-166 with DPM	TM 40 - B-160 with DPM	TM 40 - B-154 with DPM
	Main Jet			520N •	510N	500
	Needle Jet			P0		
	Pilot Jet			17.5	17.5	20
	Needle Identification — Clip Position			9ZLY2-58 single position	9ZLY3-58 single position	9ZLY3-58 single position
	Slide Cut-Away			2.0		
	Float Adjustment		± 1 mm (± 0.04 in)	—		
	Air Screw Adjustment		± 1/16 turn	—		
	Idle Speed RPM		± 200 RPM	1500	1500	1600
	Gas Grade/Pump Octane Number		(R + M)/2	Regular unleaded/87		
	Gas/Oil Ratio			Oil injection		
	Ignition Timing BTDC ② ③		mm (in)	3.51 (0.1382)	3.36 (0.1323)	3.00 (0.1181)
	Trigger Coil Air-Gap		mm (in)	0.55 - 1.45 (.022 - .057)		
	Gear Ratio		Teeth	23/43 •	23/43	21/43
	Engagement Speed		± 100 RPM	3800	3800	4100
	Drive Pulley Calibration Screw Position			3		
	Pulley Distance	Z ④	± 0.5 mm (± 1/64 in)	16.5 (21/32)		
	Offset	X	± 0.5 mm (± 0.02 in)	35.5 (1.398)		
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X from 1.5 mm (3/64 in) •		
	Driven Pulley Preload		± 0.7 kg (± 1.5 lbf)	0.0 (0.0) •		
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation		
	Track Adjustment	Deflection	mm (in)	30 to 35 (1-3/16 to 1-3/8) with a 7.3 kg (16 lb) downward pull		

① Engine speed at which maximum power is achieved.

② At 3500 RPM (engine cold) with headlamp turned on.

③ During the first 8 hours, the timing curve is retarded between 4500 RPM and maximum RPM. Because checking ignition timing is done at lower RPM, this will not affect the 3500 RPM timing specification.

④ Z dimension without torque rod preload. After Z dimension adjustment, hand tight torque rod until plastic pad cannot be turned, then turn torque rod an additional half turn. Lock jam nut.

BTDC: Before Top Dead Center

Please route to :

Init.

- ☐ Service ☐
- ☐ Sales ☐
- ☐ Parts ☐

ski-doo® Bombardier

SNOWMOBILES

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PREDELIVERY Bulletin

No. **2002-8**

Date: September 21, 2001

SUBJECT: Predelivery

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2002	Skandic SWT	2097/2098	All
2002	Skandic WT LC	2095/2096/2160	All
2002	Skandic WT	2099/2100	All
2002	Skandic LT	2101/2102	All

This bulletin must be used in conjunction with the *Predelivery Check List* enclosed in the *Operator's Guide* bag. Make sure that *Predelivery Check List* is completed and signed.

⚠ WARNING

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NOTE: The information and components/system descriptions in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

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The contents of this bulletin is designed as a guideline only. All mechanics performing procedures should have attended the current model year service training. Further information or inquiries should be directed to your distributor service representative or specific *Shop Manual* sections.

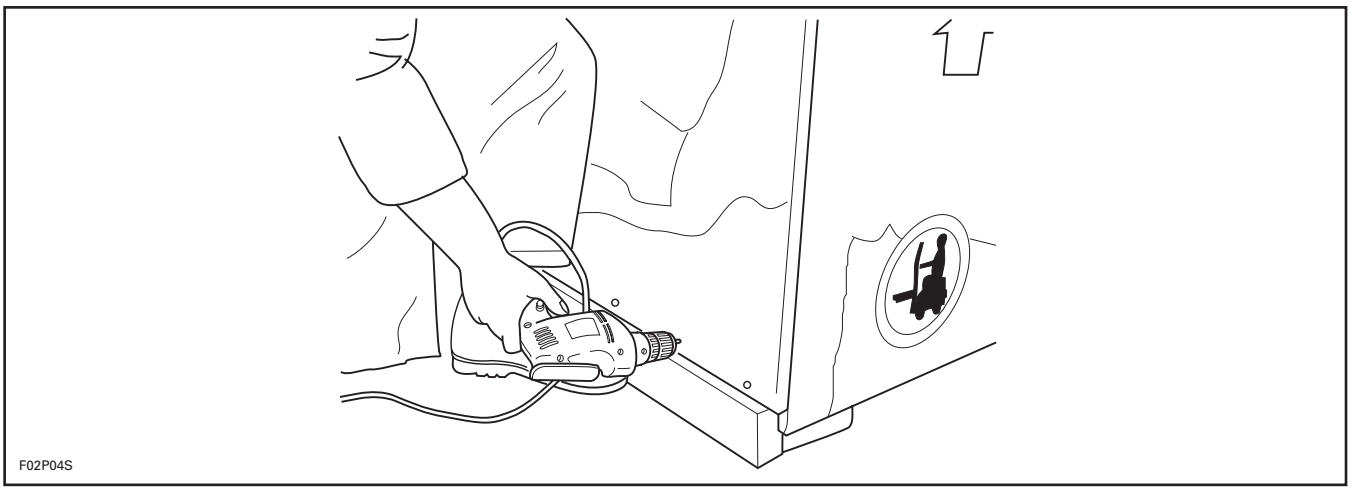
Please complete the *Predelivery Check List* for each snowmobile and return a customer signed copy. Make sure the customer receives the *Operator's Guide, Safety Handbook* and *Safety Videocassette*.

⚠ WARNING

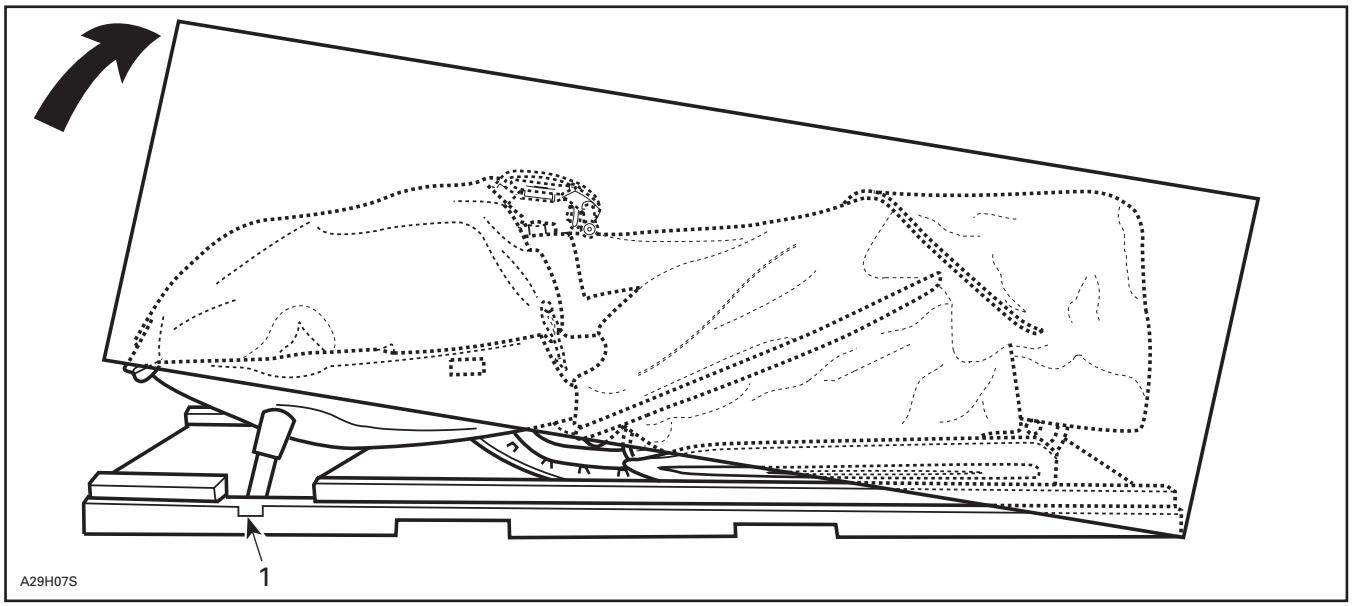
Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, nylon stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

CAUTION: Allowing the crate to drop may cause serious damages to the vehicle.

Using a screwdriver or a drill, remove all screws retaining crate to base.



Tip cover towards rear of vehicle. There is a notch in crate base at front.

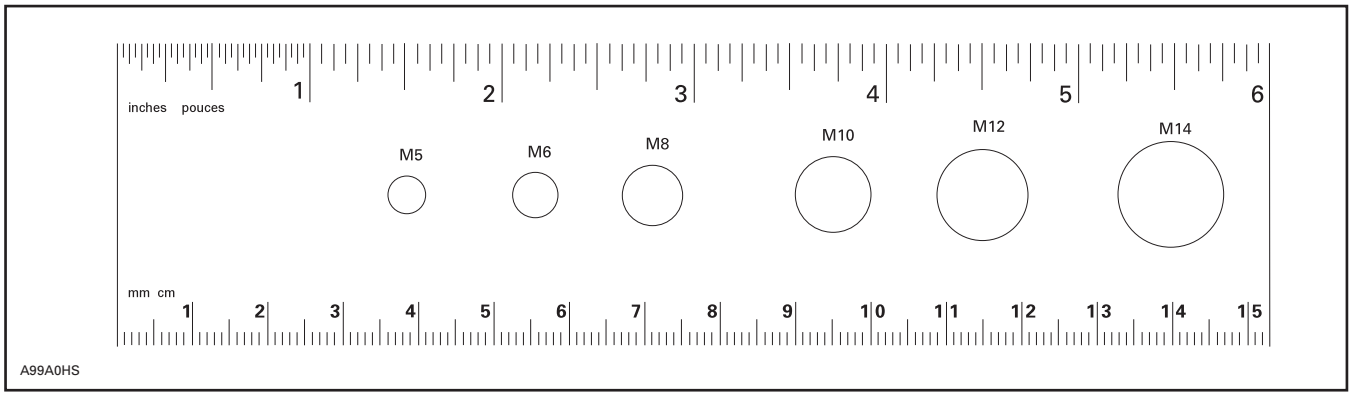


1. Notch

Detach parts to be installed (e.g. skis, windshield), from the vehicle and its base.

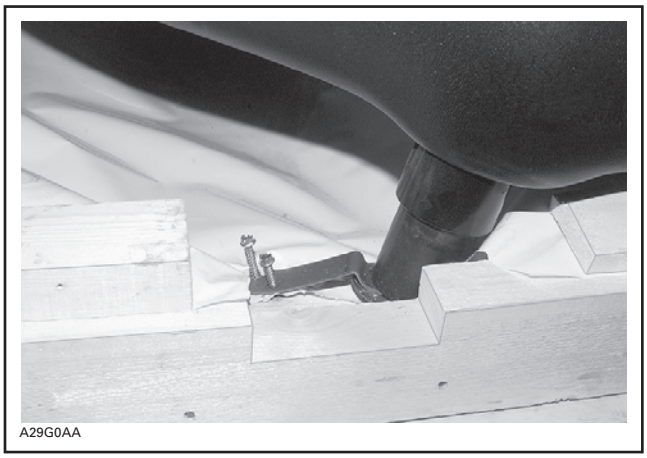
Remove predelivery kit and parts to be installed from under seat compartment.

NOTE: This rule can be helpful to identify fastener length/size.

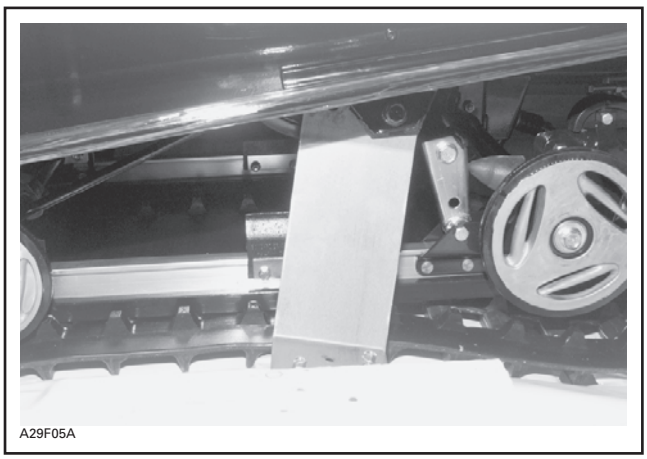


CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Detach ski legs from crate. Discard screws.



Remove the rear retaining brackets from both sides of vehicle and retain bolts holding brackets to body, discard screws.



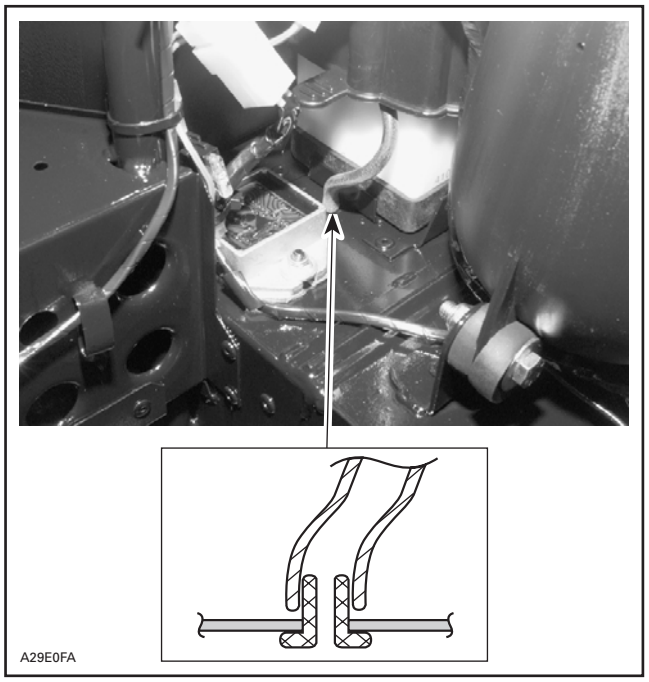
Remove vehicle from base.

Skandic WT/SWT/WT LC Models Only

During preparation, the battery can be activated as described in the appropriate *Ski-Doo Shop Manual.*

CAUTION: Prior to charging the battery, always remove it from the vehicle to prevent electrolyte spillage.

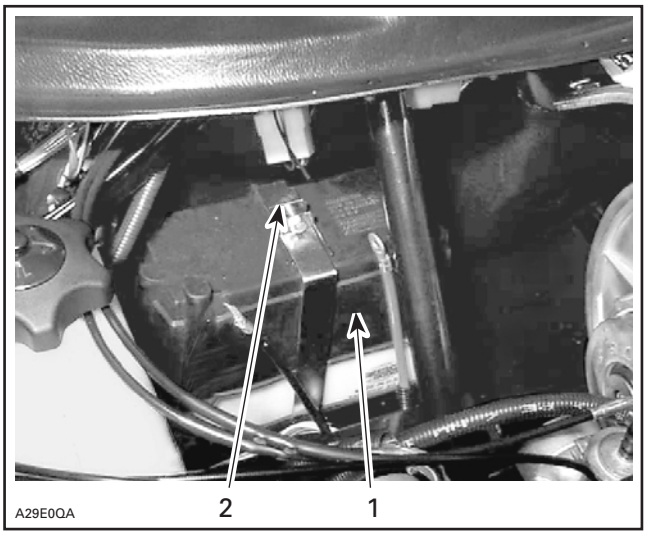
A special vented rivet is fixed to the chassis in order to plug the vent tube from the battery.



Battery Removal

Remove air silencer.

Undo steel strips nut and screw holding battery and remove battery.



1. Battery
2. Wing screw

Battery Installation

Deposit battery on its rack.

Connect battery cables.

⚠ WARNING

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

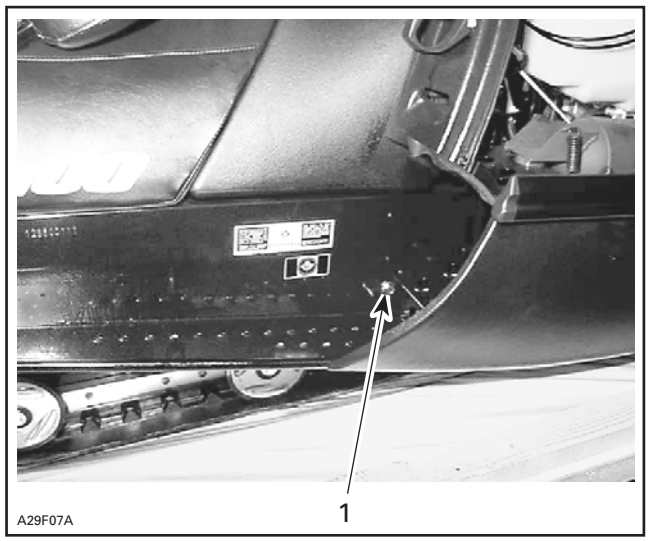
Reinstall battery cover and secure battery with steel strips. Apply silicone dielectric grease (P/N 293 550 004) on battery posts and connectors.

Ensure that battery vent tube is properly installed from battery to the plug provided on the frame and that it is not kinked.

Reinstall air silencer on it's place and tighten gear clamps, if applicable, around carburetor's air intake adapter.

Secure front arm upper axle of rear suspension using 2 M10 x 30 screws in plastic bag under the seat.

Apply Loctite† 243 (P/N 293 800 060) on threads and torque screws to 58 N•m (43 lbf•ft).

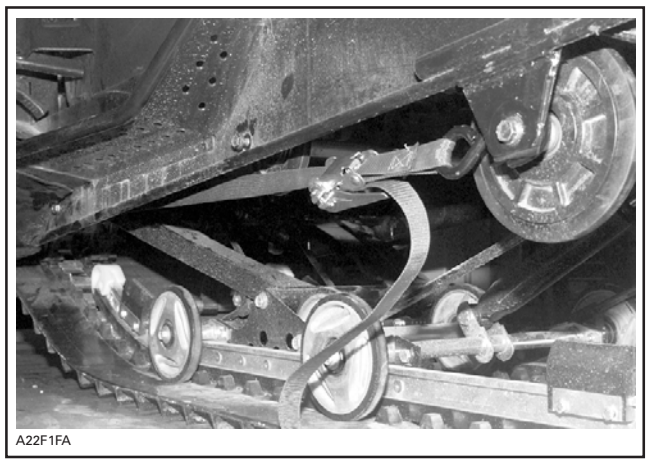


1. Torque screw on each side to 58 N•m (43 lbf•ft)

Secure rear arm using previously removed screws.

Apply Loctite 243 on threads and torque screws to 58 N•m (43 lbf•ft).

Use a tie-down between front arm and spring axle to ease installation of front arm screws.



Skandic WT/WT LC Models Only

NOTE: For single driving condition use upper hole and for two person driving condition or load in rack, use lower hole.

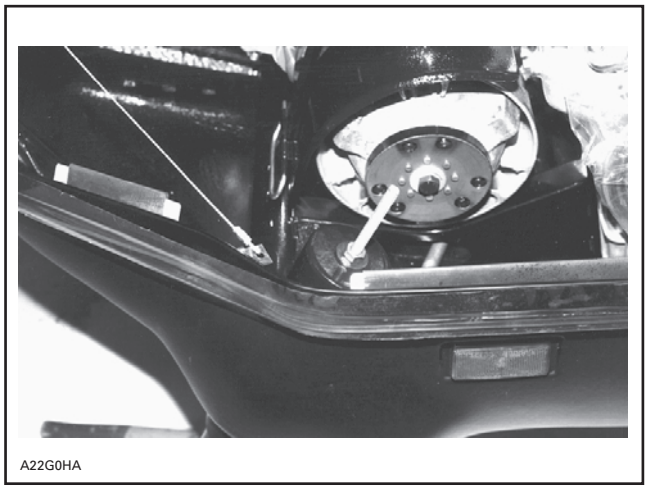
Apply Loctite 243 on threads and torque screws to 58 N•m (43 lbf•ft).

All Models

NOTE: Also in shrink pack are 4 horse shoe type washers that are used to adjust rear suspension for trail riding according to load (refer to the appropriate *Shop Manual* for proper procedure); they are to be put in the tool box for further use.

† Loctite® is a trademark of Loctite Corporation.

Remove long bolts that compress front suspension on both sides.

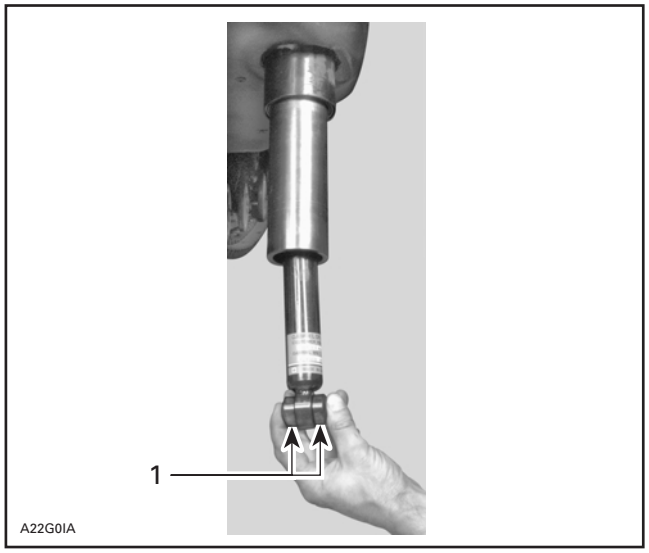

A22G0HA

Install 2 plastic bushings into shock absorber eyelets.

Stretch shock to its maximum.

Slide shock absorber into bottom of ski leg until shock rod goes through cap hole.

Loosely install conical spring washer, concave surface inside, and M10 nut on shock rods, keeping at least 1/4 in (5 mm) of free play.

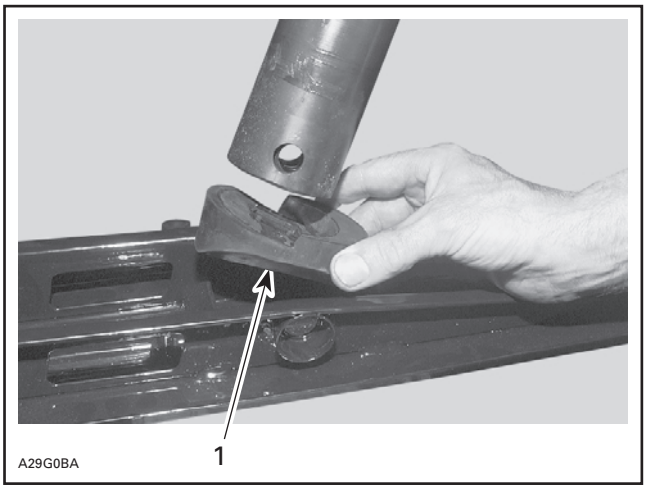


1. Plastic bushings

Install stop bounding on ski with its highest portion toward front.

Install skis on snowmobile using bolts, nuts, washers and rubber bushings supplied in the Predelivery kit. Torque to 13 N•m (9.5 lbf•ft).

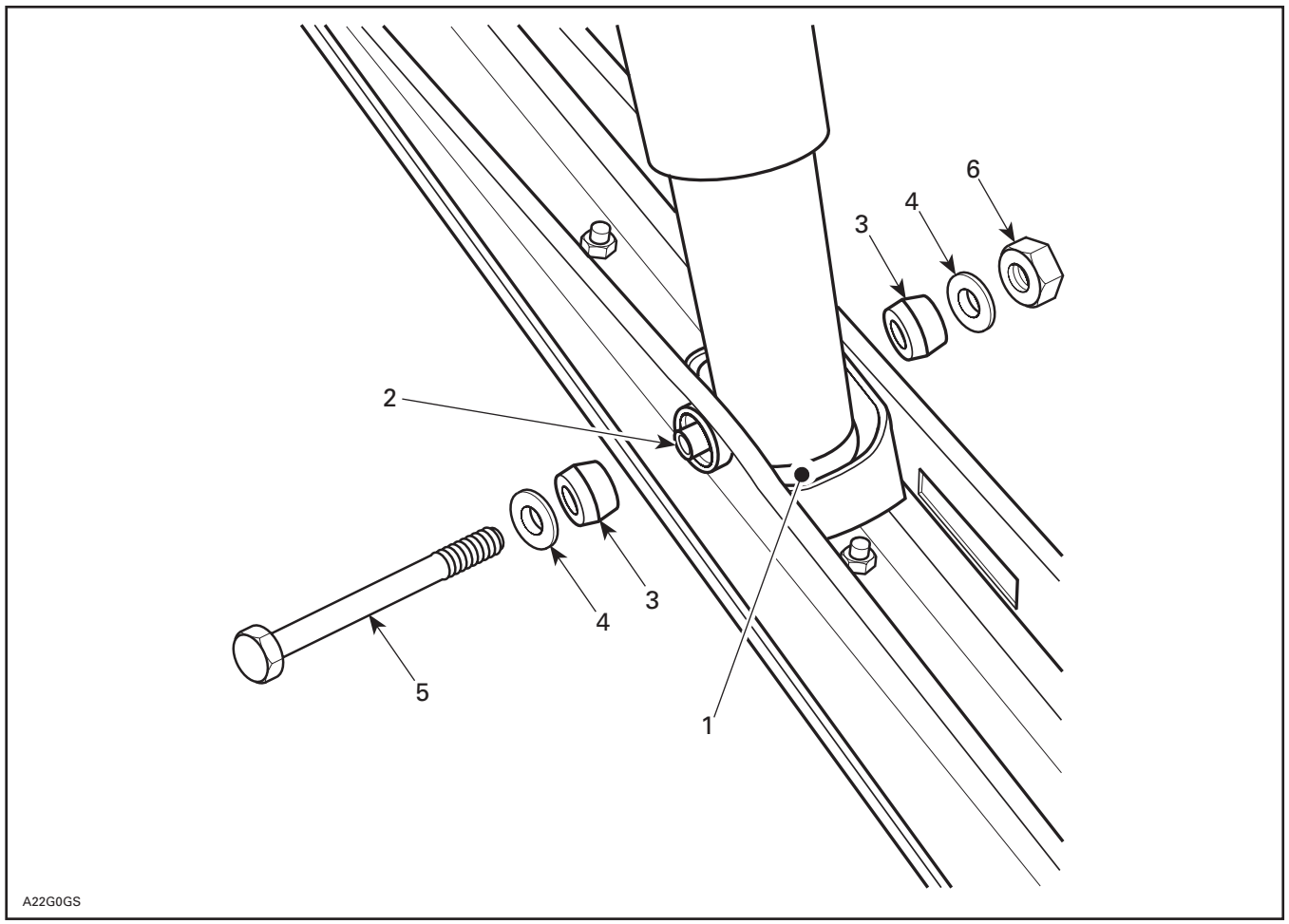
Install stop bounding on skis with its highest portion toward front.



LEFT SIDE SHOWN

1. *Stop bounding*

Install skis on vehicle using bolts, nuts, conical spring washers (concave surface inside) and rubber bushings supplied in the predelivery kit.



1. *Stop bounding*
2. *Sleeve*
3. *Rubber bushing (2)*
4. *Conical spring washer (2)*
5. *Bolt M10 x 125*
6. *M10 lock nut, tighten to 48 N•m (35 lbf•ft)*

Tighten shock rod top nuts to 30 N•m (22 lbf•ft).

Adjust handle bar and set both clamps to have equal gap on each side. Torque nuts from 21 to 28 N•m (16 to 21 lbf•ft).

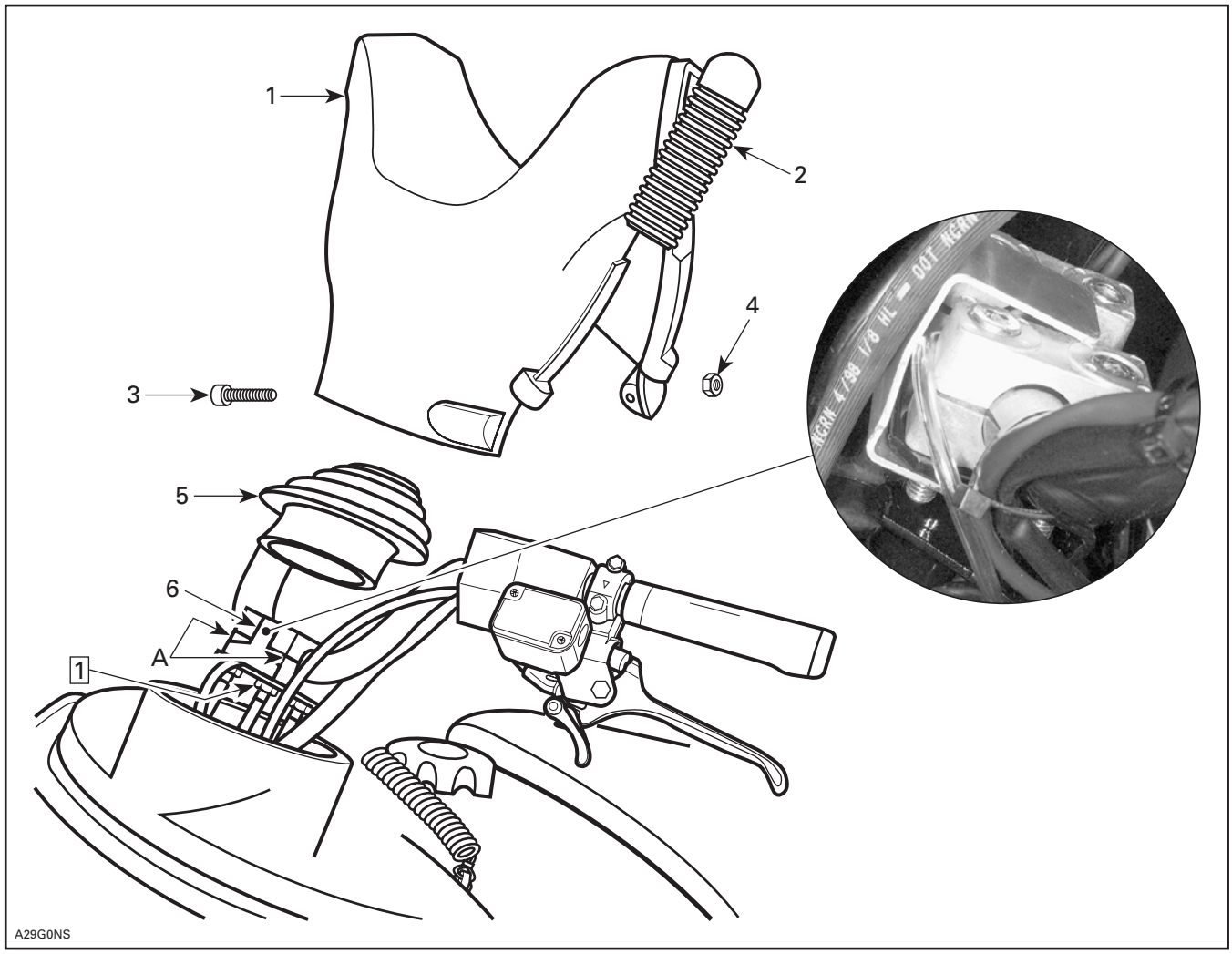
NOTE: On Skandic WT/WT LC/SWT, move handle bar to left of driving shaft to center it. From right edge of driving shaft to right edge of right clamp, a distance of 30 to 35 mm (1-3/16 to 1-3/8 in) must be measured.


A29G0QA

Loosen throttle and brake handle housings.

Install steering pad.

Adjust both throttle and brake handle housings to match steering pad.



TYPICAL

Step 1: Torque from 21 to 28 N•m (16 to 21 lbf•ft)

1. *Steering pad*
2. *Keyway. Use liquid soap to ease installation*
3. *Screw M5 x 0.80 x 20 (2)*
4. *Nut M5 x 0.80 x 20 (2). Seat tighten only, no deformation of rubber*
5. *Steering column cover (Skandic SWT only)*
6. *Clamp bracket*

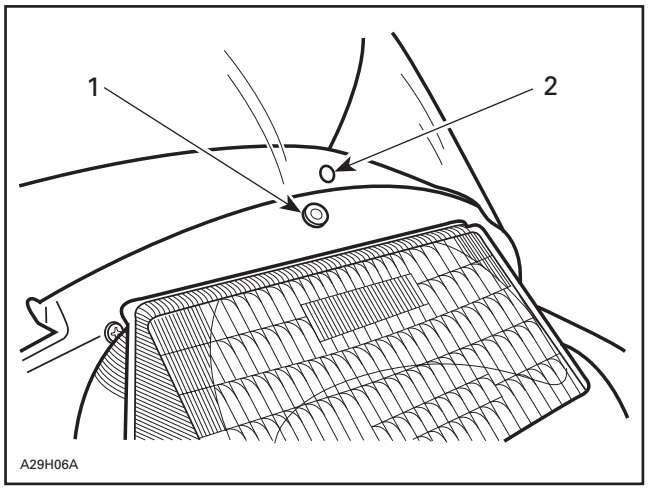
A. *Equal gap on each side (both clamps)*

Remove headlamp molding.

Install rubber expansion nut in hole above head light.

Line up hole in windshield with rubber expansion nut and install screw with cup.

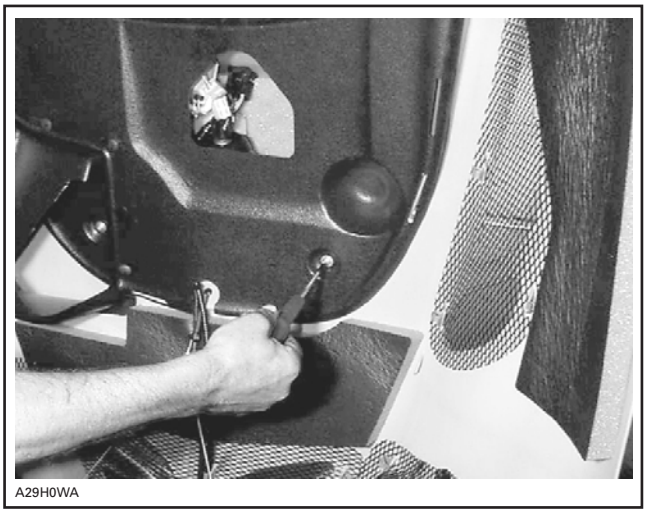
Tighten slightly so that rubber expands inside hood.



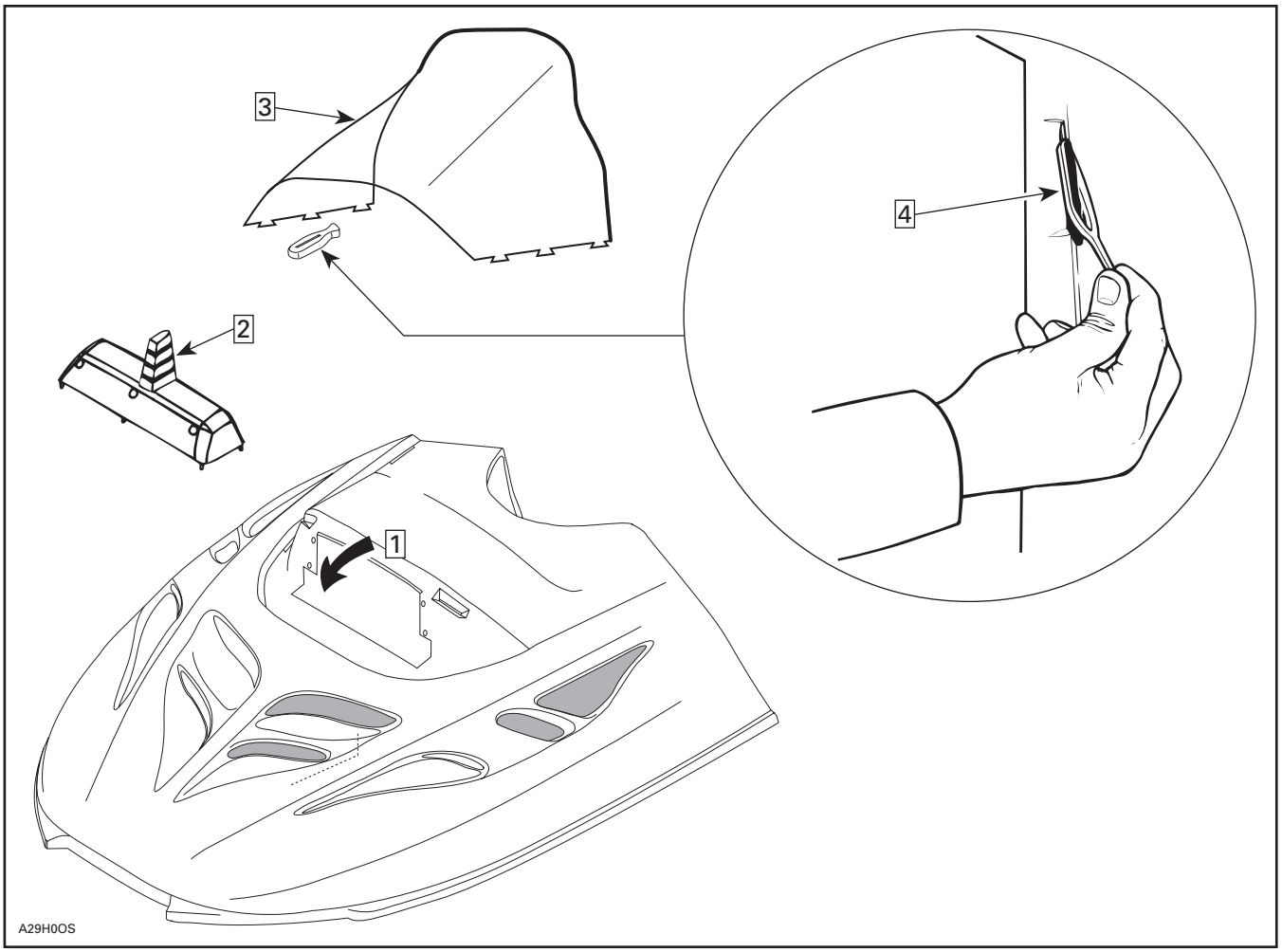
1. Rubber expansion nut
2. Hole in windshield

Skandic WT/SWT/WT LT Models Only

Remove plastic plate from hood.



