



# T'NT'R/V\*

250

### **'76 OPERATOR MANUAL**



Suggested Retail Price \$1.00 (First copy free with unit purchased)

This manual has been published by the:

TECHNICAL INFORMATION CENTRE AFTER SALES SERVICE DEPARTMENT BOMBARDIER LIMITED VALCOURT, QUEBEC, CANADA

All rights reserved Bombardier Limited 1975

#### **FOREWORD**

Within the North American Continent, there exists a very special breed of people... people who enjoy ice and snow, and the unexcelled trails that lead to virtually every corner of the snowbelt. They enjoy too, the comfort of warm clothing, the friendliness of companions, and the recreational vehicle that made it all possible... the Ski-Doo snowmobile.

We, like millions of North American families, have never forgotten our pioneer heritage, or our love of nature and the great outdoors, consequently, we have designed and engineered all our models with safety, comfort and quietness foremost in our minds. We do respect your desires, and that of others.

This manual was prepared to acquaint the owner / operator of a new 1976 snowmobile with the various vehicle controls, owner-related maintenance, and safe operating instructions.

This is accomplished via two manuals; 'The Snowmobile Safety Handbook' and the 'Operator Manual'. Both are inseparable toward proper use of the product, and should be kept with the vehicle at all times.

Each manual emphasizes particular information denoted by the wording and symbols;



WARNING: Identifying an instruction which, if not followed, could cause personal injury.



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



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

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

Ride safe and have fun.

MICHEL CLOUTIER,

Welouted

General Manager Recreational Product Group

#### SAFETY IN MAINTENANCE

#### Observe the following precautions:

- Throttle mechanism should be checked for free movement before starting engine.
- Engine should be running only when pulley guard is secured in place.
- Never run engine without drive belt installed. Running an unloaded engine can prove to be dangerous.
- Never run the engine at high R.P.M. when the track of the vehicle is raised off the ground.
- It can be dangerous to run engine with the cab open.
- Gasoline is flammable and explosive under certain conditions. Always perform procedures in a well ventilated area. Do not smoke or allow open flames or sparks in the vicinity. If gasoline fumes are noticed while driving, the cause should be determined and corrected without delay.
- Your snowmobile is not designed to be operated on public streets, road or highways. In most States and Provinces, it is considered an illegal operation.
- Maintain your vehicle in top mechanical condition at all times.
- Your snowmobile is not designed to be driven or operated on black top, bare earth, or other abrasive surfaces. Abnormal and excessive wear of critical parts is inevitable.
- Only perform such procedures as detailed in this manual. Unless otherwise specified, engine should be turned OFF for all lubrication and maintenance procedures.

- Since engine cooling is in effect only when the vehicle is in motion, it is recommended that you do not allow the engine to idle for more than brief periods. Prolonged idling and low speed operation may cause engine damage.
- The T'NT R.V. is designed for the driver only. No provisions have been made for a passenger.
- The performance of this snowmobile may significantly exceed that of other snowmobiles you have operated. Therefore, use of this vehicle by novice or inexperienced operators is not recommended.

Please read and understand all other warnings contained elsewhere in this manual.

#### INDEX

CONTROLS / INSTRUMENTS
BREAK-IN / INSPECTION
FUEL MIXING
PRE-START CHECK9
STARTING PROCEDURE9
LUBRICATION
MAINTENANCE 14
TROUBLE SHOOTING GUIDE
STORAGE
PRE-SEASON PREPARATION
SPECIFICATIONS
CONSUMER GUIDE
SERVICE AREAS

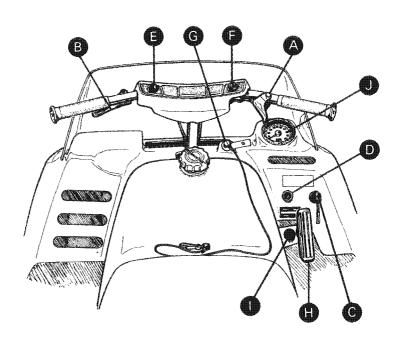
\*The following are trademarks of Bombardier Limited.

WARRANTY .....

BOMBARDIER ELITE
SKI-DOO EVEREST
ALPINE MIRAGE
BLIZZARD NORDIC
CARRY BOOSE OLYMPIQUE
ELAN SKI BOOSE
T'NT

. . . . 29

#### **CONTROLS / INSTRUMENTS**



- A) Throttle Control Lever
- B) Brake Control Lever
- C) Ignition Switch
- D) Light Switch
- E) Headlamp Dimmer Switch
- F) Emergency Cut-Out Switch
- G) Tether Cut-Out Switch
- H) Manual Starter Handle
- I) Primer
- J) Tachometer

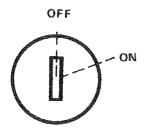
#### A) Throttle Control Lever

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

#### 8) Brake Control Lever

Located on the left side of handlebar. When compressed, the brake is applied. When released, it automatically returns to its original position. Braking effect is proportionate to the pressure applied on the lever.

#### C) Ignition Switch



Key operated, 2 position switch (OFF / ON). To start engine, first turn key clockwise to ON position. To stop engine, turn key counter-clockwise to OFF position.

#### D) Light Switch

A push-pull switch located on right side of cab. With engine running, illuminates both headlamp taillight. Pull fully out to illuminate.

#### E) Headlamp Dimmer Switch

The dimmer switch, located on left side of handlebar, allows correct selection of headlamp beam. To obtain high or low beam simply depress switch.

