



**OWNER'S  
MANUAL**

*Nordic AND Alpine*

***ski-doo*** '69

*Bombardier*

\*T.M. BOMBARDIER LTD.





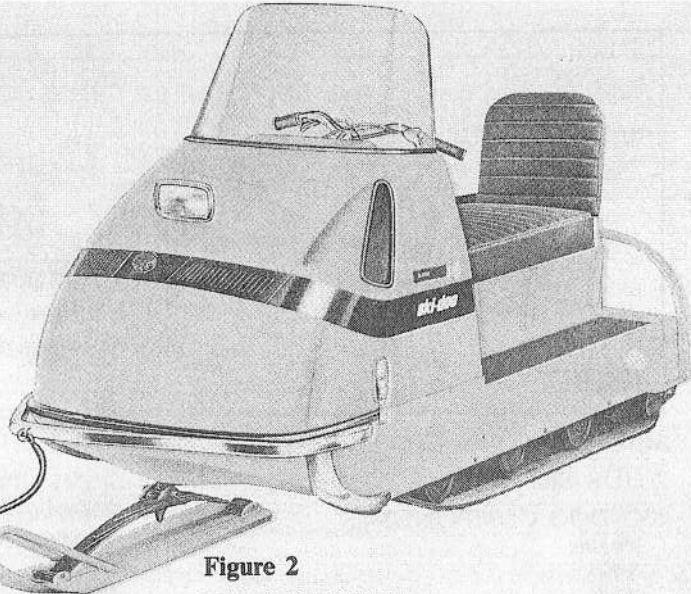
## Your Ski-Doo

Bombardier Limited and our dealers thank you for the confidence you have shown in our product. The whole team will do its utmost to be trustworthy.

The 1969 Ski-Doo once again combines all the qualities which have made it popular: lightness, maneuverability, resistance and high performance. The high precision built into the Ski-Doo components (engine, track, body) results in a unique and highly-rated machine.

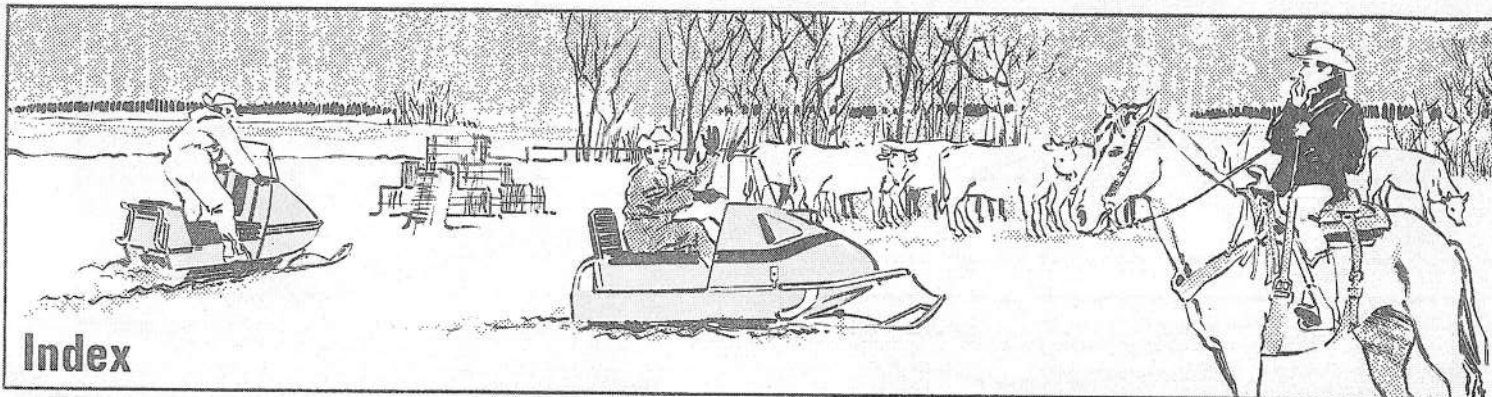
**Figure 1**  
**THE NORDIC**

The Nordic, new member of an exciting line of Bombardier Ski-Doods, is the one most likely to make you proud to be a Ski-Doo owner. This machine combines such features as 371 c.c. two-cylinder engine and 18" track to give you all the power and stability needed when riding. Its comfort and luxury will convince you that you have bought the only available G.T. snowmobile model on the market. Your Nordic Ski-Doo comes in 2 dependable models, the manual start 371 and the electric 371/e.



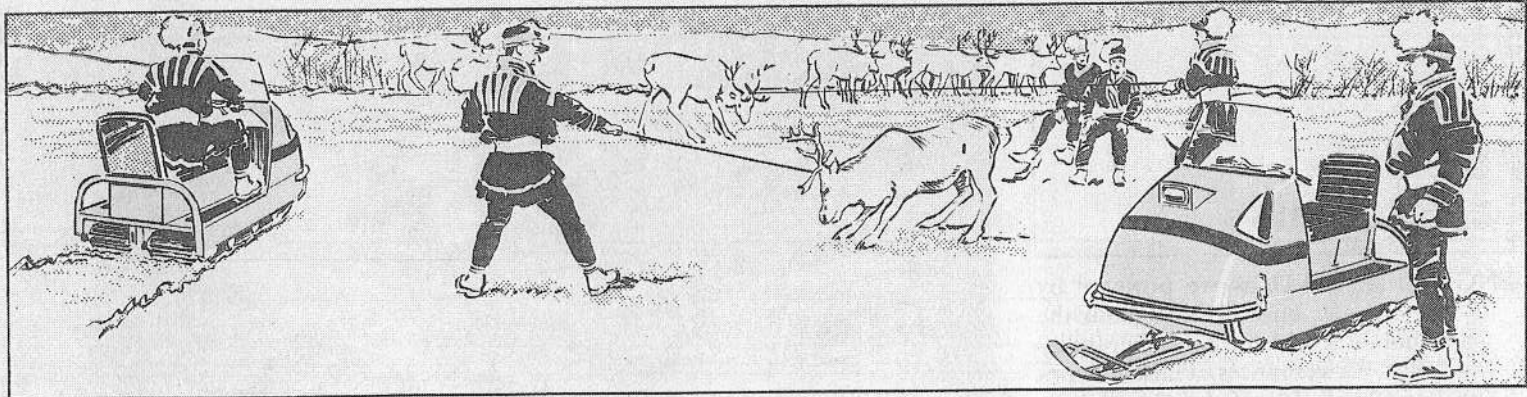
**Figure 2**  
**THE ALPINE**

The 1969 Alpine is the sturdy member of the Ski-Doo family. With its two-cylinder engine and double traction, this model packs up power and resistance for long cross-country rides and trail breaking. The Alpine, although normally assigned to utility purposes in ski areas, is ideal for family rides. The machine sits two adults comfortably; kids can ride behind in a Ski-Boose trailer. The Alpine comes in 3 models, the manual start 370 and the electric start 370/e and 640/e.



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## Ski-Doo components

**ENGINE:** All Ski-Doo's are powered by Rotax engines, known throughout the snowmobile world for their durability and high performances. These engines are built by Rotax of Austria, for exclusive use by Bombardier Limited.

**TRACK:** The rubber and nylon track of your Ski-Doo is an endless belt, fabricated with first quality material, and moreover protected by a registered Bombardier patent (U.S. and Canada). Each track is designed to give you maximum performances through all kinds of snow conditions.

**BODY:** Every Ski-Doo frame\* is pressed out of a one-piece steel sheet which makes it the toughest snowmobile on the market. In order to ally lightness and durability, the front cowl and back-rest\* are made of fiberglass, reducing the overall weight of the machine and increasing its maneuverability.

\* *Alpine models excepted.*

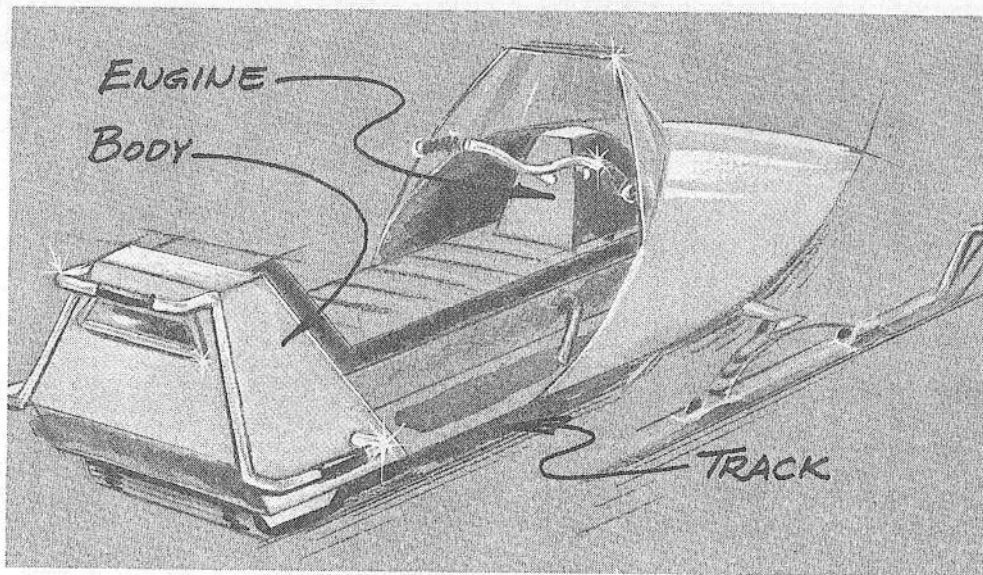


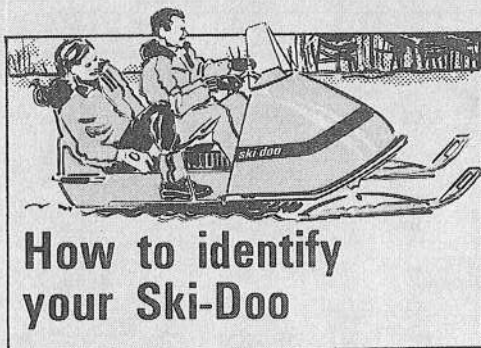
Figure 3

## Manual contents

This manual contains the required information for proper maintenance, care and operation of your Ski-Doo. Thorough knowledge of these simple instructions will help you to obtain top performance of your machine this winter and for many more winters to come.

Be a proud Ski-Doo owner for 1969. If you pass it on to a friend for a day of fun, inform him on the operation and care of the machine. Make sure you abide by all the laws pertaining to snowmobiles in your state or province.

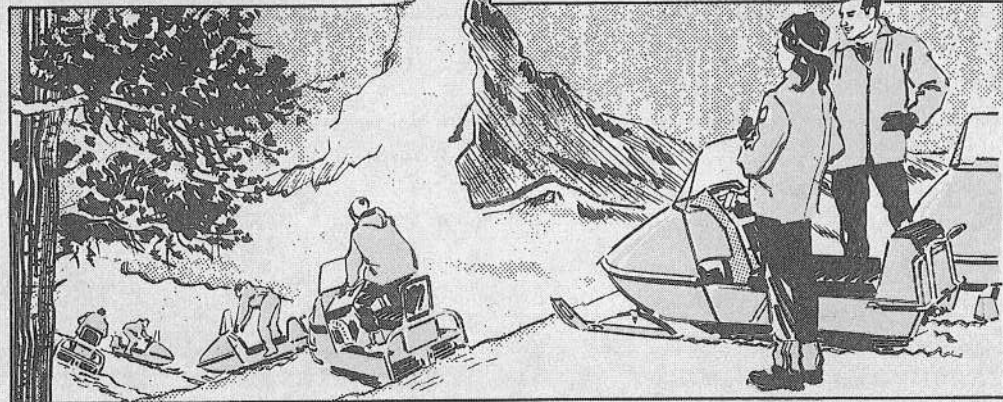
This manual contains the description and specifications in effect when it was approved for printing. Bombardier Ltd. reserves the right to discontinue models at any time, or to change designs or specifications, without notice and without incurring obligation.



## How to identify your Ski-Doo

### SERIAL NUMBERS

Every engine, frame or track entering the fabrication of a Ski-Doo must be identified by serial numbers. It may sometimes become necessary to locate such numbers for warranty purposes.

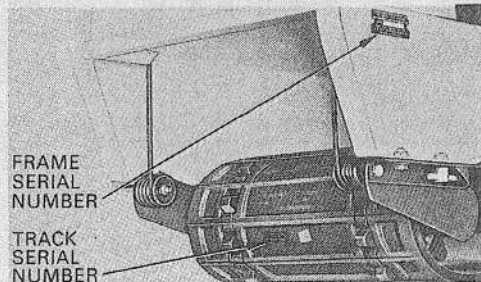


**TRACK:** The serial number pertaining to the rubber and nylon track installed on your Ski-Doo is situated in one of the recesses formed by the cross-links. Lift the rear of the Ski-Doo and turn the track until the number appears at the rear sprocket. See Fig. 4 and 5.

**FRAME:** In order to identify the body, look for the serial number located on the side of the frame, below the backrest. See Fig. 4 and 6.

**ENGINE:** The serial number is situated on the fan cowl, below the trade name Rotax. See Fig. 7.

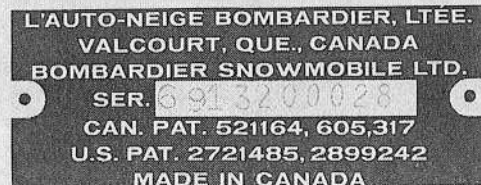
**NOTE:** *On Nordic models, one must remove the fan assembly air scoop in order to read the number on the engine.*



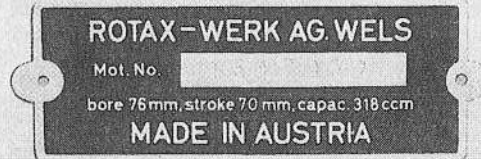
**Figure 4**



**Figure 5**



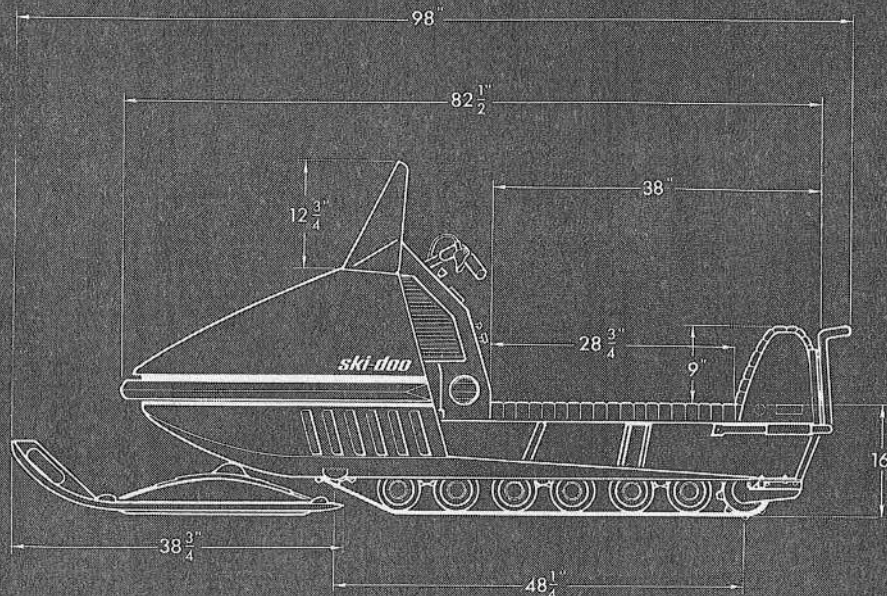
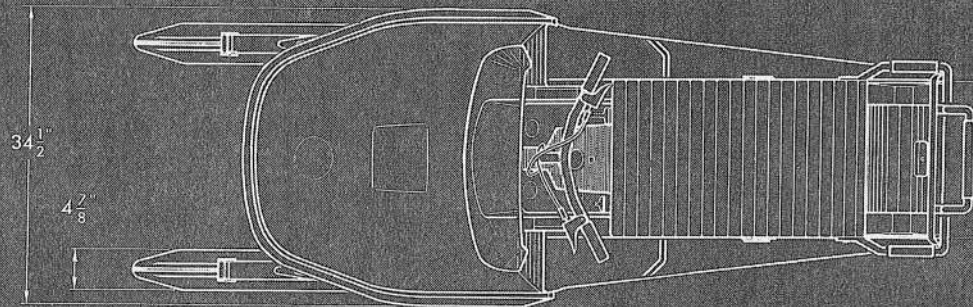
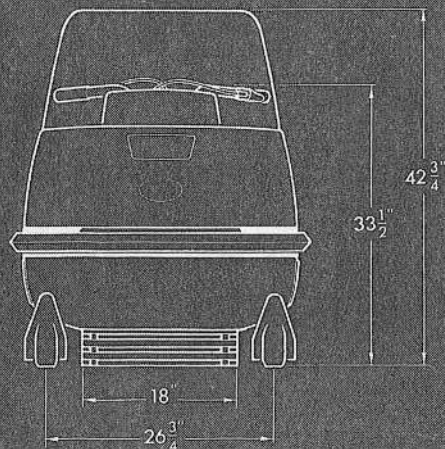
**Figure 6**