Install air intake cover with filter and rubber support assembly in predrilled holes on the hood. Retain with 4 supplied push nuts, using 2 end pins on each side.



Step 1: Pry out headlamp molding
Step 2: Install air intake cover with filter, rubber support and push nuts
Step 3: Install windshield
Step 4: Install latches (10)

All Models

Install windshield and secure with latches inside hood.

Reinstall plastic plate. Secure with latches, clips and nuts (for rubber expansion nuts).

Reinstall headlamp molding.

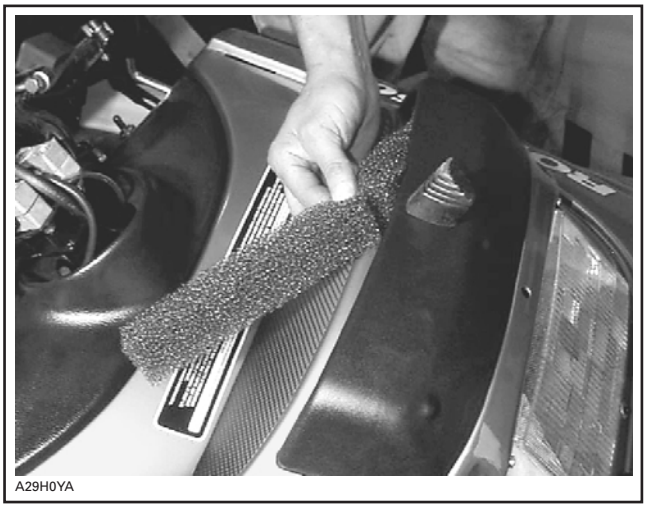
Make sure to properly position lower edge of plastic molding under head lamp.

Skandic WT/SWT/WT LT Models Only

Secure inside hood plastic with supplied green clips (if not already secured).

All Models

Add foam inside cover. Take care to position foam correctly.



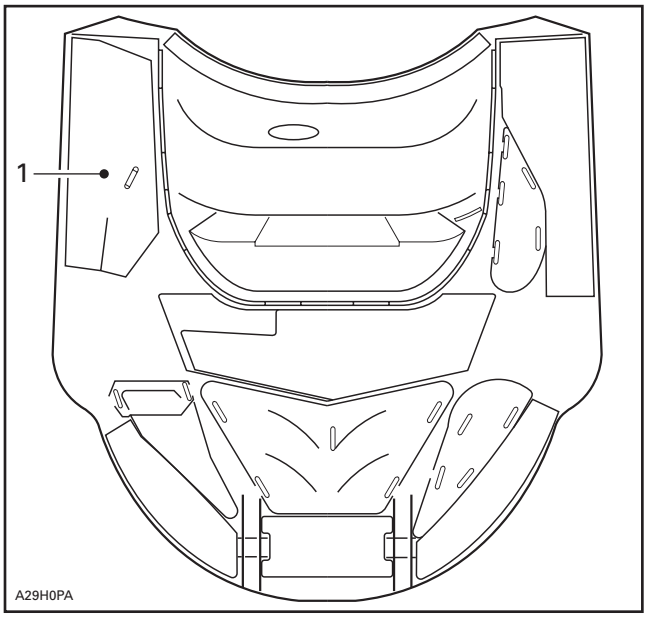
ALUMINUM FOIL HEATSHIELD

Skandic SWT Model Only

Found in seat compartment, an aluminum foil heatshield has to be installed on hood inner surface.

Remove backing from heatshield, align inside hood above braking mechanism (disc), and stick in place, as per following illustration.

NOTE: This heatshield has to be installed over the duct in order to protect both the duct and the hood from heat. Do not remove duct since this heatshield goes over it.



TYPICAL

1. Heatshield

PARTS INSTALLATION
BACKREST

SEAT BELT

Skandic SWT and Skandic LT Only

A seat belt can be found in luggage compartment. Install it on seat using belt lugs each side of seat base.

BACKREST

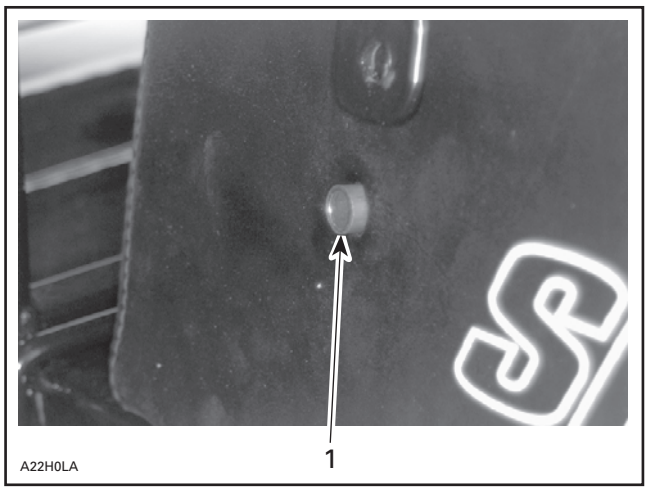
Skandic WT and Skandic WT LC Only

Install spacers (included in shrink kit) in rear seat holes for backrest.

Install backrest in its proper position.

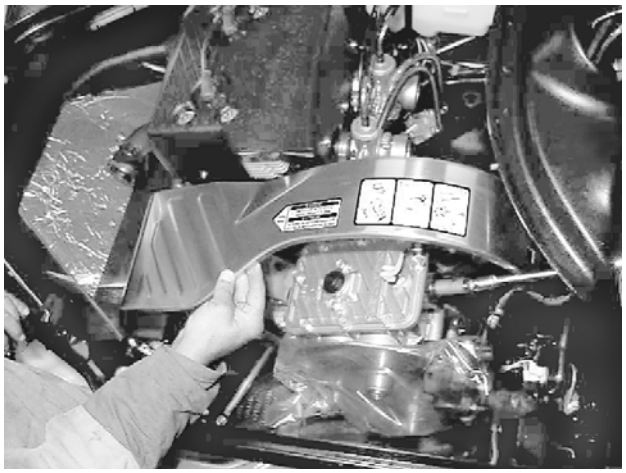
Secure rear arm of backrest using 2 M8 x 30 screws found in shrink pack.

Align front arm of backrest and secure with M8 x 20 screws included in the shrink pack.



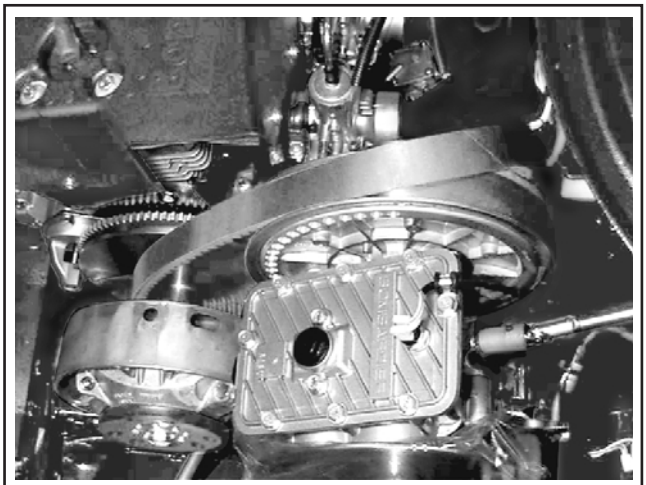
1. Spacer

Remove belt guard.


A29D1YA

Clean pulleys and disk brake with a suitable cleaner such as Loctite Parts Cleaner (P/N 413 711 809).

Install drive belt in its proper rotation direction, arrow pointing at front.


A29D1ZA

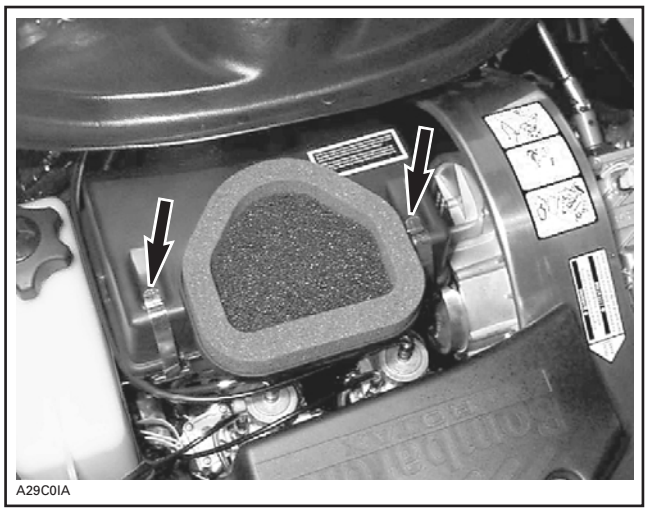
TYPICAL

Air Intake Silencer Installation

This part consist of three separate pieces. First fasten the bottom of air silencer. Check that guide pins are in the provided holes.

Install the middle part.

Mount the upper part of the air silencer. Install the back side first and check that brackets are on right position. Fasten air silencer pieces together with provided clamps.


A29C0IA

Make sure air box rubber extension and carburetors fit well.

NOTE: While installing air silencer, take care to route throttle cable the right way.

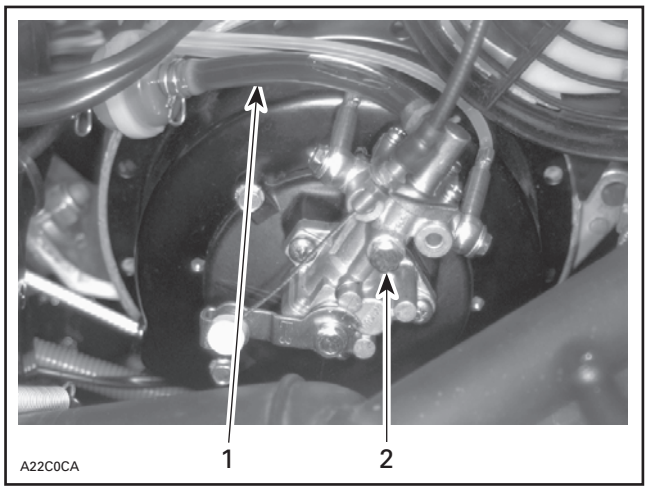
All Models

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz.) of BOMBARDIER injection oil (P/N 413 802 900) should be added to fuel for the first full filling of fuel tank.

Remove muffler if needed.

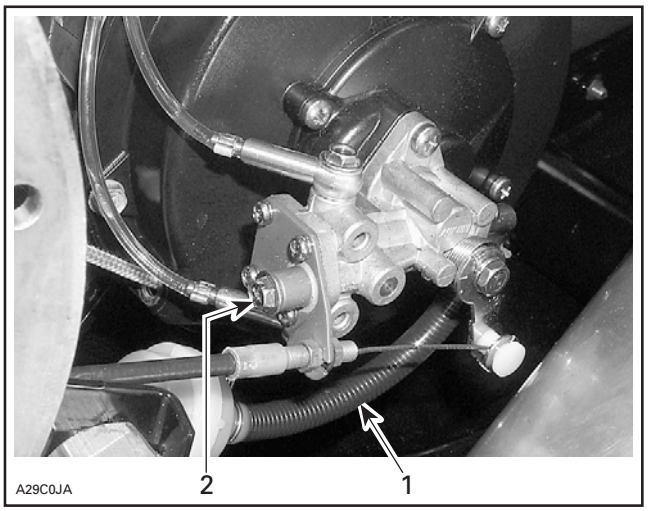
Skandic WT/SWT/LT

Bleed main oil line (between tank and pump) by loosening the bleeder screw until all air has escaped from the line. Add injection oil as required.



TYPICAL — SKANDIC WT/SWT MODELS

1. *No air in main line*
2. *Bleeder screw*



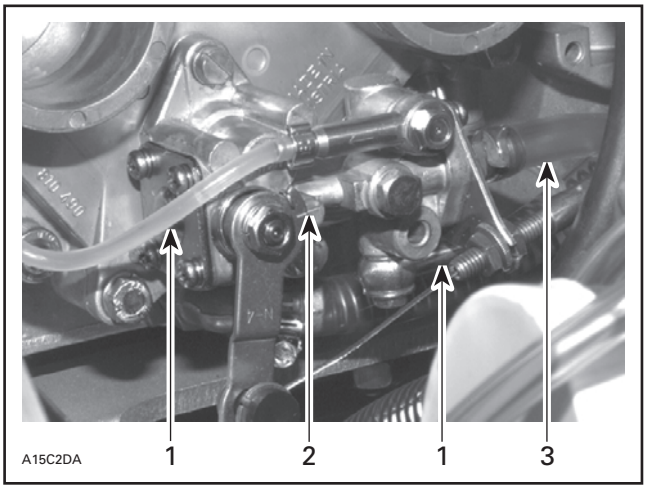
SKANDIC LT MODEL

1. *No air in main line*
2. *Bleeder screw*

Check also for proper oil lever adjustment; mark on lever must align with mark on pump body when throttle lever is activated just enough to take all cable free-play.

Bleed the small oil lines between pump and intake manifold by running engine at idle while holding the pump lever in fully open position.

Skandic WT LC



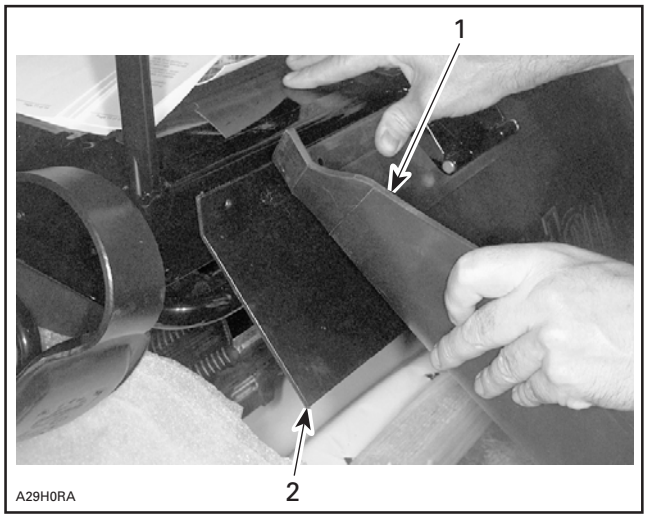
1. *Small oil line*
2. *Mark on lever must be from 1 to 2 mm (0.040 to 0.080 in)*
3. *Main oil line*

IMPORTANT NOTE: Oil pump is set at factory. However adjustment can be done according to *Predelivery Bulletin 2000-14*.

CAUTION: When adjusting oil injection pump lever, be sure to place mirror so that there is no parallax error. Such an error may lead to serious engine damages.

SNOW GUARD

Install snow guard with extra plastic support (in luggage compartment) using rivets supplied in its packaging.



1. *Snow guard*
2. *Protector pad*

LIQUIDS

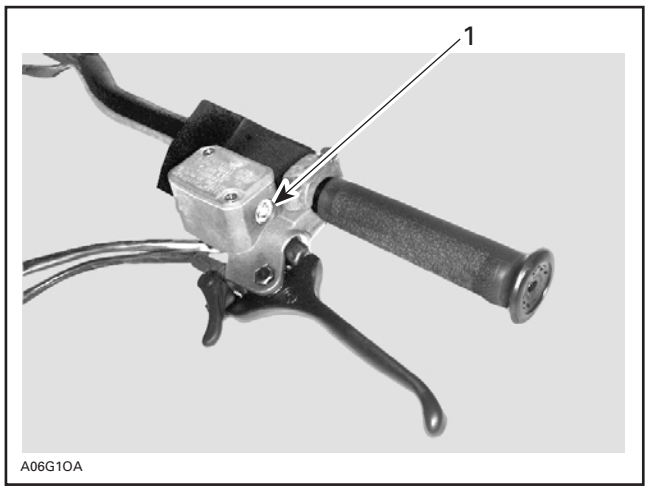
BRAKE FLUID LEVEL

All Models except Skandic LT

Check brake fluid in reservoir for proper level.

Add recommended brake fluid as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partially filled bottle of brake fluid.



1. *Fluid level window*

LIQUIDS
ENGINE OIL LEVEL

Skandic WT LC Only

With vehicle on a flat surface and engine cold, remove pressure cap and check coolant level. Add coolant as needed.

CAUTION: To prevent rust formation or freezing conditions, always use ethylene glycol antifreeze containing corrosion inhibitors specially recommended for aluminum engines. Always use 50% antifreeze and 50% water for this particular type of snowmobile.

Reinstall pressure cap.

Run engine until thermostat opens then stop engine.

Check hoses for leaks.

When engine has completely cooled down, recheck coolant level and top up if necessary.

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

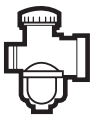
TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Vehicle used at high altitudes, above 600 m (2000 ft) should be fitted with a high altitude kit. Further inquiries should be directed to your distributor service representative.

A dot (•) on right indicates changes from 2001 model.

	MODEL			SKANDIC SWT SKANDIC WT (model 2100 only)	SKANDIC WT (model 2099 only)	
	Engine Type			ROTAX 503		
	Maximum HP RPM ①		± 100 RPM	6750		•
	Reed Valve		P/N	Not applicable		
	Carburetor Type			2 x VM 34-19084		
	Main Jet			185		
	Needle Jet			P-1 (159)		
	Pilot Jet			40		
	Needle Identification — Clip Position			6DH2-3		
	Slide Cut-Away			2.5		
	Float Adjustment		mm (in)	23.9 (0.941)		•
	Air Screw Adjustment		± 1/16 turn	2.0		•
	Idle Speed		± 200 RPM	1650		
	Gas Grade/Pump Octane Number		(R + M)/2	Regular unleaded/87		
	Gas/Oil Ratio			Oil injection		
	Ignition Timing BTDC ②		mm (in)	1.66 (.065)		
	Trigger Coil Air Gap		mm (in)	0.45 - 0.55 (.018 - .022)		
	Gear Ratio			1st gear 1: 3.80 2nd gear 1: 2.29 R gear 1: 4.63	1st gear 1: 2.93 2nd gear 1: 2.04 R gear 1: 3.57	•
	Engagement Speed		± 100 RPM	3000		
	Drive Pulley Calibration Screw Position			2	2	•
	Pulley Distance	Z	(+ 0, - 1) mm (+ 0, - 1/32) in	32.3 (1-17/64)		
	Offset	X	± 0.4 mm (± 1/64 in)	35.0 (1-3/8)		
		Y		Dimension Y must exceed X from 0.75 mm (.03 in) to 2.25 mm (.09 in)		
	Driven Pulley Preload		kg (lbf)	7.0 + 1/- 0 (15.4 ± 1.5)		
	Drive Chain Tension			Not applicable		
	Track Adjustment	Deflection	mm (in)	40 to 50 (1.6 to 2.0)		
		Force	kg (lbf)	7.3 (16.1)		

NOTE: See end of specifications for footnotes.

	MODEL			SKANDIC WT LC	SKANDIC LT
	Engine Type			593 •	443
	Maximum HP RPM ①		RPM ± 100	7000 •	6900 •
	Reed Valve		P/N	420 924 519	Not applicable
	Carburetor Type			PTO VM 38-19111 MAG VM 38-19111 •	VM 32-19121 •
	Main Jet			330 •	180 •
	Needle Jet			P-9 (480) •	O-0 (159) •
	Pilot Jet			40	50 •
	Needle Identification — Clip Position			6FL14-5 •	6DGY12-3 •
	Slide Cut-Away			2.5	3 •
	Float Adjustment		± 1 mm (± .040 in)	18.1 (0.710) •	23.9 (0.941) •
	Air Screw Adjustment		± 1/16 turn	1.5 •	1.0 •
	Idle Speed RPM		± 200 RPM	1900	1650
	Gas Grade/Octane Number		(R + M)/2	Regular unleaded/87	Regular unleaded/87
	Gas/Oil Ratio			Oil injection	Oil injection
	Ignition Timing BTDC ②		mm (in)	3.0 (.118) •	2.79 (.110) •
	Trigger Coil Air Gap		mm (in)	0.55 - 1.45 (.022 - .057)	0.45 - 0.55 (.018 -0.022) •
	Gear Ratio			1st gear 1: 2.82 2nd gear 1: 1.7 R gear 1: 3.44 •	1: 2.59
	Engagement Speed		± 100 RPM	2500 •	3200 •
	Drive Pulley Calibration Screw Position			3 •	—
	Pulley Distance	Z	(+ 0, - 1) mm (+ 0, - 1/32) in	32.3 (1-17/64)	39.0 (1.5) •
	Offset	X	± 0.4 mm (± 1/64 in)	35.0 (1-3/8)	37.0 (1.46)
		Y		Dimension Y must exceed X from .75 mm (.03 in) to 2.25 mm (.09 in)	
	Driven Pulley Preload		kg (lbf)	7.0 + 1/- 0 (15.4 ± 1.5)	0.00 (0.0)
	Drive Chain Tension			Not applicable	
	Track Adjustment	Deflection	mm (in)	40 to 50 (1.6 to 2.0)	
		Force	kg (lbf)	7.3 (16.1)	

① Engine speed at which maximum power is achieved.
② At 3500 RPM (engine cold) with headlamp turned on.

Please route to :

Init.

- ☐ Service ☐
- ☐ Sales ☐
- ☐ Parts ☐

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-9**

Date: October 11, 2001

SUBJECT: Predelivery

YEAR	MODEL	PACKAGE	MODEL NUMBER	SERIAL NUMBER
2002	Grand Touring 800	SE	2137/2047/2048/2049/2050	All
2002	Grand Touring 700	GS	2071/2072/2073/2074/2159	All
2002	Grand Touring 700	Sport	2079/2080/2081/2082	All
2002	Grand Touring 600	SE	2138/2148/2149/2051/2052	All
2002	Grand Touring 600	GS	2075/2076/2077/2078	All
2002	Grand Touring 600	Sport	2083/2084/2085/2086/2139	All
2002	Grand Touring 500	Sport	2087/2088/2089/2090/2140	All

This bulletin must be used in conjunction with the check list enclosed in *Operator's Guide* bag. Make sure that predelivery check list is completed and signed.

⚠ WARNING

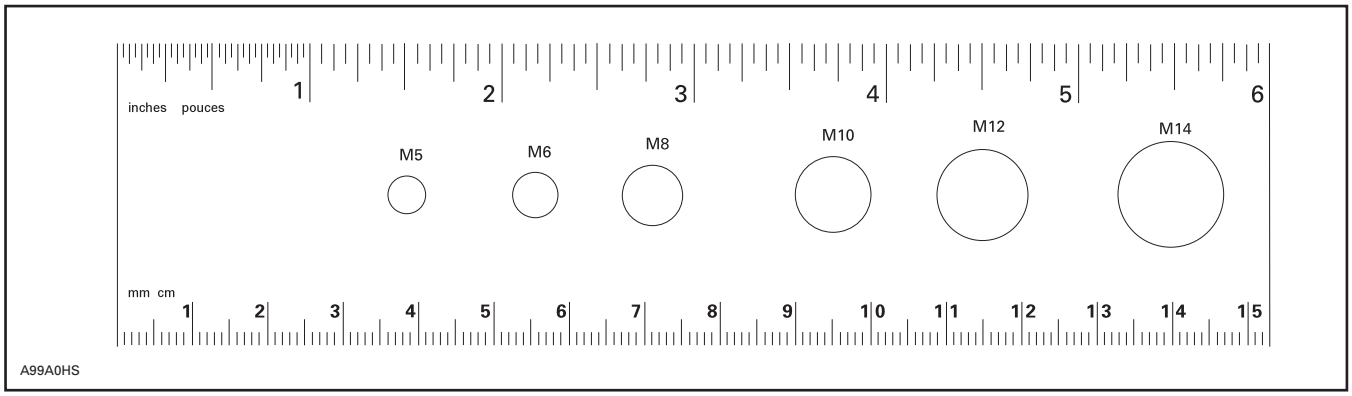
To obtain warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

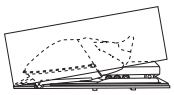
The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your distributor service representative and/or specific *Shop Manual* sections. Please complete the *Predelivery Check List* for each snowmobile and return a customer signed copy. Make sure the customer receives the *Operator's Guide*, *Safety Handbook* and *Safety Videocassette*.

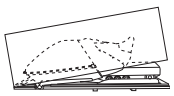
There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask dealer to perform suspension adjustments according to riding style and vehicle load.



NOTE: This ruler can be helpful to identify fastener length or size.



UNCRATING



PREDELIVERY KIT P/N	MODELS
549 011 033	Grand Touring 800 SE Grand Touring 600 SE
549 010 964	Grand Touring 700 GS Grand Touring 700 Sport Grand Touring 600 GS Grand Touring 600 Sport Grand Touring 500 Sport

⚠ WARNING

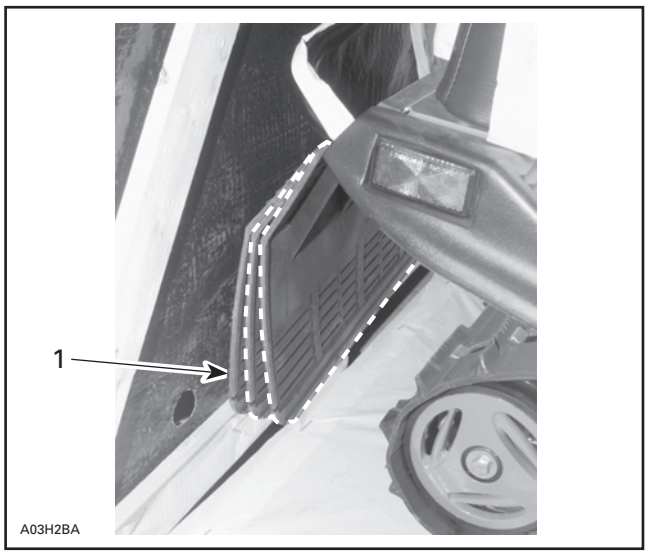
Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

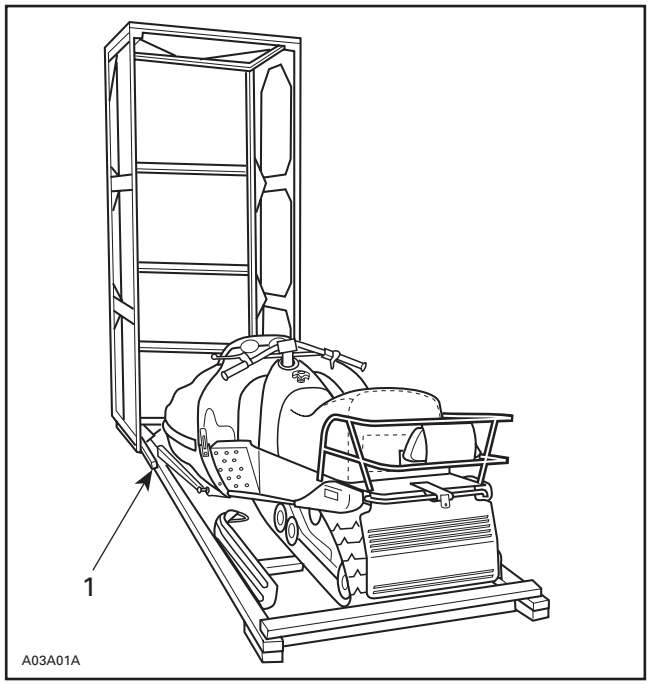
Remove all screws retaining cover to vehicle base. Tip cover toward front of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging the snow guard or taillight.

NOTE: On some models, snow guard may interfere with crate cover, as shown in the following photo. Push on snow guard when lifting cover.



FROM OUTSIDE CRATE PUSH ON SNOW GUARD TO ALLOW COVER TO LIFT WITHOUT DAMAGING SNOW GUARD

1. Snow guard interfering with crate cover



1. Notch

Detach parts to be installed (e.g. skis, windshield) from the vehicle and its base.

Remove ropes and cut locking ties retaining windshield.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Detach ski legs from crate. Keep ski leg bolts and bushings to bolt skis to ski legs. Discard crating spacers and nuts.

Remove vehicle from base.

Remove parts to be installed and predelivery kit from part box. Remove also shock absorbers from part box (under double bottom).

FRONT HOOK REMOVAL

Procedure

Apply parking brake.

Lift rear of vehicle so that a block or a box can be positioned under front wheel, as shown on the next photo.

EDGE OF BOX ALIGNED WITH WHEEL AXIS

Cut locking tie retaining front hook.

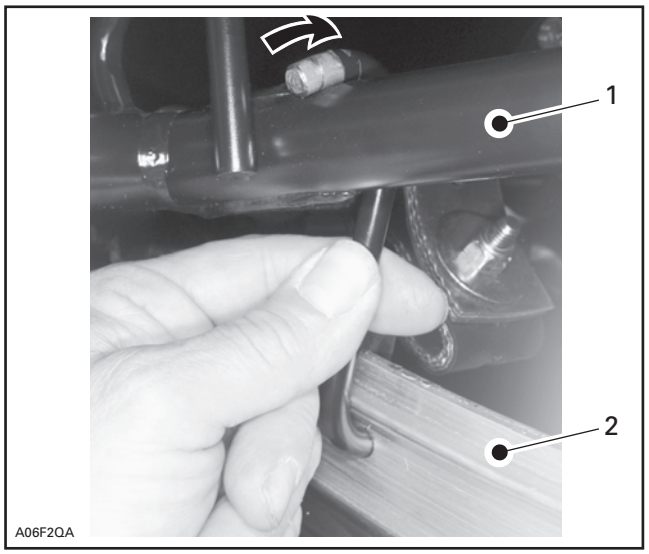
From left side of vehicle, apply pressure onto rear bumper with right hand, as shown on the following photo.

TYPICAL

Using left hand, remove hook from suspension, as shown on the following photo.

⚠ WARNING

Before removing hook always verify that vehicle is properly supported and that parking brake is applied.



TYPICAL

1. *Front arm*
2. *Runner*

⚠ WARNING

Shipping hook must be removed to have snowmobile suspension operational.

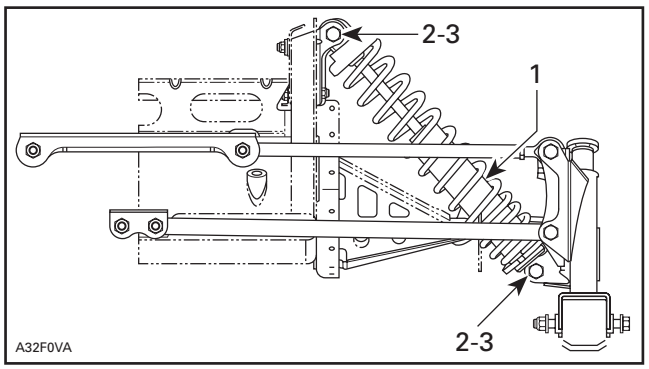
PARTS INSTALLATION
FRONT SUSPENSION

Lift front of vehicle and block safely.

Remove and discard shipping brackets from suspension. Discard spring clips, keep screws.

Secure shock absorbers to suspension with their adjusting ring at bottom.

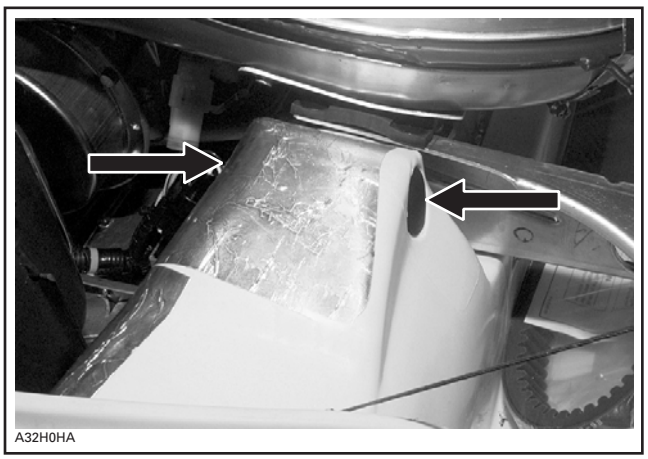
NOTE: Position bottom bolt heads toward front, top bolt head toward rear and secure with nuts provided in predelivery kit (section no. 1). A long socket may be needed to torque bolts.



TYPICAL — RH SIDE SHOWN

1. *Shock absorber (2) (engine compartment) adjusting ring at bottom*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Elastic flanged nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 1). Torque to 48 N•m (35 lbf•ft)*

Install caps provided in predelivery kit on bottom pan, each side of upper bolts.

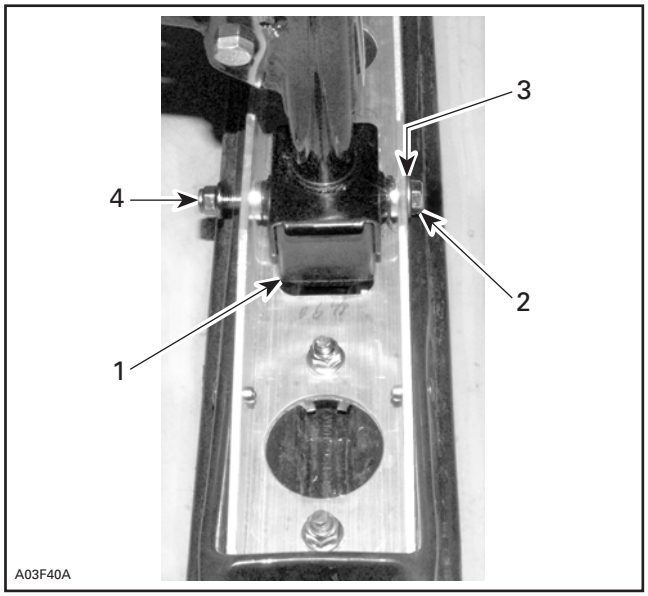


SNAP PROVIDED CAPS (SECTION NO. 6) EACH SIDE OF MOLDING

Ensure ski leg slider cushions are still in ski leg.

Install skis on vehicle.

Replace vehicle on ground.



LEFT SIDE SHOWN

1. *Ski stopper (2) (P/N 506 151 233) (section no. 8) higher side toward front*
2. *Bolt M10 x 110 (2) (ski leg)*
3. *Washer (2) (P/N 732 900 049) (section no. 6)*
4. *Elastic flanged nut M10 (2) (P/N 732 610 084) (section no. 9). Torque to 32 N•m (24 lbf•ft)*

Gel type battery is factory charged. However, battery must be recharged if voltage is under nominal value. Check for battery charge and condition.

CAUTION: Prior to charging the battery, always remove it from the vehicle. Do not charge an installed battery.

Battery Removal

Unhook retaining strap and then remove battery.

Battery Installation

Properly position battery on its rack.

Insert red wire into rubber protection cap, below red cable.

Remove protective caps from battery posts.

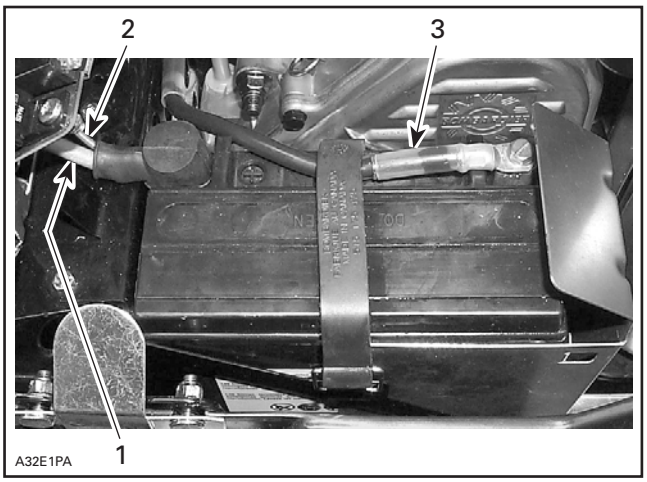
Connect RED positive cable and RED wire to positive battery terminal.

Connect BLACK negative cable LAST.

⚠ WARNING

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

Secure battery with retaining strap.



BATTERY CONNECTION

1. *RED positive cable*
2. *RED positive wire*
3. *BLACK negative cable under battery strap*

Apply silicone dielectric grease (P/N 293 550 004) on battery posts and connectors.

Cover positive post with rubber protection cap.

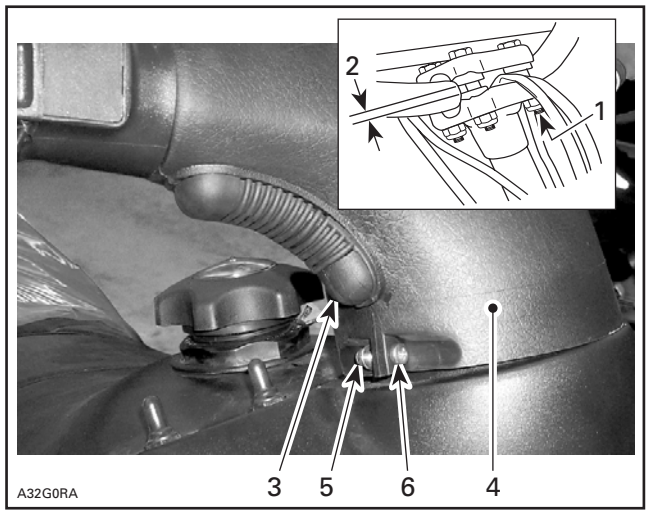
Adjust handlebar temporarily and tighten nuts loosely for now.

Loosen, at least 3 turns, Allen screw of throttle and brake handle housings.

Install steering pad temporarily, and adjust for proper fit with console.

Remove steering pad and torque nuts from 21 to 28 N•m (16 to 20 lbf•ft). Take care to make gap equal between each corners of clamps.