#### F) Emergency Cut-Out Switch

A push button switch located on right side of handlebar. To stop the engine in an emergency, press button down into lower position. Before re-starting engine always depress button into released upper position. The driver of this vehicle should familiarize himself with the function of this device by using it several times on first outing. Thereby being mentally prepared for emergency situations requiring its use.



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

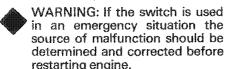
#### G) Tether Cut-Out Switch

A pull switch located on the right side of cab. Attach tether cord to wrist or other convenient location before starting engine then fully insert tether cutout key into receptacle.

If emergency engine "shut off" is required, "pull" out completely the key from safety switch and engine power will automatically cease.

NOTE: The key must be used at all time in order to operate the vehicle.

If emergency engine "shut OFF" is required, "pull" out completely the key from safety switch and engine power will automatically be shut "off".



Always close cover when key is not in use to prevent entry of snow and / or foreign particles.

#### H) Rewind Starter Handle

Auto rewind type located on right hand side of vehicle. To start engine, pull handle.

#### i) Primor

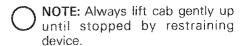
A push-pull button located alongside manual starter handle. Pull and push button (2-3 times) to activate primer. The primer should always be used for cold engine starts. After engine is warm however, it is not necessary to use primer when starting.

#### J) Tachomater

The tachometer registers the impulses of magneto. Direct-reading dial indicates the number of revolutions per minute (RPM) of the engine.

#### Cab

To open cab, unfasten latches on both sides near footrest where cab meets frame.





WARNING: It is dangerous to run engine with cab open. Personal injury could result.

#### Tool Box

Located beside the chaincase under the cab, to gain access, tilt cab. Ideal location for spare plugs, belt, rope, etc. Emergency items should be wrapped in foam or similar material. This will prevent possible breakage while travelling over rough or bumpy terrain.

#### Fuel Gauge

To check fuel level, simply unscrew fuel tank cap and withdraw dipstick.



WARNING: Never use a lite match or open flame to check fuel level.

#### **BREAK-IN PERIOD**

#### **FUEL MIXING**

With Ski-Doo snowmobile engines, a break-in period is required before running the vehicle at full throttle. Manufacturer's, recommendation for the Bombardier-Rotax engine is 10 to 15 operating hours. During this period, a richer mixture is needed (i.e. 40 parts of gas for 1 part of 50 / 1 Ski-Doo oil). Maximum throttle should not exceed ¼, however, brief full acceleration and speed variations contribute to a good break-in. Continued wide open throttle accelerations, prolonged cruising speeds, and lugging are detrimental during the break-in period.

#### INSPECTION

After the break-in period, each Ski-Doo snowmobile must have an inspection check. This inspection is at the expense of the vehicle owner. Oil must be added to the gasoline in pre-measured amounts then both oil and gasoline should be thoroughly mixed together before fueling the tank.

#### Recommended Gasoline

The correct gasoline is premium gasoline, available from all service stations.



CAUTION: Never experiment with different fuel or fuel ratios. Never use low lead or non leaded gasoline, naphta, methanol or similar products.

#### Recommended Oil

Use concentrated Ski-Doo oil available from your dealer. This type of oil has specially formulated oil bases to meet the lubrication requirements of the Bombardier-Rotax engine.



CAUTION: Never use outboard or straight mineral oils.

#### Fuel mixture Ratio

The importance of using the correct fuel mixture cannot be overstressed. An incorrect fuel ratio results in serious engine damage. Recommended fuel ratio is 50 / 1.

5 gallons recommended gasoline plus 1 can of 50 / 1 concentrated Ski-Doo oil=correct fuel mixture.



NOTE: To facilitate fuel mixing, oil should be kept at room temperature.

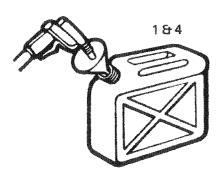
#### Fuel Mixing Procedure

To mix the gasoline and oil always use a separate clean container. Never mix directly in your snowmobile tank. For best results, acquire two containers, either plastic or metal. Draw from one until empty then use the second one.

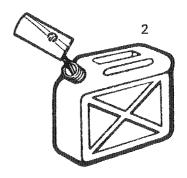


WARNING: Gasoline is flammable and explosive under certain conditions. Always perform procedures in a well ventilated area. Do not smoke or allow open flames or sparks in the vicinity. If gasoline fumes are noticed while driving, the cause should be determined and corrected without delay. Never add fuel while engine is running. Avoid skin contact with fuel at below freezing temperatures.

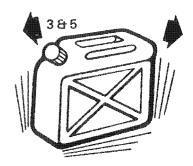
1. Pour approximately one gallon of gasoline into a clean container.



2. Add the full amount of concentrated Ski-Doo oil.



3. Replace container cap and shake the container thoroughly.



- 4. Add the remainder of the gasoline.
- Once again thoroughly agitate the container. Then using a funnel with a fine mesh screen to prevent the entry of water and foreign particles, transfer mixture from container into the snowmobile tank.
- $\bigcirc$

NOTE: When using pre-mixed fuel, always shake the container thoroughly as the oil has a tendency to settle.



WARNING: Never 'top up' gas tank before placing the vehicle in a warm area. At certain temperatures, gasoline will expand and overflow.

#### Track and Skis (Daily before First Paral

Under certain climatic conditions, the track and skis of a snowmobile left outdoors overnight may freeze to the ground or snow surface. Always make sure that the track and skis are free before attempting to start the vehicle. (This procedure will eliminate unnecessary drive belt wear).

#### Steering Operation

Check operation of steering mechanism by moving skis by hand from side to side. If roughness or binding is felt, check for ice or snow that may be blocking the mechanism.