**Figure 7**

# Specifications for 1969 Nordic Ski-Doo

Figure 5





# Specifications for 1969 Nordic Ski-Doo

ITEM	MODELS	371	371/e	t'nt
<b>Engine</b>	No. of cylinders	Two	Two	Two
	Displacement	368 c.c.	368 c.c.	669 c.c.
	Max. H.P.	22 H.P.	22 H.P.	45 H.P.
	Bore	2 x 62 MM	2 x 62 MM	2 x 78 MM
	Stroke	61 MM	61 MM	70 MM
	Compression ratio	9.1:1	9.1:1	10:1
<b>Chassis</b>	Overall length	97½"	97½"	97½"
	Overall width	34½"	34½"	34½"
	Height W/O windshield	30"	30"	30"
	Weight (Lbs.)	360	400	385
	Ground pressure (P.S.I.)	.28	.31	.30
<b>Fuel</b>	Tank capacity (Imp. Gal.)	4½ gal.	4½ gal.	4½ gal.
	Consumption per hour (U.S./IMP.)	1.32/1.1	1.32/1.1	1.56/1.3
	Mixing ratio	20:1	20:1	20:1
<b>Ignition</b>	Starter	Manual	Electric	Manual
	Battery voltage	—	12 V.	—
	Magneto capacity	75 W.	75 W.	75 W.
	Bosch spark plugs	W-240-T-1	W-240-T-1	280-T-1
	Spark plug gap	.020"	.020"	.020"
<b>Misc.</b>	Track width	18"	18"	18"
	Brake	Drum	Drum	Drum

## Know the Nordic Ski-Doo external features



Figure 9

- 1—Light button
- 2—Console
- 3—Location for optional meters
- 4—Brake handle
- 5—Steering handle bar
- 6—Ignition switch
- 7—Throttle handle
- 8—Carburetor access cover lock
- 9—Light control lever
- 10—Deep-ribbed seat
- 11—Tail lamp
- 12—Rear bumper
- 13—Trailer hitch
- 14—Track link plate
- 15—Manual starter handle
- 16—Track
- 17—Engine ventilation louvres
- 18—Choke control
- 19—Pulley guard
- 20—Lower front ventilation louvres
- 21—Ski assembly
- 22—Front chromed bumper
- 23—Front tilt-forward hood
- 24—Main ventilation louvres

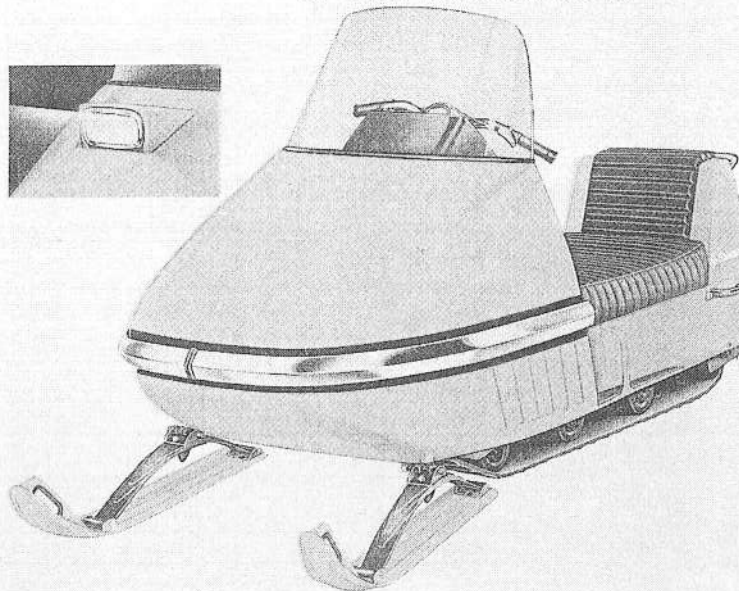
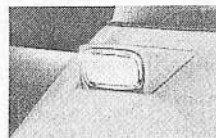
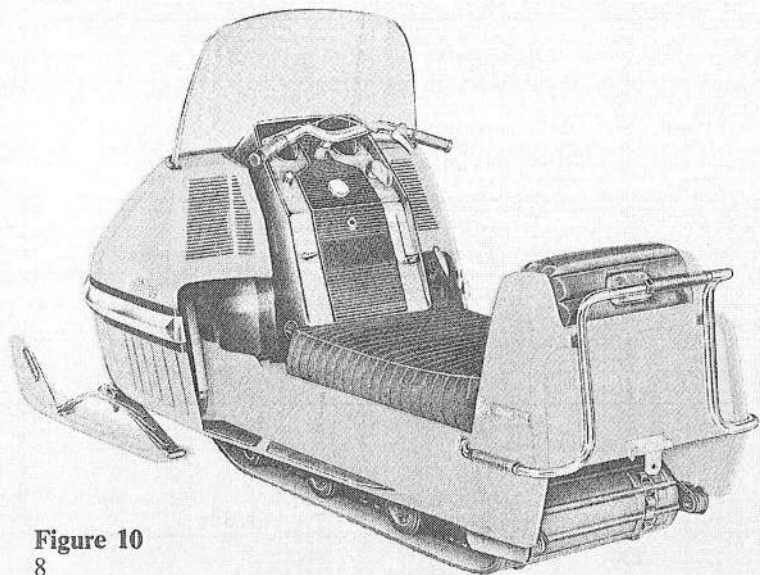
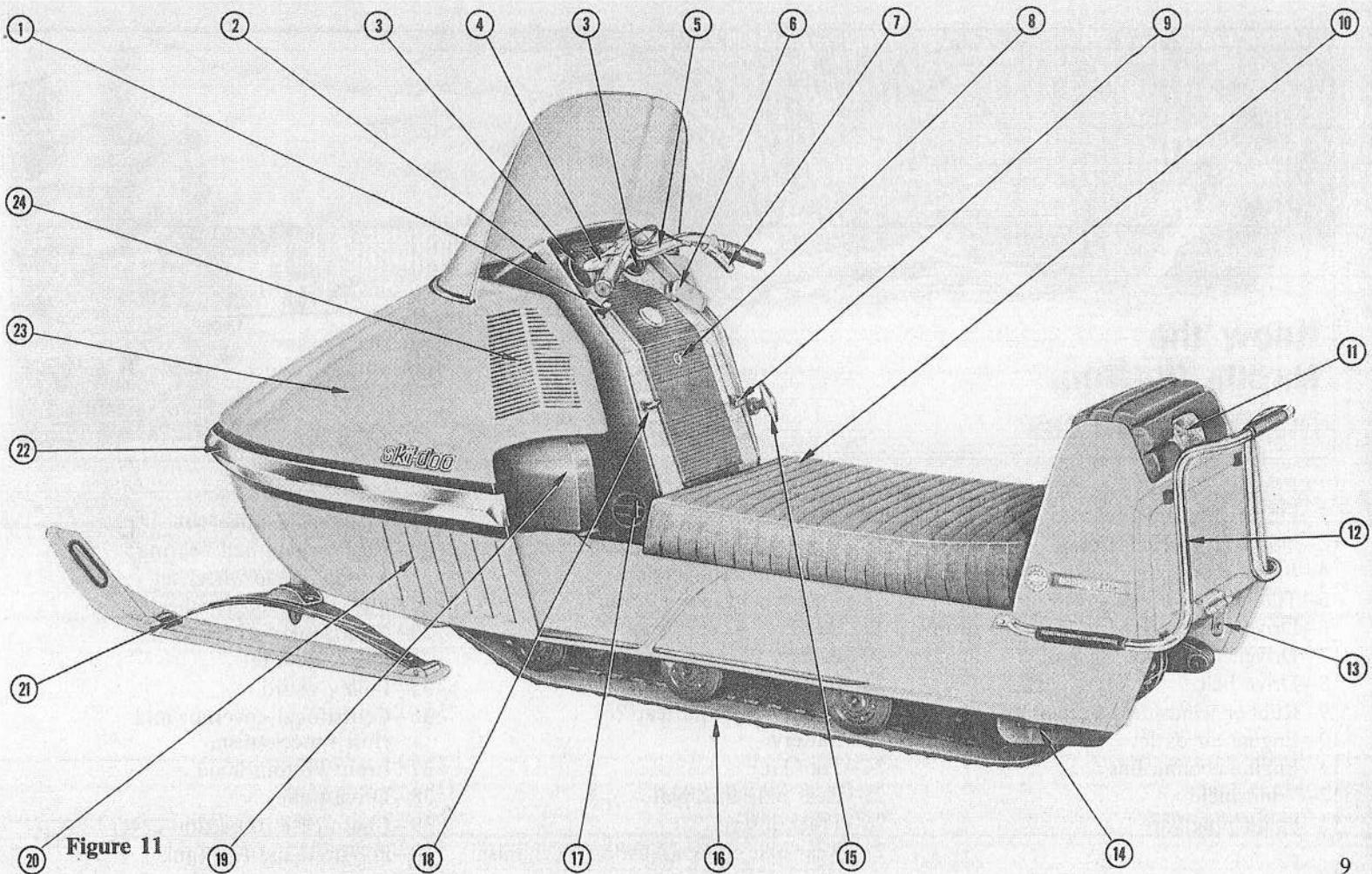
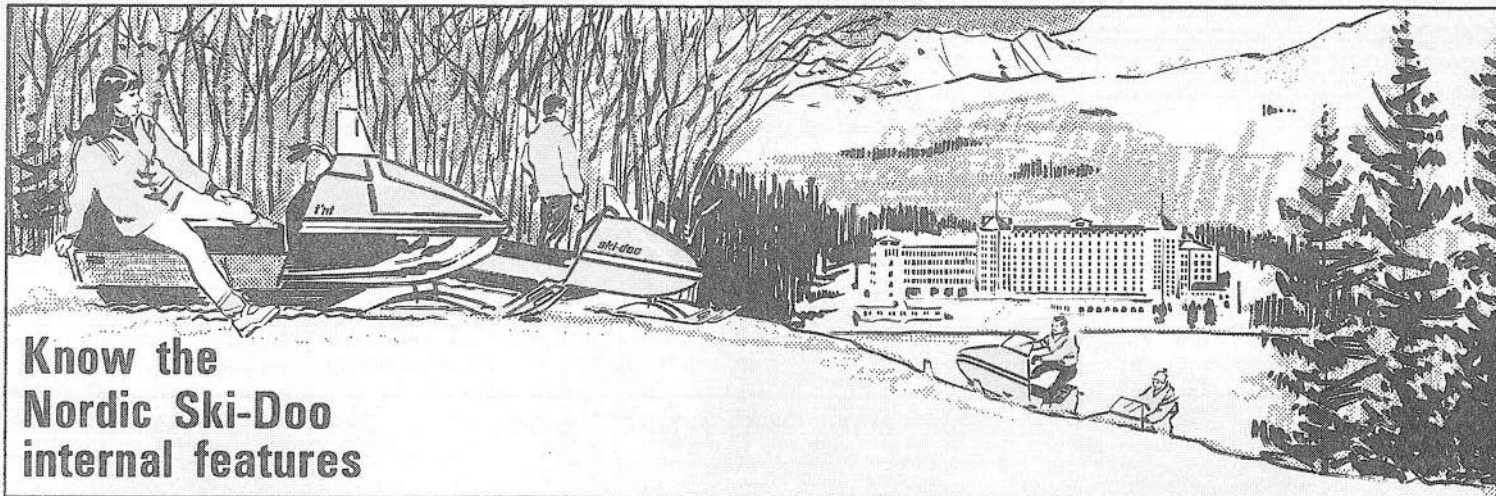


Figure 10





## Know the Nordic Ski-Doo internal features

- |   |  |  |
|---|--|--|
| 1—Front chromed bumper                  | 14—Electrical system quick connector   | 28—Rear axle sprocket                        |
| 2—Drive chain tensioner                 | 15—Carburetor assembly                 | 29—Rear bogie wheel set                      |
| 3—Non-spill fuel tank plate             | 16—Carburetor funnel                   | 30—Bogie wheel ball bearing                  |
| 4—Brake shoe                            | 17—Manual starter handle               | 31—Middle bogie wheel set                    |
| 5—Tilt-forward hood                     | 18—Carburetor access cover             | 32—Suspension bogie wheel                    |
| 6—Driven pulley fixed half (brake drum) | 19—Backrest access panel               | 33—Front bogie wheel set                     |
| 7—Driven pulley sliding half            | 20—Battery positive cable              | 34—Drive sprocket                            |
| 8—Drive belt                            | 21—Battery negative cable              | 35—Pulley guard                              |
| 9—Rubber windshield holder              | 22—Battery non-spill cap (6)           | 36—Centrifugal governor and clutch mechanism |
| 10—Engine air outlet                    | 23—Battery                             | 37—Front bottom hood                         |
| 11—Engine cooling fins                  | 24—Tool kit                            | 38—Drive pulley                              |
| 12—Windshield                           | 25—Rear axle link plate                | 39—Chain case inspection cover               |
| 13—Spark plug wire                      | 26—Track inserts                       | 40—Polyurethane fuel tank                    |
|   | 27—Rear axle track adjusting mechanism |  |