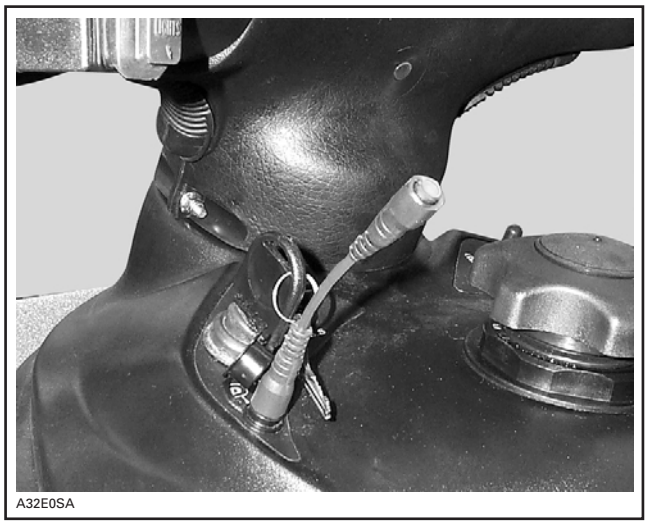
Reinstall steering pad, adjust and tighten throttle and brake handle housings.



1. *Torque from 21 to 28 N•m (16 to 20 lbf•ft)*
2. *Equal gap each side (both clamps)*
3. *Keyway (2) (section no. 6)*
4. *Steering pad (engine compartment)*
5. *Bolt M5 x 20 (2) (section no. 6)*
6. *Nut M5 (2) (section no. 6). Seat tighten only, no deformation of rubber*

Heated Visor Connector Extension

Section no. 8 of predelivery kit provides a connector extension for the heated visor.



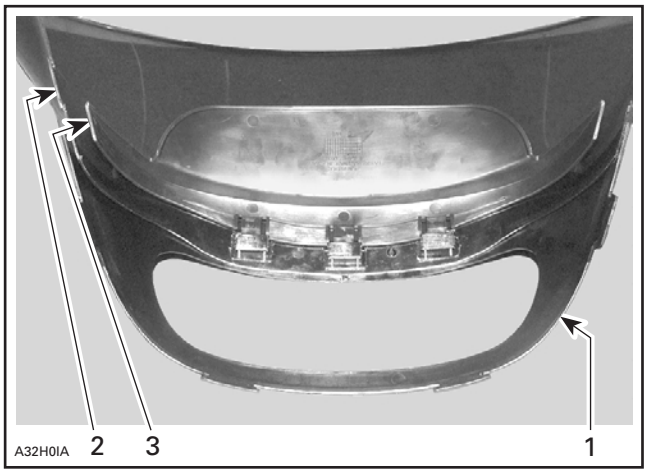
Remove plastic films from windshield.

Unclip inner protector from headlamp protector.

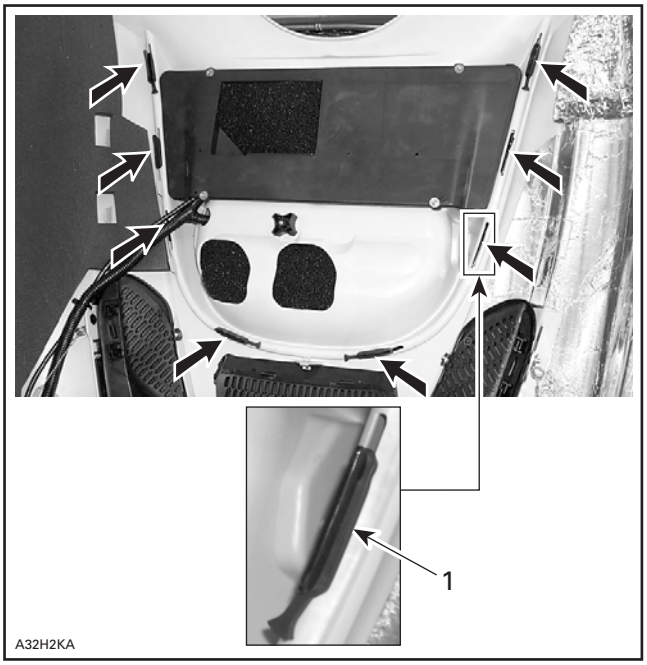
Insert tabs of headlamp protector in windshield square holes.

Clip inner protector in place.

Secure windshield assembly on hood using latches.



1. *Headlamp protector*
2. *Windshield*
3. *Inner protector*

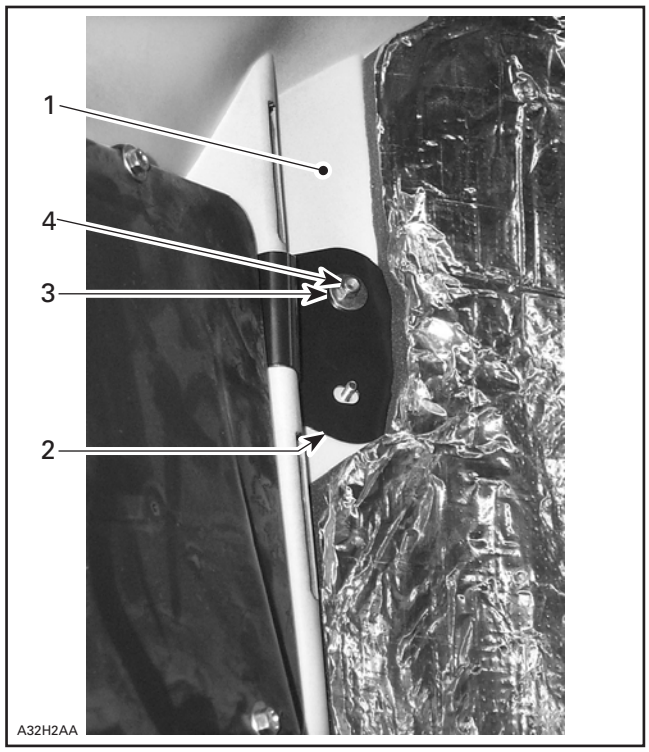


1. *Latch (8) (P/N 570 023 800) (4 already on headlamp protector, 2 on windshield and 2 on section no. 1)*

TYPICAL — WINDSHIELD INSTALLED

Place retaining plate underneath hood facing rear view mirror holes.

Install mirrors in place. Secure with washers and nuts (section no. 1 in predelivery kit). Torque to 2 N•m (18 lbf•**in**).



1. Hood
2. Retaining plate
3. Washer
4. Nut

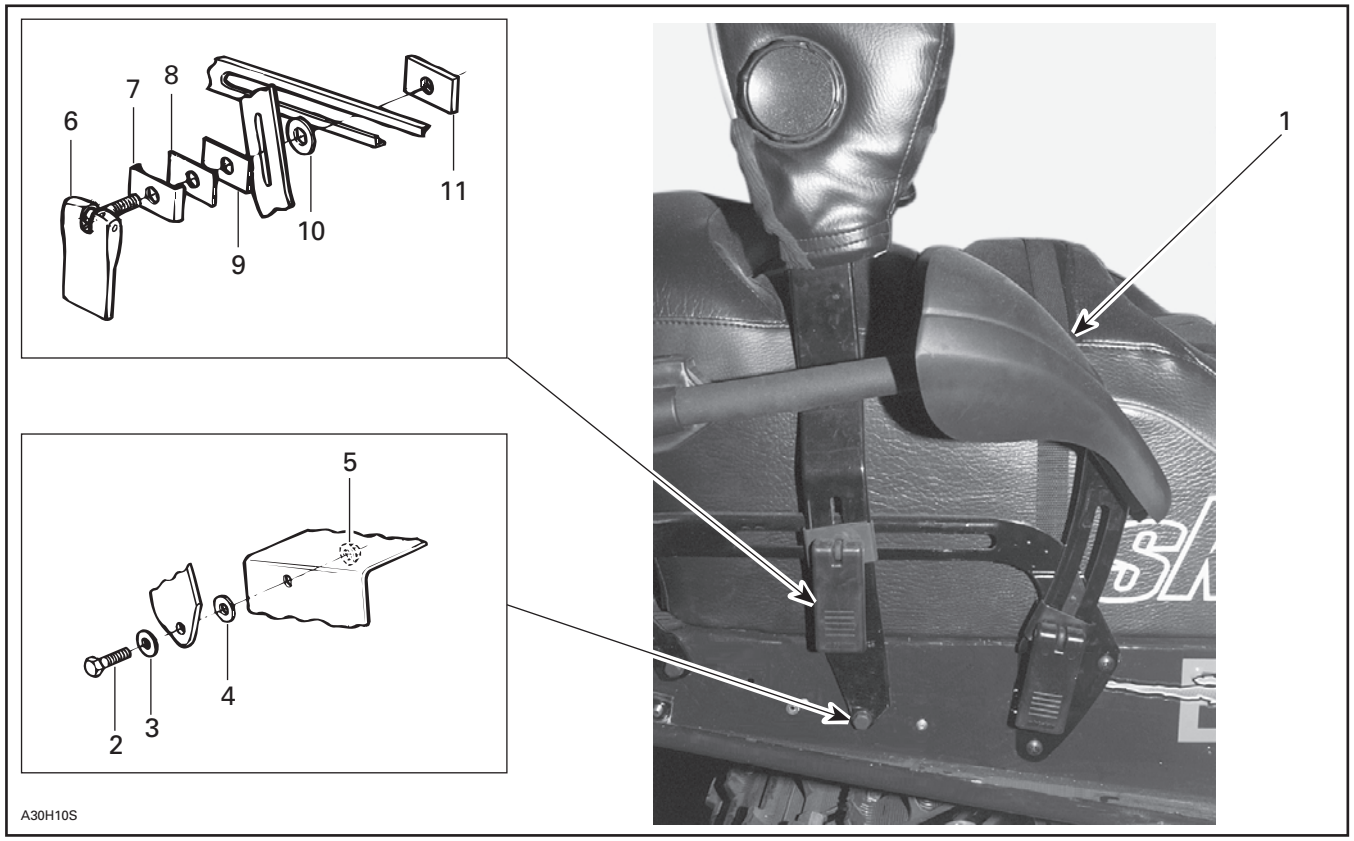
NOTE: Do not mix right and left mirrors (P/N 517 302 679 for right mirror and P/N 517 302 681 for left mirror).

INSTALLATION COMPLETED

Remove mouldings and secure backrest frame on tunnel then install lever assembly onto luggage rack rail as explained on following drawing.

Install hand protectors with rivets (P/N 390 907 700) (section no. 9) onto luggage rack handle.

Reinstall mouldings.



1. Handle protector (2). Secure with rivets (section no. 9)
2. Screw (2) (P/N 207 182 584) (section no. 4)
3. Washer (2) (P/N 234 081 670) (section no. 5)
4. Plastic washer (2) (P/N 414 819 600) (section no. 3)
*5. Elastic nut (2) (P/N 232 581 414) (section no. 4). Torque to 8 N•m (73 lbf•**in**)*
6. Lever assembly (2) (section no. 5)
7. Guide (2) (P/N 517 257 300) (section no. 3)
8. Rubber shim (2) (P/N 570 027 400) (section no. 4)
9. Spacer (2) (P/N 517 251 300) (section no. 5)
10. Flanged washer (2) (P/N 414 819 500) (section no. 2)
11. Threaded plate (2) (P/N 517 250 000) (section no. 2)

Turn adjustment knob left or right to adjust backrest cushion position.

PARTS INSTALLATION
DRIVE BELT

Clean pulleys and disc brake with a suitable cleaner such as Loctite parts cleaner (P/N 413 711 809) before installing drive belt.

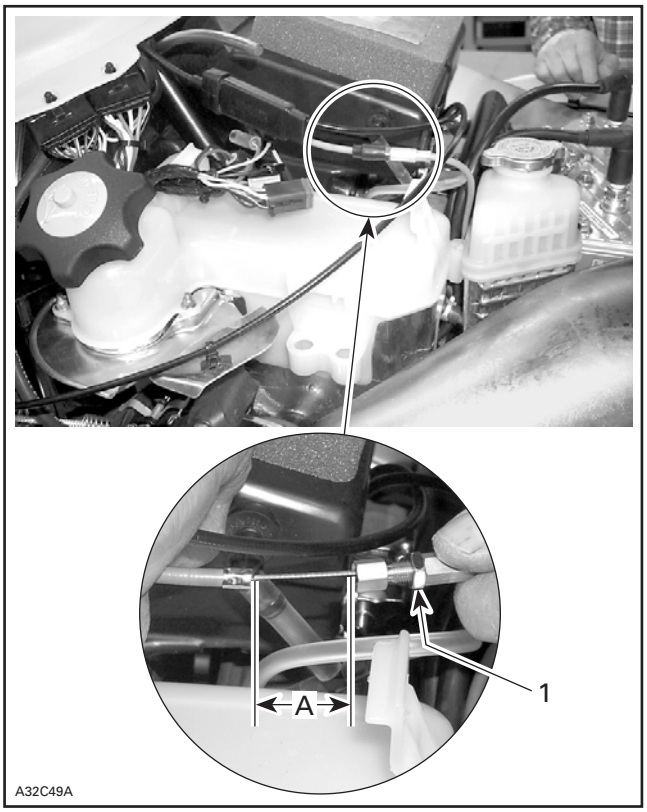
SUPPLEMENTAL OIL

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz) of BOMBARDIER Injection Oil (P/N 413 802 900 — 12 x 1 L) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

PUMP ADJUSTMENT

Oil injection pump is factory set. However, if adjustment needs to be checked or modified, refer to appropriate *Ski-Doo Shop Manual*.

Stretch cable sheath to fully open oil pump. Wire length must be 28 mm (1-3/32 in). If necessary, turn adjustment nut to reach this measure.



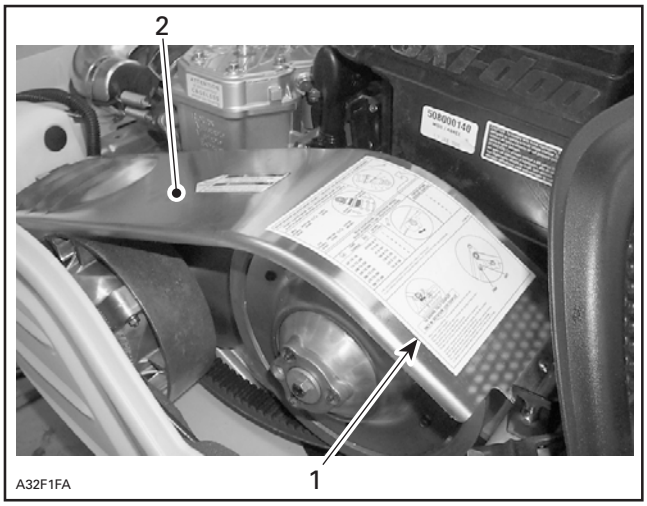
1. Adjustment nut
A. 28 mm (1-3/32 in)

Check brake fluid in reservoir on handlebar for proper level. Add fluid (DOT) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partial bottle of brake fluid.

ADJUSTMENTS
SUSPENSION

Rear suspension is calibrated at factory. At predelivery, mechanics should perform suspension adjustments according to customer riding style and vehicle load as described on suspension adjustment chart which is located on pulley guard.



TYPICAL

1. *Adjustment chart*
2. *Pulley guard*

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

When track adjustment is completed, place wheel caps provided in predelivery kit (section 9) on rear wheels.

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Vehicles used at high altitudes, above 600 m (2000 ft) should be fitted with a high altitude kit. Further inquires should be directed to your distributor service representative.

A dot (•) on right indicates changes from 2001 model.

	MODELS			GRAND TOURING 800	GRAND TOURING 700
	Engine Type			793 •	693
	Maximum HP RPM ①		± 100 RPM	7900 •	8000
	Reed valve		P/N	420 867 870 •	420 867 870
	Carburetor Type			TM40-B166 •	TM40-B160
	Main Jet			520N •	510N •
	Needle Jet			P-0 •	P-0
	Pilot Jet			17.5 •	17.5
	Needle Identification — Clip Position			9ZLY2-58 ② •	9ZLY3-58 ②
	Slide Cut-Away			2.0	
	Float Adjustment		± 1 mm (in)	N.A.	
	Air Screw Adjustment		± 1/16 Turn	N.A.	
	Idle Speed RPM		± 200 RPM	1500 •	1500
	Gas Grade/Octane Number		(R + M)/2	Regular unleaded/87	
	Gas/Oil Ratio			Oil injection	
	Ignition Timing BTDC ③		mm (in)	3.51 (.138) •	3.36 (.132)
	Trigger Coil Air Gap		mm (in)	0.55 - 1.45 (.022 - .057)	
	Gear Ratio		Teeth	24/43	23/44
	Engagement Speed		± 100 RPM	3800 •	3600
	Drive Pulley Calibration Screw Position			3	
	Pulley Distance	Z	(+ 0, - 1) mm (+ 0, - 1/32) in	16.5 (21/32) •	16.5 (21/32)
	Offset	X	± 0.5 mm (± 1/64 in)	35.5 (1-25/64)	
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X of 1.5 mm (1/32 in) •	
	Driven Pulley Preload		± 0.7 kg (lbf)	0.0	0.0 •
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation	
	Track	Deflection	mm (in)	30 to 35 (1.181 to 1.378) with a 7.3 kg (16 lb) downward pull	

① Engine speed at which maximum power is achieved.

② Only one groove on needle — no adjustment.

③ 22° at 3500 RPM (engine cold) with headlamp turned on.

BTDC: Before Top Dead Center

N.A.: Not applicable

A dot (•) on right indicates changes from 2001 model.

	MODELS		GRAND TOURING 600	GRAND TOURING 500
	Engine Type		593	493
	Maximum HP RPM ①	± 100 RPM	8000	
	Reed valve	P/N	420 924 519 (420 867 870 on model 2138) •	420 924 519
	Carburetor Type		TM40-B154	TM40-B151 •
	Main Jet		500	500 •
	Needle Jet		P-0	P-0 •
	Pilot Jet		20	17.5 •
	Needle Identification — Clip Position		9HGY1-58 ② •	9HGY1-58 •
	Slide Cut-Away		2.0	2.0 •
	Float Adjustment	± 1 mm (in)	N.A.	N.A. •
	Air Screw Adjustment	± 1/16 Turn	N.A.	N.A. •
	Idle Speed RPM	± 200 RPM	1600	1600 •
	Gas Grade/Octane Number	(R + M)/2	Regular unleaded/87	
	Gas/Oil Ratio		Oil injection	
	Ignition Timing BTDC ③	mm (in)	3.00 (.118)	
	Trigger Coil Air Gap	mm (in)	0.55 - 1.45 (.022 - .057)	
	Gear Ratio	Teeth	23/44 (22/43 on 2138 model) •	22/43 (21/43 on 2140 model) •
	Engagement Speed	± 100 RPM	3600	3500
	Drive Pulley Calibration Screw Position		3	4 •
	Pulley Distance	Z ± 0.5 mm ± 1/64 in	16.5 (21/32)	
	Offset	X ± 0.5 mm (± 1/64 in)	35.5 (1-25/64)	
		Y ± 0.5 mm (± 1/64 in)	Dimension Y must exceed X of 1.5 mm (1/32 in) •	
	Driven Pulley Preload	± 0.7 kg (lbf)	0.0 •	
	Drive Chain Tension		Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation	
	Track Adjustment	Deflection mm (in)	30 to 35 (1.181 to 1.378) with a 7.3 kg (16 lb) downward pull	

① Engine speed at which maximum power is achieved.

② Only one groove on needle — no adjustment.

③ 22° at 3500 RPM (engine cold) with headlamp turned on.

BTDC: Before Top Dead Center

N.A.: Not applicable

Please route to :

Init.

- ☐ Service ☐
- ☐ Sales ☐
- ☐ Parts ☐

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-10**

Date: October 16, 2001

SUBJECT: Predelivery

YEAR	MODEL	PACKAGE	MODEL NUMBER	SERIAL NUMBER
2002	Legend 800	SE	2011/2012/2013/2014/2136	All
2002	Legend 700	GS	2019/2020/2021/2022	All
2002	Legend 700	Sport	2027/2028/2029/2030	All
2002	Legend 600	SE	2015/2016/2017/2018	All
2002	Legend 600	GS	2023/2024/2025/2026	All
2002	Legend 600	Sport	2031/2032/2033/2034	All
2002	Legend 500	Sport	2035/2036/2037/2038	All

This bulletin must be used in conjunction with the check list enclosed in *Operator's Guide* bag. Make sure that *Predelivery Check List* is completed and signed.

⚠ WARNING

To obtain warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer. Apply all necessary torques as indicated.

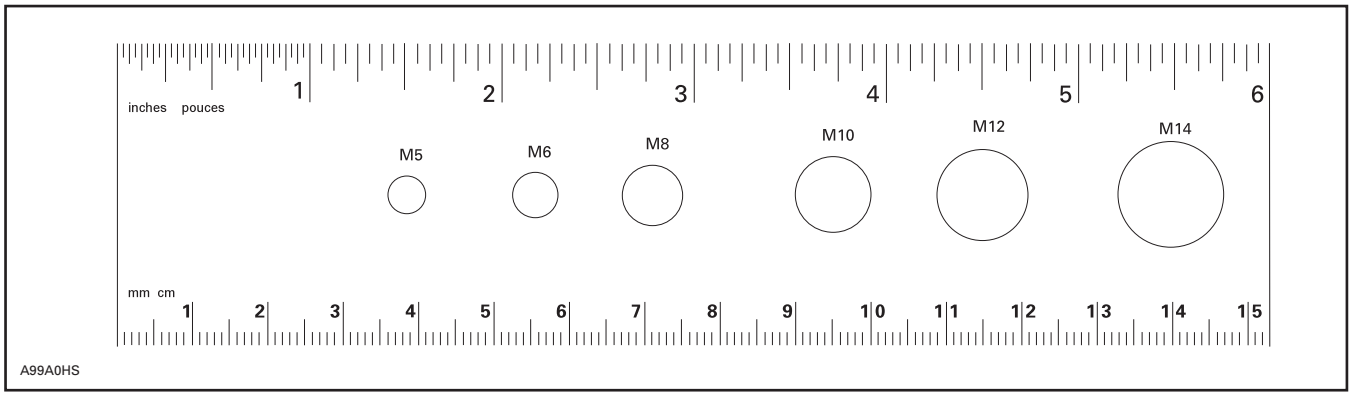
NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

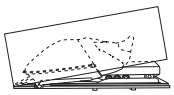
The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your service representative and/or specific *Shop Manual* sections.

Please complete the *Predelivery Check List* for each snowmobile and return a customer signed copy. Make sure the customer receives the *Operator's Guide*, *Safety Handbook* and *Safety Videocassette*.

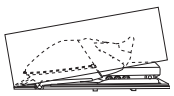
There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask dealer to perform suspension adjustments according to riding style and vehicle load.



NOTE: This ruler can be helpful to identify fastener length or size.



UNCRATING



PREDELIVERY KIT P/N	MODELS
549 011 031	All models with SE package
549 010 973	All models with GS and Sport packages

⚠ WARNING

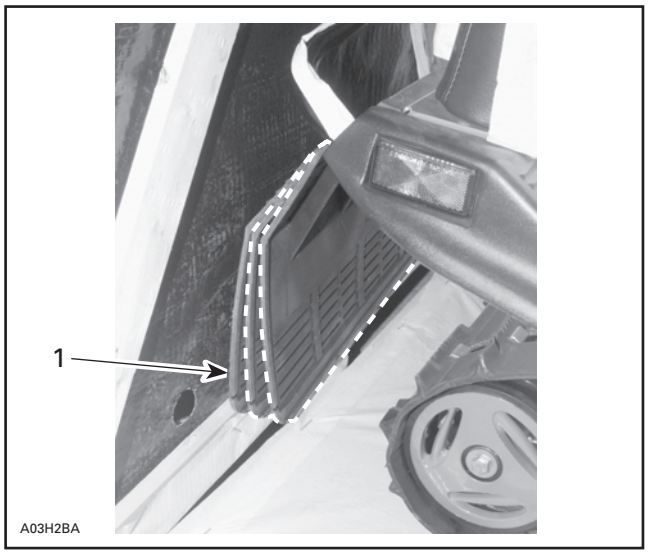
Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

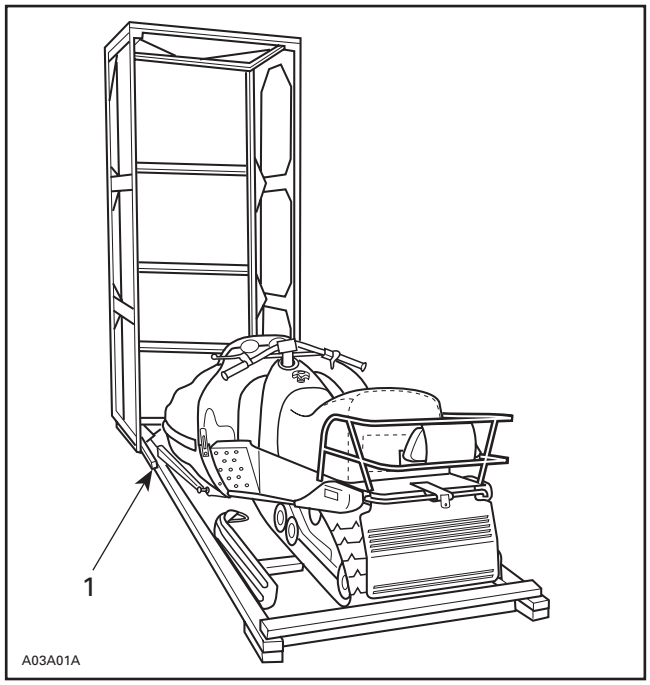
Remove all screws retaining cover to vehicle base. Tip cover toward front of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging the snow guard or taillight.

NOTE: On some models, snow guard may interfere with crate cover, as shown in the following photo. Push on snow guard when lifting cover.



FROM OUTSIDE CRATE PUSH ON SNOW GUARD TO ALLOW COVER TO LIFT WITHOUT DAMAGING SNOW GUARD

1. Snow guard interfering with crate cover



1. Notch

Detach parts to be installed (e.g. skis, windshield) from the vehicle and its base.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Detach ski legs from crate. Keep ski leg bolts and slider cushions to bolt skis to ski legs. Discard crating spacers and nuts.

Remove vehicle from base.

Remove parts to be installed and predelivery kit from part box. Remove also shock absorbers from part box (under double bottom).

FRONT HOOK REMOVAL

Procedure

Apply parking brake.

Lift rear of vehicle so that a block or a box can be positioned under front wheel, as shown on the next photo.

EDGE OF BOX ALIGNED WITH WHEEL AXIS

Cut locking tie retaining front hook.

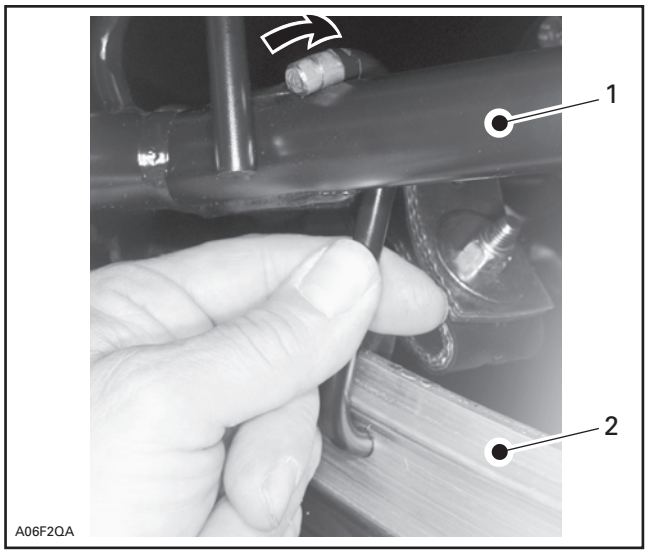
From left side of vehicle, apply pressure onto rear bumper with right hand, as shown on the following photo.

TYPICAL

Using left hand remove hook from suspension, as shown on the following photo.

⚠ WARNING

Before removing hook always verify that vehicle is properly supported and that parking brake is applied.



TYPICAL

1. *Front arm*
2. *Runner*

On some models, suspension is stiffer. Ask somebody to apply pressure on rear bumper when removing suspension hook.

⚠ WARNING

Hook must be removed to have snowmobile suspension operational.

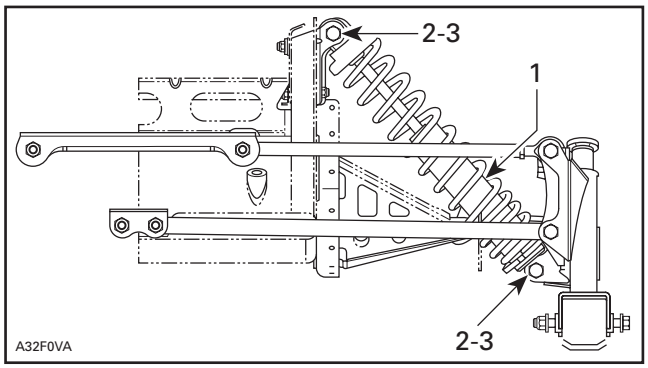
Lift front of vehicle and block safely.

Remove and discard shipping brackets from suspension. Discard spring clips, keep bolts.

Secure shock absorbers to suspension with their adjusting ring at bottom.

NOTE: Position bottom bolt head toward front, top bolt head toward rear and secure with nuts provided in predelivery kit (section no. 4). A long socket may be needed to torque screws.

Install caps provided in section 5 of predelivery kit.



TYPICAL — RH SIDE SHOWN

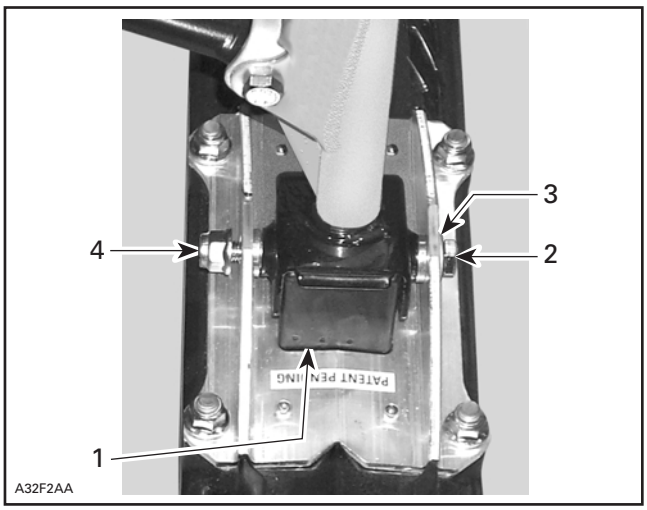
1. *Shock absorber (2) (engine compartment)*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 4). Torque to 48 N•m (35 lbf•ft)*

Ensure ski leg slider cushions are still in ski leg.

Install skis on vehicle.

Replace vehicle on ground.

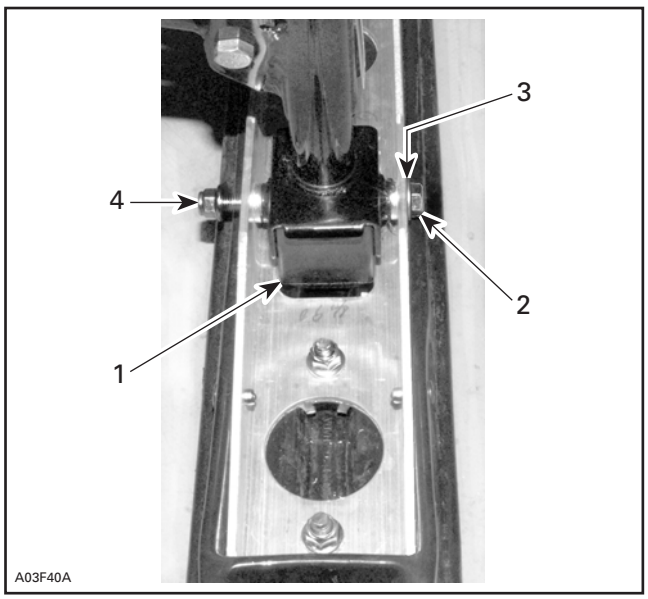
Models with SE and GS Packages



LEFT SIDE SHOWN

1. *Ski stopper (2) (P/N 506 151 233) (section no. 3) with higher side toward front*
2. *Bolt M10 x 110 (2) (ski leg)*
3. *Washer (2) (P/N 732 900 049) (section no. 1)*
4. *Flexloc flanged nut M10 x 1.75 (2) (P/N 732 610 084) (section no. 2). Torque to 32 N•m (24 lbf•ft)*

Models with Sport Package



LEFT SIDE SHOWN

1. *Ski stopper (2) (P/N 506 151 233) (section no. 3) with higher side toward front*
2. *Bolt M10 x 110 (2) (ski leg)*
3. *Washer (2) (P/N 732 900 049) (section no. 1)*
4. *Flexloc flanged nut M10 x 1.75 (2) (P/N 732 610 084) (section no. 2). Torque to 32 N•m (24 lbf•ft)*

Gel type battery is factory charged. However, battery must be recharged if voltage is under nominal value. Check for battery charge and condition.

CAUTION: Prior to charging the battery, always remove it from the vehicle. Do not charge an installed battery.

Battery Removal

Unhook retaining strap and then remove battery.

Battery Installation

Properly position battery on its rack.

Apply silicone dielectric grease (P/N 293 550 004) on battery posts and connectors.

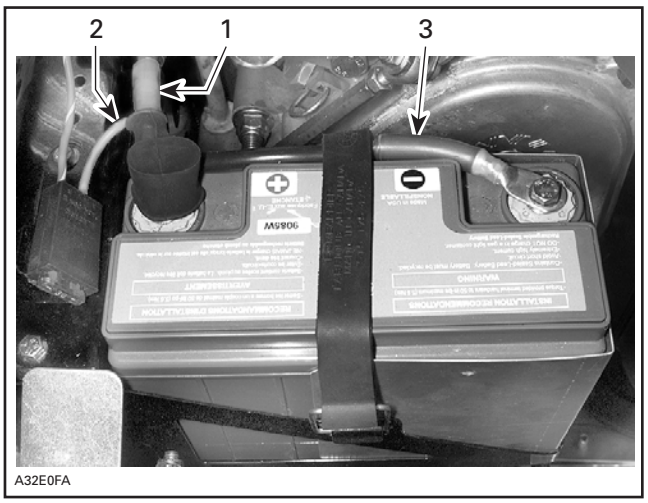
Insert red wire in rubber cap and connect RED positive cable and RED wire to positive battery terminal.

Connect BLACK negative cable LAST.

⚠ WARNING

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

Secure battery with retaining strap.



BATTERY CONNECTION

1. *RED positive cable*
2. *RED positive wire*
3. *BLACK negative cable under battery strap*

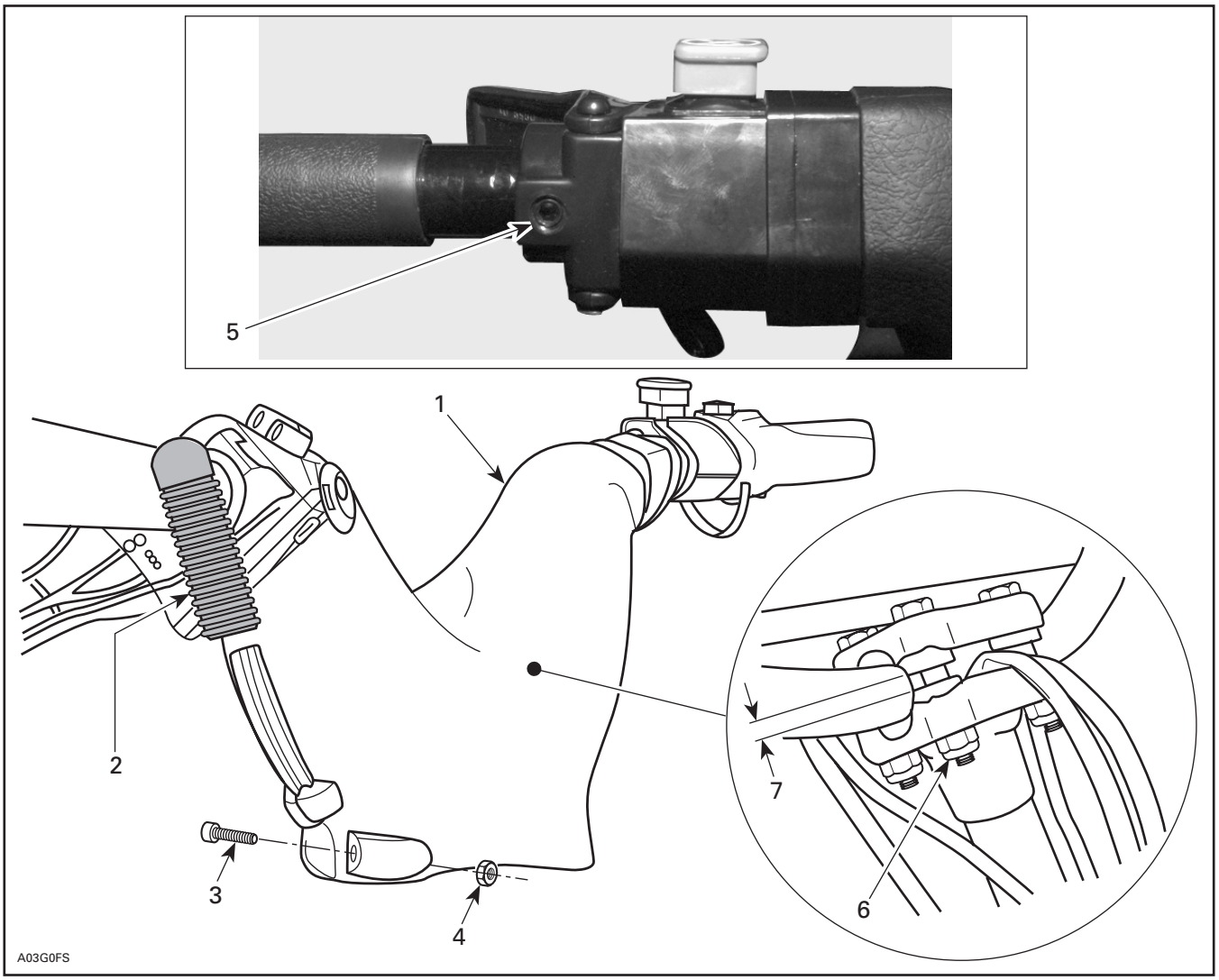
Models with GS or Sport Packages

Adjust handlebar temporarily and tighten nuts loosely for now.