#### Throttle and Brake

Depress and release control levers several times to check that they operate easily and smoothly. The throttle lever should return to the idle position when released. The brake should fully apply before the brake control lever touches the handlebar grip. If the control levers do not operate freely do not start your vehicle, see your dealer.

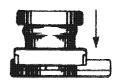


WARNING: Throttle and brake mechanisms should be checked for free movement before starting engine. Once all components are checked and functioning properly, you can start your snowmobile

#### Upper position before starting engine.



Lower position to stop engine.



- 1. Insert key ignition and turn to ON position.
- 2. Insert tether key in position and make sure the emergency cut-out button is in the released upper position
- 3. Test throttle control lever then activate primer (2 or 3 times). Primer is not necessary if engine is warm.
- 4. Grasp manual starter handle firmly and pull slowly until a resistance is felt then pull vigorously. Slowly release rewind starter handle.



WARNING: Do not apply throttle while starting.

5. Check operation of the emergency cut-out and tether cut-out switches. Re-start engine.

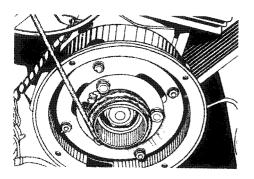


WARNING: If engine does not stop when testing cut-out and tether switch operation, do not operate the vehicle, see your dealer.

6. Allow the engine to warm before operating at full throttle.

#### **Emergency Starting**

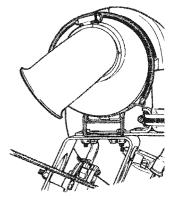
Should the rewind starter rope fray and break, remove starter unit using tool supplied with the vehicle. Transfer rope handle to your emergency rope. Make a knot at the end of emergency starter rope and wind rope around rewind starting pulley. Pull vigorously as per usual manual starting.



#### Driving Tips

#### Air Intake Silencer

The neck of the air intake silencer must always be turned down and facing the rear (see illustration) otherwise the pressure created by the vehicle speed will lean the mixture and cause engine damage.





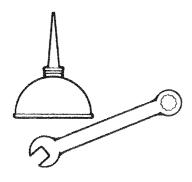
CAUTION: Never operate your snowmobile with the air intake silencer disconnected. Serious engine damage will occur if this notice is disregarded.

#### Stide Suspension

During normal driving, snow will act as a lubricant and coolant for the slider shoes. Extensive riding on ice or sanded snow, (not to mention dirt, asphalt, etc. never recommended) will create excessive heat build-up and cause premature slider shoe wear.

#### LUBRICATION

#### Frequency



Routine maintenance is necessary for all mechanized products, and the snowmobile is no exception. A weekly vehicle inspection contributes to the life span of the snowmobile as well as safe and trouble-free operation.

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



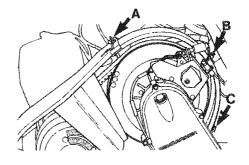
WARNING: Only perform such procedures as detailed in this manual. Unless otherwise specified, engine should be turned OFF for all lubrication and maintenance procedures.

#### Pulley Guard



WARNING: Engine should be running only when pulley guards are secured in place.

Tilt cab. To tilt drive pulley guard remove clip and unscrew wing nut (A).



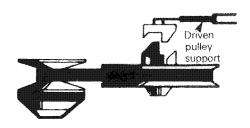
If necessary to remove driven pulley guard remove nuts (B) and (C).

#### Drive Belt Removal

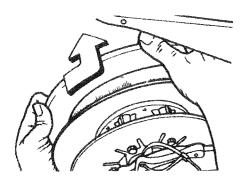


WARNING: Never start or run engine without drive belt installed. Running an unloaded engine is dangerous.

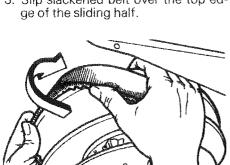
1. Tilt cab and pulley guard, unlock and raise driven pulley support.



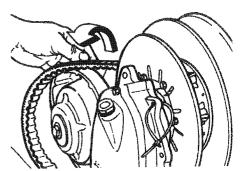
2. Open the driven pulley by twisting and pushing the sliding half. Hold in fully open position.



3. Slip slackened belt over the top edge of the sliding half.

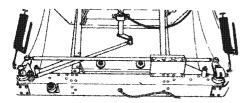


4. Slip the belt out from the drive pulley and remove completely from vehicle. To install drive belt, reverse procedure.



#### Steering Mechanism

Lubricate ski legs at grease fittings until new grease appears at joints. Oil spring coupler bolts.



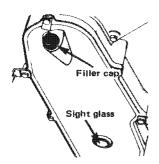


CAUTION: Do not lubricate throttle and / or brake cable housings.

#### Chaincase Oil Level

Remove tool box then check oil level through sight glass of chaincase. Level should not be below the sight glass line.

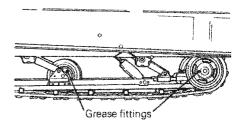
Replenish as necessary using chaincase oil. To replenish oil, remove filler cap, using spark plug socket.



NOTE: The chaincase oil capacity is approximately 9 oz.

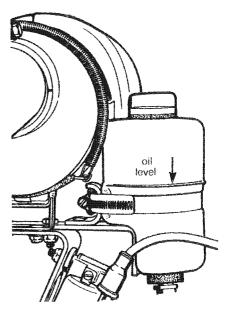
#### Slide Suspension

Using a low pressure grease gun, lubricate the five (5) idler wheels with low temperature grease. Pump 3 to 4 times through the grease fitting located on each cap of idler wheel. Wipe off excess.



#### Rotary Valve System

Check reservoir oil level frequently. Level should not be below level line of plastic reservoir. If necessary replenish oil level using "Castrol Injector Oil" or equivalent available from your dealer.