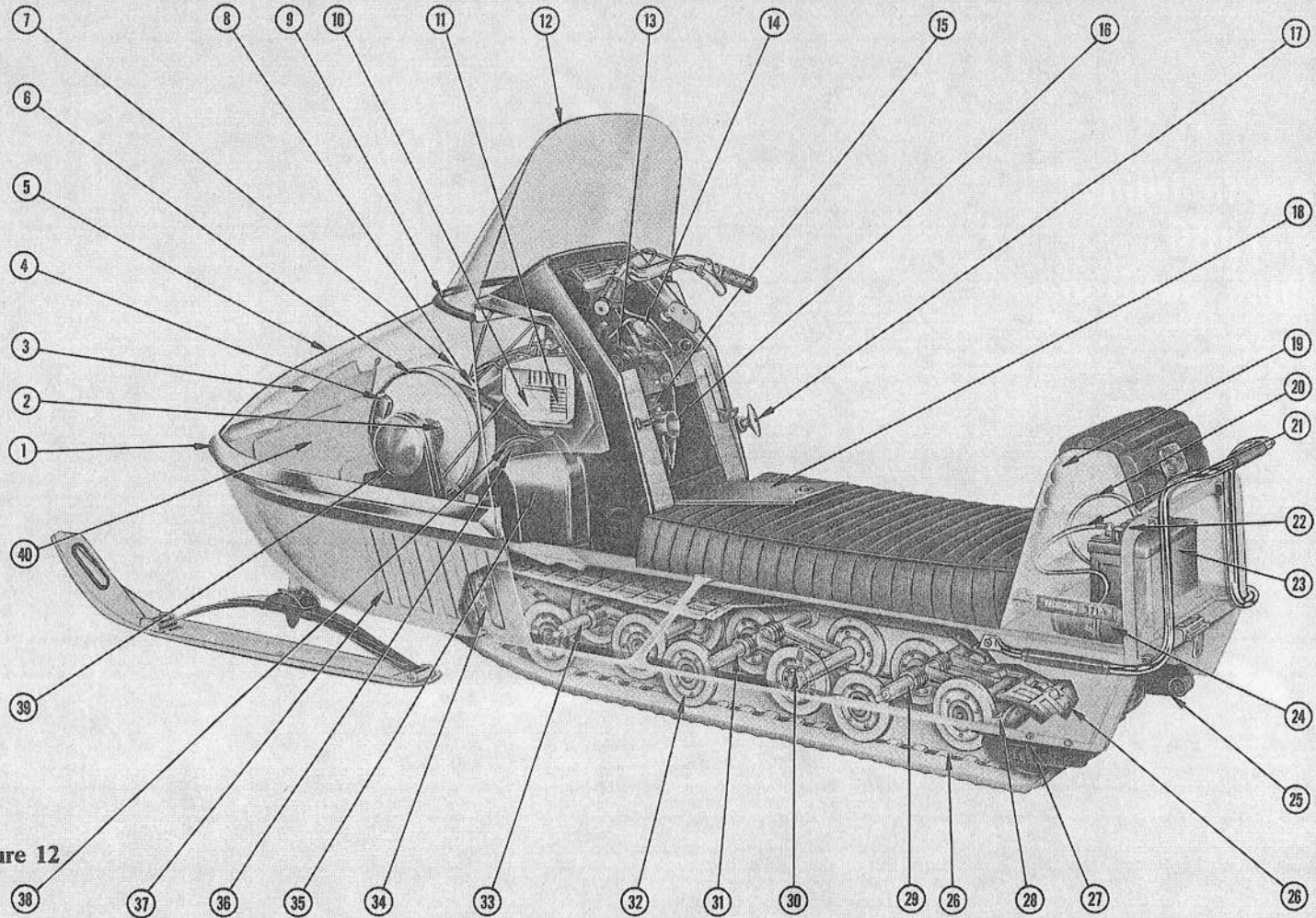
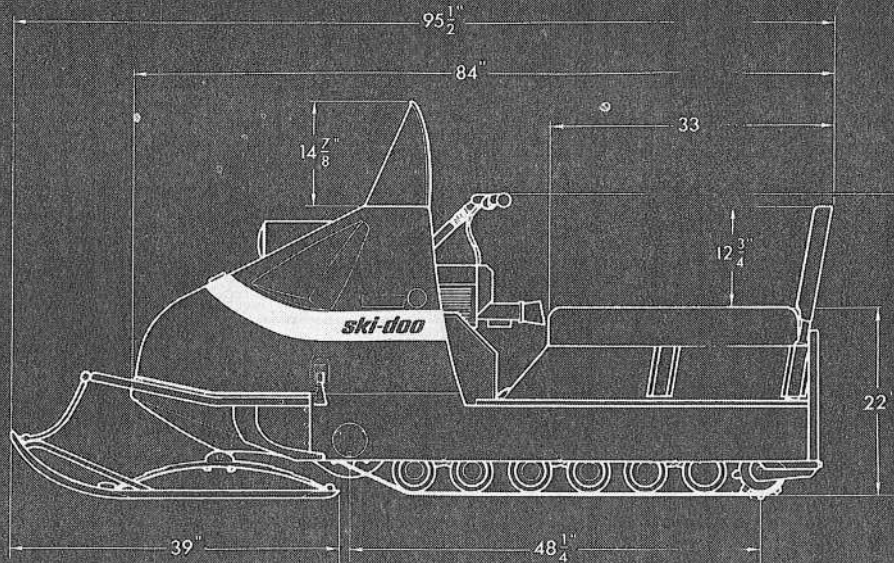
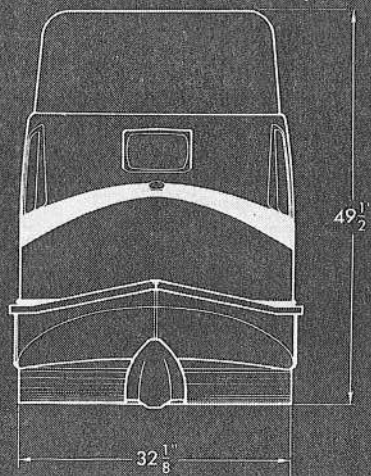
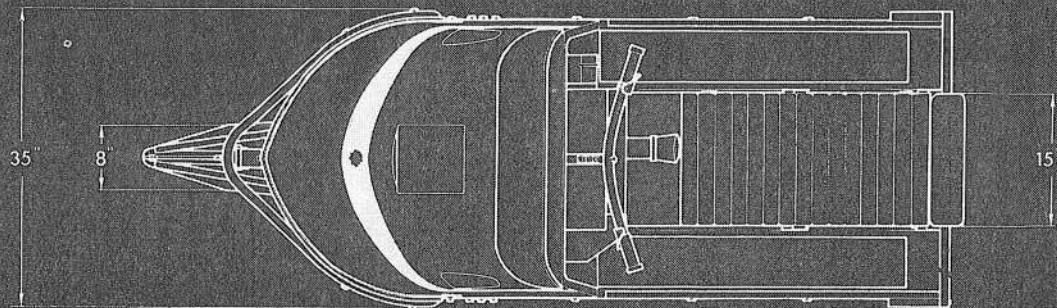


Figure 12

# Specifications for 1969 Alpine Ski-Doo

Figure 13



# Specifications for 1969 Alpine Ski-Doo

ITEM	MODELS	370	370/e	640/e
<b>Engine</b>	No. of cylinders	Two	Two	Two
	Displacement	368 c.c.	368 c.c.	638 c.c.
	Max. H.P.	19 H.P.	19 H.P.	40 H.P.
	Bore	2 x 62 MM	2 x 62 MM	2 x 76 MM
	Stroke	61 MM	61 MM	70 MM
	Compression ratio	9.15:1	9.15:1	9.1:1
<b>Chassis</b>	Overall length	96"	96"	96"
	Overall width	35"	35"	35"
	Height W/O windshield	36½"	36½"	36½"
	Weight (Lbs.)	458	491	513
	Ground pressure (P.S.I.)	.25	.27	.26
<b>Fuel</b>	Tank capacity (Imp. Gal.)	5 gal.	5 gal.	5 gal.
	Consumption per hour (U.S./IMP.)	1.44/1.2	1.44/1.2	1.68/1.4
	Mixing ratio	20:1	20:1	20:1
<b>Ignition</b>	Starter	Manual	Electric	Electric
	Battery voltage	—	12 V.	12 V.
	Magneto capacity	75 W.	75 W.	75 W.
	Bosch spark plugs	W-225-T-1	W-225-T-1	280-T-1
	Spark plug gap	.020"	.020"	.020"
<b>Misc.</b>	Track width	2 x 15"	2 x 15"	2 x 15"
	Brake	Disc. (self-adj)	Disc (self-adj)	Disc (self-adj)

## Know the Alpine Ski-Doo external features

- 1—Headlamp
- 2—Brake handle
- 3—Steering handle bar
- 4—Light button
- 5—Ignition switch
- 6—Throttle handle
- 7—Choke button
- 8—Air silencer
- 9—Ribbed seat
- 10—Backrest
- 11—Tail lamp
- 12—Track adjusting mechanism  
(link plate and adjuster screws)

- 13—Alternate position for backrest
- 14—Engine
- 15—Track
- 16—Pulley guard retaining latch
- 17—Drive axle bearing housing
- 18—Reinforced front chromed bumper
- 19—Hood holding latch
- 20—Ski
- 21—Safety ski-retaining chain
- 22—Pulley guard
- 23—Carburetor assembly
- 24—Air scoop

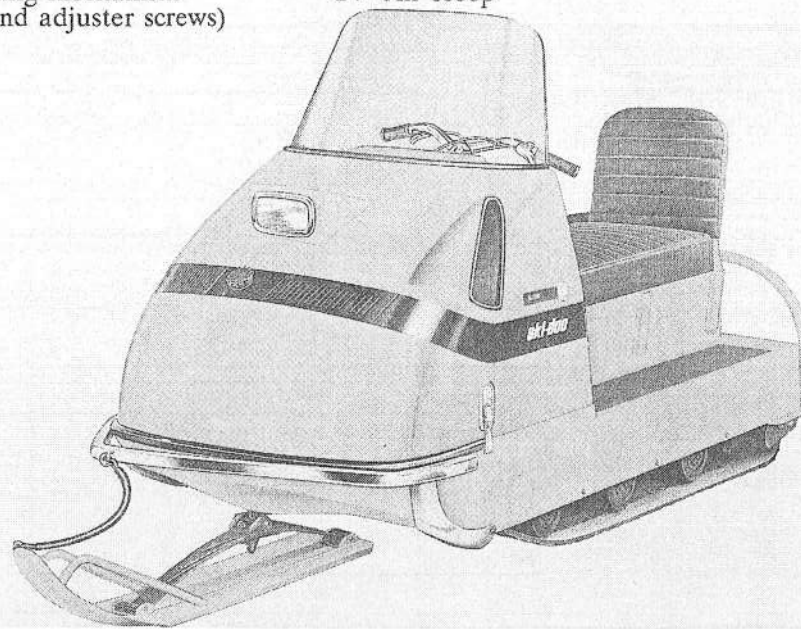
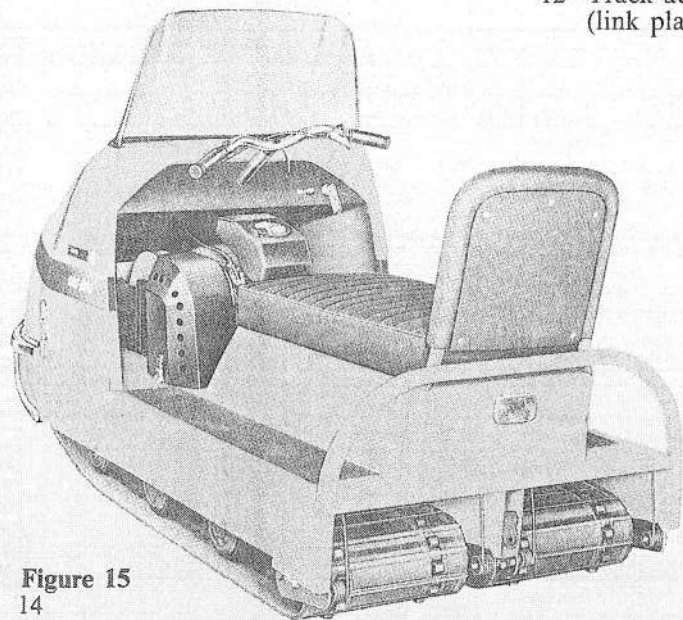
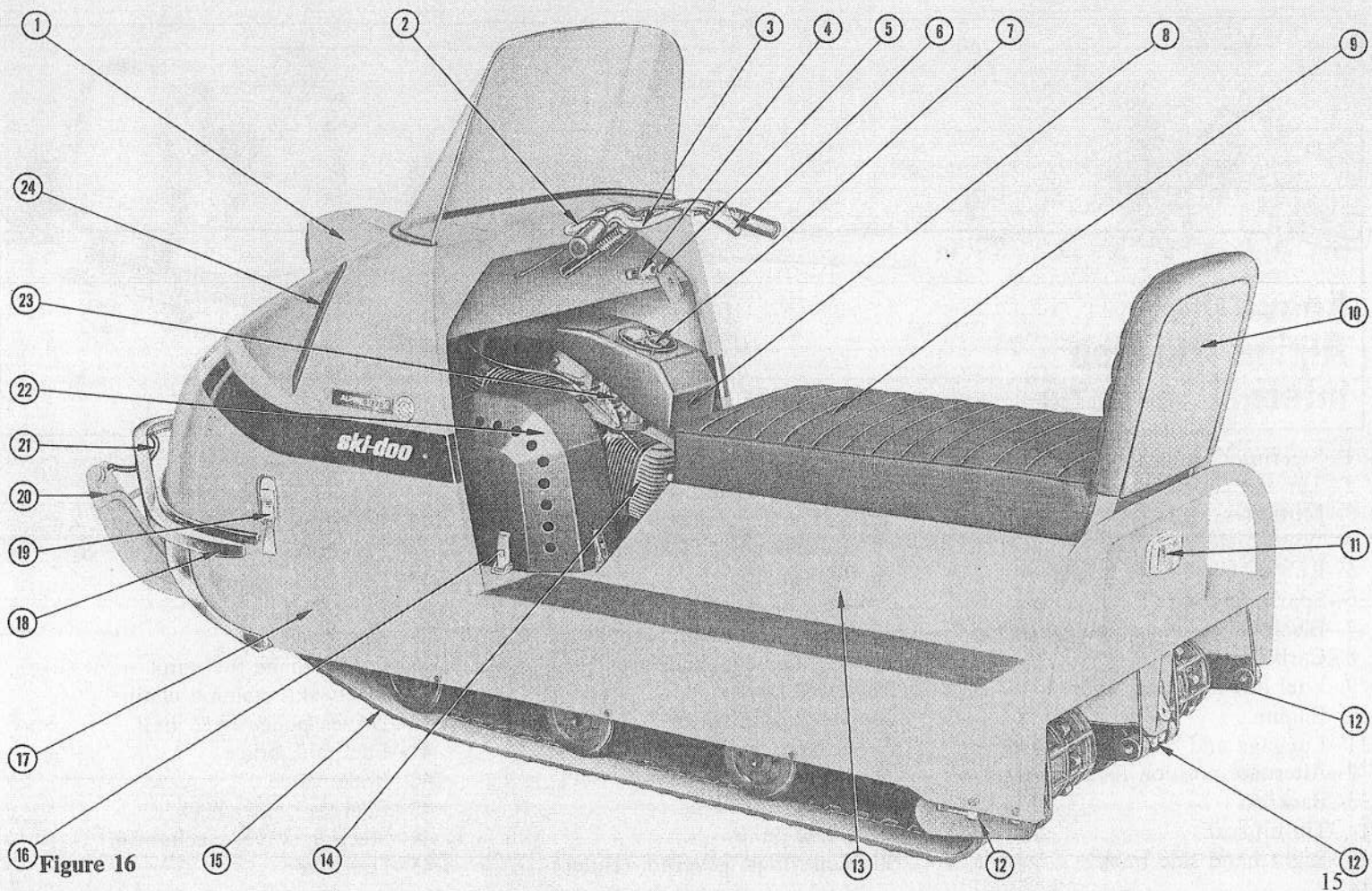
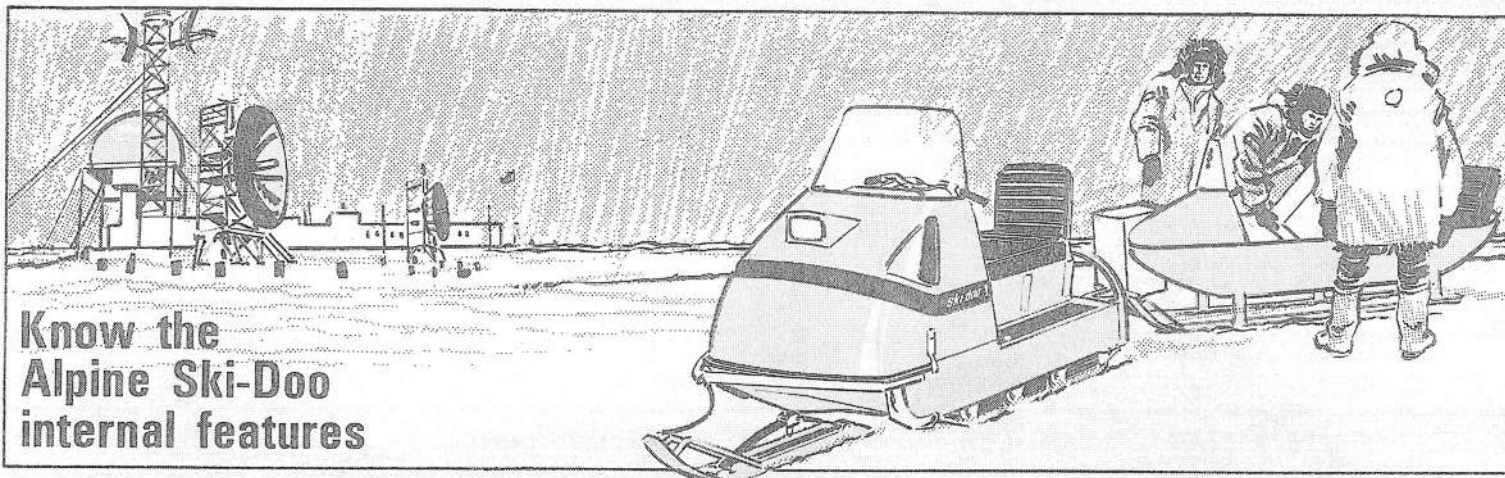