Install steering pad temporarily, and adjust for proper fit with console.

Remove steering pad and torque nuts from 21 to 28 N•m (16 to 20 lbf•ft).

Reinstall steering pad, adjust and tighten throttle and brake handle housings.



TYPICAL

1. *Steering pad (engine compartment)*
2. *Keyway (2) (section no. 3). Use liquid soap to ease installation*
3. *Bolt M5 x 20 (2) (section no. 1)*
4. *Nut M5 (2) (section no. 1). Seat tighten only, no deformation of rubber*
5. *Loosen Allen screw*
6. *Torque nuts from 21 to 28 N•m (16 to 20 lbf•ft)*
7. *Equal gap each side*

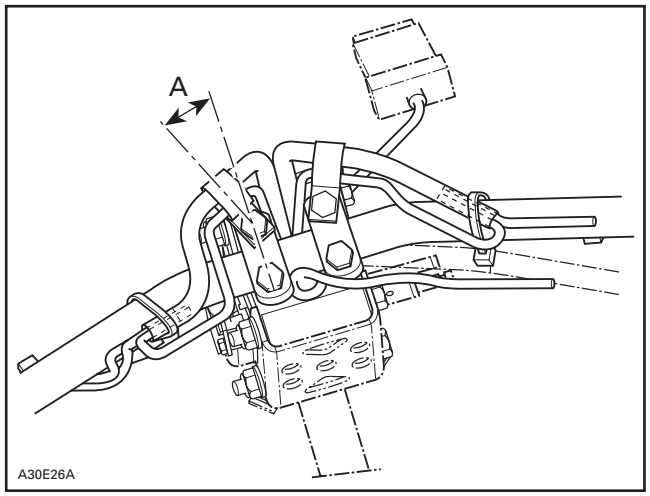
ADJUSTABLE STEERING

Models with SE Package

CAUTION: Never hang snowmobile by handlebar. This can impair adjustable steering mechanism.

Adjust handlebar when the mechanism is in the middle position.

Adjust retaining tabs to 25° ± 10° and tighten nuts between 21 and 28 N•m (16 and 20 lbf•ft).

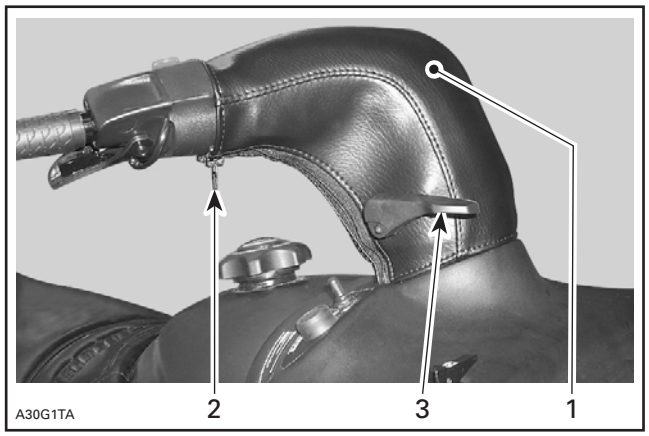


A. 25° ± 10°

Install steering foam properly to make it fit with console.

Cover steering foam with steering pad and zip it both sides.

Install lever with screw (section no. 3 or 6) using an Allen key. Torque from 2.5 to 3.0 N•m (23 to 27 lbf•**in**).



1. Steering pad
2. Zipper
3. Steering adjustment lever

Adjust and tighten throttle and brake handle housings (if needed).

Heated Visor Connector Extension

Section no. 3 of predelivery kit provides a connector extension for the heated visor. Open heated visor connector and install extension in place.

Remove headlamp protector assembly from cab.

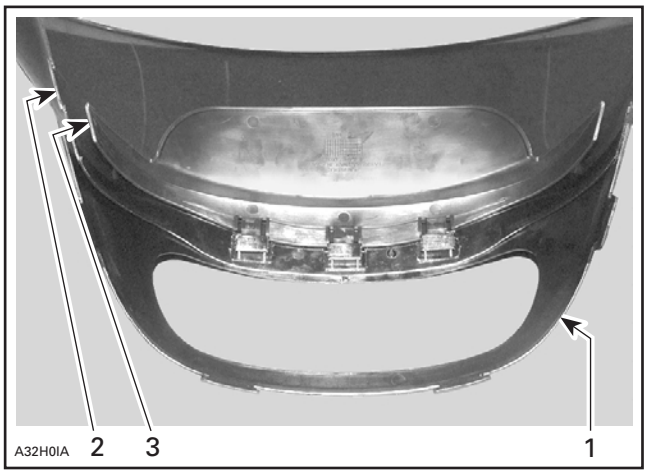
Unclip inner protector from headlamp protector.

Remove protective films from windshield.

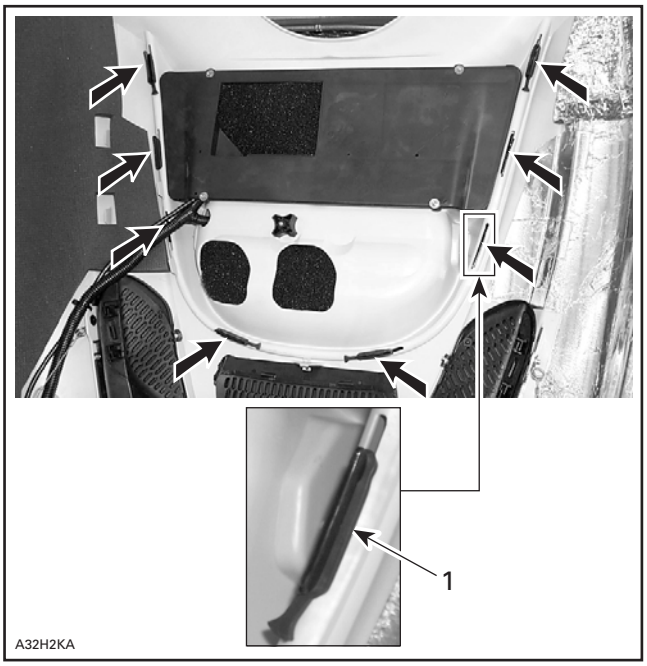
Insert tabs of headlamp protector in windshield square holes.

Clip inner protector in place.

Secure windshield assembly on hood using latches.



1. *Headlamp protector*
2. *Windshield*
3. *Inner protector*

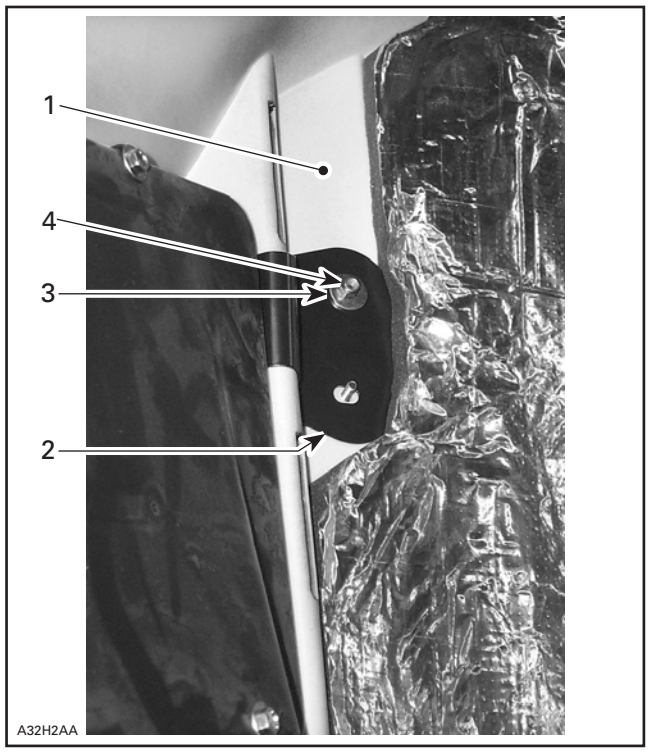


1. *Latch (8) (P/N 570 023 800) (4 already on headlamp protector, 2 on windshield and 2 on section no. 2)*

TYPICAL — WINDSHIELD INSTALLED

Place retaining plate (section no. 3) underneath hood facing rear view mirror holes.

Install mirrors in place. Secure with washers and nuts (section no. 3 in predelivery kit). Torque to 2 N•m (18 lbf•**in**).



1. Hood
2. Retaining plate
3. Washer
4. Nut

NOTE: Do not mix right mirrors (P/N 517 302 679) and left mirror (P/N 517 302 681).

TYPICAL — INSTALLATION COMPLETED

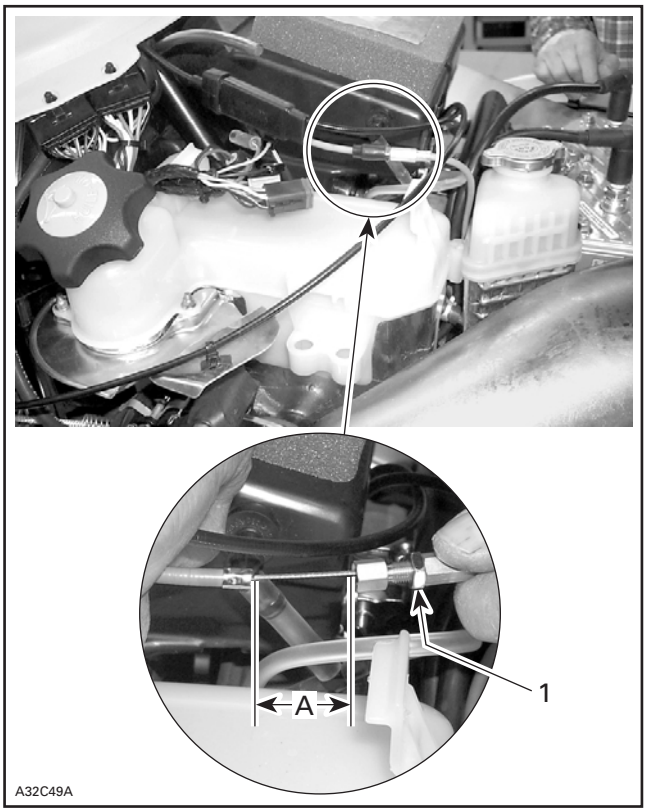
Clean pulleys and disc brake with a suitable cleaner such as Loctite parts cleaner (P/N 413 711 809) before installing drive belt.

BREAK-IN PERIOD SUPPLEMENTAL OIL

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz) of BOMBARDIER injection oil (P/N 413 802 900 — 12 x 1 L) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

PUMP ADJUSTMENT

Oil injection pump is factory set. However, if adjustment needs to be checked or modified, refer to the appropriate *Ski-Doo Shop Manual*. Stretch cable sheath to fully open oil pump. Wire length must be 28 mm (1-3/32 in). If necessary, turn adjustment nut to reach this measure.



1. Adjustment nut
A. 28 mm (1-3/32 in)

⚠ WARNING

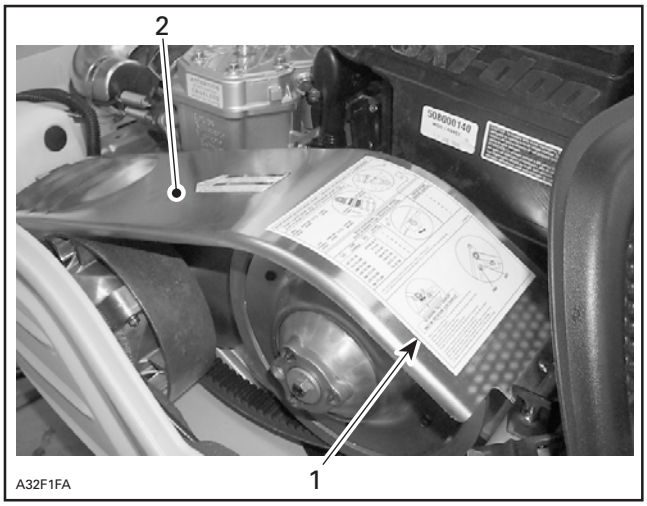
Make sure cable is free to swivel in lever end.

Check brake fluid in reservoir on handlebar for proper level. Add fluid (DOT) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partial bottle of brake fluid.

ADJUSTMENTS
SUSPENSION

Rear suspension is calibrated at factory. At predelivery, mechanics should perform suspension adjustments according to customer riding style and vehicle load as described on suspension adjustment chart which is located on pulley guard.



1. Adjustment chart
2. Pulley guard

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

When track adjustment is completed, place wheel caps provided in predelivery kit (section no. 4) on rear wheels.

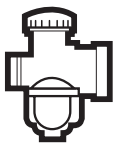
ADJUSTMENT
DISK BRAKE

Remove any rust built-up on braking surfaces. Clean brake disk with Loctite parts cleaner (P/N 413 711 809).

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Vehicles used at high altitudes, above 600 m (2000 ft) should be fitted with a high altitude kit. Further inquires should be directed to your service representative.

	MODELS			LEGEND 800	LEGEND 700	LEGEND 600	LEGEND 500
	Engine type			793	693	593	493
	Maximum HP RPM ①		± 100 RPM	7900	8000	8000	8000
	Reed valve		P/N	420 867 873	420 867 873	420 924 519	420 924 519
	Carburetor type			Heated TM 40-B166 with DPM	Heated TM 40-B160 with DPM	Heated TM 40-B154 with DPM	Heated TM 40-B151
	Main jet			520N	510N	500	500
	Needle jet			P-0			
	Pilot jet			17.5	17.5	20	17
	Needle identification — clip position			9ZLY2-58 ③	9ZLY3-58 ③	9HGY1-58 ③	9HGY1-58 ③
	Slide cut-away			2.0			
	Float adjustment		± 1 mm (in)	—			
	Air screw adjustment		± 1/16 turn	—			
	Idle speed RPM		± 200 RPM	1500	1500	1600	1600
	Gas grade/octane number		(R + M)/2	Regular unleaded/87			
	Gas/oil ratio			Oil injection			
	Ignition timing BTDC ②		mm (in)	3.510 (0.138)	3.36 (0.132)	3.00 (0.118)	3.00 (0.118)
	Trigger coil air gap		mm (in)	0.55 - 1.45 (.022 - .057)			
	Gear ratio	Teeth		26/43	25/43	24/43	22/43
	Engagement speed		± 100 RPM	3800	3600	3600	3500
	Drive pulley calibration screw position			3	3	3	4
	Pulley distance	Z	± 0.5 mm (± 1/64 in)	16.5 (21/32)			
	Offset	X	± 0.5 mm (± 1/64 in)	35.5 (1-25/64)			
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X of 1.5 mm (1/16 in)			
	Driven pulley preload		± 0.7 kg (lbf)	0.0			
	Drive chain tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation			
	Track adjustment	Deflection	mm (in)	30 to 35 (1.181 to 1.378) with a 7.3 kg (16 lb) downward pull			

① Engine speed at which maximum power is achieved.

② 22°C at 3500 RPM (engine cold) with headlamp turned on.

③ Needle with one groove only (no adjustment).

BTDC: Before Top Dead Center

Please route to :

Init.

- Service
- Sales
- Parts

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-11**

Date: November 14, 2001

SUBJECT: Predelivery

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2002	GRAND TOURING™ 500 F	2091/2092/2223/2141	All
2002	GRAND TOURING 380 F	2093/2094/2142	All
2002	LEGEND™ 500 F	2039/2040/2041/2042	All
2002	LEGEND 380 F	2043/2044/2045/2046	All
2002	MX Z® 500 F	1949/1950/1951/1952/2130	All
2002	MX Z 380 F	1956/1955/1953/1954/2131	All
2002	SUMMIT® 500 F	2009/2010	All

This bulletin must be used in conjunction with the check list enclosed in the bag with the *Operator's Guide*. Make sure that predelivery check list is completed and signed.

⚠ WARNING

To obtain warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer distributor. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your service representative and/or specific *Shop Manual* sections. Please complete the *Predelivery Check List* for each snowmobile and retain a customer signed copy. Make sure the customer receives the *Operator's Guide, Safety Handbook, Predelivery Check List* signed copy and *Video*.

There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask dealer distributor to perform suspension adjustments according to riding style and vehicle load.

⚠ WARNING

Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

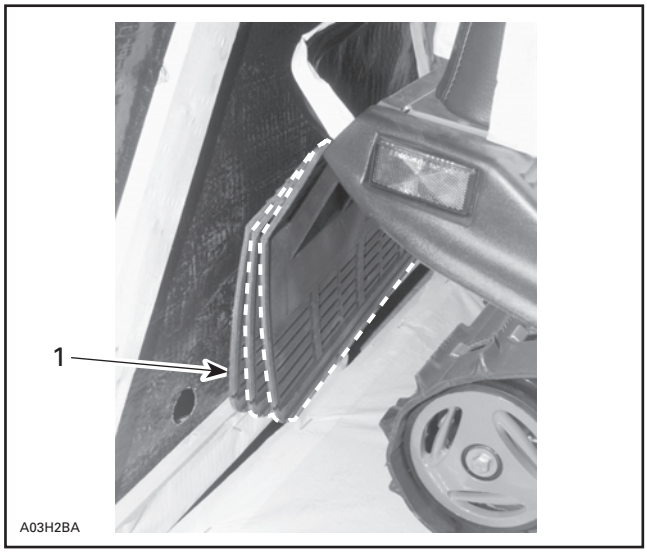
Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

Remove all screws retaining cover to vehicle base. Tip cover toward front of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging the snow guard or taillight.

1. Notch

NOTE: On some models, snow guard may interfere with crate cover, as shown in the following photo. Push on snow guard when lifting cover.



FROM OUTSIDE CRATE PUSH ON SNOW GUARD TO ALLOW COVER TO LIFT WITHOUT DAMAGING SNOW GUARD

1. Snow guard interfering with crate cover

Detach windshield from the vehicle and skis from the crate base.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Detach ski legs from crate. Keep ski leg bolts and slider cushions to bolt skis to ski legs. Discard crating spacers and nuts.

Remove vehicle from base.

Remove steering pad, drive belt, predelivery kit and detach shock absorbers from engine compartment.

FRONT HOOK REMOVAL

Procedure

Apply parking brake.

Cut locking tie holding hook.

Lift rear of vehicle so that a block or a box can be positioned under front wheel, as shown on the next photo.

EDGE OF BOX ALIGNED WITH WHEEL AXIS

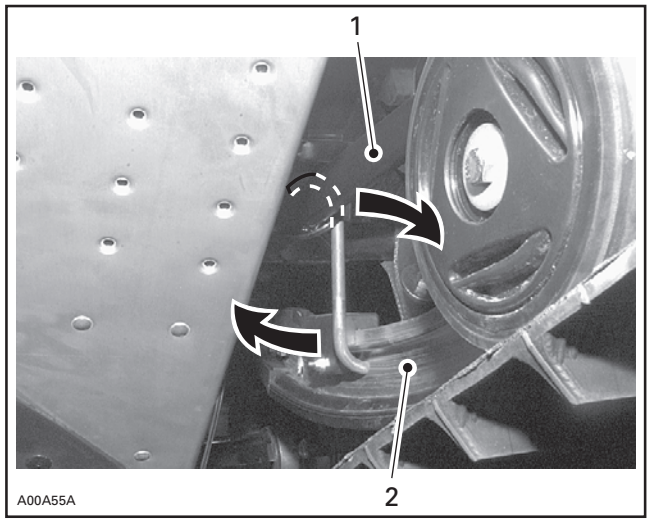
From left side of vehicle, apply pressure onto rear bumper with right hand, as shown on the following photo.

TYPICAL

Using left hand, remove hook from suspension, as shown on the following photo.

⚠ WARNING

Before removing hook always verify that vehicle is properly supported and that parking brake is applied.



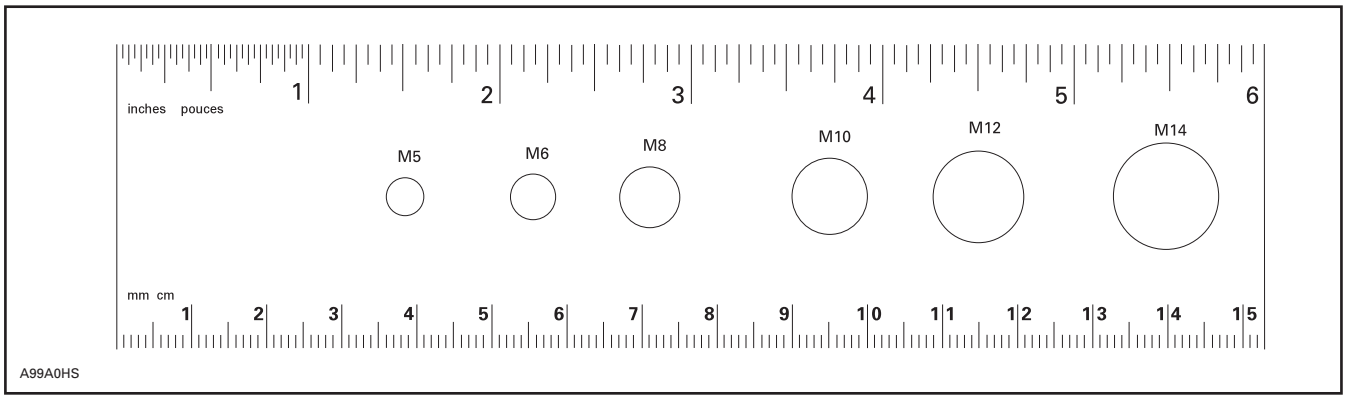
TYPICAL — REMOVE HOOK

1. *Front arm*
2. *Runner*

⚠ WARNING

Hook must be removed to have snowmobile suspension operational.

PREDELIVERY KIT P/N	MODEL
549 010 004	GRAND TOURING 380 F (2093/2094)
549 010 006	GRAND TOURING 380 F (2142)
549 010 008	GRAND TOURING 500 F (2091/2092/2223)
549 010 010	GRAND TOURING 500 F (2141)
549 010 018	SUMMIT 500 F (2009/2010)
549 010 020	MX Z 500 F (1949/1950/1951/1952 MX Z 380 F (1956/1955/1953/1954)
549 010 022	MX Z 500 F (2130) MX Z 380 F (2131)
549 010 024	LEGEND 500 F (2039/2040/2041/2042) LEGEND 380 F (2043/2044/2045/2046)



NOTE: This ruler can be helpful to identify fastener length or size.

Make sure parking brake is applied.

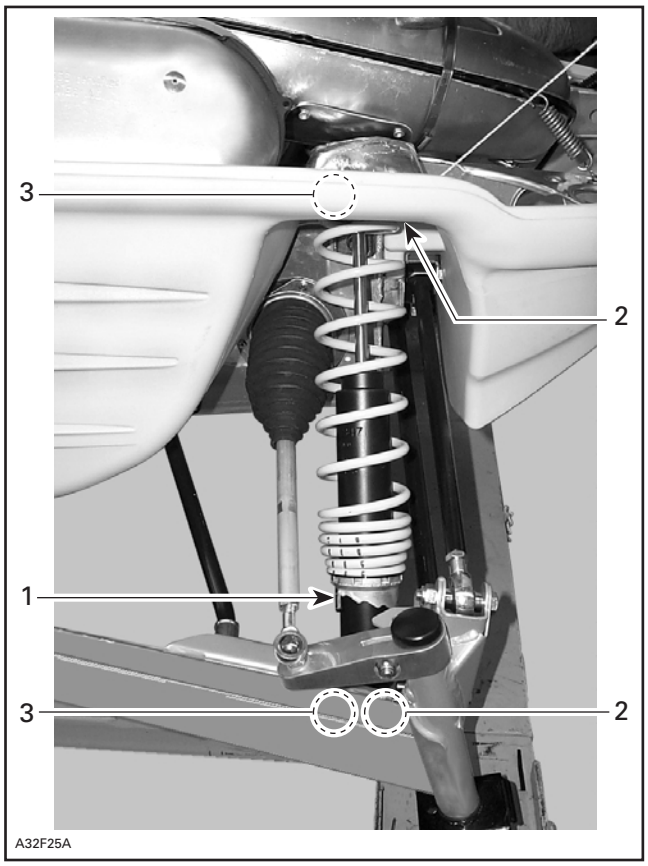
Lift front of vehicle and block safely.

Remove and discard shipping brackets from suspension. Discard spring clips, keep screws.

Secure shock absorbers to suspension with their shock rod at top.

Position top screw head toward rear of vehicle and bottom screw head toward front of vehicle.

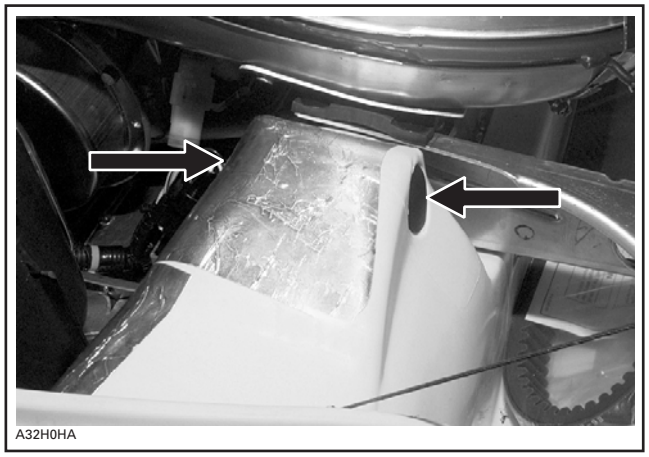
Secure with nuts provided in predelivery kit (section no. 3 or no. 4).



RH SIDE SHOWN

1. *Shock absorber (2) (predelivery box) adjusting ring at bottom*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Elastic nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 3 or no. 4). Torque to 48 N•m (35 lbf•ft)*

Install caps provided in predelivery kit on bottom pan, each side of upper bolt.



SNAP PROVIDED CAPS (P/N 414 916 600) EACH SIDE OF MOLDING

Legend and Grand Touring Models Only

Gel type battery is factory charged. However, battery must be recharged if voltage is under nominal value. Check for battery charge and condition.

CAUTION: Prior to charging the battery, always remove it from the vehicle. Do not charge an installed battery.

Battery Removal

Unhook retaining strap and then remove battery.

Battery Installation

Properly position battery on its rack.

Insert red wire into rubber protection cap, below red cable.

Remove protective caps from battery posts.

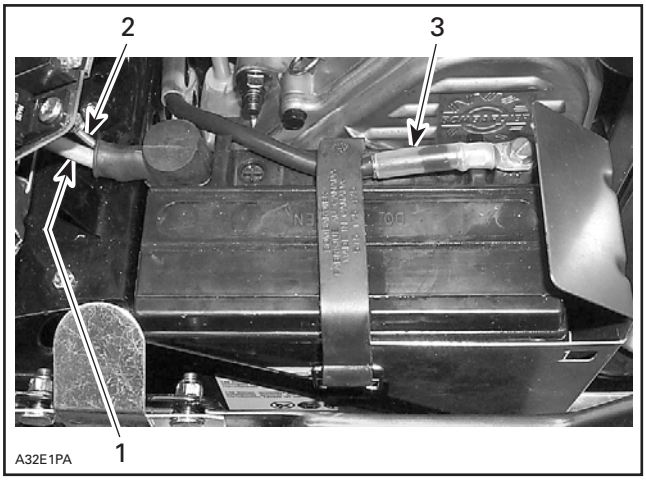
Connect RED positive cable and RED wire to positive battery terminal.

Connect BLACK negative cable LAST.

⚠ WARNING

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

Secure battery with retaining strap.



BATTERY CONNECTION

1. *RED positive cable*
2. *RED positive wire*
3. *BLACK negative cable under battery strap*

Apply silicone dielectric grease (P/N 293 550 004) on battery posts and connectors.

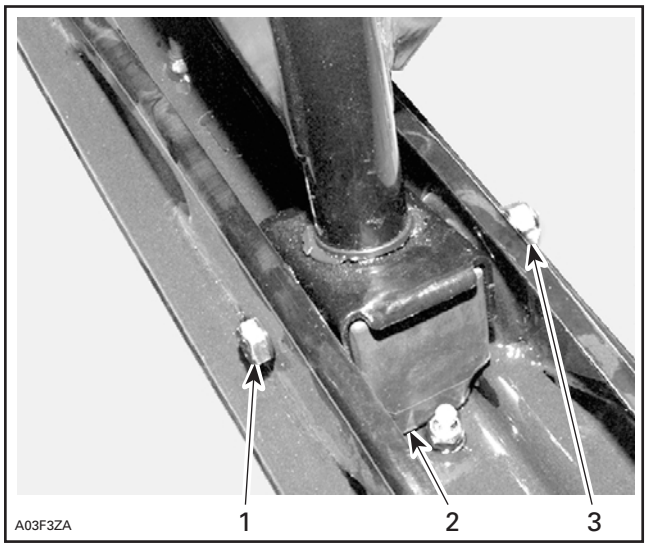
Cover positive post with rubber protection cap.

All models except MX Z (models 2130 and 2131), Grand Touring (models 2141 and 2142), and Summit

Ensure ski leg slider cushions are still in ski leg.

Install skis on vehicle.

Replace vehicle on ground.



TYPICAL — RIGHT SIDE SHOWN

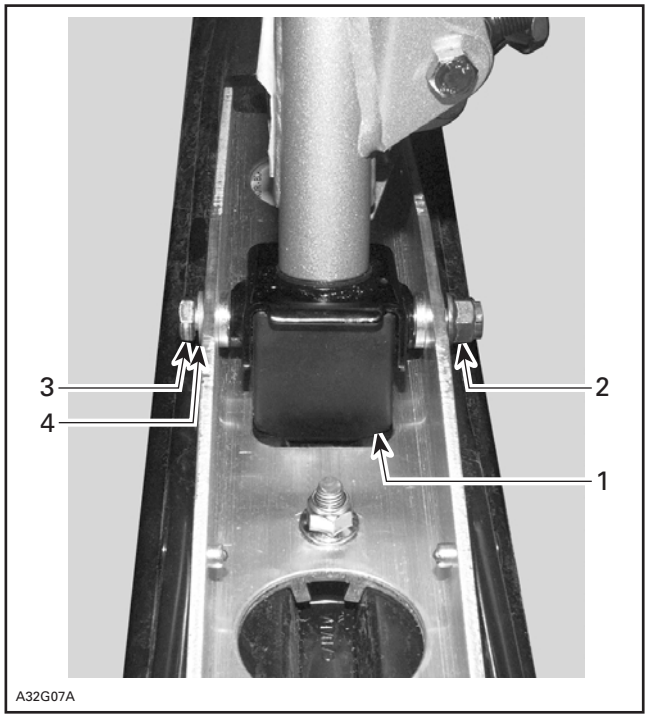
1. *Bolt M10 (2) (ski leg)*
2. *Ski stopper (2) (P/N 505 070 324) (section 3 or 4). Higher side must be placed toward front*
3. *Nut M10 (2) (P/N 233 601 416) (section 2 or 4). Torque to 40 N•m (30 lbf•ft)*

MX Z (models 2130 and 2131) and Grand Touring (models 2141 and 2142) Models

Ensure ski leg bushings are still on ski legs.

Install skis on vehicle. Make sure bolt head is toward outside.

Put back vehicle on ground.



TYPICAL — FLEX SKIS — RIGHT SIDE SHOWN

1. *Ski stopper (2) (section no. 3 or 4) (P/N 506 151 233) with higher side toward front*
2. *Flanged nut M10 (2) (section no. 2 or 4) (P/N 732 610 084). Torque to 32 N•m (27 lbf•ft)*
3. *Bolt M10 (2) (ski leg)*
4. *Washer (2) (section no. 1 or 4) (P/N 732 900 049) installed on bolt head side*

Summit Models

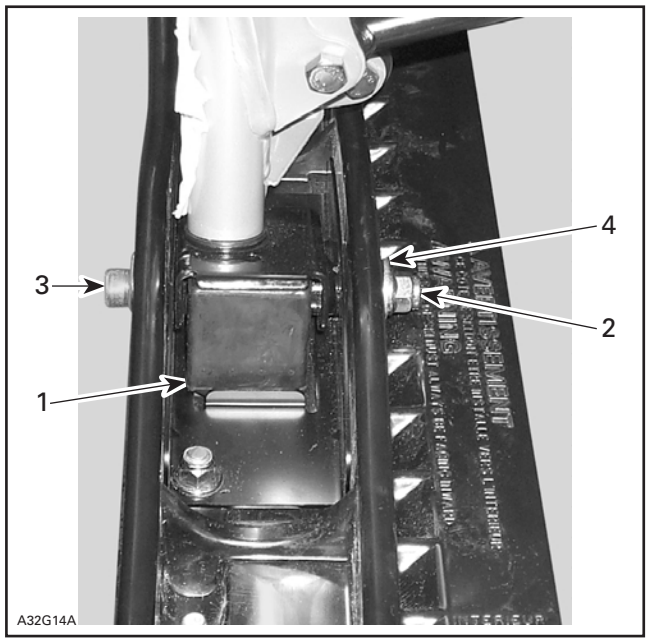
Ensure ski leg bushings are still on ski legs.

Install skis on vehicle.

Make sure bolt head is toward outside.

Put back vehicle on ground.

NOTE: Skis must not stick out the snowmobile width. Take care not to mix left and right skis.

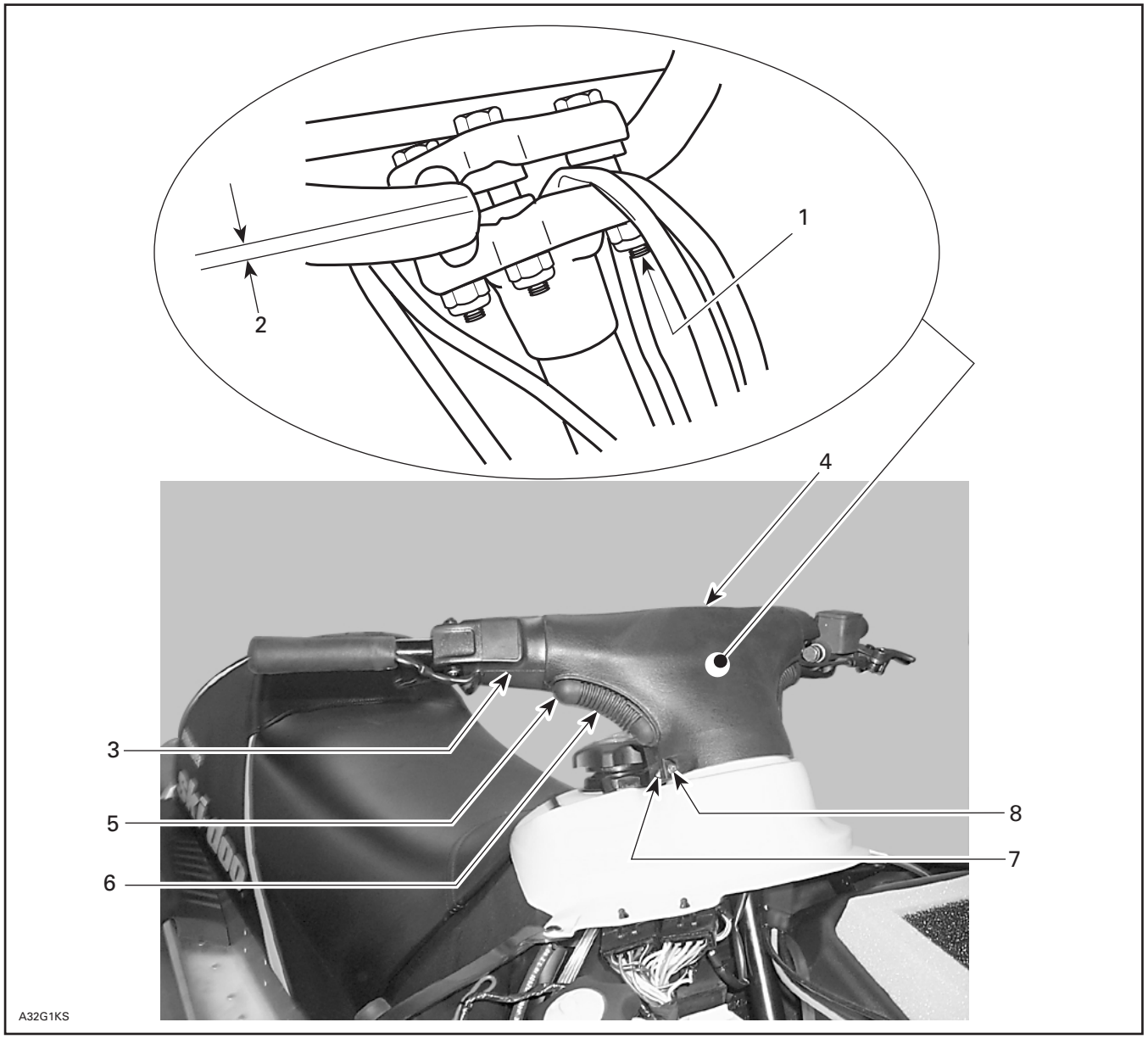


RIGHT SIDE SHOWN — MOUNTAIN SKI

1. *Ski stopper (2) (P/N 506 151 233) (section no. 3) with higher side toward front*
2. *Flanged nut M10 (2) (section no. 2). Torque to 32 N•m (24 lbf•ft)*
3. *Bolt M10 (2) (ski leg)*
4. *Washer (2) (section no. 1). Installed on nut side*

Adjust handlebar temporarily and tighten nuts loosely for now.
Loosen, at least 3 turns, Allen screw of throttle and brake handle housings.
Install steering pad temporarily, and adjust for proper fit with console.
Remove steering pad and torque nuts from 21 to 28 N•m (16 to 20 lbf•ft).
Reinstall steering pad, adjust and tighten throttle and brake handle housings.