#### MAINTENANCE

The following Maintenance Chart indicates regular servicing schedules to be performed by you or your servicing dealer. If these services are performed as suggested, your snowmobile will give you many years of low-cost use.



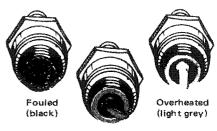
WARNING: Only perform such procedures as detailed in this manual. Unless otherwise specified, engine should be turned OFF for all lubrication and maintenance procedures.

Code	Weekly	Page
W1	Spark plugs	14
W2	Suspension (condition)	15
M3	Track	15
W4	Suspension (adjustment)	15
W5	Carburetor adjustment	16
W6	Drive belt	17
W7	Steering mechanism	17
Code	Monthly	Page
Code M1	<b>Monthly</b> Brake	Page 18
		amman and an
M1	Brake	18
M1 M2	Brake Steering adjustment	18 18
M1 M2 M3	Brake Steering adjustment Engine head nuts	18 18 18
M1 M2 M3 M4	Brake Steering adjustment Engine head nuts Engine mount nuts	18 18 19 19

#### (W1) Spark Plugs

Disconnect spark plug wires and remove spark plugs. Check condition of plugs.

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



Normal (brownish)



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

Check spark plug gap using a wire feeler gauge. Gap must be .020" (0.50 mm). Reinstall plugs and connect wires.

#### (W2) Suspension (condition)

Visually inspect suspension springs. Replace any weak or broken spring. Inspect shoe condition of slide suspension and replace as necessary.

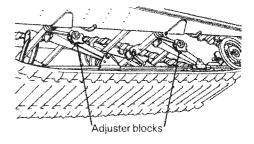
#### (W3) Track

With rear of vehicle off the ground, rotate track and inspect condition. Check for bad cuts, missing inserts or track guides. If bad cuts, missing or defective inserts or guides are noted, contact your dealer.

#### (W4) Suspension (adjustment)

The suspension is adjustable, the front adjustment for surface condition, the rear for driver's weight.

When the front adjuster blocks are at the lowest elevation more weight is distributed on skis. At the highest position the weight is transferred from the skis to the track. The rear adjuster blocks should be adjusted to suit the driver's preference. (The spark plug socket is an ideal tool to turn adjuster blocks).

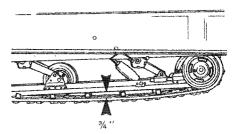




CAUTION: Always turn left side adjuster blocks in a clockwise direction, the right side blocks in a counter-clockwise direction. Left and right adjuster blocks of each adjustment must always be set at the same elevation.

#### Tenslon

Lift rear of vehicle and support with a mechanical stand. Allow slide to extend normally. A gap of ¾" should exist between slider shoe and bottom inside of track. If track tension is too loose, the track will have a tendency to thump.



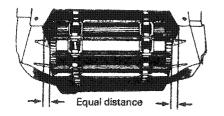
NOTE: Too much tension will result in power loss and excessive stresses on suspension components.

If necessary to adjust, loosen or tighten adjuster bolts located on inner side of rear idler wheels. If correct tension is unobtainable, contact your dealer.

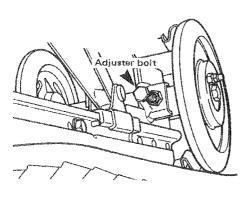
NOTE: Track tension and alignment are inter-related. Do not adjust one without the other.

#### Alignmont

Start the engine and accelerate slightly so that track turns **slowly**. Check that track is well centered and turns evenly.



To correct, stop engine then loosen the lock nuts and tighten the adjuster bolt on side where track is closest to the frame. Tighten lock nuts and recheck alignment.





WARNING: Before checking track alignment, ensure that the track is free of all particles which could be thrown out while track is rotating. Keep hands, tools, feet and clothing clear of track.

#### (W5) Carburetor Adjustment

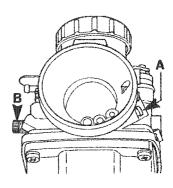
The carburetor adjustments are Low Speed mixture adjustment, Idle Speed adjustment. Adjustment of throttle cables, including maximum throttle opening and carburetor synchronization.

NOTE: A relationship exists between each adjustment. Do not correct one without checking the other.

#### Low Speed Mixture Adjustment (A)

With engine off, adjustment should be made by first turning low speed mixture screws fully clockwise until closed. Back off screws (1) turn counterclockwise.

NOTE: Do not close screws too tightly as screw and / or screw seats can be damaged.



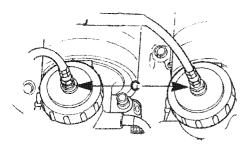
#### ldle Spood Adjusting Scrow (B)

Turn the idle speed adjusting screws clockwise to increase idling speed, counter-clockwise to decrease. Adjust idle to 3,000 R.P.M.

NOTE: Equally adjust both idle speed screws.

#### Throttle Cable Adjustment

With adjustment nuts C, adjust cable so that throttle slide synchronization and maximum throttle opening is attained.



#### High Speed Mixture Adjustment

The main jet is not adjustable, however, it can be changed to correspond with the altitude requirements in which the vehicle will be used.

- NOTE: If the vehicle must be transported from one place to another in a truck or trailer, always make sure that main line from fuel tank is disconnected. If not, there is a possibility that gravity and vibration will cause fuel to flow into and fill the engine.
- WARNING: Before starting engine, carburetor throttle slide must return to idle position. Do not start engine unless this is verified.