Figure 15  
14







## Know the Alpine Ski-Doo internal features

- |                                     |                                      |                                 |
|-------------------------------------|--------------------------------------|---------------------------------|
| 1—Steering column                   | 16—Central track adjusting mechanism | 31—Drive sprocket               |
| 2—Throttle cable                    | 17—Left hand side track              | 32—Bearing housing (front axle) |
| 3—Muffler                           | 18—Rear axle sprocket                | 33—Driven pulley sliding half   |
| 4—Windshield                        | 19—Outside track adjusting mechanism | 34—Foot rest                    |
| 5—Rubber windshield holder          | 20—Link plate                        | 35—Disc brake guard             |
| 6—Spark plug wire                   | 21—Rear bogie wheel set              | 36—Drive belt                   |
| 7—Electrical system quick connector | 22—Bogie wheel ball bearing          | 37—Disc brake                   |
| 8—Carburetor                        | 23—Middle bogie wheel set            | 38—Polyurethane fuel tank       |
| 9—Fuel line isolating tube          | 24—Track inserts                     | 39—Safety ski-retaining chain   |
| 10—Engine                           | 25—Suspension wheel                  | 40—Driven pulley fixed half     |
| 11—Luggage and battery compartment  | 26—Exhaust manifold                  | 41—Fuel tank brace              |
| 12—Alternate position for backrest  | 27—Front bogie wheel set             | 42—Brake cable                  |
| 13—Backrest                         | 28—Motor mount                       | 43—Fuel tank filler neck        |
| 14—Tip-up seat                      | 29—Drive pulley                      | 44—Steering swivel mechanism    |
| 15—Right hand side track            | 30—Centrifugal governor (clutch)     | 45—Fuel filter                  |

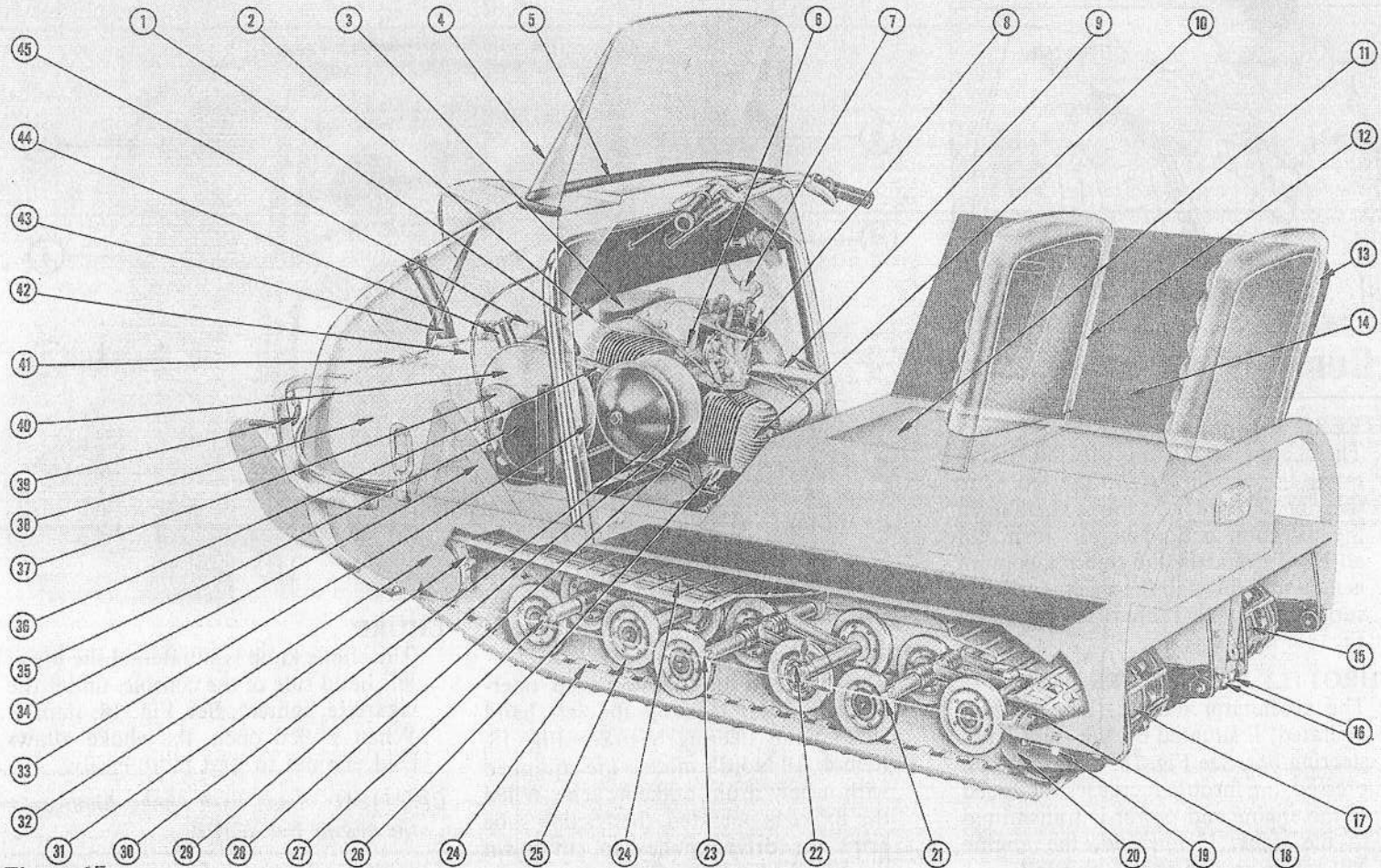
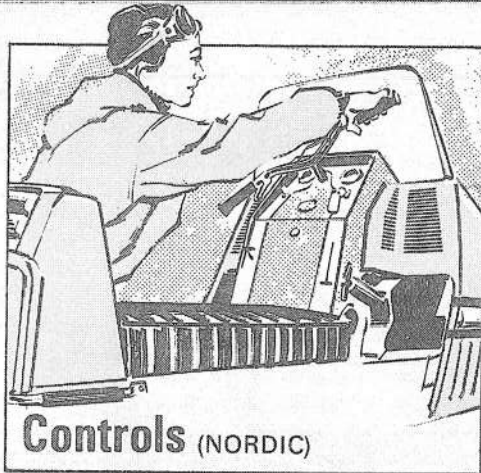


Figure 17



## Controls (NORDIC)

### STEERING

The Nordic Ski-Doo is steered by rotating the handle bars to the left or to the right, in order to move the skis in the direction one wishes to turn. On all Nordic models, the steering column is mounted through the dashboard and supported by a rubber damper. See Fig. 18, item a.

### THROTTLE OR ACCELERATOR

The accelerator handle (hand/thumb operated) is situated on the right hand steering bar. See Fig. 18, item b. When pressed, the throttle increases the speed of the engine and power is transmitted to the track. If released, the engine will return to idle speed by itself.

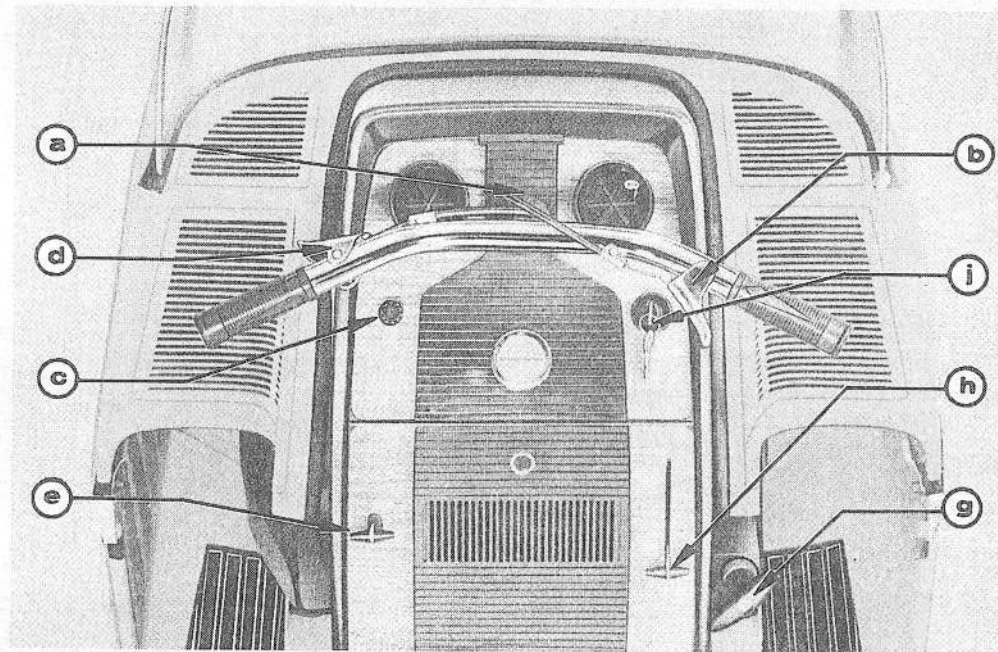


Figure 18

### BRAKE

The brake lever (hand/thumb operated) is positioned on the left hand side of the steering bar. See Fig. 18, item d. All Nordic models are equipped with a new drum brake system. When the brake is operated, the friction shoe grips the driven pulley to cut down the speed of the Ski-Doo.

### CHOKE

The choke knob is situated at the lower left hand side of the console, under the cigarette lighter\*. See Fig. 18, item e. When pulled open, the choke allows cold engines to start more easily.

**CAUTION:** Push back choke knob once the engine has started.

\* Optional.

## IGNITION SWITCH

On manual start models (Nordic 371), there is a key-operated double-contact ignition switch ("OFF" and "ON") on the top right hand side of the dashboard console. See Fig. 18, item j.

**NOTE:** *The Nordic 371/e is equipped with a triple-contact ignition switch ("OFF", "ON" and "START") located as in Fig. 18, item j. The "START" position is spring-loaded and activates the starter mechanism.*

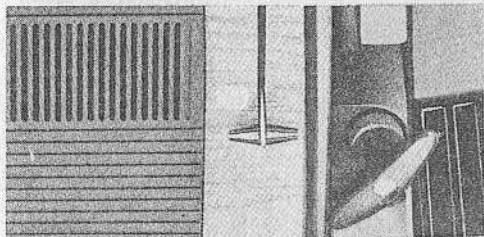


Figure 19

## MANUAL STARTER

Every model (manual or electric) is equipped with an automatic rewind starter, located on the flywheel side of the engine. The starter rope handle is at the bottom right side of the console. See Fig. 18, item g.

**NOTE:** *The manual starter can become handy to crank electric models (371/e) in case of emergency (dead battery).*

## FUEL GAUGE

The fuel level gauge is part of the fuel tank cap assembly; the level needle sitting inside the tank cap indicates the amount of fuel left in the tank. Turn left to remove the cap and right to tighten it. See Fig. 20.

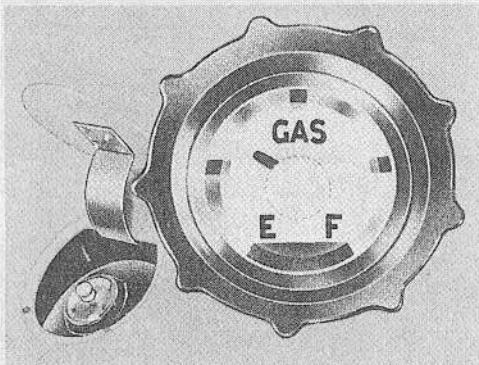


Figure 20

## LIGHT MECHANISM

A small lever, mounted on the lower right hand side of the console, activates the light mechanism. See Fig. 18, item h. When this lever is pulled down, the headlamp springs up from the fiberglass hood.

**NOTE:** *To turn on the headlight, pull the "light" button situated at the upper left hand side of the dashboard. See Fig. 18, Item c.*

## CARBURETOR ADJUSTMENT SCREWS

Open the front console panel by pressing on the release button situated at the top center of the panel. There are (3) adjuster screws on the carburetor body: the right hand side screw controls the idle speed of the engine while the (2) left hand side screws regulate the amount of fuel fed to the engine at idle speed and the richness of the fuel mixture needed when the engine runs at high speed. See Fig. 21.

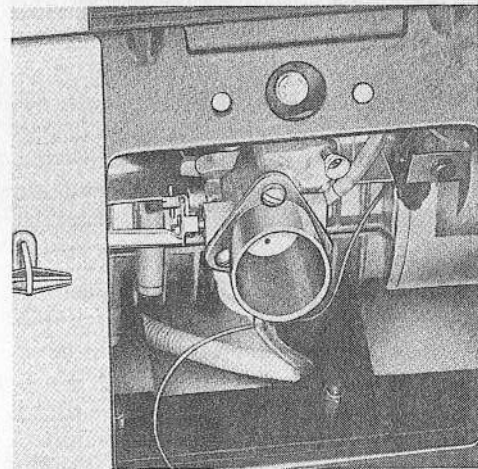


Figure 21

**NOTE:** *For proper carburetor adjustment, contact an authorized Ski-Doo dealer.*



## Controls (ALPINE)

### STEERING:

The Alpine Ski-Doo is steered by rotating the handle bars right or left, depending on the direction one wishes to turn. See Fig. 22, item a. All models are equipped with a strong dependable direct-link steering mechanism which activates one single and wider ski.\*

### THROTTLE OR ACCELERATOR:

The accelerator handle (hand/thumb operated) is situated on the right hand steering bar. See Fig. 22, item b. When pressed, the throttle increases the speed of the engine and power is transmitted to the tracks. If released, the engine will return to idle speed.