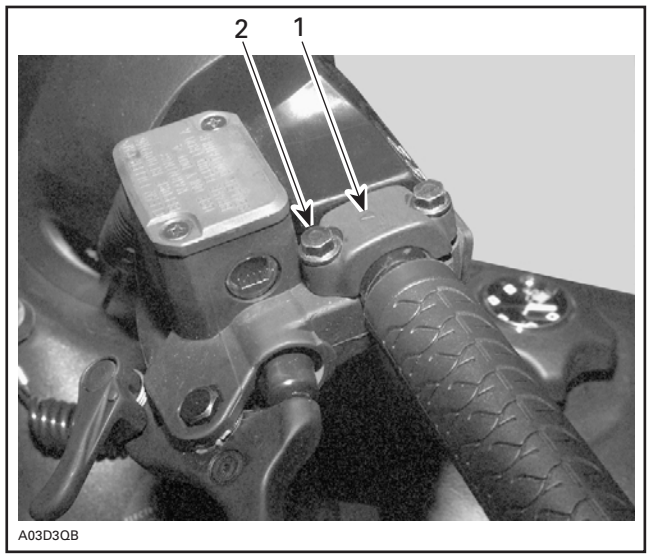
All Models Except Summit



1. *Torque from 21 to 28 N•m (16 to 20 lbf•ft)*
2. *Equal gap each side (both clamps)*
3. *Loosen Allen screw*
4. *Steering pad (engine compartment)*
5. *Use liquid soap to ease installation*
6. *Keyway (2) (P/N 572 072 400) (section no. 2 or 3)*
7. *Screw M5 x 20 (2) (P/N 208 652 044) (section no. 3)*
8. *Nut M5 (2) (P/N 233 251 414) (section no. 3) seat tighten only, no deformation of rubber*

Models Equipped with a Hydraulic Brake

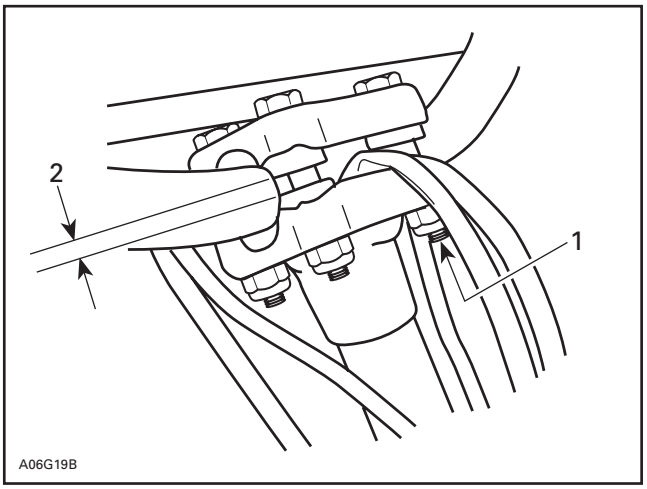
Loosen master cylinder may be necessary. When securing it back in place, install upper clamp with its arrow pointing toward front of vehicle. Tighten front bolt before rear one. Secure to 8 N•m (71 lbf•**in**).



1. Arrow on upper clamp pointing at front of vehicle
2. Tighten front screw first

Summit Models Only

Adjust handlebar and torque nuts between 21 and 28 N•m (16 and 20 lbf•ft).



TYPICAL

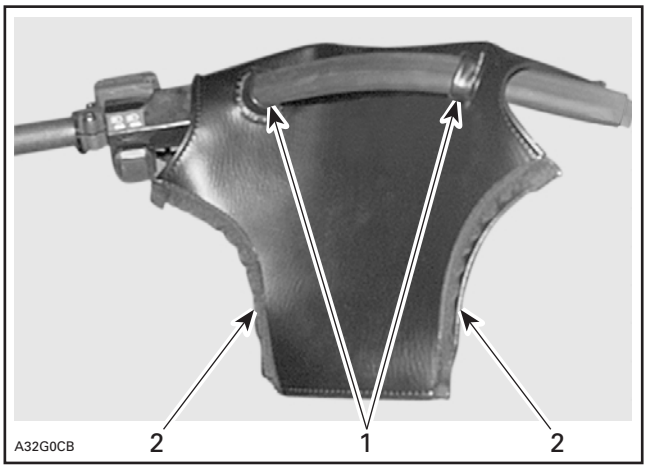
1. Torque between 21 and 28 N•m (16 and 20 lbf•ft)
2. Equal gap each side (both clamps)

Loosen, at least 3 turns, Allen screw of throttle and brake handle housings.

STEERING HOLDING STRAP

Cut locking tie retaining right side strap end.

Insert strap through holes provided in steering padding, as shown in the next photo.

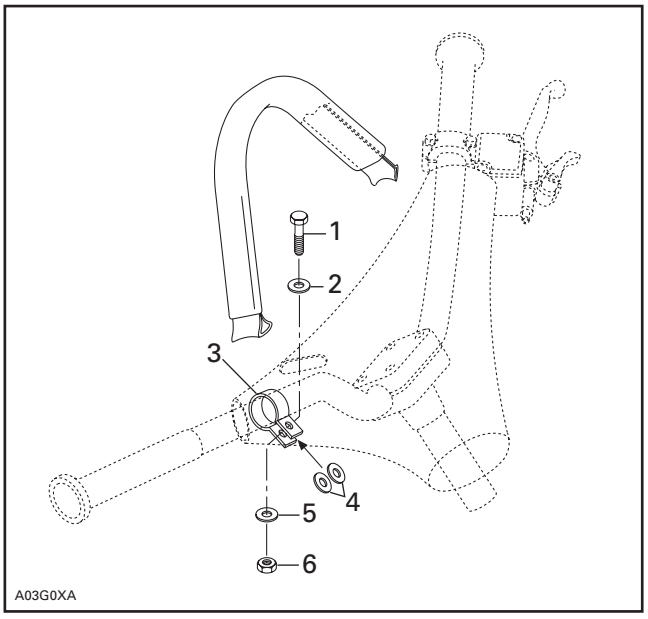


TYPICAL

1. Strap inserted through both steering pad cover holes
2. Velcro strips must be seen from driver's place

Secure right side strap end with retaining clip and tighten firmly using bolt and nut (section no. 3) and washers (section no. 2) in the sequence shown on drawing below. Torque to 10 - 12 N•m (89 - 106 lbf•**in**).

NOTE: Keep wires out of clamp to avoid pinching.



1. Bolt
2. Washer
3. Retaining clip
4. Washers
5. Washer
6. Nut

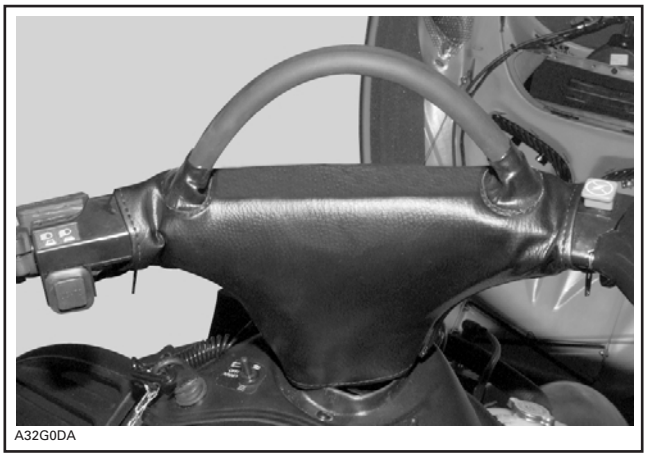
Properly position foam and padding in place, as shown in the next photo.

NOTE: As a tip, place narrow side of padding on rear side.

MAKE SURE FOAM AND PADDING WRAP STEERING PROPERLY

Fasten padding with velcro strips to complete installation.

Install the pad with velcro.



TYPICAL — FINAL INSTALLATION

Remove headlamp protector from hood.

Unclip inner protector from headlamp protector.

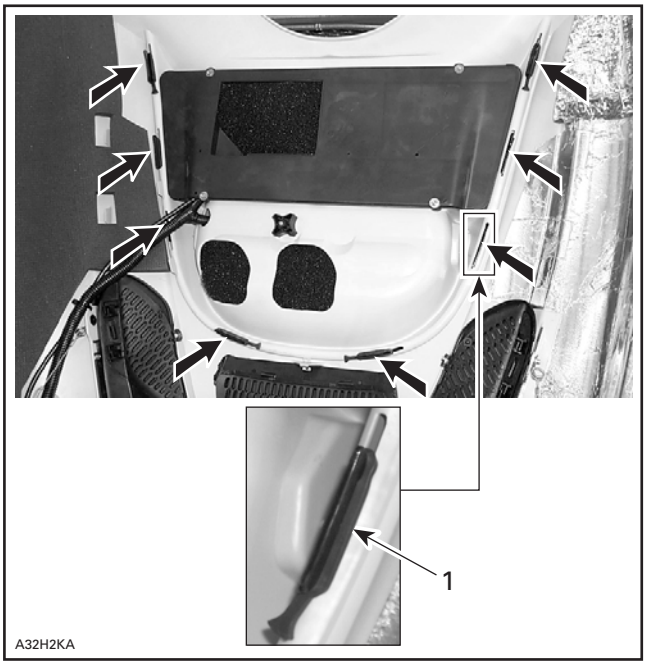
Remove protective films from windshield.

Insert tabs of headlamp protector in windshield square holes.

Clip inner protector in place.

Secure windshield assembly on hood using latches.

1. *Headlamp protector*
2. *Windshield*
3. *Inner protector*

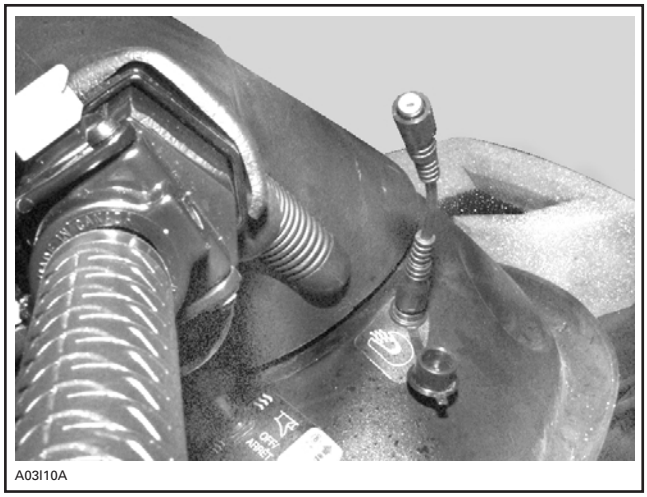


1. *Latch (8) (P/N 570 023 800) (4 already on headlamp protector, 2 on windshield and 2 on section no. 2)*

TYPICAL
WINDSHIELD INSTALLED

Legend Models Only

Lift cap on left side of handlebar and install heated visor extension cord, supplied in kit, (section no. 3).



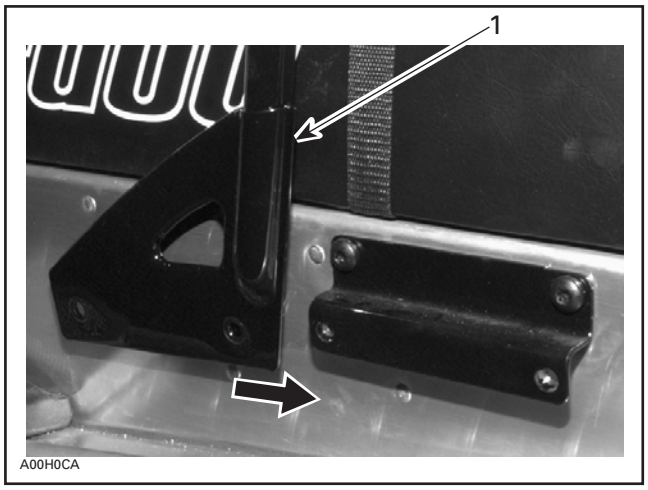
TYPICAL

Grand Touring 380F Model Only

Remove backrest from its box and slip off plastic bag.

Place backrest each side of the bench and slide on mounting bracket as shown on next photo.

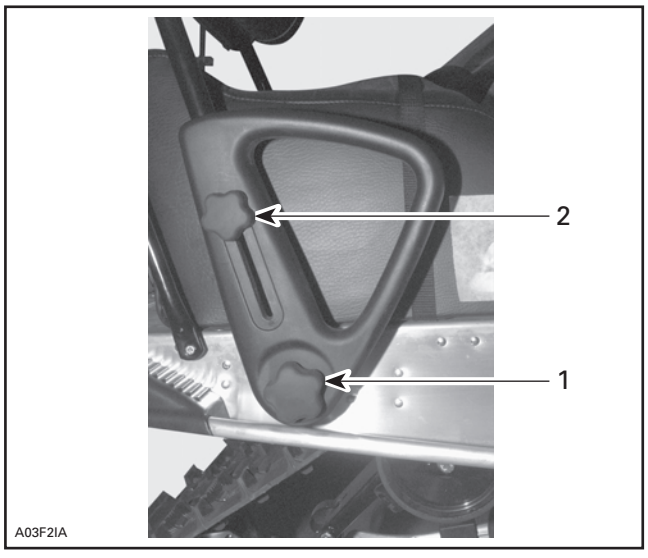
Screw in place using black Torx screws M8 x 20 (P/N 236 282 084) and lock washers M8 (P/N 234 181 601) (section no. 1).



1. Slide backrest on mounting bracket and install with screws. Torque to 15 N•m (11 lbf•ft)

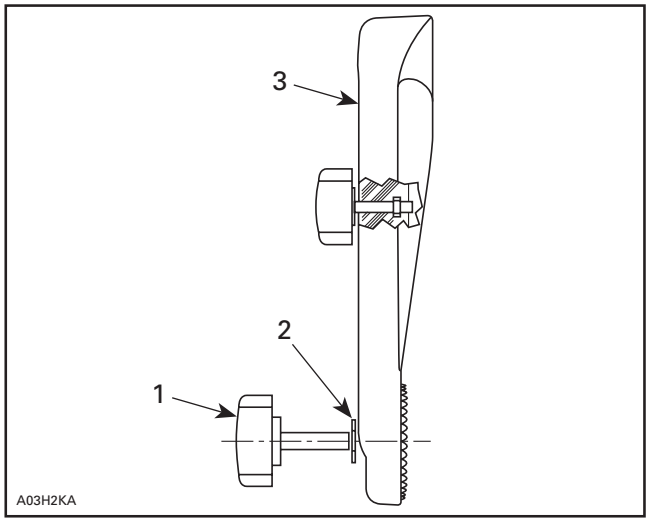
Grand Touring 500F Model Only

Install arms in place and insert backrest in arms. Adjust it to the preferred angle and height using the plastic knobs (see photos) to fix it in place.



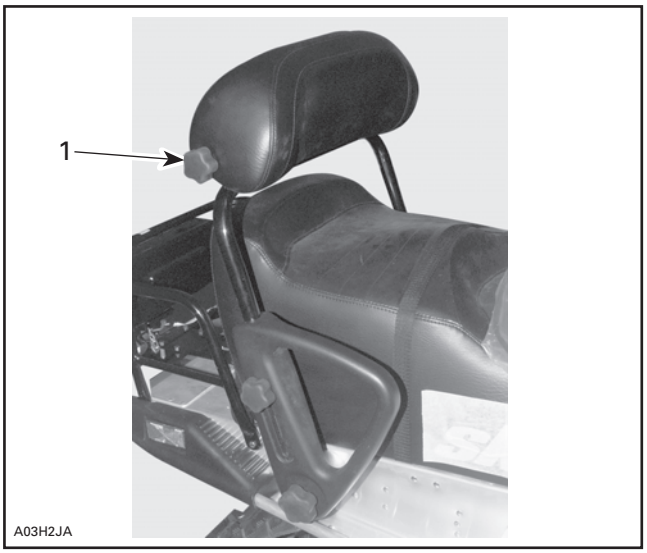
1. Backrest angle knob
2. Backrest height knob

NOTE: Use flat washers (P/N 732 900 050) included in the box to help tighten backrest's lower knob, as shown below.



1. Backrest angle knob
2. Flat washer
3. Backrest arm

Adjust the cushion angle using the upper knob.



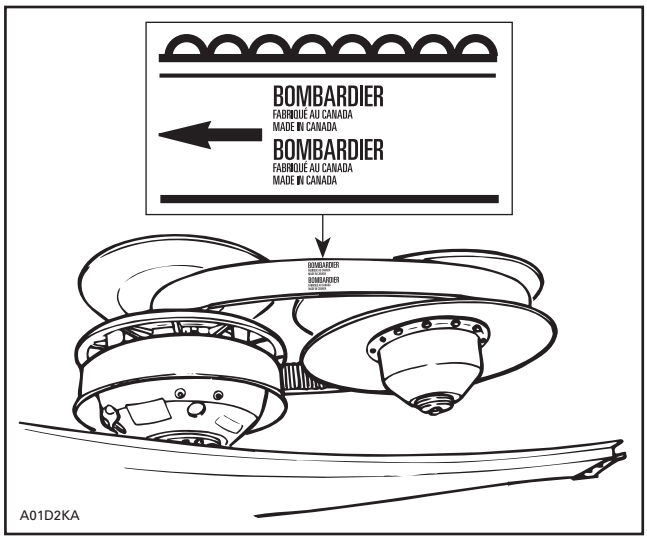
INSTALLED BACKREST

1. Backrest cushion angle knob

Clean pulleys and disc brake with a suitable cleaner such as Loctite Part Cleaner (P/N 413 711 809) before installing drive belt.

To ensure maximum drive belt life span, the new drive belt must be installed so that the Bombardier name can be read when facing pulleys.

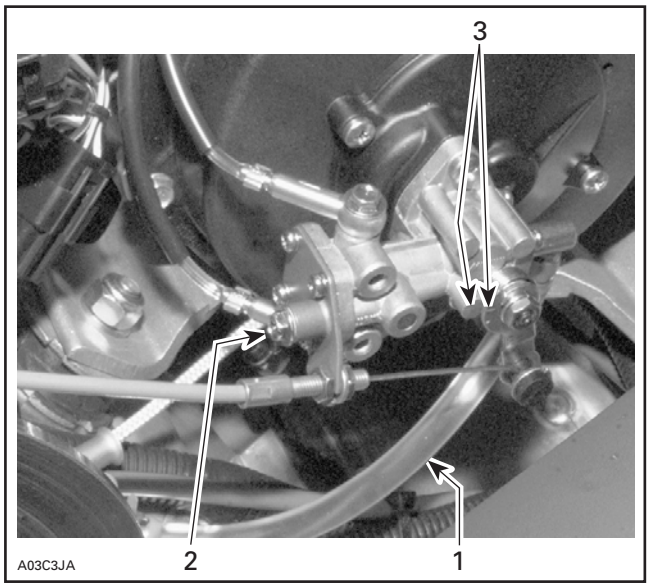
CAUTION: The arrow is indicating the direction of rotation.



TYPICAL — CORRECT INSTALLATION

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz) of BOMBARDIER injection oil (P/N 413 802 900 - 12 x 1 L) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

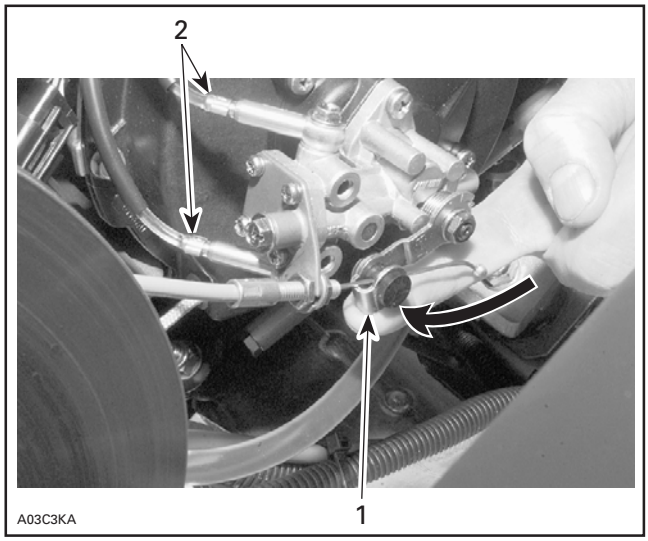
Bleed main oil line (between tank and pump) by loosening the bleeder screw until air has escaped from the line. Add injection oil as required.



TYPICAL

1. *Main oil line*
2. *Bleeder screw*
3. *Alignment marks*

Bleed the small oil line between pump and intake manifold by running engine at idle while holding the pump lever in fully open position.



TYPICAL

1. *Fully open position*
2. *Small lines*

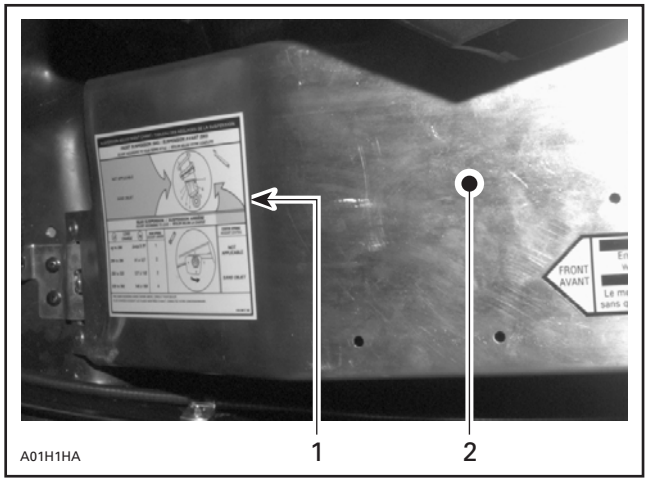
Check also for proper oil lever adjustment. Mark on lever should align with mark on pump body after taking all cable play.

Models with Hydraulic Brake Only

Check brake fluid in reservoir for proper level. Add fluid (DOT 4) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partial bottle of brake fluid.

Rear suspension is calibrated at factory. At predelivery, mechanics should perform suspension adjustments according to customer riding style and vehicle load as described on suspension adjustment chart which is located on pulley guard.



TYPICAL

1. *Adjustment chart*
2. *Pulley guard*

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

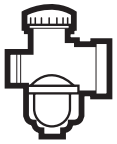
Install caps provided in Predelivery Kit (section 4 or 5).

NOTE: If lubricant is needed to help cap installation, use lens cleaner instead of soapy water to avoid cap to get out from its location due to soap residual.

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Vehicles used at high altitudes, above 600 m (2000 ft) should be fitted with a high altitude kit. Further inquiries should be directed to your distributor service representative.

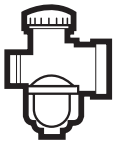
	MODEL			MX Z 500F	MX Z 380F	SUMMIT 500F
	Engine Type			503	380	503
	Maximum HP RPM ①		± 100 RPM	6700	6800	6700
	Reed Valve		P/N	N.A.		
	Carburetor Type			VM 34 - 576	VM 30 - 205	VM 34 - 578
	Main Jet			210	185	240
	Needle Jet			P-4 (159)	Q-2 (159)	P-8 (159)
	Pilot Jet			40	40	70
	Needle Identification — Clip Position			6AFY5 - 3	6CDY1 - 3	6AFY5 - 4
	Slide Cut-Away			2.0		
	Float Adjustment		± 1 mm (in)	23.9 (.94)		
	Air Screw Adjustment		± 1/16 turn	1-1/2	1-1/2	2-1/4
	Idle Speed RPM		± 200 RPM	1650		
	Gas Grade/Pump Octane Number		(R + M)/2	Regular Unleaded/87		
	Gas/Oil Ratio			Oil Injection		
	Ignition Timing BTDC		mm (in)	2.29 (0.090) ②	2.79 (0.110) ②	2.29 (0.090) ②
	Trigger Coil Air Gap		mm (in)	0.4 - 1.1 (.016 - .043)	0.4 - 1.1 (.016 - .043)	0.4 - 1.1 (.016 - .043)
	Gear Ratio		Teeth	21/43	19/43	17/43
	Engagement Speed		± 100 RPM	3500	3600	3800
	Drive Pulley Calibration Screw Position			3	N.A.	1
	Pulley Distance	Z	(± 0.5) mm (± 1/64) in	16.5 (5/8)	16.5 (5/8)	16.5 (5/8)
	Offset	X	± 0.5 mm (± 1/64 in)	35.5 (1-13/32)	35.5 (1-13/32)	35.5 (1-13/32)
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X from 1.5 mm (3/64 in)		
	Driven Pulley Preload		± 0.7 kg (± 1.5 lbf)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation		
	Track Adjustment	Deflection	mm (in)	30 to 35 (1-3/16 to 1-3/8) with a 7.3 kg (16lb) downward pull	35 to 40 (1-3/8 to 1-9/16) with a 7.3 kg (16 lb) downward pull	

① Engine speed at which maximum power is achieved.

② 22° at 3500 RPM (engine cold) with headlamp turned on.

BTDC: Before Top Dead Center

N.A.: Not Applicable

	MODEL			GRAND TOURING 380F	GRAND TOURING 500F
	Engine Type			380	503
	Maximum HP RPM ①		± 100 RPM	6800	6700
	Reed Valve		P/N	N.A.	
	Carburetor Type			VM 30 - 205	VM 34 - 576
	Main Jet			185	185
	Needle Jet			Q-2 (159)	P-4 (159)
	Pilot Jet			40	
	Needle Identification — Clip Position			6CDY1 - 3	6AFY5 - 3
	Slide Cut-Away			2.0	
	Float Adjustment		± 1 mm (in)	23.9 (.94)	
	Air Screw Adjustment		± 1/16 turn	1-1/2	1-1/2
	Idle Speed RPM		± 200 RPM	1650	
	Gas Grade/Pump Octane Number		(R + M)/2	Regular Unleaded/87	
	Gas/Oil Ratio			Oil Injection	
	Ignition Timing BTDC ②		mm (in)	2.79 (0.110)	2.29 (0.090)
	Trigger Coil Air Gap		mm (in)	0.4 - 1.1 (.016 - .043)	
	Gear Ratio		Teeth	19/43 ③	20/43 ④
	Engagement Speed		± 100 RPM	3600	3500
	Drive Pulley Calibration Screw Position			N.A.	3
	Pulley Distance	Z	(± 0.5) mm (± 0.020) in	16.5 (0.65)	16.5 (0.65)
	Offset	X	± 0.5 mm (± 1/64 in)	35.5 (1.400)	35.5 (1.400)
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X from 1.5 mm (3/64 in)	Dimension Y must exceed X from 1.5 mm (3/64 in)
	Driven Pulley Preload		± 0.7 kg (lbf)	0.0 (0.0)	
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation	
	Track Adjustment	Deflection	mm (in)	35 to 40 (1-3/8 to 1-3/16) with a 7.3 kg (16 lb) downward pull	30 to 35 (1-3/16 to 1-3/8) with a 7.3 kg (16 lb) downward pull

① Engine speed at which maximum power is achieved.

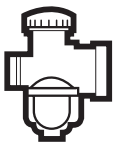
② 15.4° at 3500 RPM (engine cold) with headlamp turned on.

③ European model (2142) have a gear ratio of 18/43 .

④ European model (2141) have a gear ratio of 19/43.

BTDC: Before Top Dead Center

N.A.: Not Applicable

	MODEL			LEGEND 380F	LEGEND 500F
	Engine Type			380	503
	Maximum HP RPM ①		± 100 RPM	6800	6700
	Rotary Valve		P/N Opening (BTDC)/ Closing (ATDC)	N.A.	
	Carburetor Type			VM 30 - 205	VM 34 - 576
	Main Jet			185	210
	Needle Jet			Q-2 (159)	P-4 (159)
	Pilot Jet			40	
	Needle Identification — Clip Position			6CDY1 - 3	6AFY5 - 4
	Slide Cut-Away			2.0	
	Float Adjustment		± 1 mm (in)	23.9 (.94)	
	Air Screw Adjustment		± 1/16 turn	1-1/2	1-1/2
	Idle Speed RPM		± 200 RPM	1650	
	Gas Grade/Pump Octane Number		(R + M)/2	Regular Unleaded/87	
	Gas/Oil Ratio			Oil Injection	
	Ignition Timing BTDC ②		mm (in)	2.79 (0.110)	2.29 (0.090)
	Trigger Coil Air Gap		mm (in)	0.4 - 1.1 (0.016 - 0.043)	
	Gear Ratio		Teeth	19/43	21/43
	Engagement Speed		± 100 RPM	3600	3500
	Drive Pulley Calibration Screw Position			N.A.	3
	Pulley Distance	Z	± 0.5 mm (± 1/64 in)	16.5 (0.65)	16.5 (0.65)
	Offset	X	± 0.5 mm (± 1/64 in)	35.5 (1.400)	35.5 (1.400)
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X from 1.5 mm (1/16 in)	Dimension Y must exceed X from 1.5 mm (1/16 in)
	Driven Pulley Preload		± 0.7 kg (lbf)	0.0 (0.0)	
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation	
	Track Adjustment	Deflection	mm (in)	35 to 40 (1-3/8 to 1-9/16) with a 7.3 kg (16 lb) downward pull	30 to 35 (1-3/16 to 1-3/8) with a 7.3 kg (16 lb) downward pull

① Engine speed at which maximum power is achieved.

② 15.4° at 3500 RPM (engine cold) with headlamp turned on.

BTDC: Before Top Dead Center

N.A.: Not Applicable

Please route to :

Init.

- Service
- Sales
- Parts

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-12**

Date: December 10, 2001

SUBJECT: Predelivery

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2002	MX Zx 440 Racing	1948/2120/2129	All

This bulletin must be used in conjunction with the check list enclosed in the bag with the *Operator's Guide*. Make sure that *Predelivery Check List* is completed and signed.

⚠ WARNING

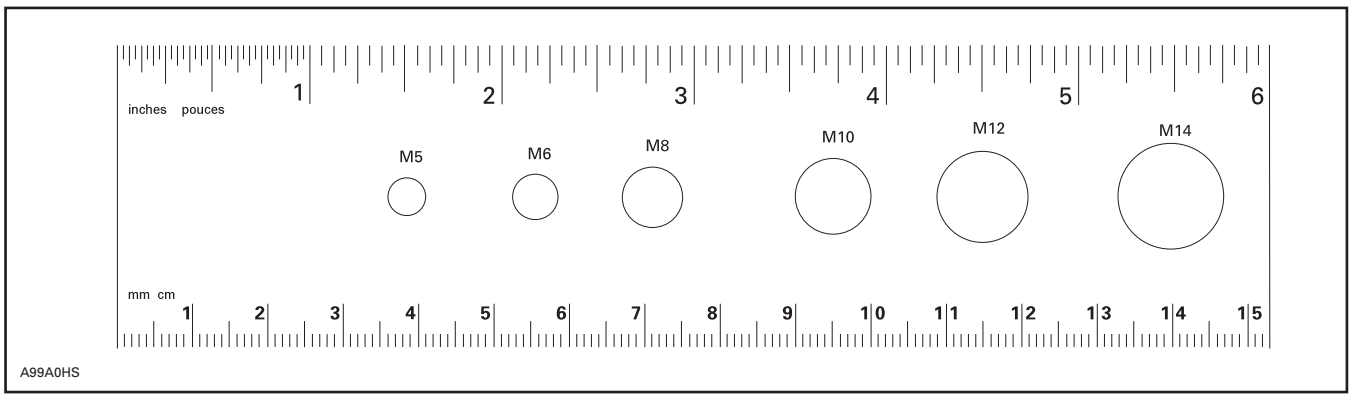
To obtain warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer/distributor. Apply all necessary torques as indicated.

CAUTION: When fuelling snowmobile, always premix fuel with BOMBARDIER synthetic injection oil using a ratio of 33:1.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your service representative and/or specific *Shop Manual* sections. Please complete the *Predelivery Check List* for each snowmobile and retain a customer signed copy. Make sure the customer receives the *Operator's Guide, Safety Handbook, Predelivery Check List* signed copy and video.



NOTE: This ruler can be helpful to identify fastener length or size.

PREDELIVERY KIT P/N	MODELS
549 010 939	MX Zx 440 Racing

⚠ WARNING

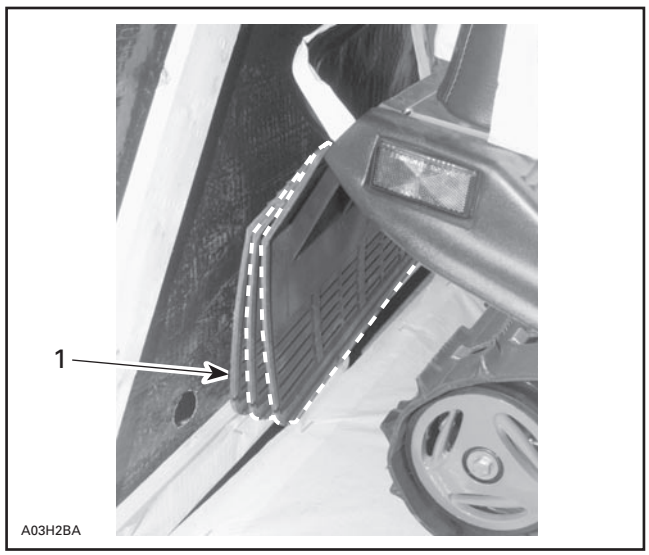
Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

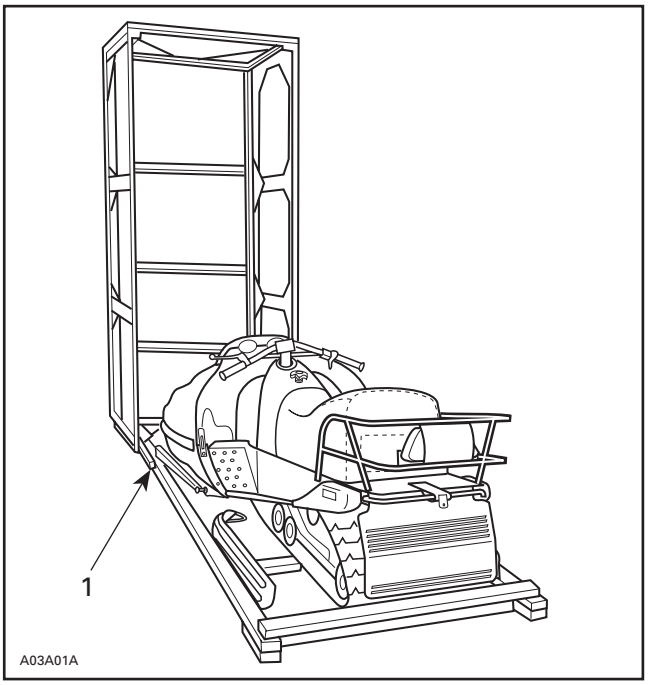
Remove all screws retaining cover to vehicle base. Tip cover toward front or rear of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging any part of the snowmobile.

NOTE: If cover is tilted toward front of vehicle, snow guard may interfere with crate cover, as shown in the following photo. Push on snow guard when lifting cover.



TYPICAL — IF CRATE COVER IS TILTED TOWARD FRONT OF VEHICLE, FROM OUTSIDE CRATE PUSH ON SNOW GUARD TO ALLOW COVER TO LIFT WITHOUT DAMAGING SNOW GUARD

1. Snow guard interfering with crate cover



TYPICAL

1. Notch

Detach parts to be installed (e.g. skis, windshield) from the vehicle and its base.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Detach ski legs from crate. Keep ski leg bolts for reinstallation. Discard crating spacers and nuts.

Remove vehicle from base.

Remove drive belt and accessories, such as predelivery kit, steering pad and shocks from the box.

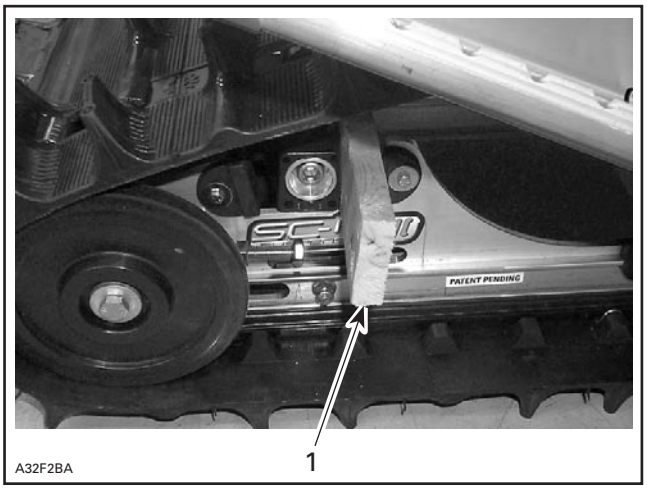
FRONT HOOKS REMOVAL

NOTE: This model is equipped with two front hooks and not at rear.

Procedure

Apply parking brake.

Remove wood shim on right side of rear suspension. Lay on snowmobile seat or push down on rear bumper to help shim removal.