#### (WG) Drive Belt

If belt is less than 1 36" wide, replace. Check condition of belt. Inspect for cracks, fraying or abnormal wear, (uneven wear, wear on one side, etc.). If abnormal wear is noted, probable cause is pulley misalignment.

NOTE: When installing a new drive belt, a break-in period of 10-15 miles is strongly recommended.

#### (W7) Steering Mechanism

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

Check condition of skis and ski runners. Replace if worn.

#### (Will Brake

The brake mechanism is self-adjusting, therefore, periodic adjustment is not required. However, the brake mechanism can be checked by depressing brake control lever. Brake should apply fully when lever is ½" approx. from handlebar grip. If it does not, do not tamper with the brake, contact your servicing dealer. Check the stop light to see if it functions. If necessary, readjust switch position.

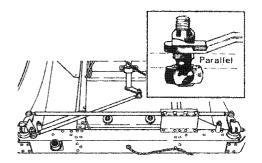


WARNING: Brake pucks less than 3/16 " must be replaced. Replacement must be performed by an authorized dealer. Always check the stop light to see if it functions.

#### (M2) Steering Adjustment

Skis should have a toe out of 1/8". To check, measure distance between skis at front and rear of leaf springs. If necessary to adjust:

- 1. Using a wrench, loosen the lock nuts of the longer tie rod.
- 2. Turn tie rod manually until skis are properly aligned.
- 3. Firmly retighten lock nuts.



Handlebar should also be horizontal when the skis are pointed toward front. To adjust:

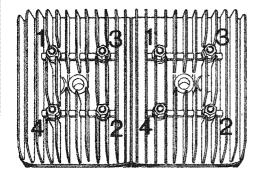
- 1. Using a wrench, loosen the lock nuts of the shorter tie rod.
- 2. Turn tie rod manually until handlebar is horizontal.
- 3. Retighten lock nuts firmly.



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

#### (143) Engine Head Nuts

After the first 5 hours of operation, check that engine head nuts are tight and equally torqued (16 to 18 ft-lbs) when **cold**.



#### (N/4) Engine Mount Nuts

Check engine mount nuts for tightness. Retighten if necessary.

#### (M5) Wuffler Attachment

The engine / muffler attaching parts are vital toward efficient muffler function. Check all attachments. Replace springs and / or tighten if necessary.

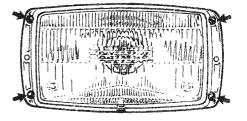
#### (M6) Vehicle General Inspection

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

#### Headlamb

The angle of the headlamp beam has been pre-adjusted prior to delivery. Should you wish re-adjustment, proceed as follows:

Remove headlamp chrome ring. Turn upper or lower adjusting screws to obtain desired beam position.



#### Built Replacement

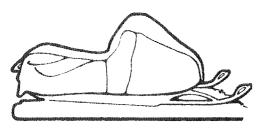
If headlamp is burnt, tilt cab. Unplug connector from headlamp. Remove rubber boot and unfasten bulb retainer clips. Detach bulb and replace. If taillight bulb is burnt, expose bulb by removing red plastic lens. To remove, unscrew the two (2) Phillips head screws. Verify all lights after replacement.

### TROUBLE SHOOTING

SYMPTOMS	POSSIBLE CAUSES	WHAT TO DO
Engine turns over but fails to start or starts with difficulty	1. No fuel to the engine	Check the tank level and fill up with correct gas-oil mixture. Check for possible clagging of fuel, item 5.
	2. Spark plug	Check for fouled or defective spark plug. Dis- connect spark plug wire, unscrew plug and remove from cylinder head. Reconnect wire and ground exposed plug on engine cowl, being careful to hold away from spark plug hole. Follow engine starting procedure and check for spark. If no sparks appear, replace spark plug. If trouble persits, check item 3.
	3. Faulty ignition	Disconnect spark plug wire from plug, unscrew the spark plug cap then hold wire about $\gamma_8^{\prime\prime\prime}$ from the cylinder head. Follow engine starting procedure and if no sparks appear, it means a faulty ignition system. Do not attempt to repair. Contact your dealer.
	4. Flooded engine	Remove wet spark plugs, turn ignition to OFF and crank engine several times. Install clean dry spark plugs. Start engine following usual starting procedure. If engine continues to flood, see your dealer.
	<ol><li>Clogged fuel line (water or dirt)</li></ol>	Remove and clean the fuei filter. Change filter cartridge if necessary. Check condition and connections of fuel lines. Check the cleanliness of fuel tank.
	6. Faulty carburetor	First make primary adjustments on carburetor (Sae Maintenance Section). If carburetor is still faulty, contact your dealer for repair.
	7. Too much oil in fuel	Drain the fuel tank and refill with the correct gas/oil mixture.
	8. Engine timing	Engine timing may be defective or out of adjustment. Contact your dealer.
	9. Poor engine compression	Running with a lean fuel mixture may produce excessive engine wear resulting in poor engine compression. If this occurs, contact your dealer at once.
Engine will not turn manually	Seized engine	In the case of a seized engine contact your dealer. Seizure is a direct result of poor tubrication.