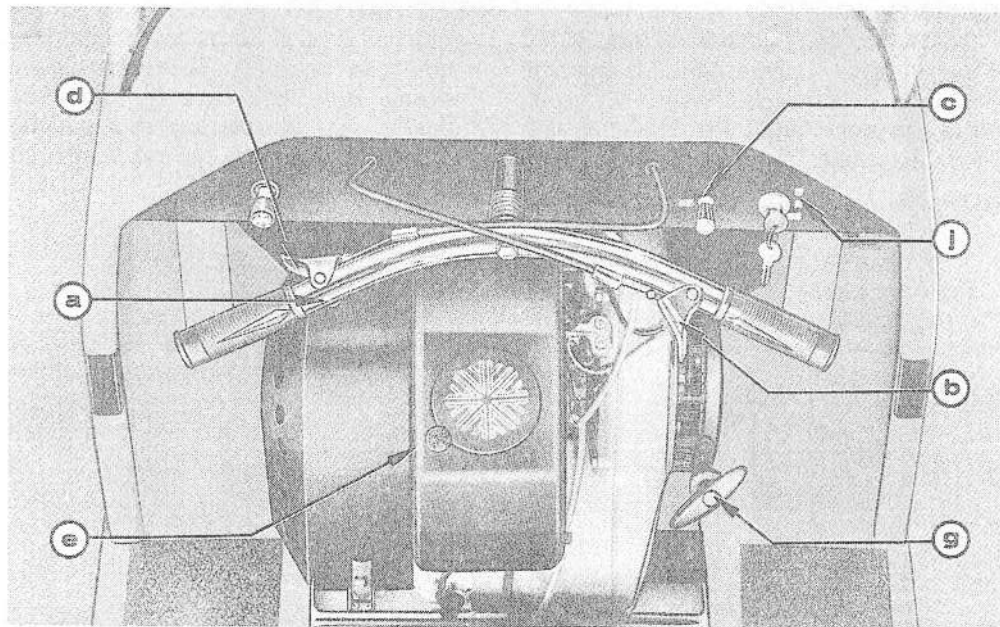


Figure 22

### BRAKE:

The brake lever (hand/thumb operated) is positioned on the left hand side of the steering bar. See Fig. 22, item d. A reliable self-adjusting disc brake with floating caliper permits secure driving and full control of the machine at all times. When the brake lever is pressed, the disc mechanism cuts down the speed of the Ski-Doo.

### CHOKE:

The choke knob, located on top of the carburetor cover, should be pulled open when starting a cold engine. When used, the choke reduces the air flow through the carburetor and permits easier starts. See Fig. 22, item e.

**CAUTION:** Always push back the choke once the engine has started.

\* The use of a single ski is motivated by the two-track design of the Alpine models.

### IGNITION SWITCH:

The manual start model (Alpine 370) is equipped with a key-operated double-contact ("OFF" and "ON") ignition switch, situated on the right of the dashboard. See Fig. 22, item j.

**NOTE:** *The triple-contact ("OFF", "ON" and "START") ignition switch used on the 370/e and 640/e models is located as in Fig. 22, item j. The "START" position is spring-loaded and activates the starter mechanism.*



Figure 23

### MANUAL STARTER:

Every Ski-Doo (manual or electric) is equipped with an automatic rewind type manual starter, located on the flywheel side of the engine. See Fig. 22, item g.

**NOTE:** *The manual starter is handy to crank electric models (370/e and 640/e) in case of emergency (dead battery).*

### LIGHT MECHANISM:

Alpine models come with a fixed headlamp, built-in with the fiberglass hood, therefore no guide plate nor light control lever is required. Simply pull on the light button, located on the right hand side of the dashboard, and both head and tail lights come on. See Fig. 22, item c.

### FUEL GAUGE:

There is no fuel gauge on the Alpine models. The fuel tank being of polyurethane, one glance is sufficient to check the fuel level. Whenever refueling, turn left to remove the fuel tank cap. See Fig. 24.

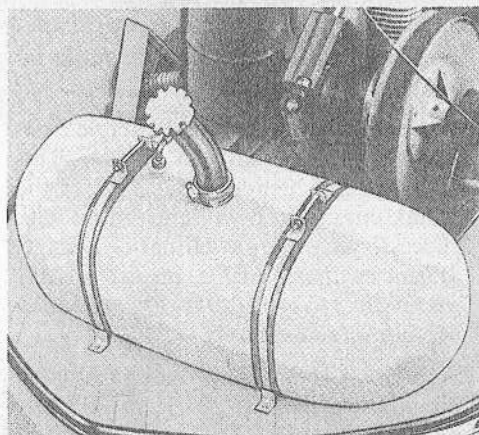


Figure 24

### CARBURETOR ADJUSTMENT SCREWS:

If you remove the air silencer unit, you will clearly see the (3) adjuster screws on the carburetor body. The right hand side screw controls the high speed fuel mixture, while the (2) left hand side screws regulate the idle speed and the amount of fuel fed to the engine at idle speed (idle speed fuel mixture adjustment). See Fig. 25.

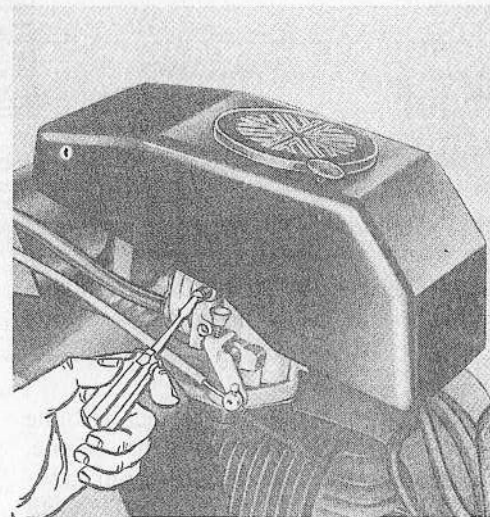


Figure 25

**NOTE:** *For proper carburetor setting, we advise you to contact your dealer.*



## Fuel mixing

The Rotax 2 cycle air-cooled engine is lubricated by a certain amount of oil added to the gasoline. The oil present into the fuel lubricates all the engine mobile parts from the carburetor up to the combustion chamber. \*

**GASOLINE:** The use of correct gasoline is very important for your engine. High octane gasoline (premium gasoline) will be harmful because of its high lead content. When available, white gasoline (marine gasoline) is the best choice; you can also use regular gasoline, (not less than 75 octane). *Never*

*use red gasoline, naphtha, methanol or similar products.*

**OIL:** Use only Ski-Doo oil available from an authorized Ski-Doo dealer. This oil has been blended specially for the Rotax engine, and will encounter, with success, any large climatic change. *Whenever it is possible, do not use any multi-visc., (S.A.E. 10W-30), outboard, or (2) cycle motor oils.*

**MIXING RATIO:** The proper gasoline to oil mixture ratio is 20: 1, or 20 parts of gas for 1 part of oil, i.e. one quart of Ski-Doo oil for 5 gallons of gasoline.

**REMARK:** *A mixing ratio lower than 20: 1 can produce excessive carbonization of the engine. A mixture higher than 20:1 will cause overheating of the engine, which could result in a seized piston, damaged bearings or even a broken connecting rod.*

### MIXING PROCEDURE

a) Always use a clean container (5 or 10 gallons) when mixing fuel.

*Never attempt to mix directly into the Ski-Doo fuel tank.*

b) Pour into your container about half of the gasoline to be mixed and then add all the required amount of Ski-Doo oil. Make sure to shake this mixture well.

c) Add the rest of the gasoline to the container and agitate again until it is completely mixed.

d) Before filling up the Ski-Doo tank with a stored pre-mixed fuel, always agitate the container to make sure the gasoline and oil are properly mixed.

e) Always use a funnel with a fine screen when transferring the fuel from the mixture container into the Ski-Doo

\* *Too much oil may activate engine carbon formation. Insufficient lubrication may cause engine overheating and even seizure of the piston.*





Fig. 26 shows the quantity of Ski-Doo oil required to mix, in a ratio of 20:1, a given quantity of gasoline.

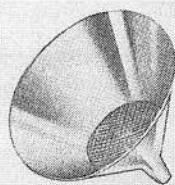


Figure 27



Figure 28

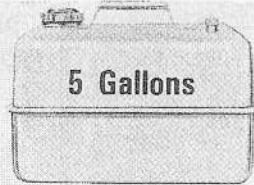


Figure 29

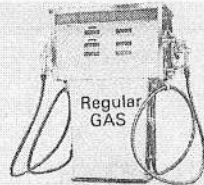


Figure 30

## Gasoline and oil mixing chart

GASOLINE				SKI-DOO OIL	GASOLINE				SKI-DOO OIL	GASOLINE				SKI-DOO OIL
		Imp.	U.S.	Imp.			Imp.	U.S.	Imp.	U.S.			Imp.	U.S.
		Oz.	qt.	qt.			Oz.	qt.	qt.			Oz.	qt.	qt.
2.5 gal.	Imp.	20	½	¾	5.5 gal.	Imp.	44	1.1	1¾	8.5 gal.	Imp.	68	1.7	2½
	U.S.	16	⅔	½		U.S.	35.2	0.88	1.1		U.S.	54.4	1.36	1.7
3 gal.	Imp.	24	⅔	¾	6 gal.	Imp.	48	1½	1½	9 gal.	Imp.	72	1⅔	2¼
	U.S.	19.2	0.48	⅔		U.S.	38.4	0.96	1½		U.S.	57.6	1.44	1⅔
3.5 gal.	Imp.	28	0.7	¾	6.5 gal.	Imp.	52	1.3	1¾	9.5 gal.	Imp.	76	1.9	2¾
	U.S.	22.4	0.56	0.7		U.S.	41.6	1.04	1.3		U.S.	60.8	1.52	1.9
4 gal.	Imp.	32	⅘	1	7 gal.	Imp.	56	1½	1¾	10 gal.	Imp.	80	2	2½
	U.S.	25.6	0.64	⅘		U.S.	44.8	1.12	1½		U.S.	64	1½	2
4.5 gal.	Imp.	36	0.9	1¼	7.5 gal.	Imp.	60	1½	1¾	15 gal.	Imp.	120	3	3¼
	U.S.	28.8	0.72	0.9		U.S.	48	1½	1½		U.S.	96	2½	3
5 gal.	Imp.	40	1	1¼	8 gal.	Imp.	64	1½	2	20 gal.	Imp.	160	4	5
	U.S.	32	⅘	1		U.S.	51.2	1.28	1½		U.S.	128	3½	4

Figure 26

## Ski-Doo starting procedure

### PRE-START CHECK

When your Ski-Doo has been inactive for a long period of time or before a long trip, pay careful attention to the following points:

**FUEL:** Check the fuel level and make sure the tank is clean. Always use the proper mixture. If necessary, refer to page 23 (Fuel Mixing Chart).

*For perfect gasoline and oil mixing, rock the Ski-Doo from side to side before the first trip of the day.*

### CONTROLS:

**GAS AND BRAKE:** Press both handles several times to make sure they are obstruction-free.

**STEERING:** Turn the handle bars from side to side. Check for ice or snow accumulations blocking the steering mechanism.

### POWER TRAIN:

**DRIVE BELT:** Make a visual inspection of the drive belt. Check for false belt alignment or premature signs of failure.

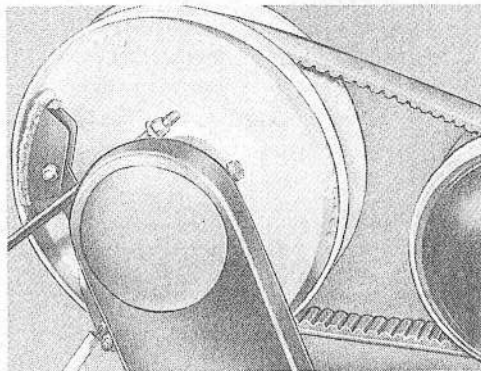


Figure 31

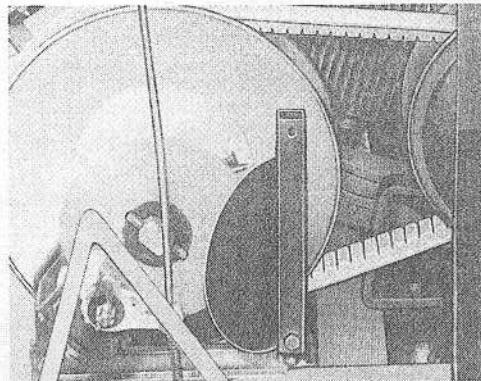


Figure 32

**DRIVE CHAIN:** Check the tension of the drive chain. For complete instructions refer to page 38.

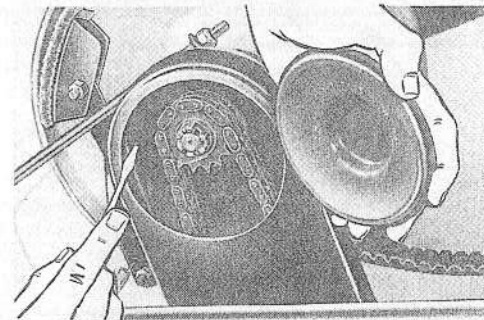


Figure 33

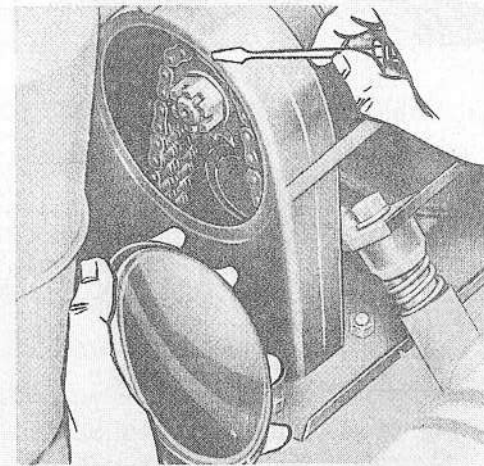


Figure 34

**TRACK:** Check visually for possible damages on the track.

Make sure the track tension and alignment are within specifications. See Fig. 35 and page 34.

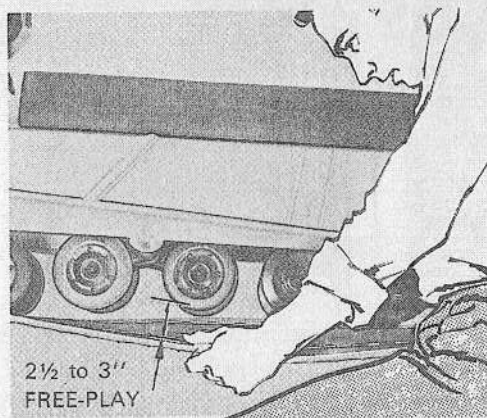


Figure 35

## ELECTRIC STARTING

(ELECTRIC MODELS)

The Nordic 371/e and the Alpines 370/e and 640/e are equipped with an electric starter, easy to operate for every member of the family.

**REMARK:** To prevent overheating, the starter should never turn for more than 30 seconds each time. A cooling period of two minutes should be allowed between each 30 second starting trial.

## STARTING PROCEDURE

a) Pull out the choke knob.\*

**NOTE:** Choke is useless when starting a warm engine.

b) To start the engine, insert the Ski-Doo key into the ignition switch and turn fully to the right.