1. Wood shim

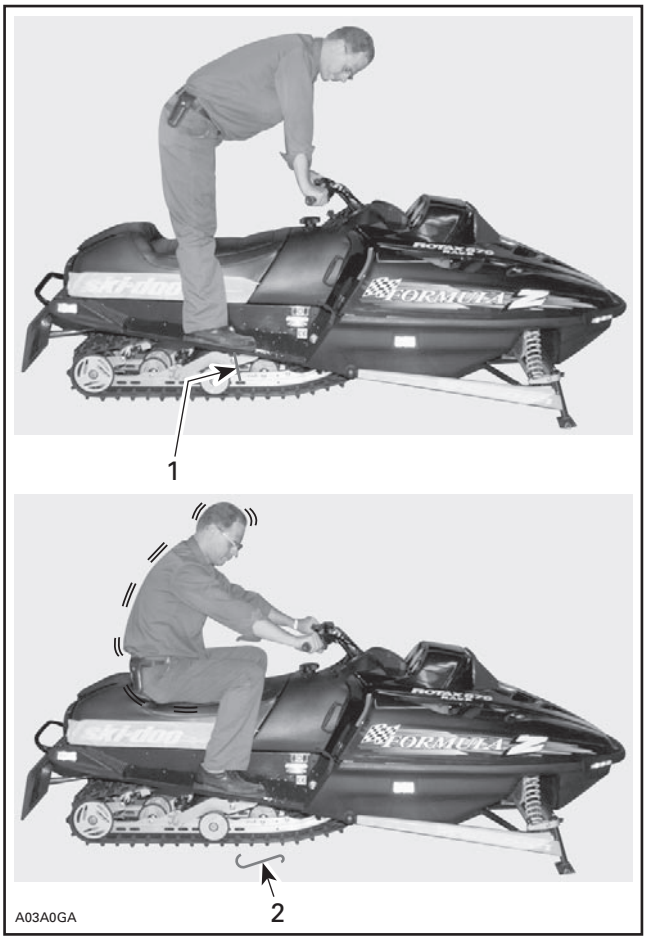
Cut locking ties retaining hooks.

To remove hooks, stand on running boards.

Using a fast and strong movement, sit down on snowmobile seat. This will allow suspension to compress and hooks to detach. See the next photo.

Note: Using pliers, someone else can pull on hook to help removal.

CAUTION: To avoid damaging seat storage compartment and cover, always sit on seating surface.



TYPICAL — STAND ON RUNNING BOARDS THEN SIT DOWN ON SEAT

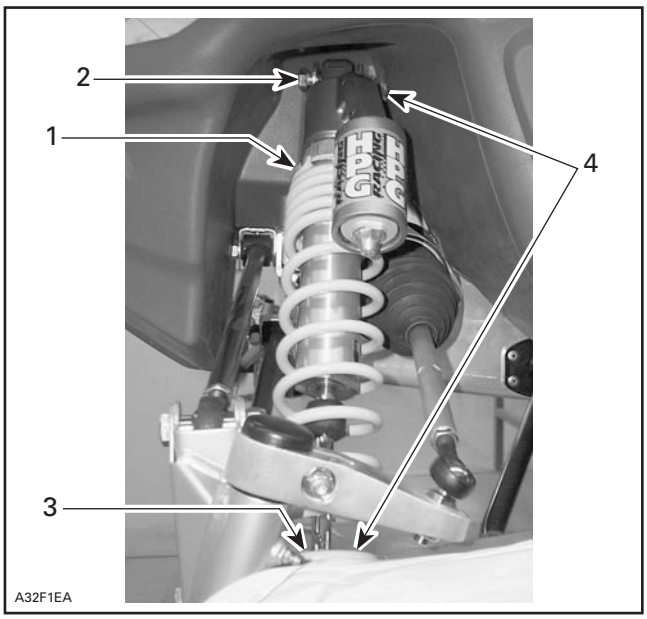
1. Hook to be removed (both sides)
2. Hook removed

Lift front of vehicle and block safely.

Remove and discard shipping brackets from suspension. Discard spring clips, keep screws.

Cut locking tie retaining bushing on lower end of shock.

Secure shock absorbers to suspension with their adjusting rings at top. Take care not to mix left and right shocks. Reservoir must stand toward back of vehicle as shown on next photo.



LH SIDE SHOWN

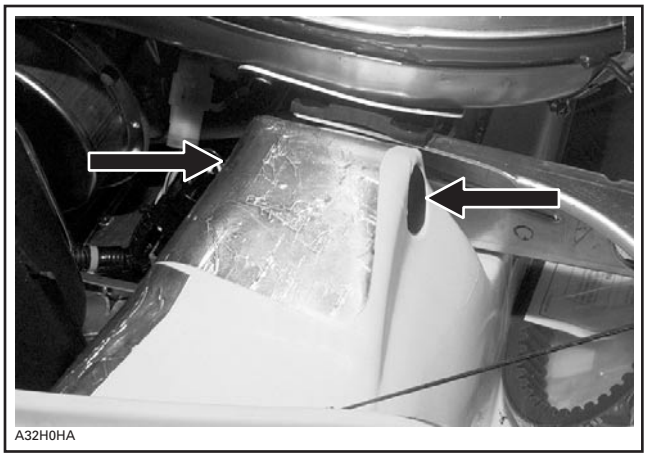
1. *Shock absorber (2) (predelivery box) adjusting ring at top*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
4. *Elastic nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 3). Torque to 48 N•m (35 lbf•ft)*

Position upper screw head toward rear of vehicle and bottom screw head toward front of vehicle. Secure with nuts provided in predelivery kit (section no. 3). Torque to 48 N•m (35 lbf•ft).

⚠ WARNING

Always turn the adjusting rings of both shocks the same number of turns. Otherwise, the behavior of front suspension will be impaired.

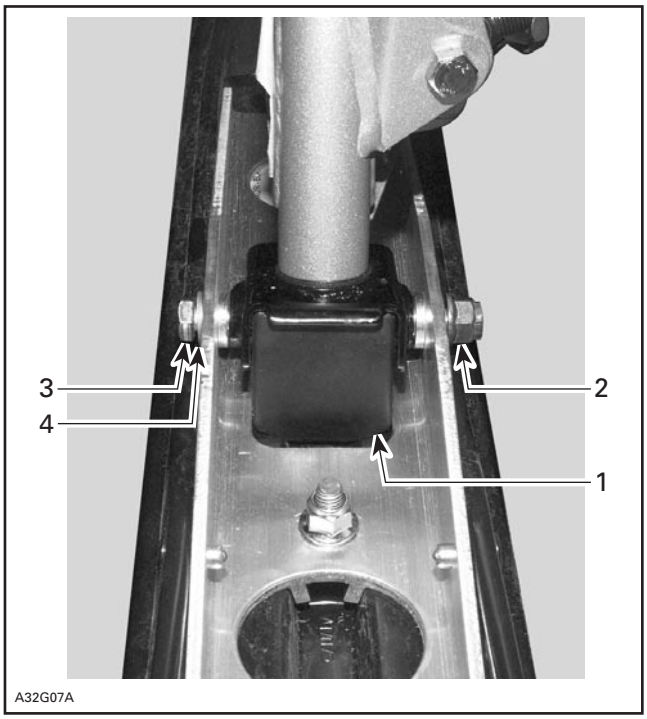
Install caps provided in predelivery kit on bottom pan, each side of upper bolt.



SNAP PROVIDED CAP (SECTION NO. 5) EACH SIDE OF MOLDING

If maintenance has to be done on shock absorbers, refer to *Service Bulletin 2001-7* for adjustment and calibration.

Install skis on vehicle.



TYPICAL — RIGHT SIDE SHOWN

1. *Ski stopper (2) (section no. 3) with higher side toward front*
2. *Flanged nut M12 x 1.75 (2) (section no. 3). Torque to 32 N•m (24 lbf•ft)*
3. *Bolt M12 (2)*
4. *Washer (2) (section no. 3) installed on bolt head side*

CAUTION: Installation of the standard inserts validates the limited warranty coverage.

IMPORTANT NOTICE

The 2002 MX Zx 440 Racing snowmobile is shipped with a set of high CR combustion chamber inserts.

CAUTION: These high compression inserts are installed in the vehicle and require fuel with a minimum octane rating of 108.

To validate warranty, order (no charge) and install standard combustion chambers (P/N 420 923 870).

NOTE: Refer to *Warranty Bulletin 2002-3* and for operation with fuel rating lower than 108 octane, complete instructions on adjustment and recalibration to be done to validate warranty.

For racing dedicated snowmobiles, *Competition Bulletin 2002-1* provides information needed to jetting adjustment.

Adjust handlebar and tighten nuts between 21 and 28 N•m (16 and 20 lbf•ft). Place throttle and brake cable in front of steering extension. With pliers, bend each locking tab below handlebar extension on a flat side of bolt.

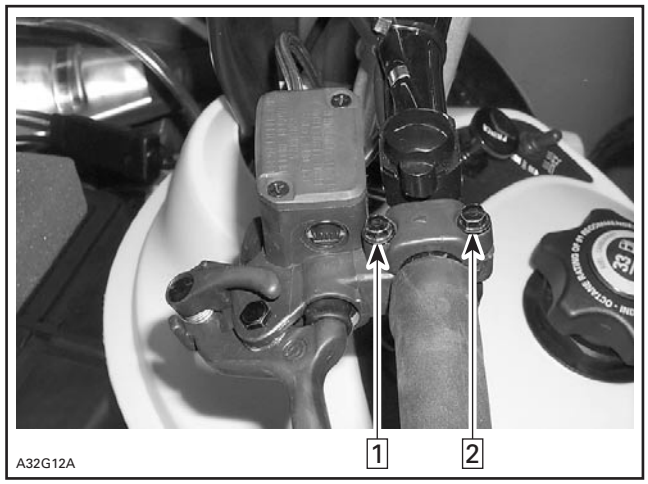

A32G0YA

Turn brake housing to level brake oil reservoir.


A32G1LA

RESERVOIR WALL MUST BE PARALLEL WITH DIMMER HOUSING

Secure front screw first, then rear screw. See photo.

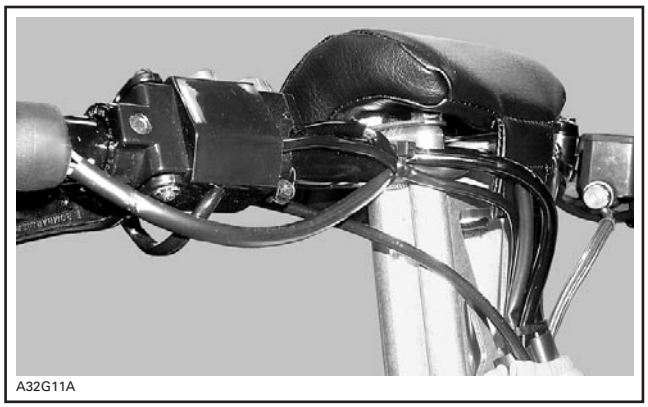


A32G12A

Step 1: Screw this bolt first to a torque between 7 and 10 N•m (5.25 and 7.5 lbf•ft)

Step 2: Secure housing with this bolt (same torque)

Wrap center of handlebar with protector pad. Secure it with velcro flaps.


A32G11A


A32G1MA

SPEEDOMETER INSTALLATION

NOTE: The speedometer may be installed or not at the convenience of the driver.

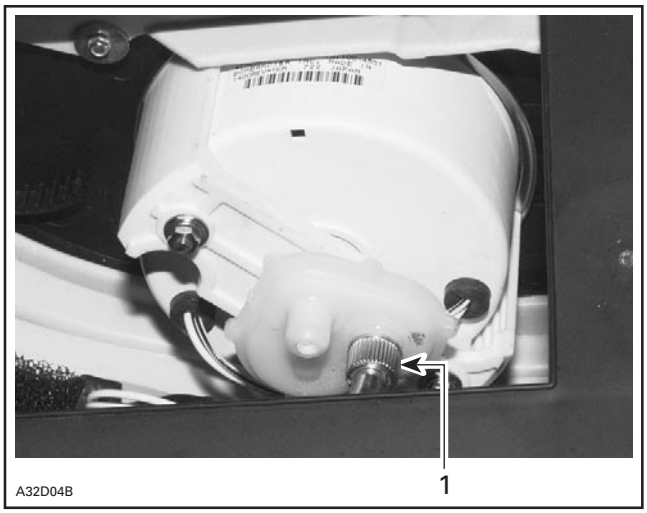
Using the template provided on last page, punch the center point of the speedometer location on gauge support.

Drill speedometer location with a 111 mm (4-3/8 in) hole saw.

Insert speedometer gauge in place on dashboard with gauge packing in place around speedometer gauge.

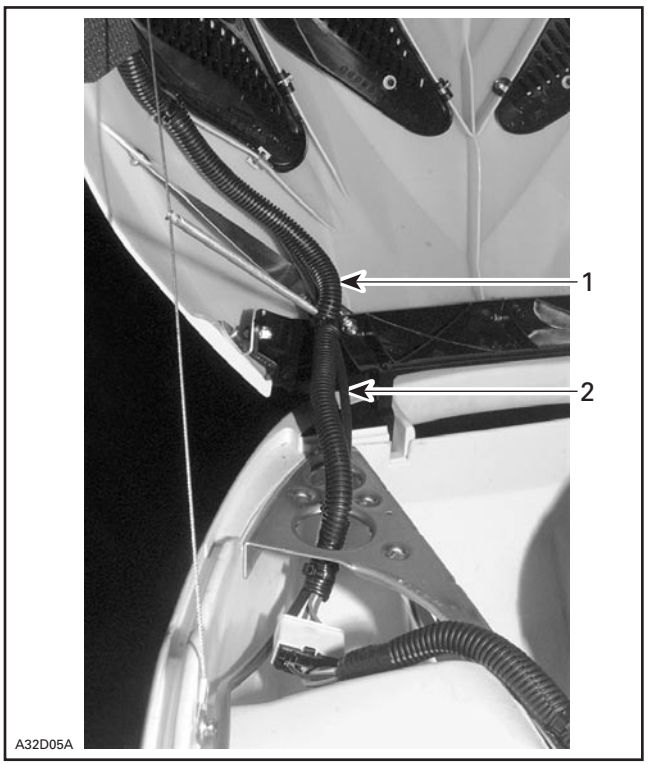
Underneath dash, install ring and gauge holder. Secure with provided fastening devices.

Screw speedometer cable on drive angle.



1. Screw cable here

Route the speedometer cable under electrical wire, through frame support (see photo) and alongside bottom pan.

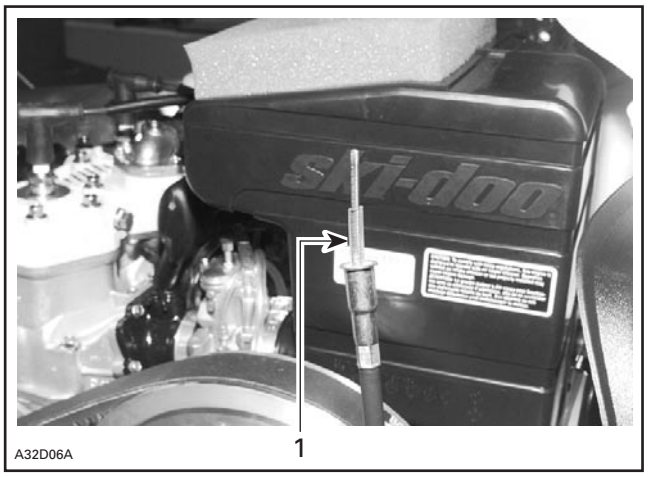


SPEEDOMETER WIRE ROUTING

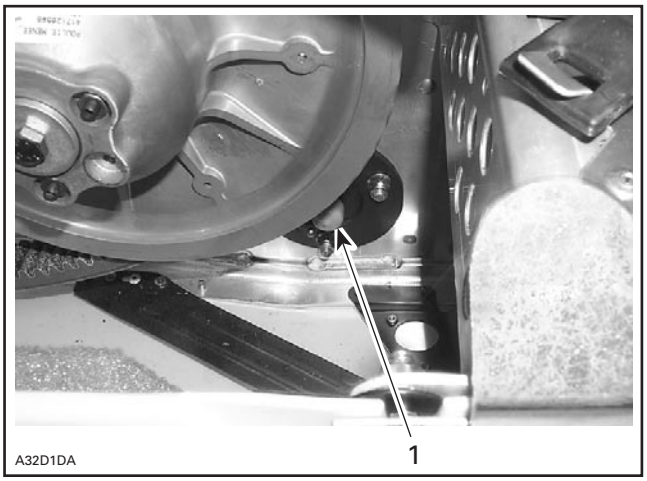
1. Electrical strand
2. Speedometer wire under electrical strand

Remove pulley guard.

Insert clear plastic bushing onto wire and insert wire in place on drive axle (under driven pulley).

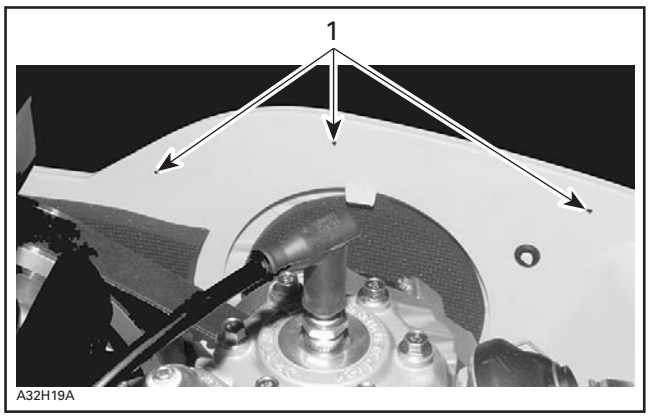


1. Plastic bushing around speedometer wire



1. Remove cap and install speedometer wire.

Ensure wire will not touch transmission pulleys securing it with clips screwed on marks stamped inside bottom pan as per illustration below.



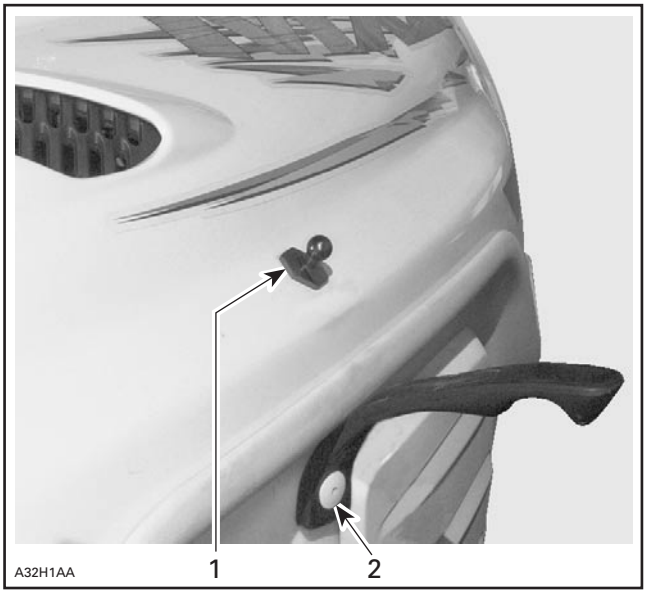
1. Install clips on these points

With locking ties (not included), attach speedometer cable to electrical strand.

Reinstall pulley guard.

HOOD LATCHES

Hood latches are provided for owner who whishes to have a supplemental hood fixture. Install rubber latch on bottom pan near front shocks and studs on hood as per following photos.



1. Drill and rivet stud
2. Drill and rivet latch

SECURE HOOD WITH LATCH

Make sure to install both latches symmetrically.

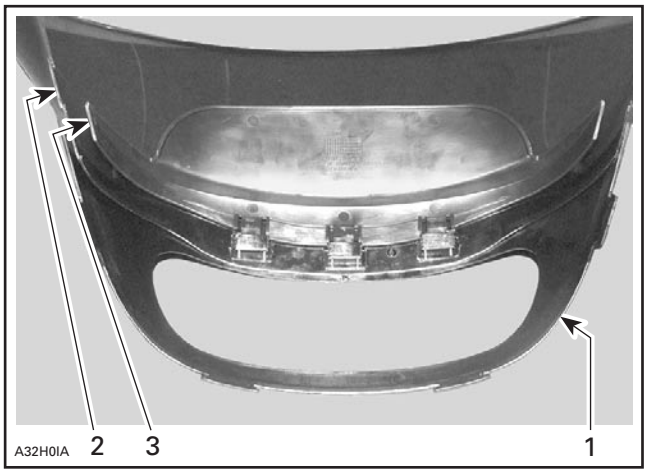
Remove headlamp protector from hood.

Unclip inner protector from headlamp protector.

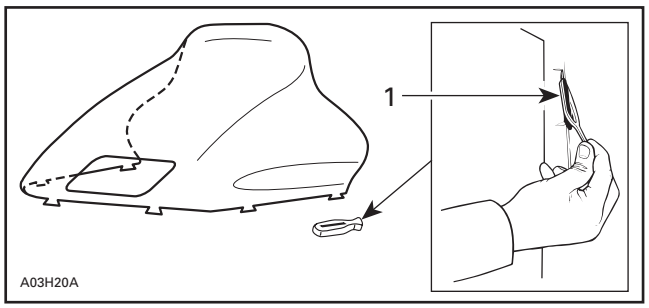
Insert tabs of headlamp protector in windshield square holes.

Clip inner protector in place.

Secure windshield assembly on hood using latches.



1. *Headlamp protector*
2. *Windshield*
3. *Inner protector*



1. *Latch (8) (P/N 570 023 800) (4 already on headlamp protector, 2 on windshield and 2 in section no. 2)*

Clean pulleys and disc brake with a suitable cleaner such as Pulley Flange Cleaner (P/N 413 711 809) before installing drive belt.

LIQUIDS
OIL RESERVOIR LEVEL

Remove sticker on oil reservoir cap to free vent hole. This sticker was installed to avoid oil spilling during transportation. Check also oil level in the reservoir. Add oil as required. Refer to the following photo.

TYPICAL — OIL RESERVOIR
1. Sticker installed for transportation

CAUTION: Use only BOMBARDIER synthetic injection oil (P/N 413 710 500) (12 x 1 L).

LIQUIDS
BRAKE FLUID LEVEL

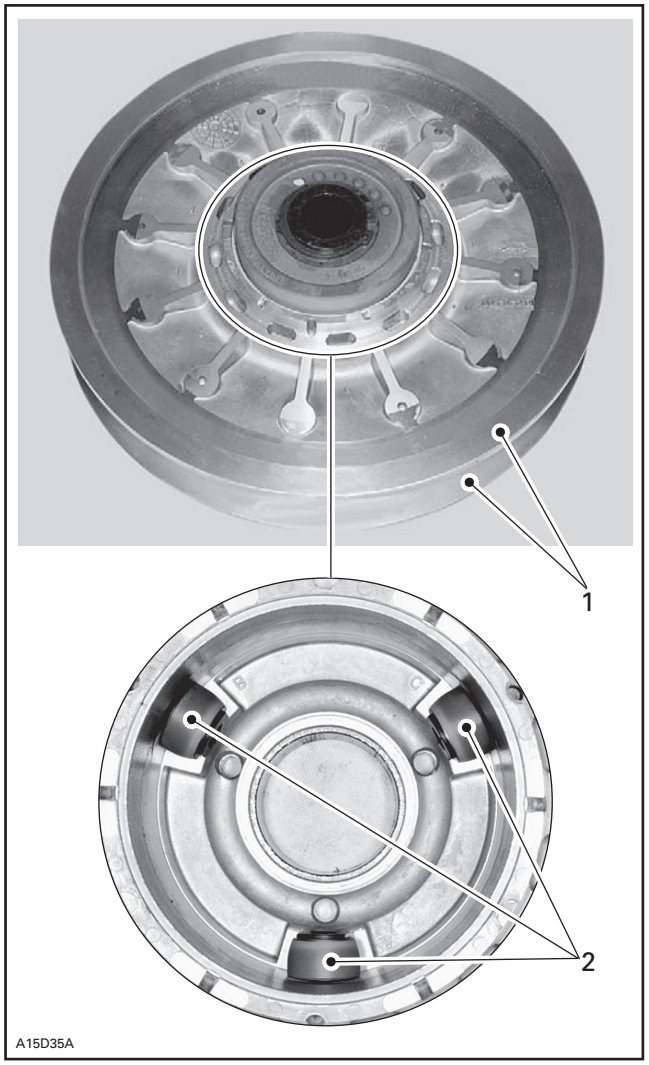
Check brake fluid in reservoir on handlebar for proper level. Add fluid (DOT 4) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partly filled bottle of brake fluid.

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section, pages 15 and 16 of this bulletin.

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

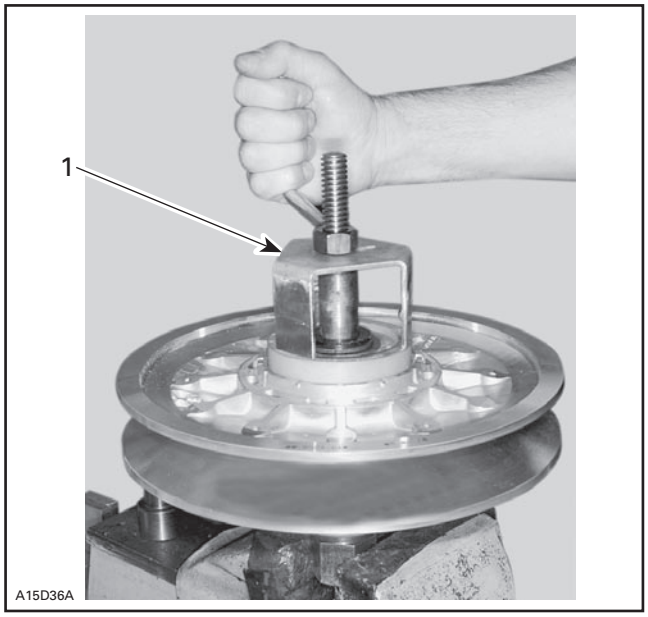


DRIVEN PULLEY

1. *Machined surface*
2. *Cam bearing*

Disassembly

Use spring compressor/TRA clutch flare tool (P/N 529 035 524).

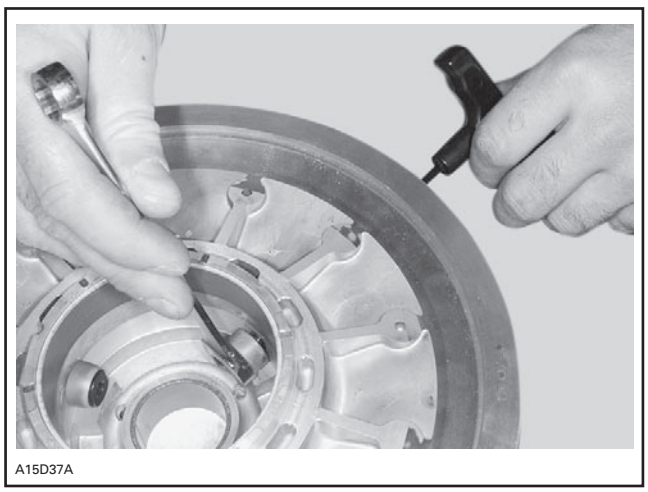


1. Spring compressor/TRA clutch flare tool (P/N 529 035 524)

Remove snap ring and washer to disassemble the outer cam and both pulley halves.

Hold bearing sleeve from inside then remove Allen screw from outside, see next photo.

CAUTION: Always hold Allen key to prevent it from turning, then loosen or tighten with a combination wrench. Otherwise, Allen screw may be stripped.



TO REMOVE BEARING

Cleaning

During break-in period (about 10 hours of use), teflon from bushing moves to cam or shaft surface.

A teflon over teflon running condition occurs, leading to low friction. So it is normal to see gray teflon deposit on cam shaft. Do not remove that deposit, it is not dust.

When a dust deposit has to be removed from the cam or the shaft, use dry cloth to avoid removing transferred teflon.

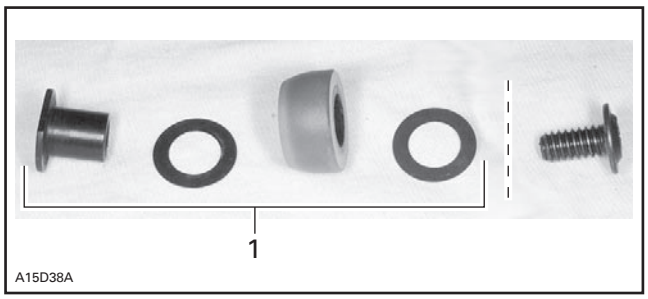
Inspection

Inspect bearings every 75 hours.

Check for cracks, scratch and for free movement when assembled to fixed half.

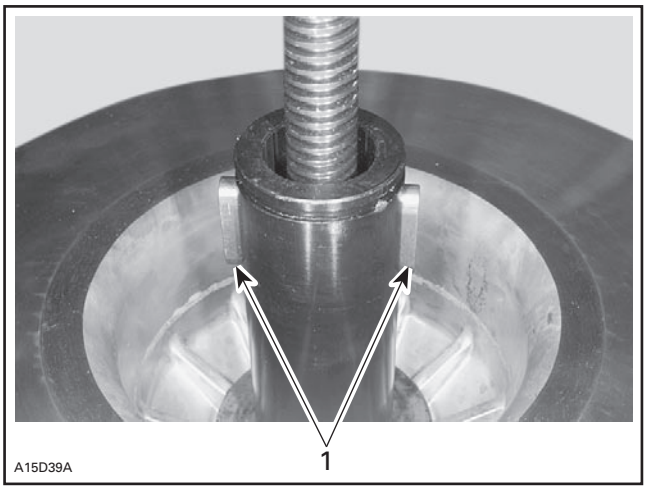
Assembly

When replacing bearings, always install a new set of 3 bearings to maintain equal pressure on the cam.



1. Inside driven pulley

Assemble driven pulley components by reversing the disassembly procedure. Pay special attention to the following:



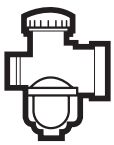
1. Ensure that both keys are in place

BRAKE

Fixed brake disc with racing type brake pads. Brake hoses are reinforced.

TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Vehicles used at high altitudes, above 600 m (2000 ft) should be fitted with a high altitude kit. Further inquiries should be directed to your distributor service representative.

	VEHICLE MODEL			MX ZX 440 RACING
	ENGINE TYPE			**453**
	Number of Cylinders			2
	Bore		mm (in)	65.0 (2.56)
	Stroke		mm (in)	65.8 (2.59)
	Displacement		cm^3 (in^3)	436.6 (26.6)
	Compression Ratio (corrected)			7.7
	Maximum Power Engine Speed ①		± 100 RPM	8400
	Piston Ring Type		1st/2nd	ST/—
	Ring End Gap	New Wear Limit	mm (in) mm (in)	0.2 (.008) 1.0 (.040)
	Ring/Piston Groove Clearance	New Wear Limit	mm (in) mm (in)	0.04 (.0016) 0.2 (.0079)
	Piston/Cylinder Wall Clearance	New Wear Limit	mm (in) mm (in)	0.11 (.0031) 0.18 (.0071)
	Connecting Rod Big End Axial Play	New Wear Limit	mm (in) mm (in)	0.39 (.0154) 1.2 (.0472)
	Maximum Crankshaft End-play ②		mm (in)	0.3 (.0118)
	Maximum Crankshaft Deflection		mm (in)	0.08 (.0031)
	Reed Valve		P/N	420 924 810
	Magneto Generator Output		W	290
	Ignition Type			CDI
	Spark Plug Make and Type			NGK BR9ES
	Spark Plug Gap		mm (in)	0.45 (.018)
	Ignition Timing BTDC ③		mm (in)	3.14 (.124)
	Trigger Coil ④		Ω	190 – 300
	Generating Coil ④		Ω	17.5 – 42.5
	Lighting Coil ④		Ω	0.1 – 0.4
	High Tension Coil ④	Primary	Ω	0.3 – 0.7
		Secondary	kΩ	—
	Carburetor Type		PTO/MAG	TMX 34-18
	Main Jet		PTO/MAG	260/250
	Needle Jet			P-0
	Pilot Jet			25
	Needle Identification — Clip Position			6FNY04 — 3
	Slide Cut-Away			4.0
	Float Adjustment		± 1 mm (± .040 in)	—
	Air Screw Adjustment		± 1/16 Turn	—
	Idle Speed RPM		± 200 RPM	1600
	Gas Type/Pump Octane Number		(R + M)/2	Unleaded/108+
	Gas/Oil Ratio Mixing Oil			Premix 33: 1 BOMBARDIER Synthetic
	**ENGINE COLD N·m (lb·ft)**	Drive Pulley Retaining Screw		⑥
		Exhaust Manifold Nuts or Bolts		21.5 (16)
		Magneto Ring Nut		125 (92)
		Crankcase Nuts or Screws	M6 M8	9 (6.5) 29 (21)
		Crankcase/Engine Support Nuts or Screws		35 (26)
		Cylinder Head Nuts		29 (21)
		Axial Fan Shaft Nut		N.A.

	VEHICLE MODEL				MX ZX 440 RACING
	ENGINE TYPE				**453**
	Chain Drive Ratio				21/43
	Chain	Pitch		mm (in)	9.525 (.375)
		Type/Links Qty/Plates Qty			Silent 74 - 15
	Drive Pulley	Type of Drive Pulley			TRAC
		Ramp Identification			296 ⑤
		Calibration Screw Position or Calibration Disc Quantity ⑤			4
		Spring Color			Pink/White
		Spring Length		± 1.5 mm (± 0.060 in)	124.5 (4.90)
		Clutch Engagement		± 200 RPM	5000
	Driven Pulley Spring Preload Cam Angle			± 0.7 kg (± 1.5 lb) degree	7.0 (154) 48°/44°
	Pulley Distance Z			(± 0.5) mm (± 1/32 in)	16.5 (21/32)
	Offset	X		± 0.5 mm (± 1/64 in)	35.5 (1-25/64)
		Y – X	MIN. – MAX.	mm (in)	1.5 (0.059)
	Drive Belt Part Number (P/N)				414 860 700
	Drive Belt Width (new) ①			mm (in)	35.3 (1-25/64)
	Drive Belt Adjustment		Deflection	± 5 mm (± 13/64 in)	32 (1-1/4)
			Force ②	kg (lbf)	11.3 (25)
	Track	Width		cm (in)	38.1 (15.0)
		Length		cm (in)	307 (121)
		Adjustment	Deflection	mm (in)	30 – 35 (1-11/64 – 1-3/8)
			Force ③	kg (lbf)	7.3 (16)
	Suspension Type		Track		SC10 III
			Ski		Advanced DSA
	Length			cm (in)	280.1 (110.3)
	Width			cm (in)	121.2 (47.7)
	Height			cm (in)	113.0 (44.5)
	Ski Stance			cm (in)	108.0 (42.5)
	Mass (dry)			kg (lb)	210 (462)
	Ground Contact Area			cm^2 (in^2)	6670 (1034)
	Ground Contact Pressure			kPa (PSI)	3.09 (0.448)
	Frame Material				Aluminum
	Bottom Pan Material				Impact Copolymer
	Cab Material				RRIM Polyurethane
	Battery			V (A•h)	N.A.
	Headlight			W	H4 60/55
	Taillight and Stoplight			W	8/27
	Tachometer and Speedometer Bulb			W	2 x 3
	Fuel and Temperature Gauge Bulb			W	N.A.
	Fuse	Starter Solenoid		A	N.A.
		Tachometer		A	N.A.
	Fuel Tank			L (U.S. gal)	37.3 (9.9)
	Chaincase/Gearbox			mL (U.S. oz)	250 (8.5)
	Cooling System			L (U.S. oz)	3.8 (128.5)
	Rotary Valve Reservoir			mL (U.S. oz)	N.A.

ENGINE LEGEND

BTDC: Before Top Dead Center
CDI: Capacitor Discharge Ignition
CTR: Center
K: Kilo (× 1000)
MAG: Magneto Side
N.A.: Not Applicable
PTO: Power Take Off Side
ST: Semi-trapez

① The maximum horsepower RPM applicable on the vehicle. It may be different under certain circumstances and BOMBARDIER INC. reserves the right to modify it without obligation.

② Crankshaft end-play is not adjustable on these models. Specification is given for verification purposes only.

③ At 3500 RPM (engine cold) with headlamp turned on.

④ All resistance measurements must be performed with parts at room temperature (approx. 20°C (68°F)). Temperature greatly affects resistance measurements.

⑤ Force applied midway between pulleys to obtain specified tension deflection.

⑥ Drive pulley retaining screw: torque to 90 to 100 N•m (66 to 74 lbf•ft), install drive belt, accelerate the vehicle at low speed (maximum 30 km/h (20 MPH)) and apply the brake; repeat 5 times. Recheck the torque of 90 to 100 N•m (66 to 74 lbf•ft).

VEHICLE LEGEND

DSA: Direct Shock Action
RRIM: Reinforced Reaction Injection Molding
TRA: Total Range Adjustable
N.A.: Not Applicable

① Minimum allowable width may not be less than 3.0 mm (1/8 in) of new drive belt.

② Force applied midway between pulleys to obtain specified tension deflection.

③ Force or downward pull applied to track to obtain specified tension deflection.

④ Coolant mixture: 60% antifreeze/40% water.

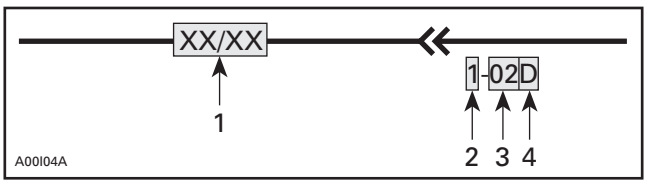
⑤ Lever with roller pin (P/N 417 003 900).

WIRING DIAGRAM

Wiring Diagram Legend

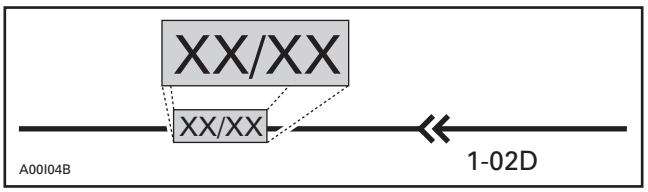
⚠ WARNING

Ensure all terminals are properly crimped on the wires and all connector housings are properly fastened.