SYMPTOMS	POSSIBLE CAUSES	WHAT TO DO
Engine lacks accelera- tion or power	Fouled or defective spark plug	Check item 2 of "Engine turns over but fails to start or starts with difficulty".
	Clogged fuel line (water or dirt)	Check fuel line condition. (See item 5 of "Engine turns over but fails to start or starts with difficulty".)
CONTRACTOR	3. Carburetor	Readjust the carburetors. (See Maintenance section). If trouble persists, contact your dealer.
	4. Faulty ignition	First check item 2 and 3 of "Engine turns over but fails to start or starts with difficulty". If the ignition system still seems faulty, contact your dealer.
The state of the s	5. Engine	If unable to locate specific symptoms, contact your dealer.
Engine continually backfires	Faulty spark plug	Check item 2 of "Engine turns over but fails to start or starts with difficulty".
THE PROPERTY OF THE PROPERTY O	2. Overheated	Carburetors set too lean. Contact your dealer.
00000000000000000000000000000000000000	3. Engine timing incorrectly set	Contact your dealer.
Snowmobile cannot reach full speed	1. Drive belt	Check for damaged or worn drive belt. Replace if necessary.
- SARAHANTE CONTROL SARAHANTE	2. Incorrect track adjustment	Check track tension and alignment. Readjust to specifications. (See Maintenance section).
TO PROVIDE AND THE AND	3. Faulty engine	Check item 1 to 5 of "Engine lacks acceleration or power".
and the state of t	4. Pulley misaligned	Contact your dealer.

#### STORAGE



IMPORTANT: It is during summer, or when a vehicle is not in use for any length of time that proper storage is a necessity. Storage of the snowmobile during long periods of inactivity consists of checking and replacing missing broken or worn parts: proper lubrication and treatments to insure that parts do not become rusted; cleaning items such as carburetor of oil mixtures, to prevent gum varnish formation within the carburetor; and in general, preparing the vehicle so that when the time comes to use the snowmobile again it will start and be in top condition.



WARNING: Only perform such procedures as detailed in this manual. Unless otherwise specified, engine should be turned OFF for all lubrication and maintenance procedures.

#### Track

Inspect track for cuts, missing track guides and broken rods. Make any necessary replacement. Lift rear of vehicle until track is clear of ground then support with brace or trestle. The snowmobile should be stored in such a way that track does not stay in contact with cement floor or bare ground.



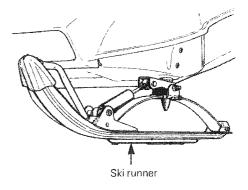
**NOTE:** The track should be rotated periodically, (every 40 days). Do not release track tension.

#### Slide Suspension

Remove any dirt or rust. Grease idler wheels at grease fittings. Wipe off surplus. Replace worn slider shoes.

#### Ski Assembly

Wash or brush all dirt or rust accumulation from skis and springs. Grease ski legs at grease fittings. Check condition of skis, ski runners and leaf springs. Replace if worn or weak.



Apply metal protector on ski assembly. If unavailable, wipe the entire ski with cloth soaked in oil to prevent rust formation.

#### Fuel Tank

Remove cap then using a syphon, remove gasoline from tank.

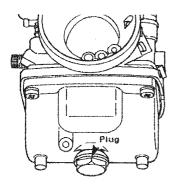


WARNING: Gasoline is flammable and explosive under certain conditions. Always perform procedures in a well ventilated area. Do not smoke or allow open flames or sparks in the vicinity.

#### Carburetor

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

- Assure that inlet fuel line is disconnected.
- Remove plug of the float chamber of each carburetor. Drain carburetors.



3. Reinstall plug and connect fuel line.

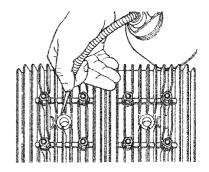
#### **Cylinder Lubrication**

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



NOTE: This operation should be repeated every 40 days during storage.

Remove spark plugs. Operate rewind starter to bring piston at top position. Pour the equivalent of one spoonful of oil into spark plug hole.



Slowly crank engine several times using manual starter. Repeat above steps for other cylinder. Install spark plugs.



CAUTION: To prevent ignition system damage, make sure that the cut-out button is in the lower position.

#### Chaimeaco

Drain the chaincase completely and refill to level line of sight glass using fresh chaincase oil. To drain, remove chaincase cover.

#### Controls

Lubricate steering mechanism. Inspect components for tightness, (spring coupler bolts, steering arm locking bolts, tie rods, ball joints, etc.). Tighten if necessary. Oil moving joints of brake mechanism.



WARNING: Do not lubricate throttle and / or brake cable housing. Avoid getting oil on brake pads.

Coat electrical connections and switches with a greaseless metal protector. If unavailable, use petroleum jelly.

#### Chassis

Clean the vehicle thoroughly, removing all dirt and grease accumulation.



CAUTION: Plastic alloy components such as fuel tank, windshield, etc., can be cleaned using mild detergents or isopropyl alcohol. Do not use strong soaps, degreasing solvents, abrasive cleaners, paint thinners, etc.

Inspect cab and repair damage. Repair kits are available at your authorized dealer. Clean frame. (Use only "Aluminum cleaner" and followinstructions on container).

Touch up all metal spots where paint has been scratched off. Spray all bare metal parts of vehicle with metal protector. Wax the cab for better protection.



**NOTE:**Protect the vehicle with a tarpauline to prevent dust accumulation during storage.

#### General inspection

Check electrical wiring and components, retighten loose connections. Check for stripped wires or damaged insulation.

Thoroughly inspect the vehicle and tighten loose bolts, nuts and linkage.



**NOTE:** Leave drive belt off pulleys for the entire storage period.

#### **PRE-SEASON PREPARATION**

#### Pre-Season Preparation

Snow is falling and you are now anticipating the next snowmobile safari. If you have observed and adhered to the storage procedures outlined in this manual, your vehicle preparation becomes a relatively easy task.

To simplify the pre-season preparation we have drawn up a small chart. The chart indicates servicing points to be performed by you and your servicing dealer. If these services are performed as suggested, your vehicle will give you many hours of fun and low cost use.