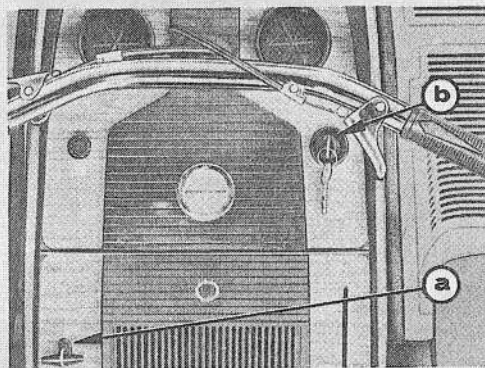


Figure 36

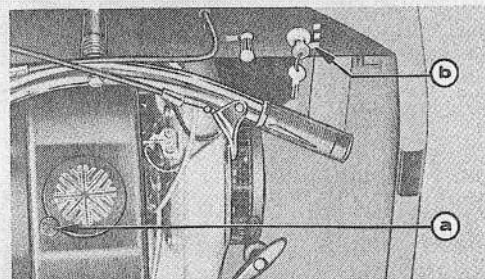


Figure 37

c) As soon as the engine has started, bring the key back to the position "ON" and push back the choke. The starter may suffer internal damages if kept engaged while the engine runs.

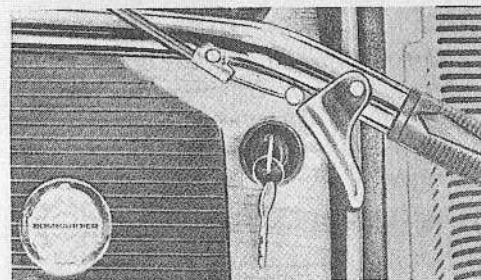


Figure 38

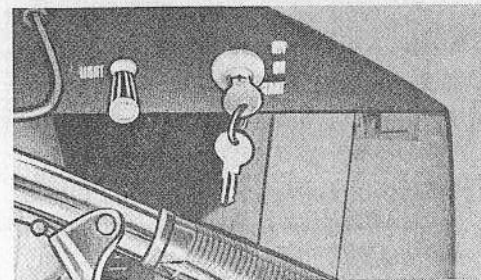


Figure 39

\* The choke reduces the air flow through the carburetor. When applied on a cold engine, it allows a richer mixture (more fuel and less air) for an easier start.

Power and rich combustion are not related. Choking activates carbon formation in a warm or running engine.

# MANUAL STARTING

(ALL MODELS)

Every Ski-Doo is equipped with a manual starter (auto/rewind type), located at the end of the engine flywheel.

**NOTE:** *On electric models, the manual starter is used only in case of emergency (dead battery). However, we strongly recommend their owners to become familiar with the manual starting procedure.*

## STARTING PROCEDURE

- a) Pull out the choke knob.
- b) Turn "ON" the ignition switch.
- c) Grasp the starter handle and pull slightly. The starter mechanism is engaged when you notice a resistance.
- d) Pull out the handle vigorously to start the engine.

**REMARK:** *Don't pull the rope out fully to the end. Guide it back to its original starting position.*



Figure 40

- e) As soon as the engine turns, push back choke knob.

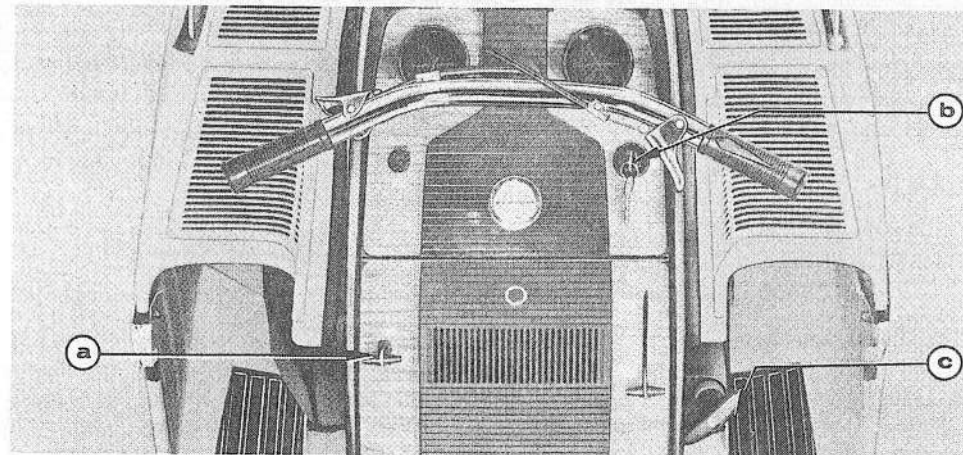


Figure 41

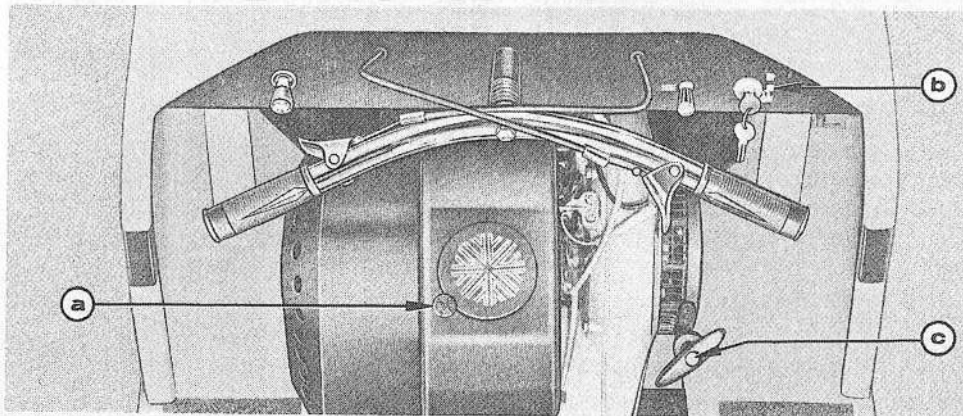


Figure 42

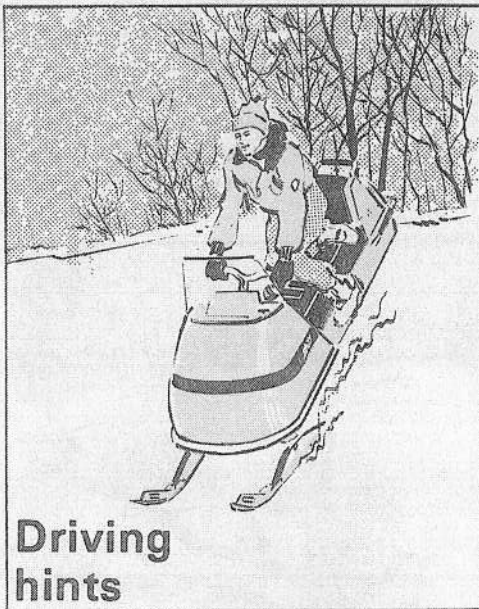
## Break-in period

It is recommended to allow the Ski-Doo engine a certain period of break-in or self-adjustment before running it at full power. As with every high precision machinery, the engine parts need to adapt to their proper functioning. This break-in period should last from 8 to 10 hours of operation or the equivalent.

When you buy a new Ski-Doo, the carburetor is adjusted to give a rich fuel mixture. It should be left so for the full length of the break-in period. *Do not run your engine at maximum speed when operating the Ski-Doo; keep throttle from  $\frac{1}{2}$  to  $\frac{3}{4}$  opened.* You will not attain full speed, but the life of the engine will be prolonged.

After the break-in period, i.e. when you have run a new Ski-Doo for at least 8 hours, readjust the carburetor.

If you do not have the proper tools, contact your dealer. Good maintenance is the secret of a long life for any vehicle; take your Ski-Doo to an authorized dealer for regular inspections.



## Driving hints

### NORMAL OPERATION

It is possible to enjoy riding a Ski-Doo as soon as one can start the engine, pull the throttle and turn the handle bars. However, for increased performances and double enjoyment, have perfect control of the machine at all times. Every owner of a new 1969 Ski-Doo should know how to improve his driving ability. The following hints should start one off well.

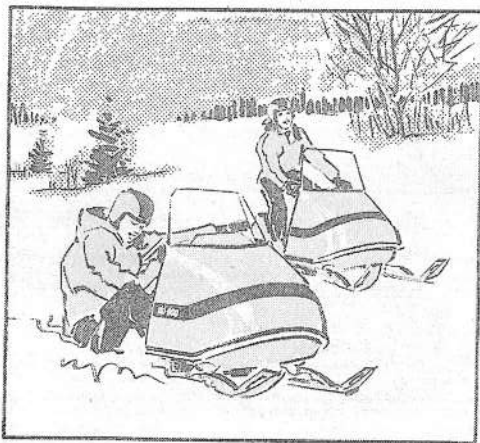
**STRAIGHT DRIVING:** When driving straight, either on a flat trail or in an open field, take a sitting or kneeling position and keep a regular speed. *Do not keep the throttle handle clasped against the steering bar.* On well tuned engines,  $\frac{7}{8}$  throttle is enough to attain maximum speed. Throttle  $\frac{3}{4}$  open is then perfect to keep regular speed and preserve spare power for fast accelerating capacity.



**TURNING:** To turn your Ski-Doo, move the handles either to the left or to the right; at the same time, shift your weight towards the inside of the circle made by your turn. Sharper turns are obtained by greater weight shifting. In this case, *the kneeling position provides better weight balance.*

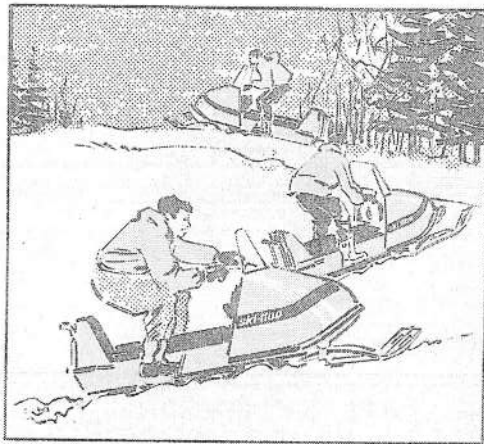
## HIGH PERFORMANCE DRIVING

**DRIVER'S POSITION:** For speed and maneuverability, sitting is not recommended unless you are very accustomed to weight shifting in that position. Kneel or stand for best results.

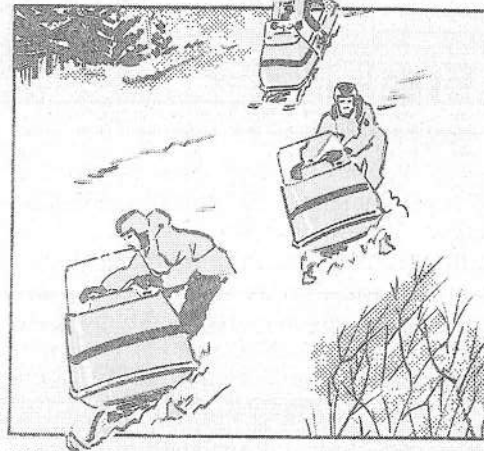


**TURNING:** Perfect weight balance at all times is a key to sharp and accurate turns. *Remember that your weight can help your turning but only if the speed of the machine and the surface on which it turns are taken into consideration.* Practice on all kinds of surfaces (ice, powder snow, heavy snow, etc.,) and at all speeds is the best way to increase any performances.

**UPHILL DRIVING:** If you climb a steep hill, be careful not to let the Ski-Doo fall back on its rear sprocket when arriving at the top. Keep your weight up front and release the throttle a little. This will permit the Ski-Doo to adhere to the snow and prevent it from sliding back down.

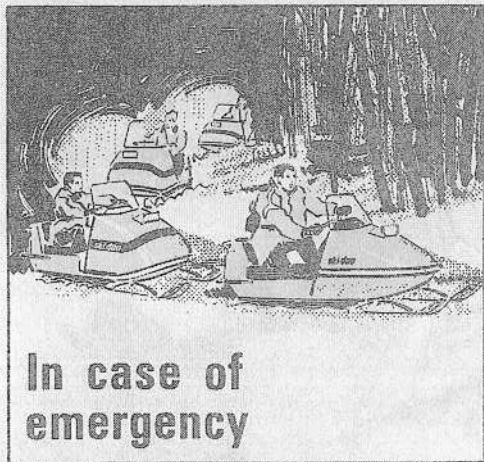


**DOWNHILL DRIVING:** Perfect control of your machine is necessary when going down steep hills. *You must not block the track of the Ski-Doo in any way because it will start sliding and you will lose control.* Let the machine run down on the engine compression. If you go too fast, use the brake to slow down but *don't jam it.*



**SIDEHILL DRIVING:** Sidehilling can be very thrilling when done according to certain safety measures. Do not ride on steep hills where the snow is deep and fluffy: avalanches can be started very easily. Trails can be broken on light slopes where sidehilling on hard-packed snow can be fully enjoyed. The driver should always take a standing position on side hills, in order to be able to keep his weight against the hill at all times. Lean towards the slope as much as required for your stability.

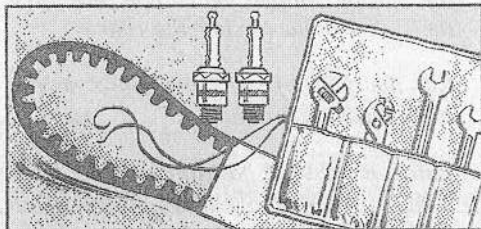
**NOTE:** *Normal riding brings pleasure, high performance driving requires skill. In both cases, frequent use of the Ski-Doo gives greater satisfaction.*



## In case of emergency

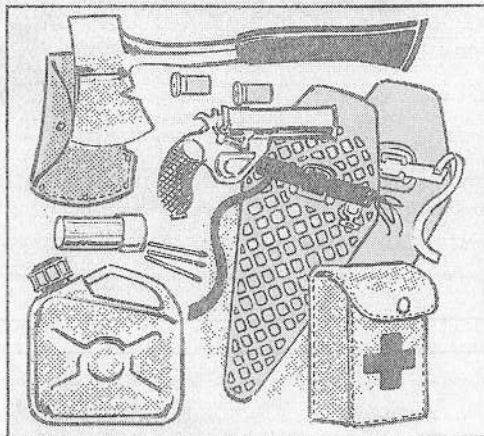
### NORMAL OUTINGS

Whenever going out for a Ski-Doo ride, always carry emergency material. In order to avoid being stranded because of minor problems, you should keep a tool kit, a spare spark plug and a drive belt in the glove compartment at all times.



### GROUP OUTINGS

Ski-Doo fans often organize group rides for snowmobile club members and friends. Whenever participating to these, make sure somebody brings the following material: flare gun and flares, first aid kit, axe, matches, snow shoes, ropes, and possibly fuel. This should ensure more relaxed and enjoyable riding to everyone.

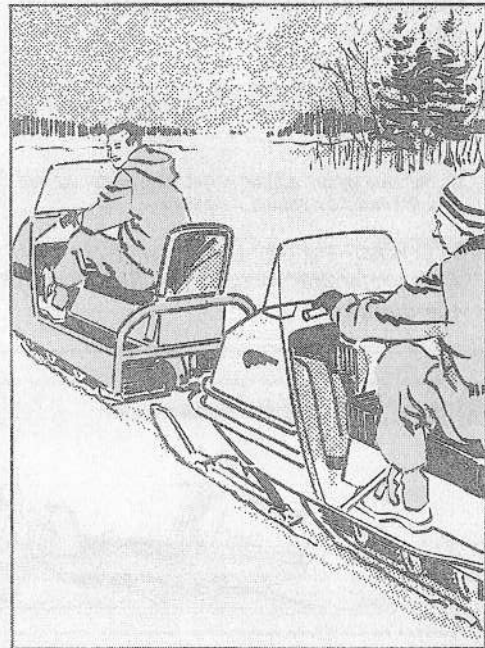


### NIGHT CRUISING

If you like night cruises, a flashlight could be very useful. One never knows what situation may occur; it is better to be overcautious than careless. Don't depend too much on the moon to give you the extra light you may need.