1. *Wire colors*
2. *Housing area*
3. *Housing number per area*
4. *Wire connector location in housing*

Wire Colors and Circuit

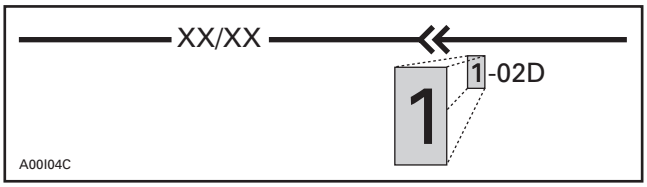


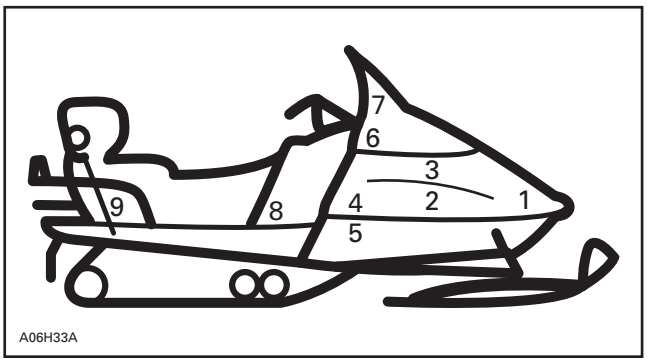
COLOR CODE			
BK	– BLACK	GN	– GREEN
WH	– WHITE	GY	– GREY
RD	– RED	VI	– VIOLET
BL	– BLUE	OR	– ORANGE
YL	– YELLOW	BR	– BROWN

Following table shows wire colors related to electrical circuits.

WIRE COLOR	ELECTRICAL CIRCUIT	ADDITIONAL INFORMATION
BLACK/YELLOW	ENGINE SHUT OFF – Tether cord switch – Emergency switch	Must be grounded to stop engine.
BLACK (small)	Ground for shut off	
YELLOW YELLOW/BLACK	12 volts (AC)	If shorted, magneto stops producing electricity.
RED/BLUE	12 volts (DC) (+) Rectifier output	
GREY	12 volts (AC) High beam	Current returns by YELLOW/BLACK wire connected to headlamp.
VIOLET/GREY	12 volts (AC) Low beam	
WHITE	12 volts (AC) Brake light	Current returns by YELLOW/BLACK wire connected to taillight.
WHITE/RED	12 volts (AC) Low oil level	Current returns by YELLOW/BLACK wire connected to oil level sensor.
ORANGE	12 volts (AC) Heated grips (max.)	Current returns by YELLOW/BLACK wire connected to heating elements.
ORANGE/VIOLET	12 volts (AC) Heated grips (min.)	
BROWN	12 volts (AC) Heated throttle lever (max.)	
BROWN/YELLOW	12 volts (AC) Heated throttle lever (min.)	
VIOLET	12 volts (AC) Engine overheating light	

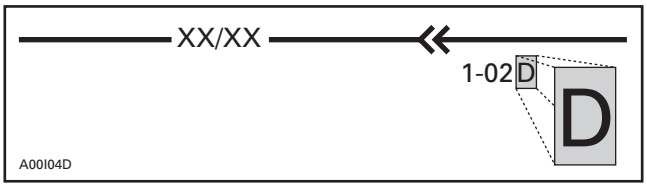
Connector Housing Area

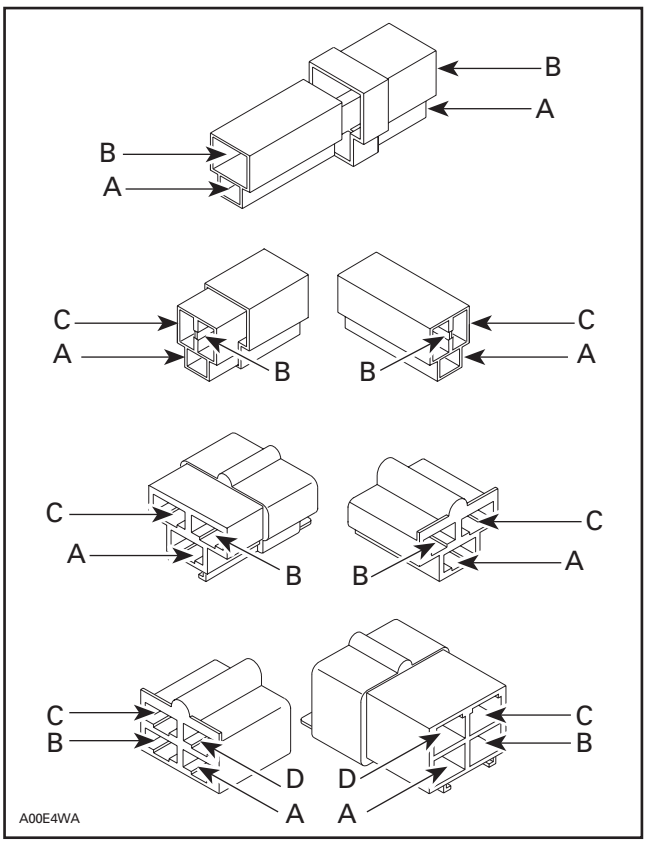




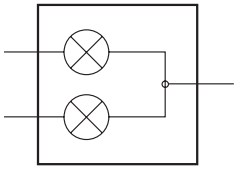
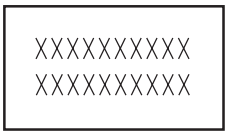
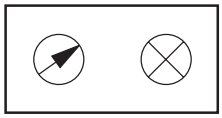
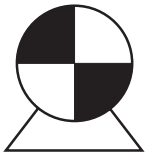
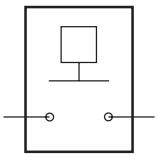
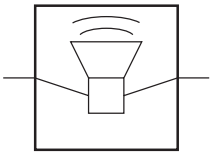
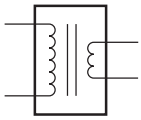
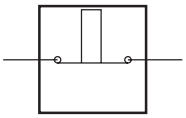
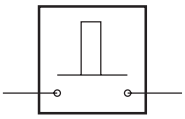
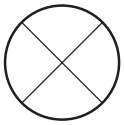
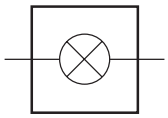
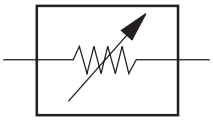
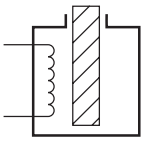
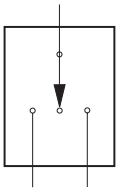
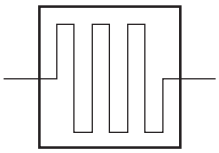
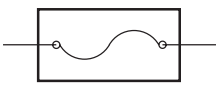
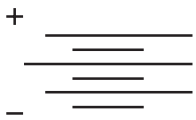
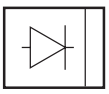
AREA	LOCATION
1	Frame and hood junction
2	Magneto
3	Carburetors
4	Rear of intake silencer
5	Near driven pulley
6	Under handlebar
7	Under hood
8	Near fuel tank
9	Rear of seat

Connector Location in Housing

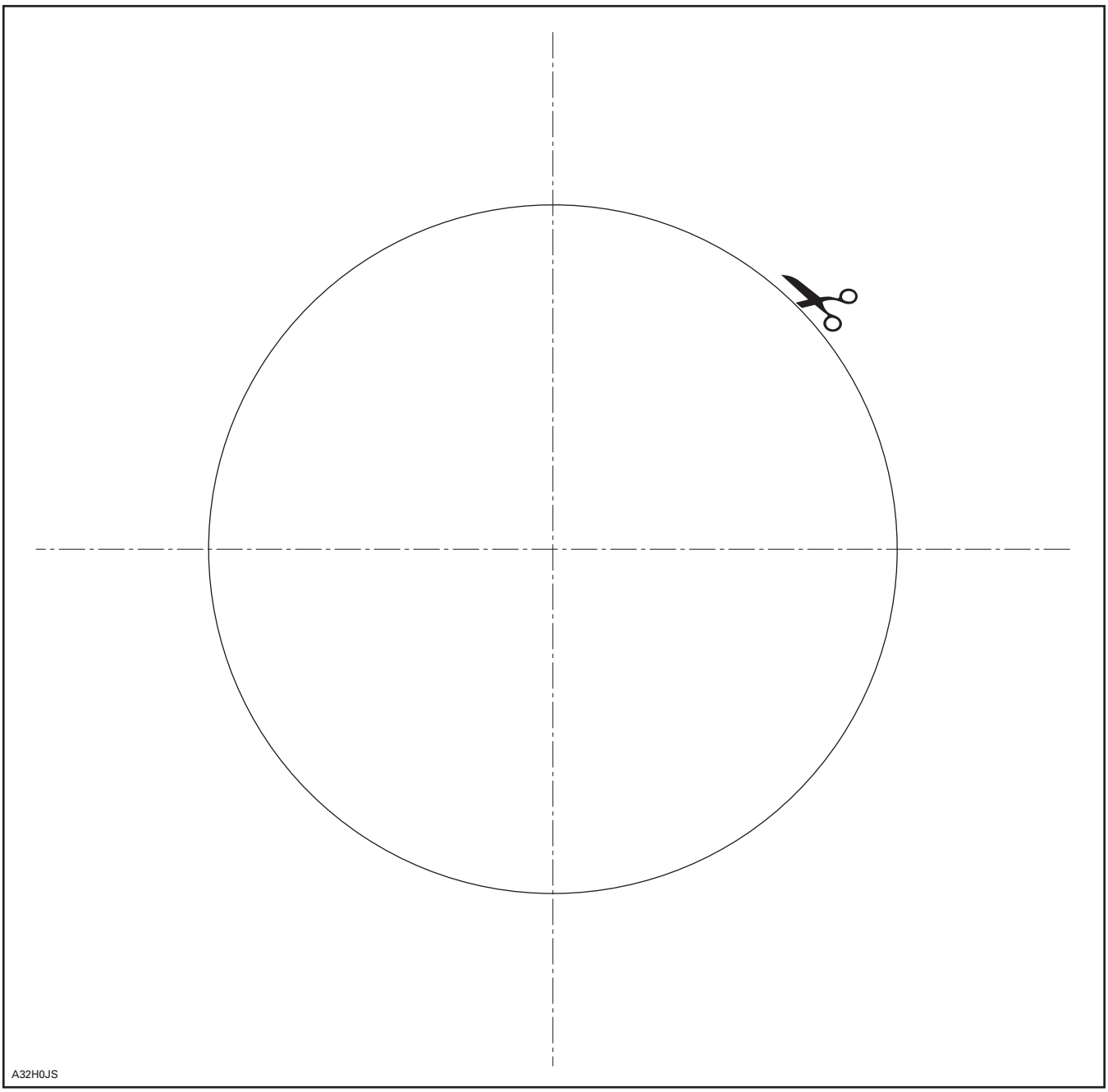




Symbols Description

Beam and tail light 	Female terminal 	Male terminal 	Electronic module 
Meter 	Electric motor 	Low level sensor 	Buzzer 
Ignition coil 	Normally close switch 	Normally open switch 	Male terminal on instrument 
Engine ground 	Frame ground 	Spark plug 	Meter movement 
Bulb 	Pilot lamp 	Analog sensor 	Solenoid valve 
Magneto (Delta) 	3 position switch 	Heating element 	Fuse 
Trigger coil 	Battery 	Diode 	

A00E52S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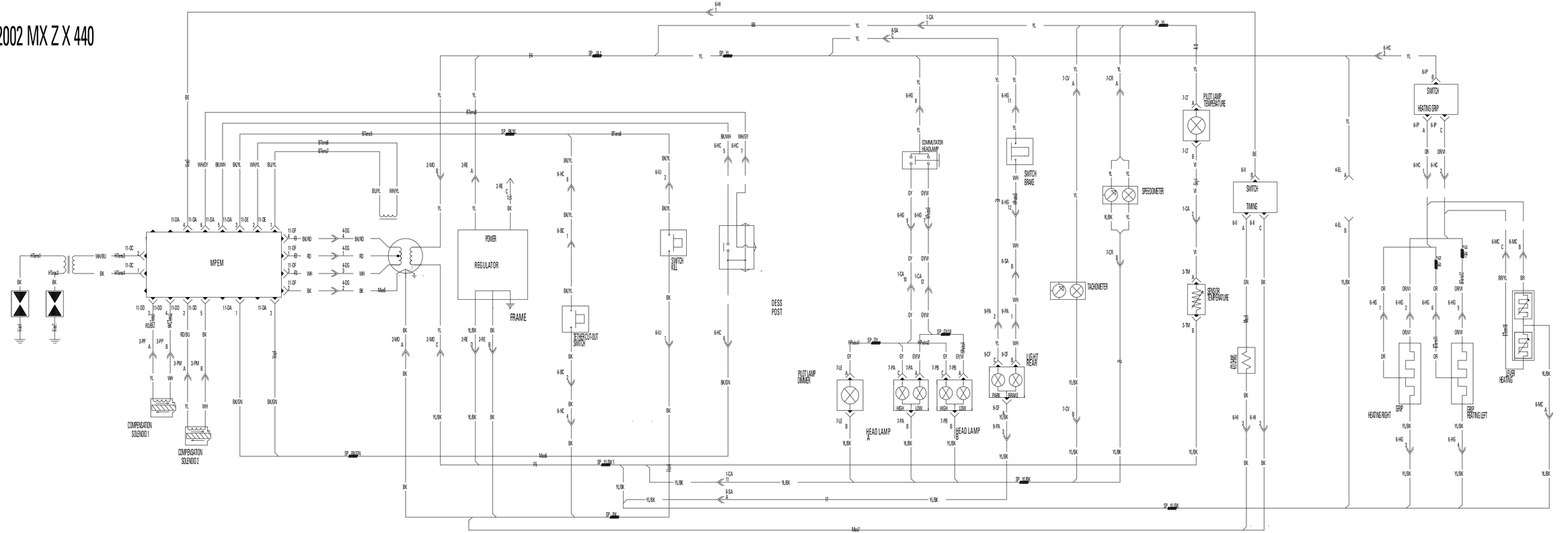
2002 MX Z X 440



Please route to :

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- Service
- Sales
- Parts

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-13**

Date: January 21, 2002

SUBJECT: Predelivery

YEAR	MODEL	PACKAGE	MODEL NUMBER	SERIAL NUMBER
2002	MX Z 800 R	X	2125/2172/2173/2174/ 2175/2176/2177	All
2002	MX Z 800	X	1880/1881/1882/ 1883/1884/1885	All
2002	MX Z 700 R	X	2178/2179/2180/ 2181/2182/2183	All
2002	MX Z 700	X	2166/2167/2168/ 2169/2170/2171	All
2002	MX Z 600 R	X	2184/2185/2126/2186/ 2187/2188/2189	All
2002	MX Z 600	X	1886/1887/1888/ 1889/1890/1891	All

This bulletin must be used in conjunction with the check list enclosed in the bag with the *Operator's Guide*. Make sure that *Predelivery Check List* is completed and signed.

⚠ WARNING

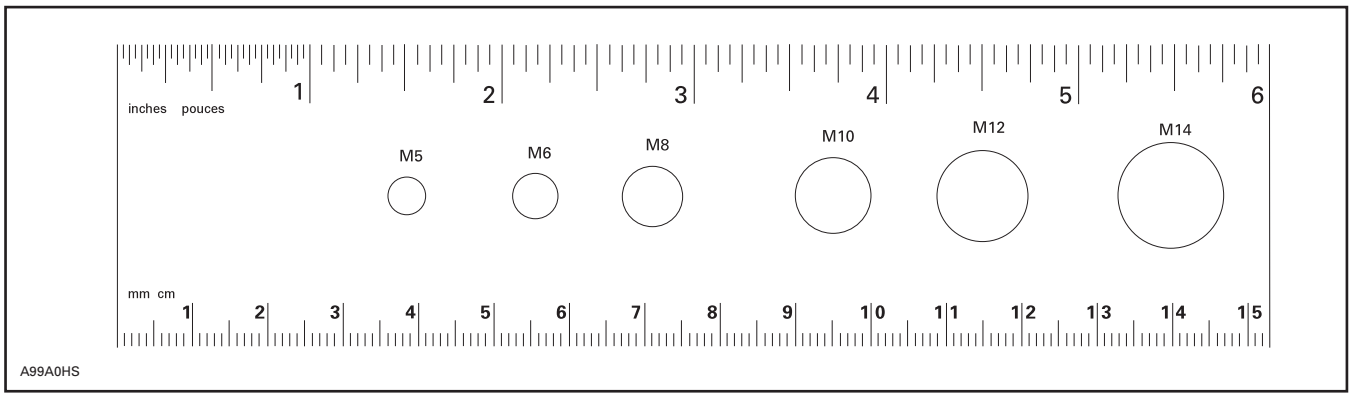
To obtain limited warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer/distributor. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

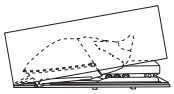
The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your service representative and/or specific *Shop Manual* sections. Please complete the *Predelivery Check List* for each snowmobile and retain a customer signed copy. Make sure the customer receives the *Operator's Guide, Safety Handbook, Predelivery Check List* signed copy and *Safety Videocassette*.

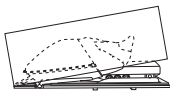
There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask dealer/distributor to perform suspension adjustments according to riding style and vehicle load.



NOTE: This ruler can be helpful to identify fastener length or size.



UNCRATING



PREDELIVERY KIT P/N	MODELS
549 010 880	MX Z 800 R/MX Z 800 MX Z 700 R/MX Z 700 MX Z 600 R/MX Z 600

⚠ WARNING

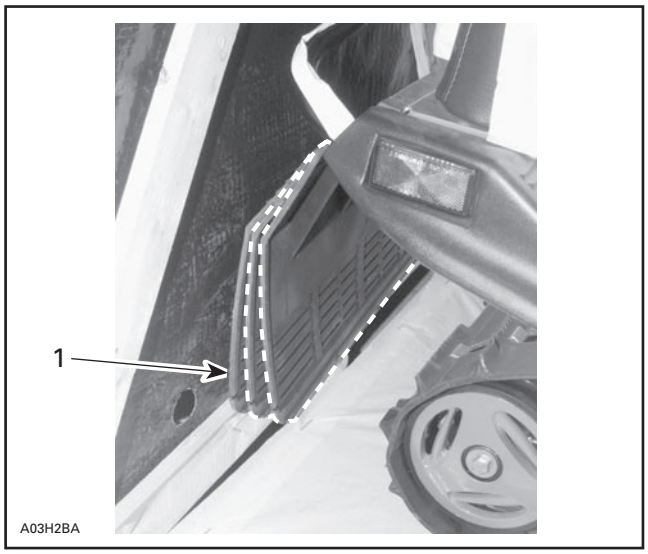
Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

Remove all screws retaining cover to vehicle base. Tip cover toward front or rear of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging any part of the snowmobile.

NOTE: If cover is tilted toward front of vehicle, snow guard may interfere with crate cover, as shown in the following photo. Push on snow guard when lifting cover.



IF CRATE COVER IS TILTED TOWARD FRONT OF VEHICLE, FROM OUTSIDE CRATE PUSH ON SNOW GUARD TO ALLOW COVER TO LIFT WITHOUT DAMAGING SNOW GUARD

1. Snow guard interfering with crate cover

1. Notch

Detach parts to be installed (e.g. skis, windshield) from the vehicle and its base.

Remove ropes and cut locking ties retaining windshield.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Detach ski legs from crate. Keep ski leg bolts and slider cushions in order to bolt skis to ski legs. Discard crating spacers and nuts.

Remove vehicle from base.

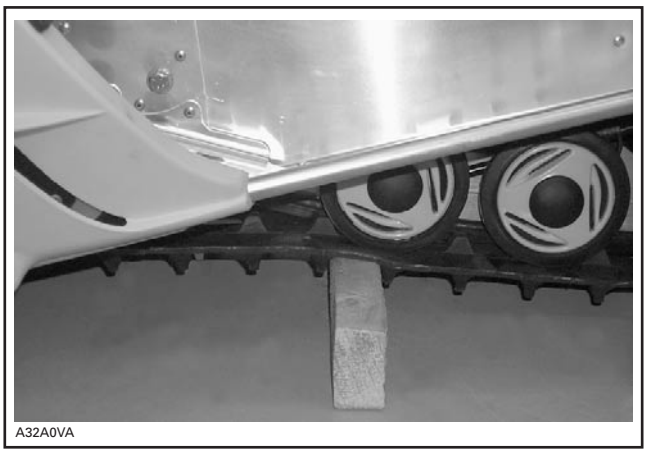
Remove steering pad, predelivery kit, shock absorbers and drive belt from engine compartment.

HOOK REMOVAL

Procedure

Apply parking brake.

Lift rear of vehicle so that a block can be positioned under front wheel, as shown on the next photo.



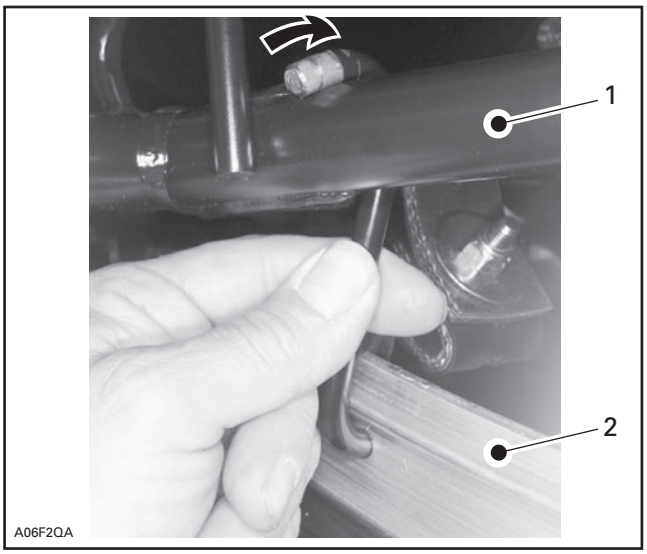
EDGE OF BLOCK ALIGNED WITH WHEEL AXIS

From left side of vehicle, cut locking tie retaining hook, then lay on seat and ask another person to apply pressure onto rear bumper.

Remove hook from suspension, as shown on the following photo.

⚠ WARNING

Before removing hook always verify that vehicle is properly supported and that parking brake is applied.



TYPICAL — REMOVE HOOK

1. Front arm
2. Runner

⚠ WARNING

Hook must be removed to have snowmobile suspension operational.

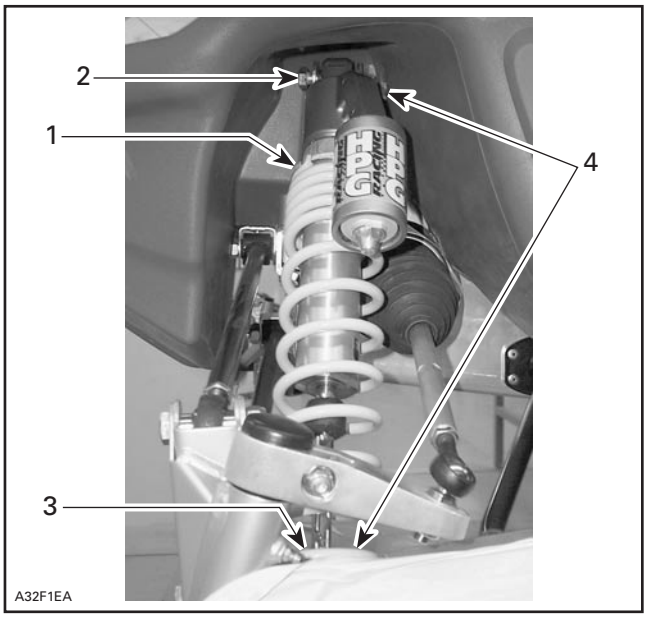
Make sure parking brake is applied.

Lift front of vehicle and block safely.

Remove and discard shipping brackets from suspension. Discard spring clips, keep screws.

Secure shock absorbers to suspension with their adjusting ring at top. There is a left and a right shock. Do not mix them. Reservoir must stand toward back of vehicle as shown on next photo.

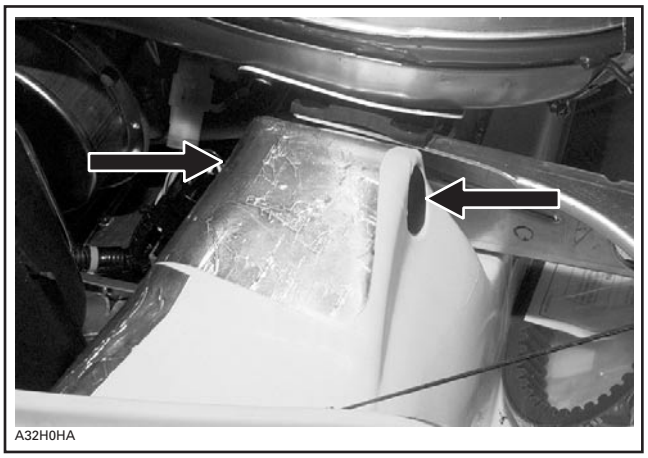
NOTE: Position upper screw heads toward rear of vehicle and lower screw heads toward front of vehicle. Secure with nuts provided in predelivery kit (section no. 3).



TYPICAL — LH SIDE SHOWN

1. *Shock absorber (2) (predelivery box) adjusting ring at top*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
4. *Elastic nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 3). Torque to 48 N•m (35 lbf•ft)*

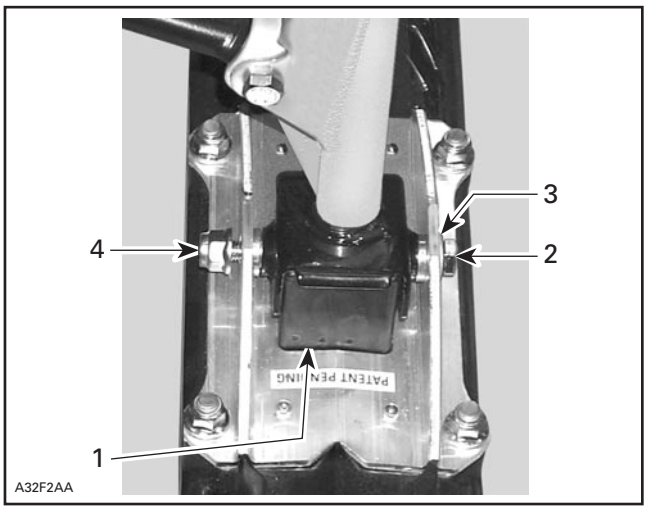
Install caps provided in predelivery kit on bottom pan, each side of upper bolt.



SNAP PROVIDED CAP (SECTION NO. 5) (P/N 414 916 600) EACH SIDE OF MOLDING

Ensure ski leg bushings are still on ski legs.

Install skis on vehicle. Make sure bolt head is toward outside.

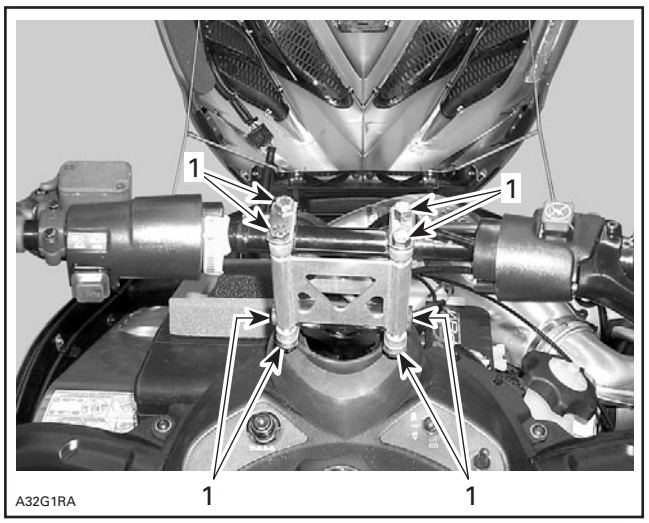


LEFT SIDE SHOWN

1. *Ski stopper (2) (P/N 506 151 233) (section no. 3) with higher side toward front*
2. *Bolt M10 (2) (ski leg)*
3. *Washer (2) (section no. 1). Installed on bolt head side*
4. *Flanged nut M10 (2) (section no. 3). Torque to 32 N•m (24 lbf•ft)*

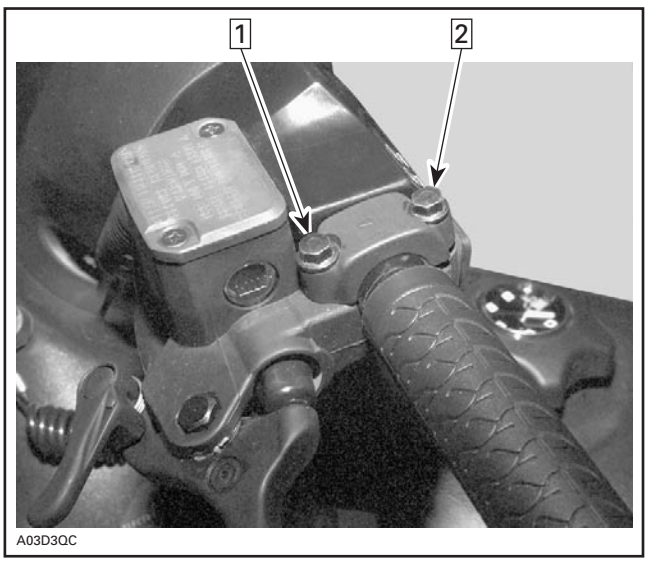
Put back vehicle on ground.

Raise upright and adjust handlebar to a suitable position for the usual driver of the snowmobile. Tighten bolts (4 on top and 4 on bottom of upright) between 21 and 28 N•m (16 and 20 lbf•ft).



1. Secure these bolts

Turn brake housing to level brake oil reservoir. Secure front screw first, then rear screw. See photo.



Step 1: Screw this bolt first to a torque between 7 and 10 N•m (5.25 and 7.5 lbf•ft)
Step 2: Then secure this bolt (same torque)

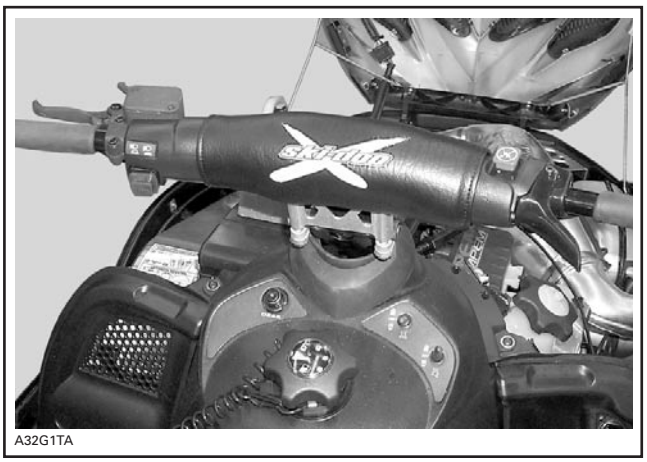
Tighten housing to 3 N•m (2 lbf•ft).

Install steering foam and adjust for proper fit with console. Fit steering padding and set in place with velcros.

NOTE: Take care to install foam in the proper side.

Hint: Steering foam can be secured with a device such as filament tape to ease installation.

STEERING FOAM TEMPORARILY INSTALLED WITH FILAMENT TAPE



INSTALLATION COMPLETED

Remove headlamp protector from hood.

Unclip inner protector from headlamp protector.

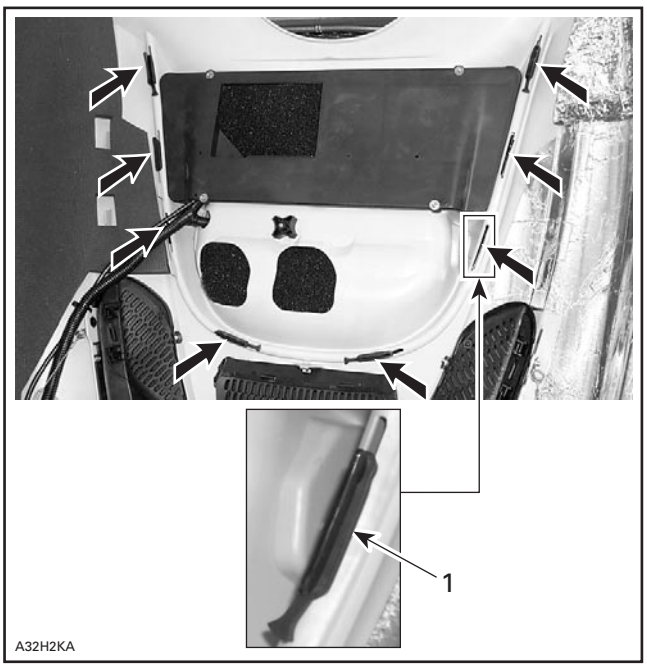
Remove protective films from windshield.

Insert tabs of headlamp protector in windshield square holes.

Clip inner protector in place.

Secure windshield assembly on hood using latches.

1. *Headlamp protector*
2. *Windshield*
3. *Inner protector*



1. *Latch (8) (P/N 570 023 800) (4 already on headlamp protector, 2 on windshield and 2 on section no. 2)*

WINDSHIELD INSTALLED

Clean pulleys and disc brake with a suitable cleaner such as Pulley Flange Cleaner (P/N 413 711 809) before installing drive belt.

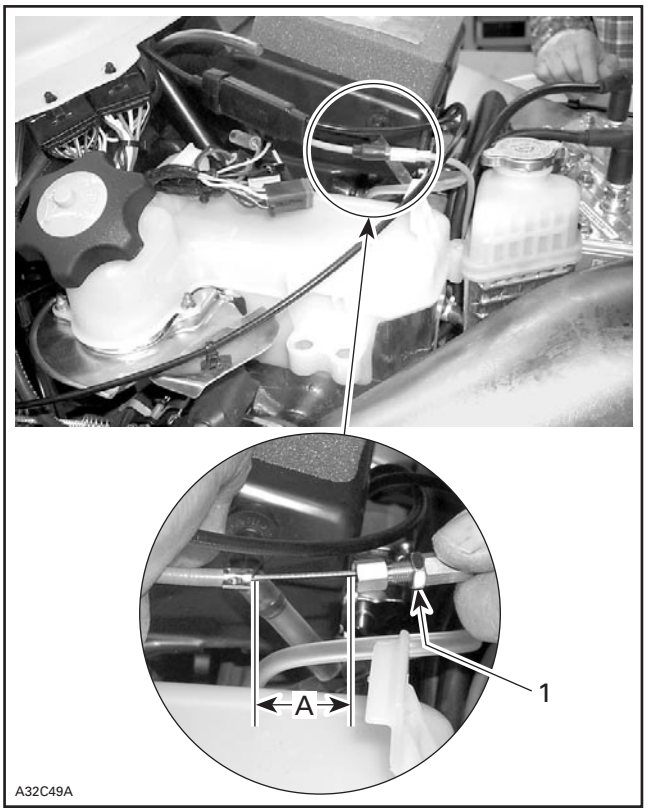
LIQUIDS
OIL INJECTION PUMP BLEEDING

BREAK-IN PERIOD SUPPLEMENTAL OIL

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz) of BOMBARDIER injection oil (P/N 413 802 900 — 12 x 1 L) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

PUMP ADJUSTMENT

Oil injection pump is factory set. However, if adjustment needs to be checked or modified, stretch cable sheath to fully open oil pump. Wire length must be 28 mm (1-3/32 in). If necessary, turn adjustment nut to reach this measure.



1. Adjustment nut
A. 28 mm (1-3/32 in)

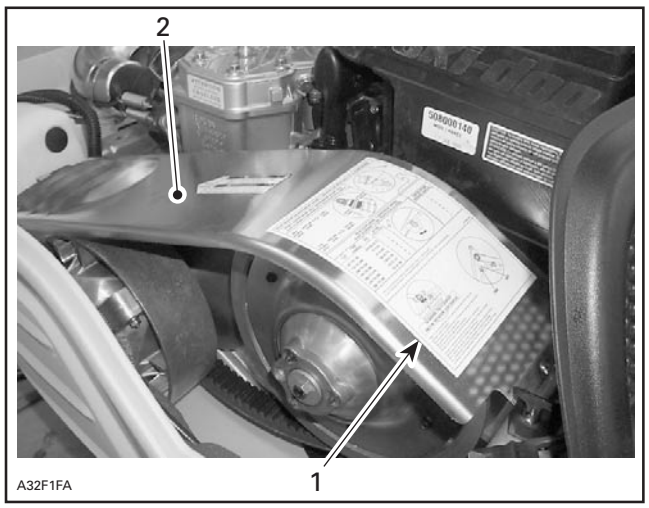
LIQUIDS
BRAKE FLUID LEVEL

Check brake fluid in reservoir on handlebar for proper level. Add fluid (DOT 4) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partial bottle of brake fluid.

ADJUSTMENTS
SUSPENSION

Rear suspension is calibrated at factory. At predelivery, mechanics should perform suspension adjustments according to customer riding style and vehicle load as described on suspension adjustment chart which is located on pulley guard.



TYPICAL

1. *Adjustment chart*
2. *Pulley guard*

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

When completed, install wheel caps (P/N 570 063 600) provided in predelivery kit (section no. 4).

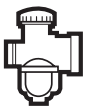
NOTE: If lubricant is needed to help cap installation, use lens cleaner instead of soapy water to avoid cap to get out from its location due to soap residual.

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

TECHNICAL DATA

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Vehicles used at high altitudes, above 600 m (2000 ft) should be fitted with a high altitude kit. Further inquiries should be directed to your distributor service representative.

A dot (•) on right indicates changes from 2001 model.