**IMPORTANT:** Observe all Warnings and Cautions mentioned throughout this manual which are pertinent to the item being checked. When component conditions seem less than satisfactory, replace with genuine Bombardier parts.

#### PRE-SEASON PREPARATION CHART

penengan menengan penengan pe	*******************************
To be performed by dealer  To be performed by owner	
Change spark plugs	0
Check chaincase oil level	O
Check drive pulley, clean and check wear pad condition	•
Check ski alignment	0
Replace fuel filter	0
Connect fuel lines and check attaching points	0
Check track tension and alignment	0
Lubricate suspension	0
Inspect drive belt and install	Ó
Check throttle cable for damage and free operation	0
Inspect brake condition and operation	0
Inspect oil seals for possible cuts or leaks	•
Check engine timing	•
Check electrical wiring (broken wire, damaged insulation)	0
Inspect condition of starting rope	0
Check tightness of all bolts, nuts and linkage	0
Refill gas tank	0
Adjust carburetors	0
Check oil level of rotary valve reservoir	0

#### **SPECIFICATIONS**

T'NTR/V		250	
Engine	Numbers of cylinders		THE REPORT OF THE PROPERTY OF
	Bora	2.125' (64 mm)	2.480" (63 mm)
	Stroke	2.126" (54 mm)	2.125" (54 mm)
	Displacement	15.08 in. 3 (247.3 co)	20.54 in. 3 (336.7 oc)
	Compression ratio	15:5	2.5:1
	Carb. (Mikuni)	VM34	VM34
	Starting	Manual	Manuel Ma
Chassis	Overall length	107" (271.8cm)	107" (271.8 cm)
	Overall width	41%" (106 cm)	41 %" (108 cm)
	Overall height	33" (43.8 cm)	33" (83.8 cm)
	Dry weight	340 lbs (154 kg)	345 lbs (156 kg)
	Bearing area	1090 in.2 (7032 cm² )	1090 in 2 (7032 cm² )
	Ground pressure	.312 lb / in.2 (.022 kg / cm² )	.316 lb / in.2 1,022 kg / cm2 1
Power Train	Track width	15" (38.1 cm)	15" (38.1 cm)
	Std gear ratio	15/38	18 / 38
Electrical System	Lighting system (output)	100 W	100 W
	Headlamp	W 09 / 09	60 / 80 W
	Tail / brake light	8/33W	8 / 23 W
	Spark plug (Bosch)	W-280-MZ-2	W-280-MZ-2
	Spark plug gap	.020" (0.50 mm)	.020" (0.50 mm)
	Ignition timing	Between marks at 6,500 RPM	Between marks at 6,500 RPM
en L	Tank capacity — Imp. gals.	4.5	4.5
	- U.S. gals.	5.5	5.5
	— Metric	20.45	20.45
	Gasoline	Premium	Premium
THE PERSON NAMED OF THE PE	Gas / oil ratio	1 / 02	50/1
Brake	Type	Disc self-adjusting	Disc self-adjusting
	ZVOOPTOLIAANSEN OSTITISTISTISTISTISTISTISTISTISTISTISTIST	Phierman metropy of the feather contract and the second contract and the second contract and the second contract and contr	adiciprated at the contract of

All information, illustration and component / system description contained in this manual are correct at the time of publication. However, Bombardier Limited reserves the right to make changes in design and specifications and / or to make additions to, or improvements in its product without imposing any obligation upon itself to install them on its products previously manufactured.

#### **CONSUMER GUIDE**

#### WHEN YOU BUY

Our product, you will receive:

**SERVICE** — from the product itself.

SERVICE — from the dealer who sells the product.

#### IF...

The product or service is unsatisfactory: return to your dealer's service department and discuss the details of the problem with the manager. He is in a position to help you with most maintenance and service needs. If the matter cannot be resolved, he may want to bring the Sales or the General Manager into the discussion.

#### IF...

The dealer cannot solve the problem, you may want to write to your nearest area distributor listed on the following page.

#### **TELL HIM THE FACTS**

#### List:

- Model and serial number.
- Date of purchase.
- Name and address of your selling dealer.
- Your name, address and phone number.

Describe what's wrong. Please be specific. The matter will receive immediate attention from the distributor's service department.

#### HOWEVER...

If at this point your grievance still remains unresolved, you may write to:

BOMBARDIER LIMITED CUSTOMER RELATIONS CENTER, RECREATIONAL PRODUCTS GROUP, VALCOURT, QUEBEC, CANADA, J0E 2L0

Please provide all necessary details (including the names of persons previously contacted).

Your problem will be reviewed then instructions will be provided to the person directly responsible for product service in your area; or we will contact you directly.

Please remember, the best person to help you is yourself...

Give it a try!

#### ERVICE AREAS





#### **CANADIAN DISTRIBUTORS**

AMERICAN DISTRIBUTORS

ALPINE DISTRIBUTORS 3206 - 28th Avenue, Vernon, B.C.

BOMBARDIER LIMITED EASTERN CANADA DISTRIBUTION DIVISION (Atlantic Branch) P.O. Box 670 Shediac, N.B.

BOMBARDIER LIMITED EASTERN CANADIAN DISTRIBUTION East of Ontario

DEVISION (Quebec Branch) 1350 Nobel, Boucherville, Que.

BOMBARDIER (ONTARIO) LTD 28 Currie St. Barrie, Ont.

BROOKS EQUIPMENT LTD 1616 King Edward St. P.O. Box 985, Winnipeg R3C 2U8, Man.

HUDSON'S BAY CO. 121 Richmond West, Toronto, Ont.

J.W. RANDALL LIMITED P.O. Box 757, Corner Brook Newfoundland

TRACT EQUIPMENT LTD 14325 - 114th Ave., Edmonton, Alta.