### TOWING

If you have to tow another snowmobile, remove the drive belt from the drive pulley of the machine. Don't use full throttle; the overload will require more power from the engine. The engine will certainly burn more fuel but won't give the Ski-Doo more speed. Hold throttle at  $\frac{1}{2}$  and spare the extra torque you may need.



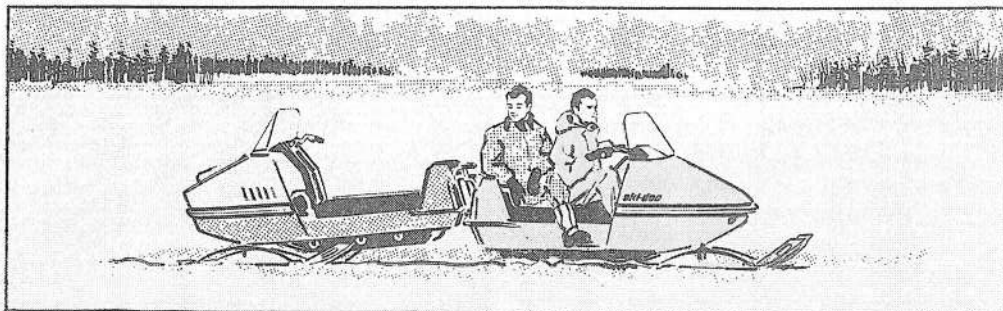
## SOFT SNOW RIDING

When you wander off-trail to look for new thrills, the Ski-Doo may get trapped in deep soft snow. In such a case, the first thing to do is to get off and free the skis of the machine.\* Then, use your weight to sink the rear until the track rests on packed snow. Open the throttle, being careful always to keep your weight at the back of the Ski-Doo, so the machine can pull out more easily.

\* If you must pull the skis out from under the snow, grab both at the time and haul them parallel as much as possible.

*In the case of an Alpine model, the single ski can be freed easily by pulling it upward.*

**NOTE:** When the ski tips are not covered, it is preferable to haul the Ski-Doo by the bumper.



**REMARK:** If the towing distance exceeds one mile, proceed as follows: Remove the spring coupler bolts (2) and turn the skis around (facing the rear).

Lift the back of the snowmobile so the track clears the ground.

Hitch it in that position on the back bumper of your Ski-Doo. It will haul as easy as a sled.





## Ski-Doo preventive maintenance

### LUBRICATION

All Ski-Doo parts needing lubrication are equipped with grease fittings. The Ski-Doo grease available at your dealer's is perfectly applicable on all lubrication points. Unless it is specified otherwise, we recommend to grease the Ski-Doo every 10 hours of operation.

*NOTE: More frequent lubrication will be needed if the Ski-Doo is operated in sludge or water.*

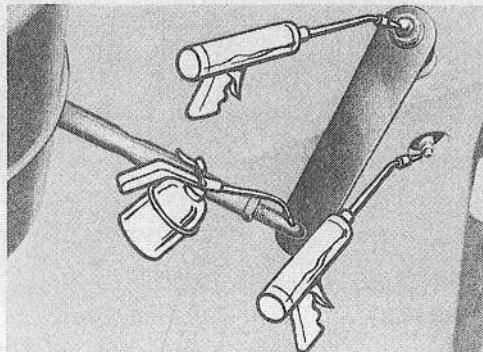


Figure 43

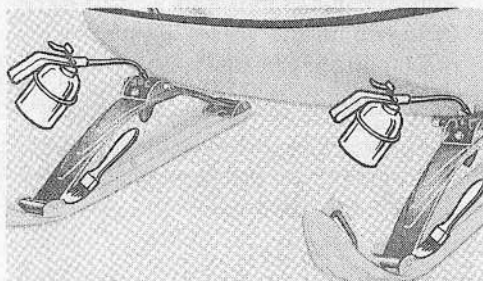


Figure 44

### P1 SKI SYSTEM

Lubricate both ski legs as shown on Fig. 43. The grease fittings are located at the junction of the ski legs with the steering arms. With a brush, apply some grease on the spring slider cushions (2), in order to smoothen the suspension.

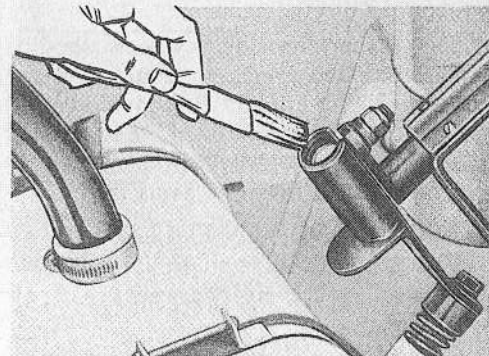


Figure 45

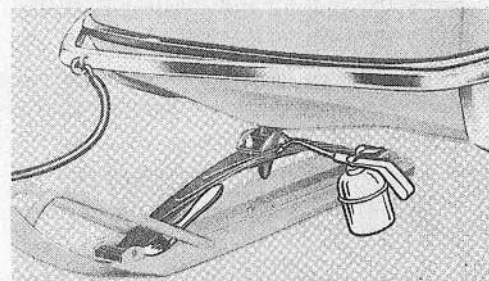


Figure 46

### P2 STEERING MECHANISM

The only points in the steering mechanism that require oiling are shown in Fig. 43 and 45. An oiler filled with Ski-Doo oil is probably the easiest way to lubricate these mobile contact points.

### P3 SUSPENSION

The suspension bogie wheels should be lubricated every ten hours. Grease through the fittings provided at the center of the wheels, until the lubricant appears at the wheel joints. Use a grease gun if possible. See Fig. 48.

### P4 DRIVE & DRIVEN PULLEYS

The drive and driven pulleys should be lubricated every two weeks.

Remove the drive belt.

Open the sliding half of the driven pulley by pulling and twisting it at the same time.

When the pulley is opened, apply a slight coating of grease on the shaft. See Fig. 47.

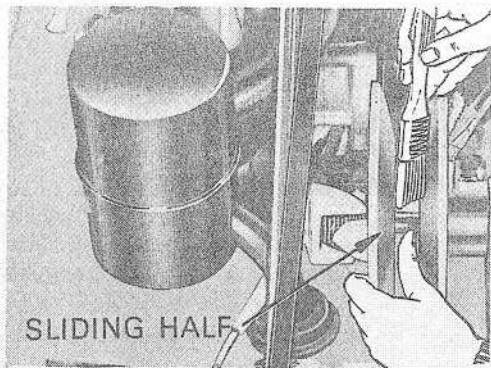


Figure 47  
32

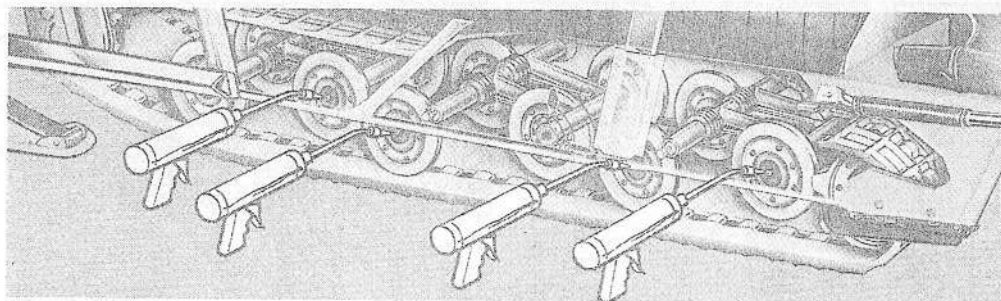


Figure 48

**NOTE:** Also grease the drive pulley shaft.

Activate the sliding half several times to distribute the grease evenly on the full length of the shaft.

Then, remove the excess of grease.

Press back the sliding half and apply some grease on the cam slider shoes. Replace the drive belt.

### POWER TRAIN

#### DRIVE BELT

**P5 ALIGNMENT:** The drive belt alignment should be checked every 10 hours of operation, and before starting on a long trip. Lift and block the rear of the Ski-Doo so the track can turn freely. Start the engine and open the throttle till the drive belt comes up to the edge of the drive pulley. See Fig. 54.

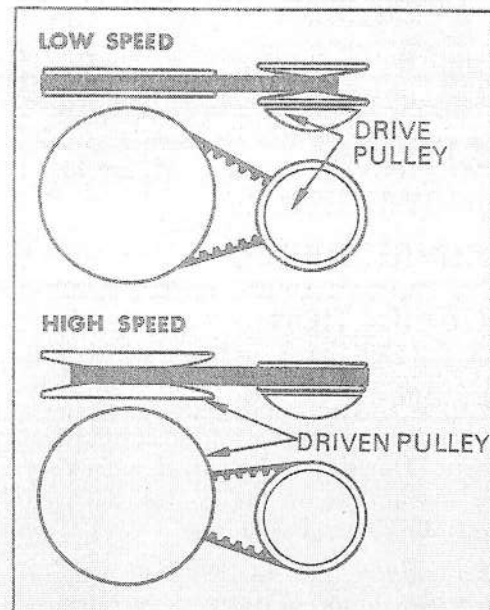


Figure 49

The belt should run perfectly straight on both pulleys. *If not aligned, it will have a tendency to turn over.*

**REMARK:** *If an adjustment of the pulleys proves necessary in order to align the drive belt, we recommend that you contact your dealer.*

**BELT WEAR:** Also it is advisable to check the wear of the drive belt when making the above inspection. *Every belt less than 1/8" wide should be discarded.* For drive belt change-over procedure, see page 37.

## CHAIN CASE

**P6 OIL:** To check the oil level in the chain case, remove the plug located at the maximum level (bottom part of the chain case). If you need to correct this level, use *Ski-Doo Chain Case Oil*, available at all Ski-Doo dealers.

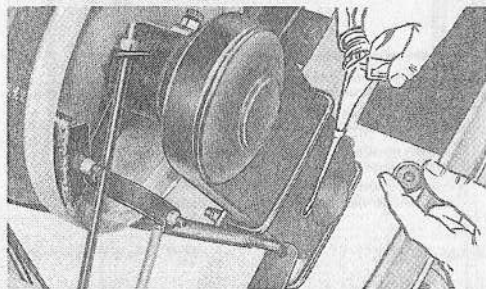


Figure 50

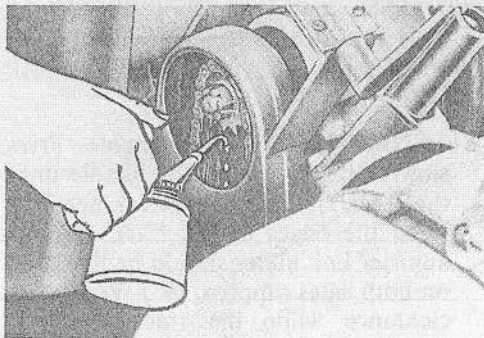


Figure 51

**P7 CHAIN TENSION:** Check the drive chain tension periodically. The normal free-play of the chain should be 1/4" maximum. If you have to make any readjustments, contact your dealer or check for the right procedure in the maintenance section.

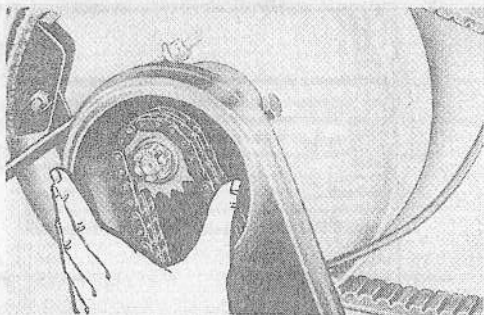


Figure 52

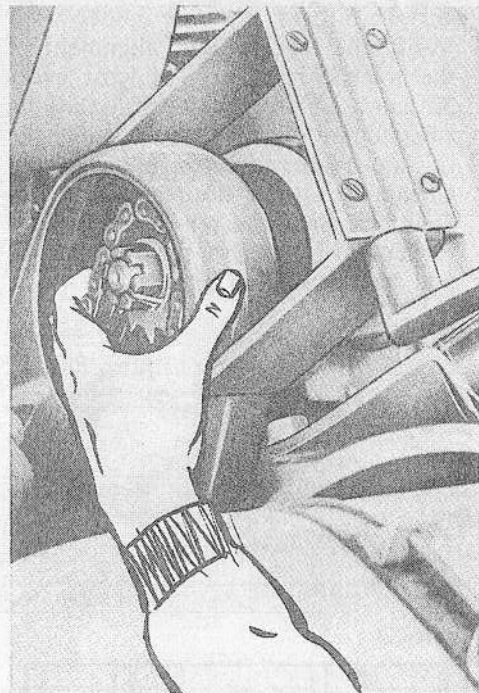


Figure 53

**P8 CARBURETOR FLANGE NUTS:** The carburetor flange nuts must be checked and tightened firmly after the first 2 hours of operation (use 13MM L-wrench included in the tool kit).

**NOTE:** *This operation should be repeated after every 50 hours of running time.*

## P9 TRACK(S)

Verify the tension and alignment of the track(s) regularly; at least every 10 hours. Before going out for a long cross-country ride, make sure the track(s) is (are) adjusted following specifications. Lift up the rear of the Ski-Doo and check the tension and alignment of the track(s) on the bogie wheels and sprockets. See Fig. 54.

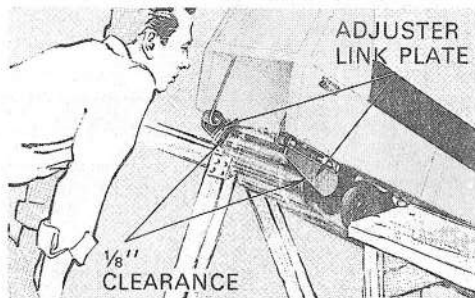


Figure 54

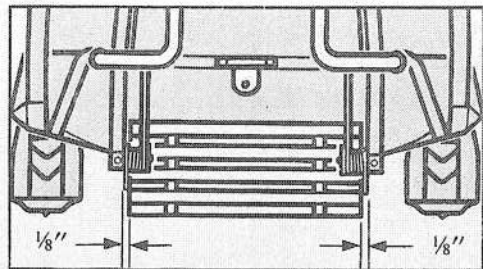


Figure 55

**TENSION:** At the middle section of the track(s), you should have from 2½" to 3" of free-play. For adjustment procedure, see Fig. 56.

**ALIGNMENT:** Start the engine. Press slowly on the accelerator handle until the track(s) turns. The clearance between the edges of the track and the adjuster link plates should be the same on both sides (approx. ⅛"). Verify this clearance while the track(s) turn(s) slowly. See Fig. 55 and/or 57. If a readjustment is needed, refer to page 39, Fig. 67.