	MODELS			MX Z 800 PACKAGE : X	MX Z 700 PACKAGE : X	MX Z 600 PACKAGE : X
	Engine Type			793	693	593
	Maximum HP RPM ①		± 100 RPM	7900 •	8000	8000
	Reed Valve		P/N	420 867 873	420 867 873 •	420 924 519
	Carburetor Type			TM 40-B166 with DPM	TM 40-B160 with DPM	TM 40-B154 with DPM
	Main Jet			PTO/MAG 520N •	PTO/MAG 510N •	PTO/MAG 500
	Needle Jet			P-0	P-0	P-0
	Pilot Jet			17.5	17.5	20
	Needle Identification — Clip Position			9HGY1-58 ⑤ •	9HGY1-58 ⑤ •	9ZLY3-58 ⑤ •
	Slide Cut-Away			2.0	2.0	2.0
	Float Adjustment		± 1 mm (in)	N.A.	N.A.	N.A.
	Air Screw Adjustment		± 1/16 turn	N.A.	N.A.	N.A.
	Idle Speed RPM		± 200 RPM	1500	1500	1600
	Gas Grade/Octane Number		(R + M)/2	Regular unleaded/87		
	Gas/Oil Ratio			Oil injection		
	Ignition Timing BTDC ② ③		mm (in)	3.51 (0.138)	3.36 (0.132)	3.00 (0.118)
	Trigger Coil Air Gap		mm (in)	0.55 - 1.45 (.022 - .057)		
	Gear Ratio		Teeth	26/43	25/43	24/43
	Engagement Speed		± 100 RPM	3800	3800	4100
	Drive Pulley Calibration Screw Position			3	3 •	4 (3 for models with RER) •
	Pulley Distance	Z ④	± 0.5 mm (± 0.020) in	16.5 (21/32)		
	Offset	X	± 0.5 mm (± 1/64 in)	35.5 (1-13/32)		
		Y	± 0.5 mm (± 1/64 in)	Dimension Y must exceed X of 1.5 mm (1/32 in) •		
	Driven Pulley Preload		± 0.7 kg (± 1.5 lbf)	0.0 (0.0) •	8.0 ⑥ (17.64)	7.0 ⑥ (15.43)
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation		
	Track Adjustment	Deflection	mm (in)	30 to 35 (1-3/16 to 1-3/8) with a 7.3 kg (16 lb) downward pull		

① Engine speed at which maximum power is achieved.
② At 3500 RPM (engine cold) with headlamp turned on.
③ During the first 8 hours, the timing curve is retarded between 4500 RPM and maximum RPM. Because checking ignition timing is done at lower RPM, this will not affect the 3500 RPM timing specification.
④ Z dimension without torque rod preload. After Z dimension adjustment, hand tight torque rod until plastic pad cannot be turned, then turn torque rod an additional half turn. Lock jam nut.
⑤ Needle with one groove only (no adjustment).
⑥ No preload (0.0 kg or 0.0 lbf) for models with a reverse.

BTDC: Before Top Dead Center
PTO: Power Take OFF side
MAG: Magneto side
N.A.: Not Applicable

Please route to :

Init.

- ☐ Service ☐
- ☐ Sales ☐
- ☐ Parts ☐

ski-doo® Bombardier

SNOWMOBILES

D

PREDELIVERY Bulletin

No. **2002-14**

Date: January 29, 2002

SUBJECT: Predelivery

YEAR	MODEL	PACKAGE	MODEL NUMBER	SERIAL NUMBER
2002	Summit 800 R	HM X	2190/2191/2192/ 2193/2194/2195	All
2002	Summit 800	HM X	1957/1958/1959/ 1960/1961/1962	All
2002	Summit 800 R	HM	2215/2216/2217/2218	All
2002	Summit 800	HM	1963/1964/1965/1966	All
2002	Summit 800 R	X	2196/2197/2132/2198/ 2199/2200/2205	All
2002	Summit 800	X	1967/1968/1969/ 1970/1971/1972	All

This bulletin must be used in conjunction with the *Predelivery Check List* enclosed in the bag with the *Operator's Guide*. Make sure that *Predelivery Check List* is completed and signed.

⚠ WARNING

To obtain limited warranty coverage, predelivery procedures must be performed by an authorized Ski-Doo® snowmobile dealer/distributor. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. Bombardier however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, there might be some differences between the manufactured product and the descriptions and/or specifications in this document. Bombardier reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training. Further information or inquiries should be directed to your service representative and/or specific *Shop Manual* sections.

Please complete the *Predelivery Check List* for each snowmobile and retain a customer signed copy. Make sure the customer receives the *Operator's Guide, Safety Handbook, Predelivery Check List* signed copy and *Safety Videocassette*.

There is a tag attached to the ignition key, only the customer must remove it. This label will remind the customer to ask dealer to perform suspension adjustments according to riding style and vehicle load.

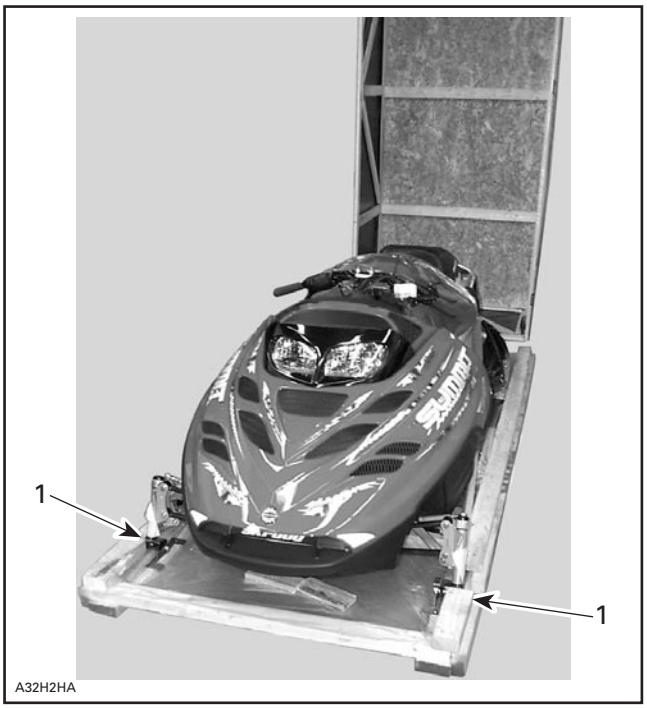
⚠ WARNING

Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g. lock tabs, elastic stop nuts) must be installed or replaced by new ones, where specified. If the efficiency of a locking device is impaired, it must be renewed.

Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.

Remove all screws retaining cover to crate base. Tip cover toward front or rear of vehicle. There is a notch at the front of crate. Lift cover slowly to avoid damaging any part of the snowmobile.



1. Notch

Detach parts to be installed (e.g. skis, windshield) from the vehicle and its base.

Remove ropes and cut locking ties retaining windshield.

CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

Keep ski leg bolts and bushings to bolt skis to ski legs. Discard crating spacers and nuts.

Remove vehicle from base.

Remove steering pad, drive belt, predelivery kit and shock absorbers from engine compartment.

FRONT HOOK REMOVAL

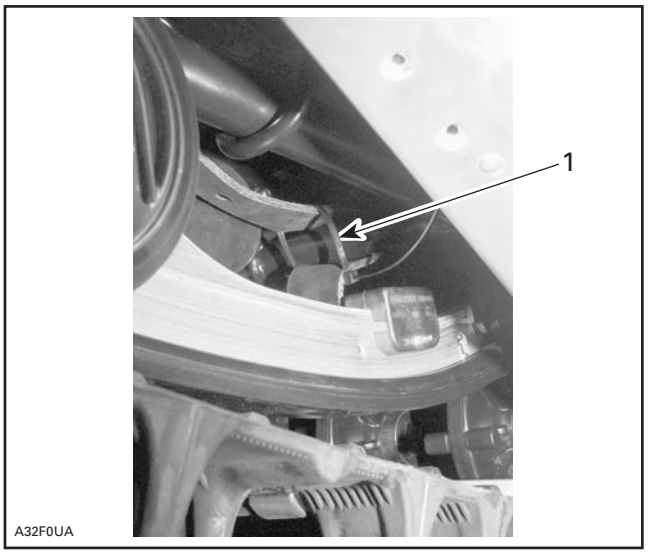
Procedure

Apply parking brake.

Lift rear of vehicle so that a block or a box can be positioned under front wheel, as shown on the next photo.

EDGE OF BOX ALIGNED WITH WHEEL AXIS

On both sides, cut locking ties holding stopper straps.



1. Cut locking ties on both sides

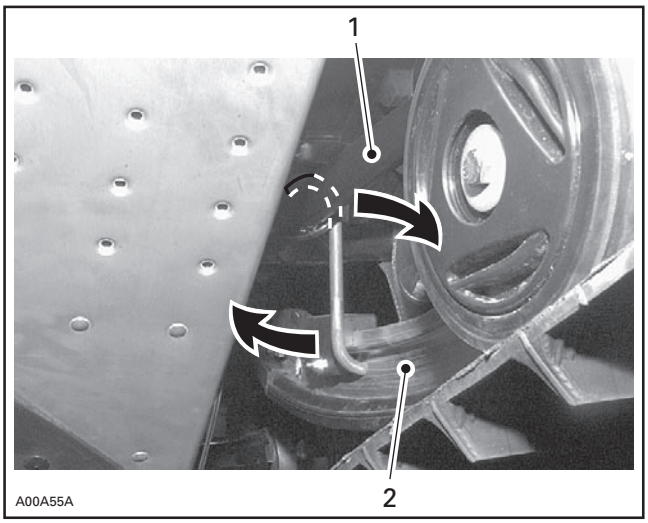
From left side of vehicle, cut locking tie, then apply pressure onto rear bumper with right hand, as shown on the following photo.

TYPICAL

Using left hand, remove hook from suspension, as shown on the following photo.

⚠ WARNING

Before removing hook always verify that vehicle is properly supported and that parking brake is applied.



TYPICAL — REMOVE HOOK

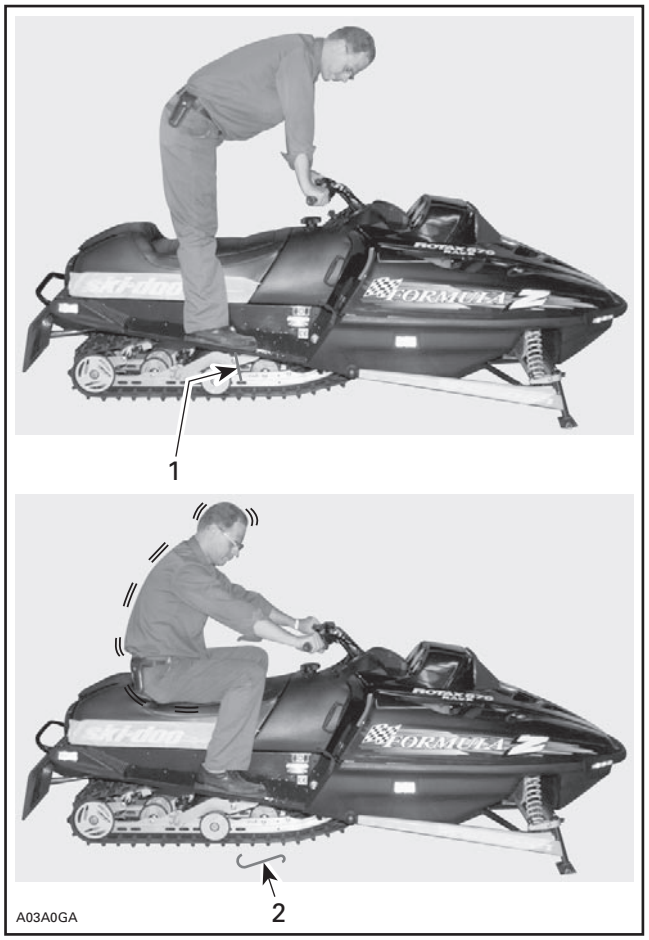
1. Front arm
2. Runner

REAR HOOK REMOVAL

To remove hook, stand on running boards.

Using a fast and strong movement, sit down on snowmobile seat. This will allow suspension to compress and hooks to detach. See the next photo.

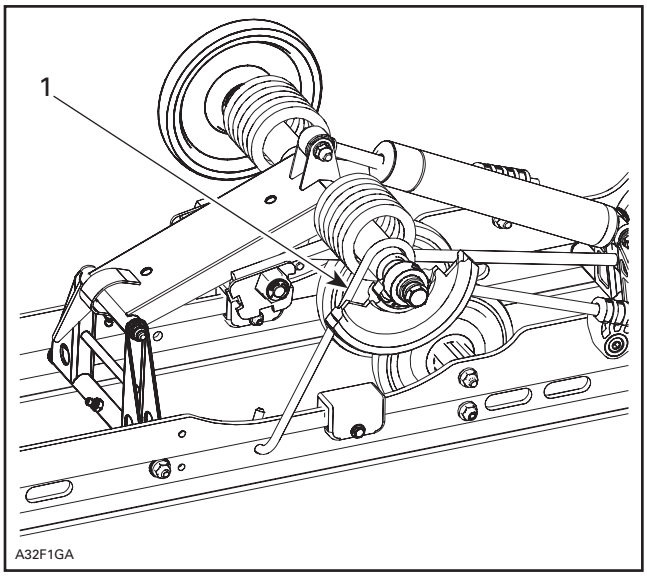
CAUTION: To avoid damaging seat storage compartment and cover, always sit on seating surface.



TYPICAL — STAND ON RUNNING BOARDS THEN SIT DOWN ON SEAT

1. *Hook to be removed (both sides)*
2. *Hook removed*

NOTE: Hook may detach from top only. In that case remove hook from runner by hand or with tongs.



TYPICAL

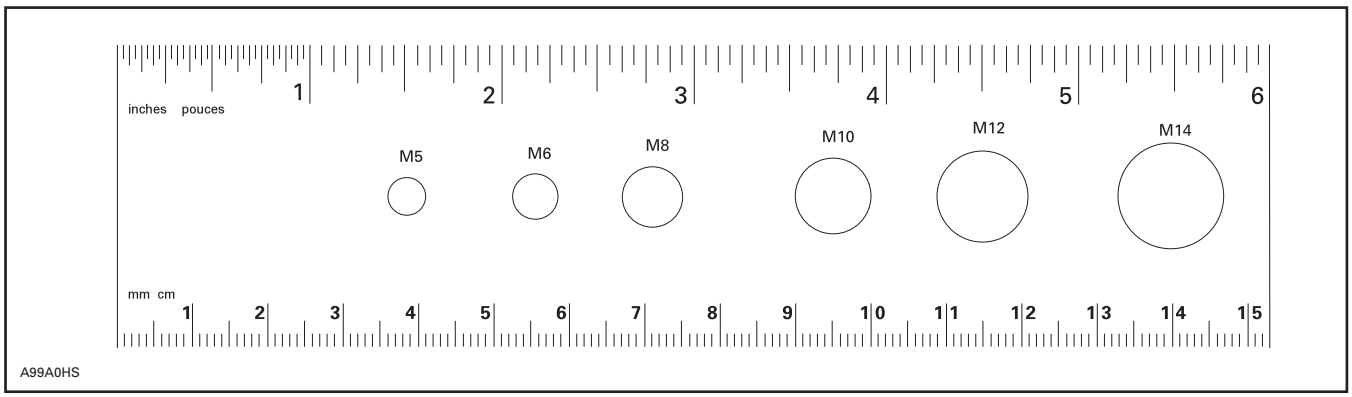
1. *Remove hook*

You can also ask two persons to push down rear bumper to compress suspension and remove hook by hand, laying on seat.

⚠ WARNING

Shipping hooks must be removed to have snowmobile suspension operational.

PREDELIVERY KIT P/N	MODELS
549 010 996	Summit 800 HM X Summit 800 HM Summit 800 X



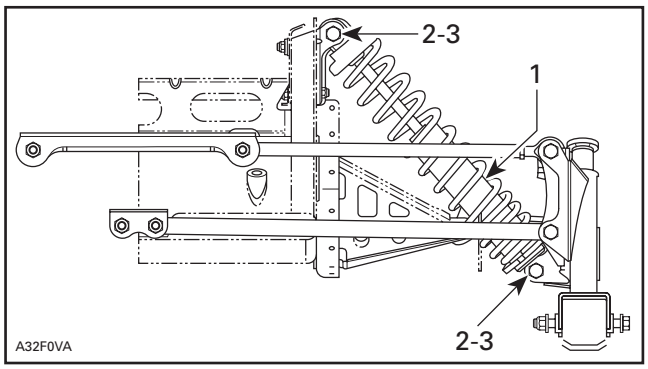
NOTE: This ruler can be helpful to identify fastener length or size.

Lift front of vehicle and block safely.

Remove and discard shipping brackets from suspension. Discard spring clips, keep screws.

Secure shock absorbers to suspension with their adjusting ring at bottom.

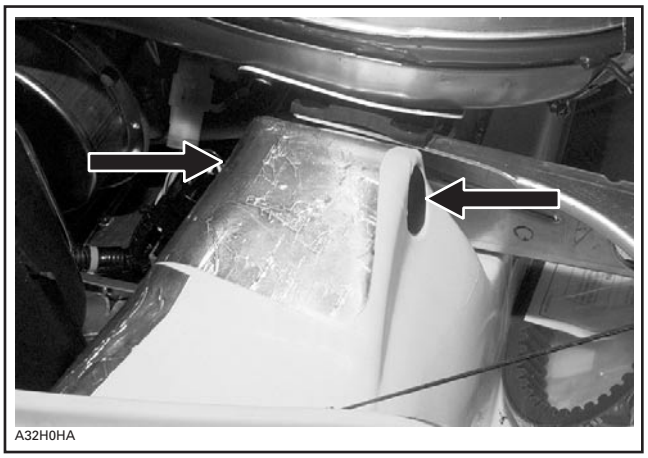
NOTE: Position top screw head toward rear of vehicle and bottom screw heads toward front of vehicle and secure with nuts provided in predelivery kit (section no. 2).



TYPICAL — RH SIDE SHOWN

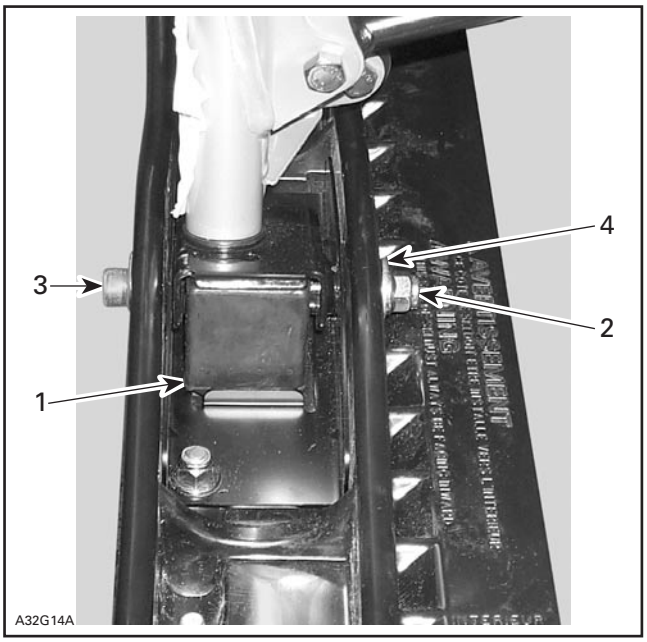
1. *Shock absorber (2) (engine compartment) adjusting ring at bottom*
2. *Screw M10 x 1.5 x 55 (2) (P/N 207 005 544) (on suspension)*
3. *Elastic flanged nut M10 x 1.5 (4) (P/N 233 601 416) (section no. 2). Torque to 48 N•m (35 lbf•ft)*

Install caps provided in predelivery kit on bottom pan, each side of upper bolts.



SNAP PROVIDED CAPS (SECTION NO. 5) EACH SIDE OF MOLDING

Install skis on vehicle.

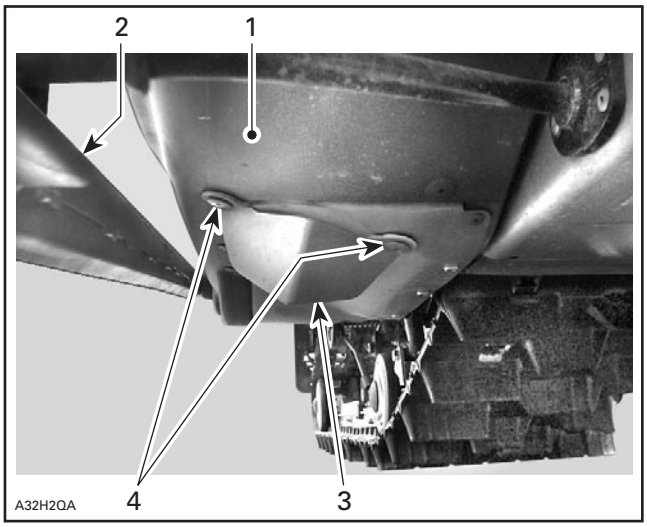


LEFT SIDE SHOWN — MOUNTAIN SKI

1. *Ski stopper (2) (P/N 506 151 233) (section no. 8) with higher side toward front*
2. *Flanged nut M10 (2) (section no. 1). Torque to 32 N•m (24 lbf•ft)*
3. *Bolt M10 (2) (ski leg)*
4. *Washer (2) (section no. 1). Installed on nut side*

PARTS INSTALLATION
EXHAUST DEFLECTOR

While front of vehicle is lifted, install exhaust protector (section no. 8) on bottom pan using rivets provided (section no. 3).



1. Bottom pan
2. Swing arm
3. Deflector
4. Rivets

PARTS INSTALLATION
STEERING PAD

Raise handlebar until upright touches stopper.

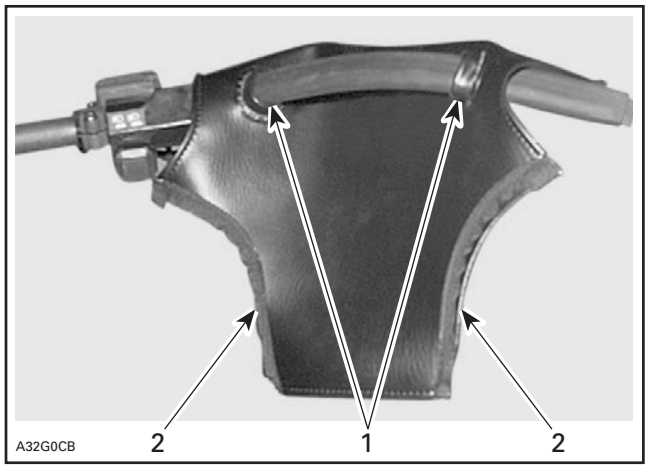
Torque bolts between 21 and 28 N•m (16 and 20 lbf•ft).

Loosen, at least 3 turns, Allen screw of throttle and brake handle housings.

STEERING HOLDING STRAP

Cut locking tie retaining left side strap end.

Insert strap through holes provided in steering cover, as shown in the next photo.

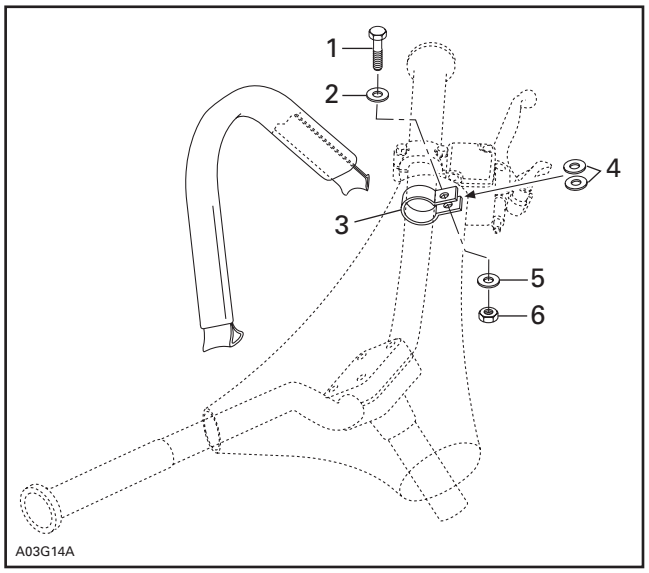


TYPICAL

1. Strap inserted through both steering cover holes
2. Velcro strips must be seen from driver's place

Secure left side strap end with retaining clip and tighten firmly using bolt and nut (section no. 4) and washers (section no. 2) in the sequence shown on drawing below. Torque to 10 - 12 N•m (89 - 106 lbf•**in**).

NOTE: Keep wires out of clamp to avoid pinching.



1. Bolt
2. Washer
3. Retaining clip
4. Washers
5. Washer
6. Nut

Properly position foam and cover in place, as shown in the next photo.

NOTE: As a tip, place narrow side of cover on rear side.

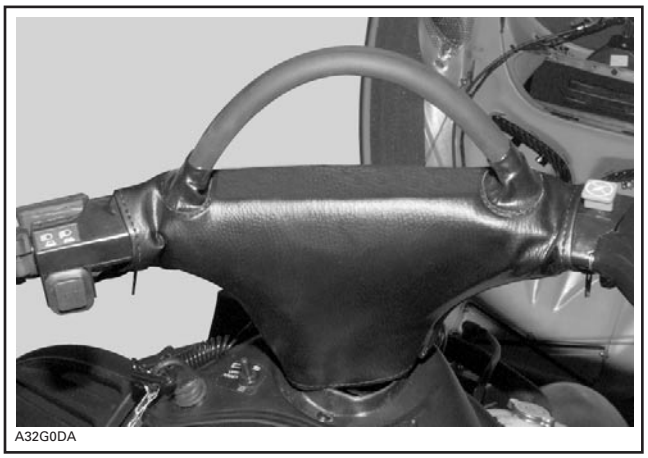
MAKE SURE FOAM AND COVER WRAP STEERING PROPERLY

Fasten cover with velcro strips to complete installation.

Install the pad with velcro.

Level and tighten brake oil reservoir.

Tighten throttle and brake handle housings.



TYPICAL — FINAL INSTALLATION

Remove headlamp protector from hood.

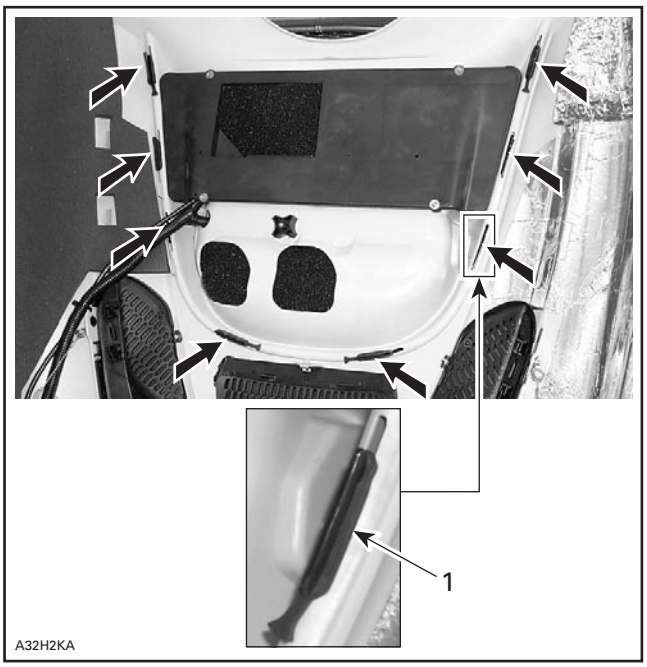
Unclip inner protector from headlamp protector.

Insert tabs of headlamp protector in windshield square holes.

Clip inner protector in place.

Secure windshield assembly on hood using latches.

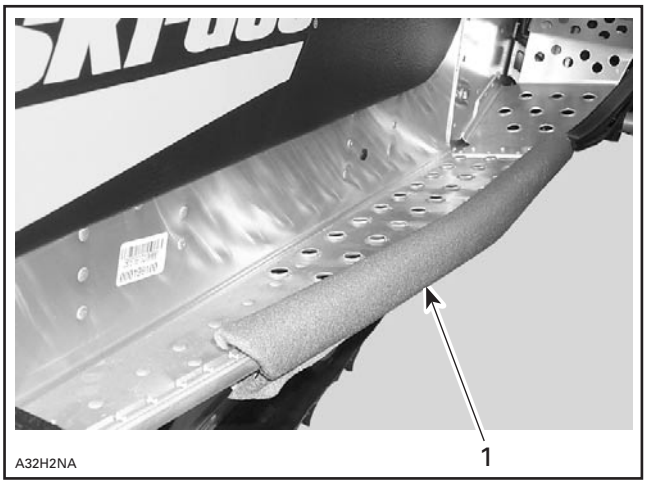
1. *Headlamp protector*
2. *Windshield*
3. *Inner protector*



1. *Latch (8) (P/N 570 023 800) (4 already on headlamp protector, 2 on windshield and 2 on section no. 5)*

TYPICAL — WINDSHIELD INSTALLED

Remove protective footrest foams.



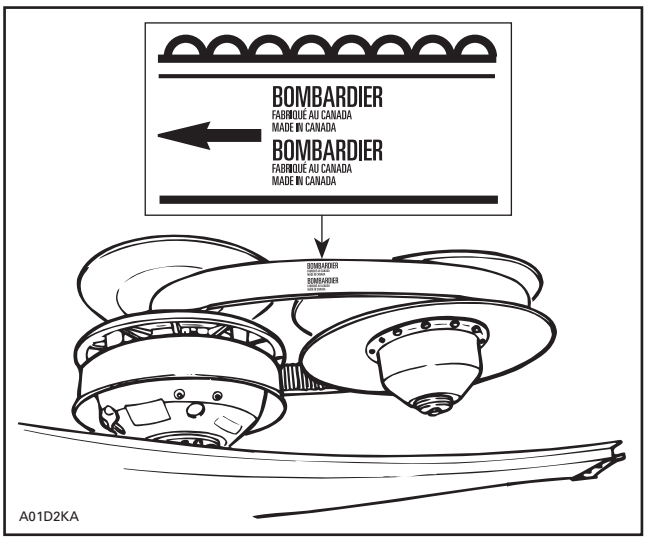
1. Remove protective footrest foam

PARTS INSTALLATION
DRIVE BELT

Clean pulleys and disc brake with a suitable cleaner such as Pulley Flange Cleaner (P/N 413 711 809) before installing drive belt.

To ensure maximum drive belt life span, the new drive belt must be installed so that the Bombardier name can be read when facing pulleys.

CAUTION: The arrow indicates the direction of rotation.



CORRECT INSTALLATION

SUPPLEMENTAL OIL

To assure additional protection during the initial engine break-in, 500 mL (18 imp. oz.) of BOMBARDIER injection oil (P/N 413 803 000) should be added to fuel for the first full filling of fuel tank. Always remove and clean spark plugs after engine break-in.

PUMP ADJUSTMENT

Oil injection pump is factory set. However, if adjustment needs to be checked or modified, refer to *2002 Ski-Doo Shop Manual, Volume 3* (P/N 484 200 037).

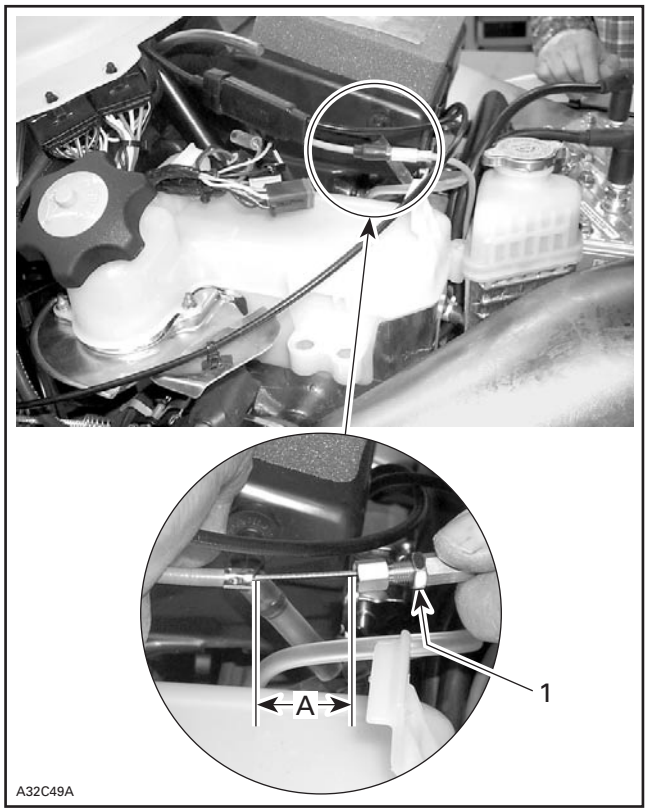
Stretch cable sheath to fully open oil pump. Wire length must be 28 mm (1-3/32 in). If necessary, turn adjustment nut to reach this measure.

⚠ WARNING

Torque wrench tightening specifications must be strictly adhered to. Locking devices (ex.: locking tab, elastic stop nut, self-locking fasteners, etc.) must be installed or replaced with new ones where specified. If the efficiency of a locking device is impaired, it must be renewed.

⚠ WARNING

Make sure cable is free to swivel in lever end.



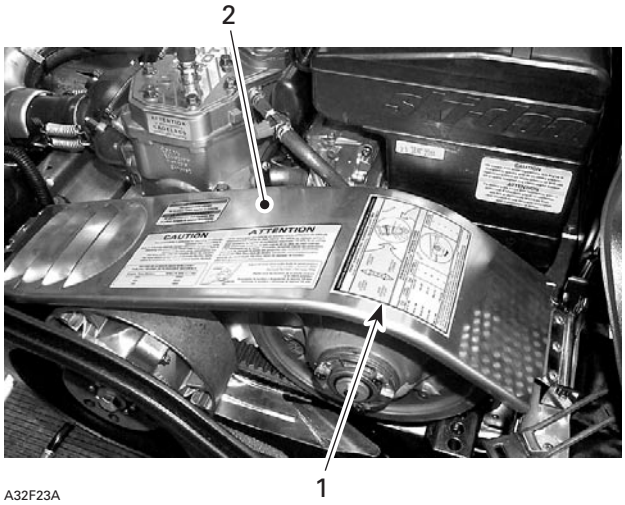
1. Adjustment nut
A. 28 mm (1-3/32 in)

Check brake fluid in reservoir on handlebar for proper level. Add fluid (DOT 4) as required.

CAUTION: Use only (DOT 4) brake fluid from a sealed container. Do not store or use a partially filled bottle of brake fluid.

ADJUSTMENTS
SUSPENSION

Rear suspension is calibrated at factory. At predelivery, mechanics should perform suspension adjustments according to customer riding style and vehicle load as described on suspension adjustment chart which is located on pulley guard.



TYPICAL

1. *Adjustment chart*
2. *Pulley guard*

ADJUSTMENTS
TRACK

Refer to *Shop Manual* to adjust track tension and alignment. See TECHNICAL DATA section at the end of this bulletin.

When operation is done, install wheel caps provided with the predelivery kit (section no. 4) on rearmost wheels.

NOTE: If lubricant is needed to help cap installation, use lens cleaner instead of soapy water to avoid cap to get out from its location due to soap residual.

ADJUSTMENTS
DRIVEN PULLEY

It is usual to experience spring settings during break-in period of a new spring. The factory spring preload is slightly higher to compensate for springs settings. Specifications in TECHNICAL DATA are applicable after break-in period (about 10 hours of use).

The content of the TECHNICAL DATA pages should be used as necessary to fine-tune and perform additional adjustments required on the snowmobile. Further inquiries should be directed to your distributor service representative.

When Summit 600 snowmobiles are to be used at sea level, at an altitude of 600 m (2000 ft) or less, it is of the utmost importance to install the appropriate sea level kit.

CAUTION: To avoid severe engine damage, the sea level kit must be installed when the vehicle is used at sea level, at an altitude of 600 m (2000 ft) or less.

Refer to *Sea Level Service Bulletin* to know which parts are to be changed for sea level riding.

	MODEL			SUMMIT 800 R/ SUMMIT 800 HM X Package	SUMMIT 800 R/ SUMMIT 800 HM Package	SUMMIT 800 R/ SUMMIT 800 X Package
	Engine Type			793		
	Maximum HP RPM ①		± 100 RPM	7900		
	Reed Valve		P/N	420 867 873		
	Carburetor Type			TM40-B175 with DPM		
	Main Jet			520N		
	Needle Jet			P-0		
	Pilot Jet			17.5		
	Needle Identification			9ZLY2-58 ②		
	Slide Cut-Away			2.0		
	Float Adjustment		± 1 mm (± 0.04 in)	—		
	Air Screw Adjustment		± 1/16 turn	—		
	Idle Speed RPM		± 200 RPM	1500		
	Gas Grade/Pump Octane Number		(R + M)/2	Regular unleaded/87		
	Gas/Oil Ratio			Oil injection		
	Ignition Timing BTDC ③		mm (in)	3.51 (0.138)		
	Trigger Coil Air-Gap		mm (in)	0.55 - 1.45 (.022 - .057)		
	Gear Ratio		Teeth	19/43	19/43	21/43
	Engagement Speed		± 100 RPM	4000		
	Drive Pulley Calibration Screw Position			1		
	Pulley Distance	Z ④	± 0.5 mm (± 1/64 in)	17.5 (11/16)		
	Offset	X	± 0.5 mm (± 0.02 in)	35.5 (1.398)		
		Y	± 0.5 mm (1/64 in)	Dimension Y must exceed X by 1.5 mm (1/16 in)		
	Driven Pulley Preload		± 0.7 kg (± 1.5 lbf)	0.0		
	Drive Chain Tension			Fully tighten adjusting screw **by hand** then back OFF only far enough for hair pin installation		
	Track Adjustment	Deflection	mm (in)	30 to 35 (1-3/16 to 1-3/8) with a 7.3 kg (16 lb) downward pull		

① Engine speed at which maximum power is achieved.

② Needle with one groove only (no adjustment).

③ At 3500 RPM (engine cold) with headlamp turned on.

④ Z dimension without torque rod preload. After Z dimension adjustment, hand tight torque rod until plastic pad cannot be turned, then turn torque rod an additional half turn. Lock jam nut.

BTDC: Before Top Dead Center