British Columbia

Prince Edward Island Magdalen Island Nova Scotia New Brunswick

Quebec

Ontario (less East of province)

Manitoba Saskatchewan

North-West Territories Franklin District & Ksewatin

Newfoundland Labrador

Yukon Alberta CRAIG TAYLOR EQUIPMENT CO. P.O. Box 3338, Anchorage, Alaska 99501

ELLIOTT & HUTCHINS INC. East Main Street Road. Malone, New York 12953

TIMBERLAND MACHINES INC. 10 Main St. North, Lancaster, New Hampshire 03584

BOMBARDIER CORPORATION 325 South Lake Avenue: Duluth 2, Minn, 55802

BOMBARDIER WEST INC. 609 West Broadway, Idaho Falls, Idaho 83401

Alaska

Massachusetts Connecticut Rhode Island Pennsylvania New Jersey Maryland Delaware District of Columbia Virginia

Maine New Hampshire Vermont

North Dakota South Dakota Minnesota Wisconsin lowa Illinois Missouri Michigan Indiana Ohio Tennessee Kentucky

W. Virginia

California Nevada Montana idaho Wyoming Utah Colorado New Mexico Arizona Kansas Nebraska Washingto Oregon

We recommend you contact your local authorized Ski-Doo dealer when your Ski-Doo snowmobile requires service, However, for further inquiries, you may contact your Regional Distributor.

#### 1976 WARRANTY (LIMITED)

#### SKI-DOO, SNOWMOBILE T'NT, R.V.\*

Bombardier Limited (Bombardier) as manufacturer, warrants to the first retail buyer every 1976 Ski-Doo® snow-mobile model T'NT® R.V.\*, SOLD AS A NEW VEHICLE, BY AN AUTHORIZED SKI-DOO DEALER, to be free from defects in material, and work-manship under normal use and service, for a period of ninety (90) consecutive days, beginning no sooner than from the date of sale.

If defective, Bombardier obligation is strictly limited to the repair and / or replacement at its option, and such repair or replacement is valid only at an authorized dealer in Canada or in the United States.

## CONDITIONS FOR WARRANTY VALIDITY

- Proof of ownership submitted to the servicing dealer, by means of the Ski-Doo Customer Warranty Registration card.
- An INSPECTION of the vehicle MUST BE PERFORMED by an authorized dealer after ten (10) hours of use or no later than thirty (30) days after first use. Such inspection will be at the owner's expense. (The time for such inspection should be approximately two (2) hours).
- Proper maintenance; to be performed at owner's expense.

Guidelines for proper use and maintenance are detailed in each Operator Manual.

## EXCLUSIONS: non-warrantable

- Variable speed drive belt, filters, spark plugs, light bulbs, protective lenses, brake linings, ski runner shoes, slider shoes on suspension and variable speed pulleys, labels, soft trim, appearance items, lubricants and paints and all tune-ups and adjustments required.
- Defects resulting from accident and / or installation of parts other than genuine Bombardier parts.
- Piston and / or piston rings and any parts connected thereof.
- IF THE VEHICLE IS USED FOR RACING PURPOSE OR MODIFIED.
- Any losses incurred to the vehicle owner other than parts and labor.
- Any damage or premature wear incurred as a result of operating the snowmobile on other than snow covered terrain.

This warranty is expressly in lieu of all other expressed or implied warranties of Bombardier, its distributors and the selling dealer, including any implied warranty of merchantability of fitness for any particular purpose.

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

April 1975 BOMBARDIER LIMITED Valcourt, Quebec, Canada

#### INDIVIDUAL WARRANTY RESPONSIBILITIES

The following has been prepared for ease of understanding the actual warranty policy. In no manner, way or form should these responsibilities be misconstrued as being the actual terms of the curr ent warranty policy.

# The Manufacturer will:

- Produce a quality vehicle
- Comply with safety / engineering standards.
- Make available replacement parts
- Provide dealer / mechanic training, and repair procedures.
- Absorb cost of parts and labour on warranty repairs.
- Retain right to cancellation if snowmobile is subject to abuse or modification.

# The Dealer will:

- Perform adequate pre-delivery.
- Stock and use genuine Bombardier replacement parts.
- Have trained staff, facilities and tools.

Honour Warranty policy terms

- Observe recommended labour time for ten (10) hour inspection.
- Properly complete warranty form.
- Inspect snowmobile for abuse / modification
- Notify owner of routine lubrication and Hamintenance changes.

# The Owner will:

- Observe routine lubrication and maintenance.
- Observe break-in period recommendations.
   Submit snowmobile to the ten (10) hour ins-
- Operate snowmobile in a responsible manner on adequate snow covered terrain.

000000

- Not modify or abuse snowmobile
- Utilize only genuine quality tested manufacturers parts.
- Return snowmobile for servicing to the euthorized selling Ski-Doo dealer, if within realistic travelling distance.
- Provide adequate seasonal preparation, spring and fall maintenance. This precaution will inhibit rust formation of vital parts, gum formation in fuel system, plus other benefits.

Skr Dap showmobiles are designed for operation at sea level and / or attitudes below 5,000 ft. When operating the showmobile above 5,000 feet, maximum performance is affected, therefore it is suggested that suitable gearing and carburetor calibration be employed. This modification can be performed by an authorized Ski-Doo dealer, and at the owner's expense.

IMPORTANT: Operating a snwomobile which has been modified for high altitude operation, below 5,000 feet, can cause over heating and / or over reving of engine that could contribute to engine failure / damage.

NUVUUAL WARRANTY RESPONSIBILITES