**REMARK:** *Misalignment can cause excessive wear of tracks and sprockets.*

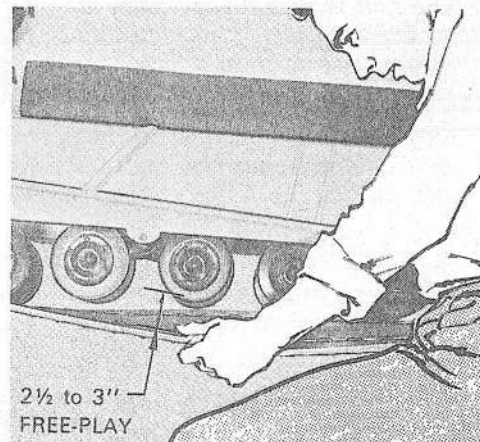


Figure 56

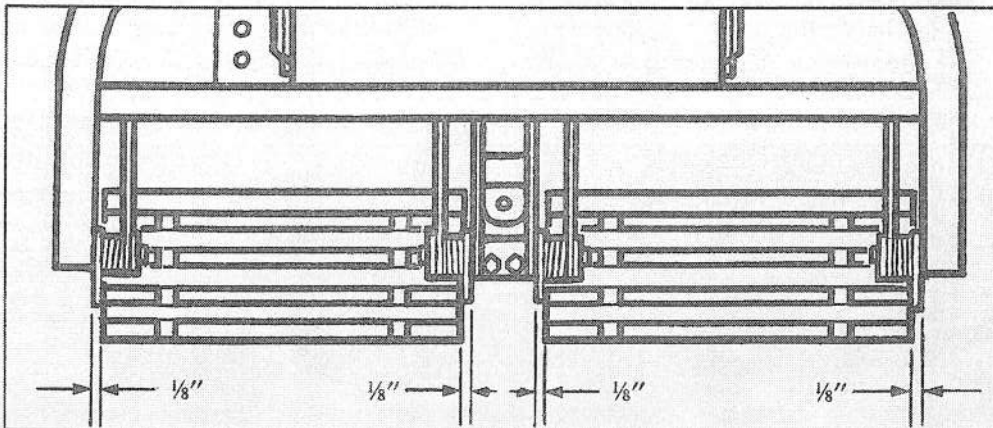


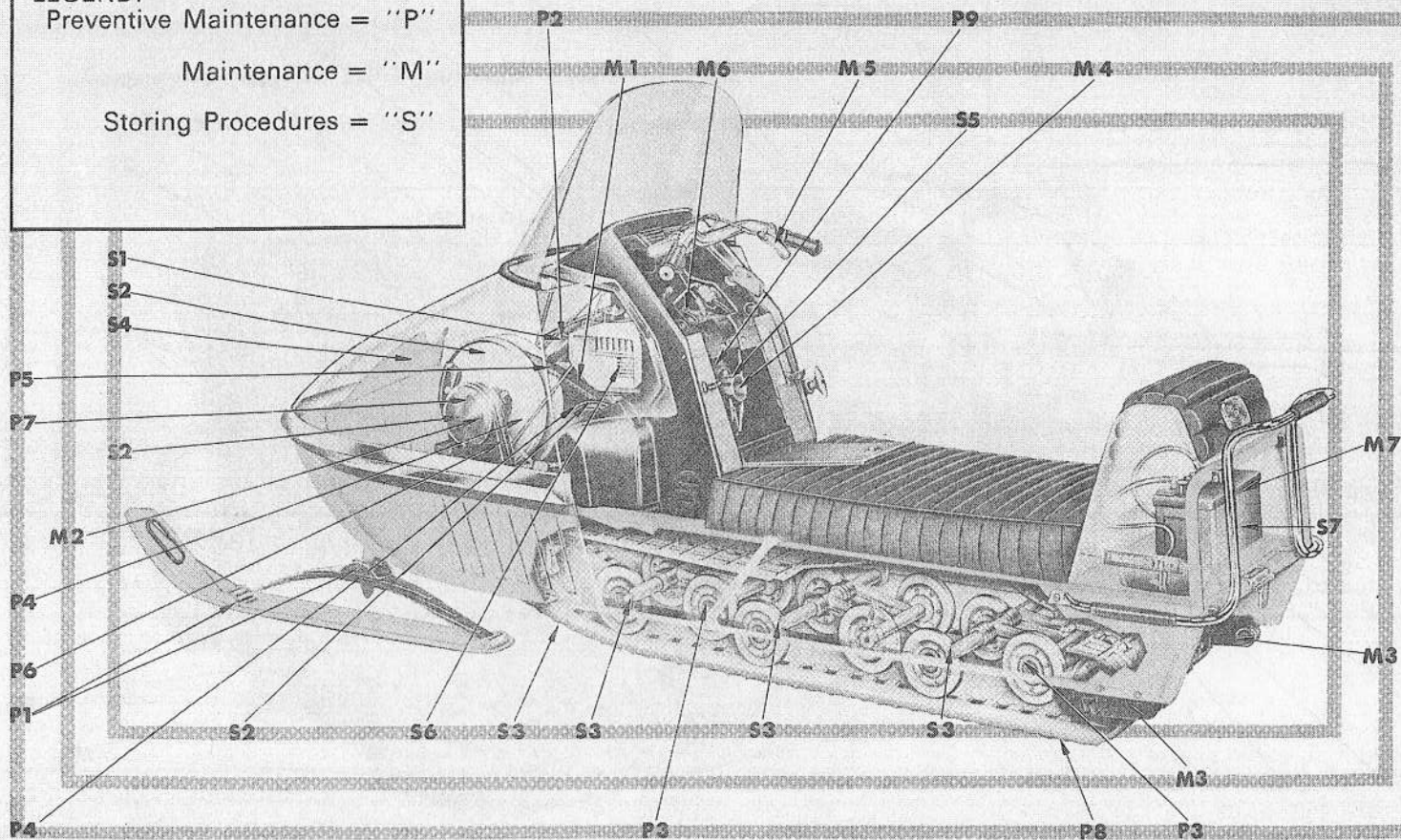
Figure 57

**LEGEND:**

Preventive Maintenance = "P"

Maintenance = "M"

Storing Procedures = "S"

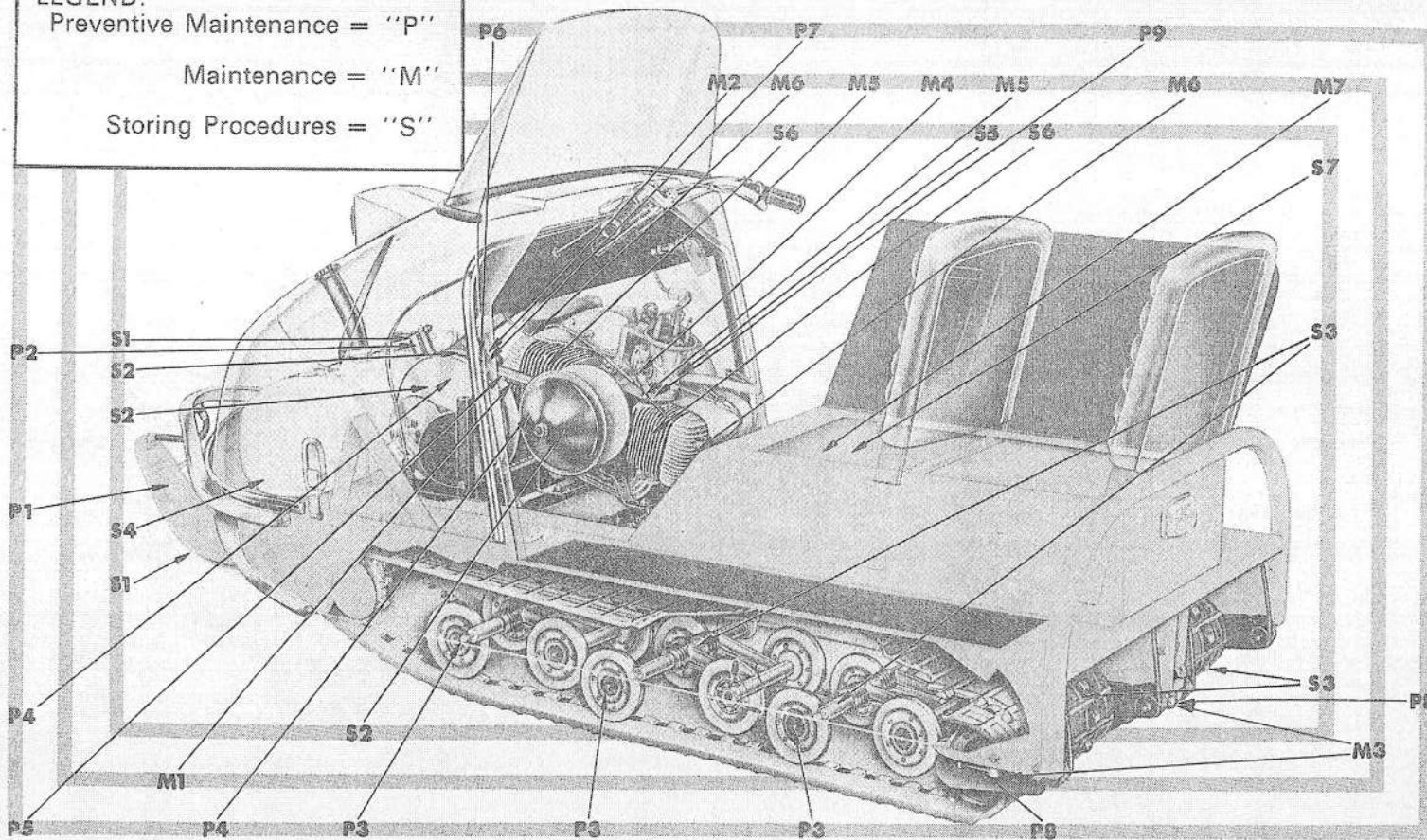


**LEGEND:**

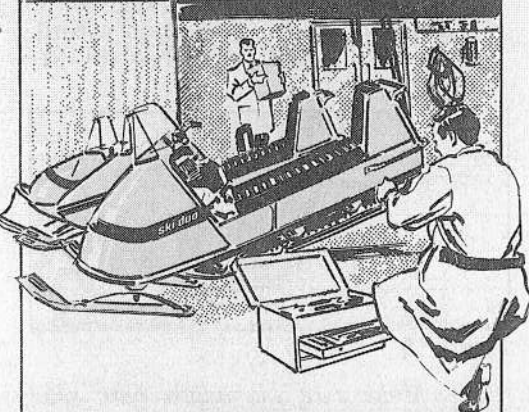
Preventive Maintenance = "P"

Maintenance = "M"

Storing Procedures = "S"



## ski-doo clinic



## Ski-Doo maintenance

### POWER TRAIN

#### M1 DRIVE BELT CHANGE-OVER

Here is the procedure to follow if a drive belt replacement proves necessary on your Nordic or Alpine Ski-Doo:

#### NORDIC MODELS:

Tilt the hood frontwards.

Open the driven pulley (pulling and twisting the sliding half). See Fig. 60.

Press the drive belt down on the driven pulley shaft.

Disengage the belt from the driven pulley.

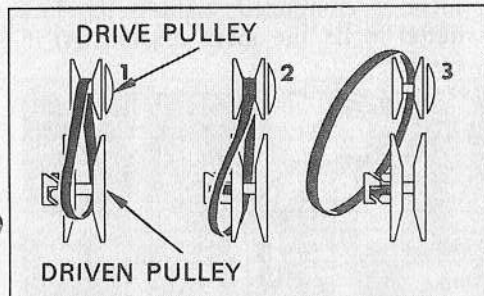


Figure 60

**NOTE:** After the belt has been removed from the driven pulley, it can easily be slipped over the centrifugal governor.

Remove the drive belt from the Ski-Doo (on the cam side of the driven pulley). Inverse the procedure to install the new belt.

#### ALPINE MODELS:

Remove the hood.

Remove the pulley guard.

Open the driven pulley sliding half (twist and push).

Press the belt down on the driven pulley shaft.

Remove the belt from the driven pulley, then pass it over the centrifugal governor.

Remove the (2) cap screws at the bottom of the left hand side chain case bracket. Rotate the bracket assembly half a turn. Disconnect the brake cable at the cable ferrule.

Remove the drive belt from the Ski-Doo, passing it under the left hand side of the chain case bracket.

Inverse the procedure to install a new belt.

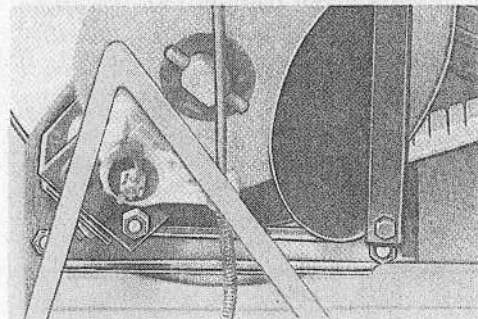


Figure 62

#### M2 DRIVE CHAIN TENSION

Check the free-play of the drive chain(s) regularly. Remove the upper chain case cover and press down on the chain(s). The normal free-play should be 1/4" maximum (All models).

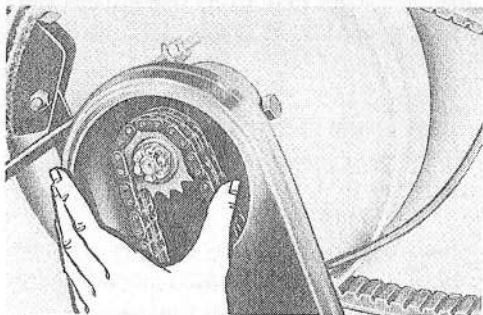


Figure 63

NOTE: For complete all-around check of the drive chain tension, spin the driven pulley 3 full turns, checking the drive chain free-play at each turn.

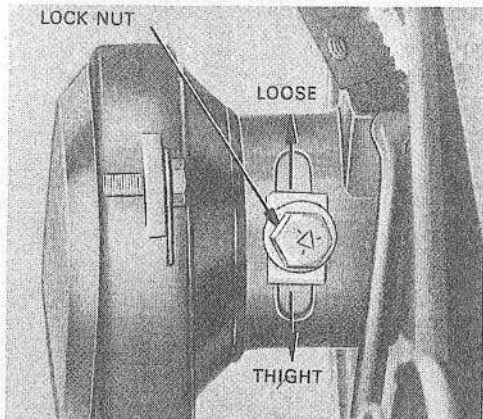


Figure 64

If readjustment is necessary, loosen the lock nut(s) at the upper part of the chain case (see fig. 64 or 65 ). Push the bolt(s) down to tighten the chain(s) or up to loosen it. When the adjustment is completed, tighten the lock nut(s) to fix the main tensioner(s) in place.\*

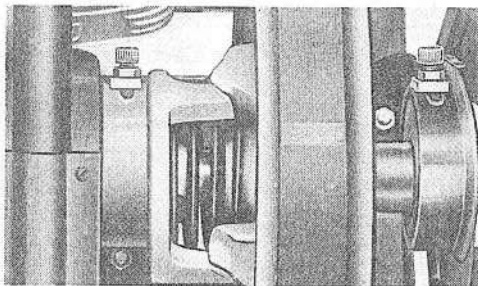


Figure 65

REMARK: Any difficulty regarding this adjustment should be submitted to the dealer.

### M3 TRACK(S) ADJUSTMENT

TENSION: Lift the rear of the Ski-Doo and block the track(s) off the ground. Press down with your hand on the middle section of the track(s) to check for the proper required free-play (2½" to 3" between the track(s) and the frame). See page 34, Fig. 56.

\* On Alpine models, make sure you adjust both tensioners equally.

To adjust an improper tension, loosen the two bolts (b) which hold the adjuster bracket to the running board. Tighten or loosen the tension accordingly with the adjuster screw (a). See Fig. 66.

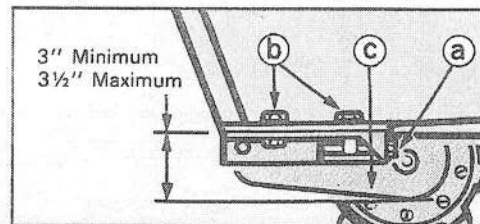


Figure 66

NOTE: Make sure you adjust both sides equally.

Retighten the bolts (b) after completing the track tension adjustment.

ALIGNMENT: While the machine is blocked off the ground, run the engine so that the track(s) will turn slowly. Check if it is (they are) well centered on the sprocket teeth. The distance between the edges of the track(s) and the adjuster link plates (c) should be approximately ⅛" on both sides. See page 34, Fig. 55 or 57.

To adjust the clearance, tighten the adjusting screw (a) on the side where the track is closer to the link plate



See Fig. 67. It will move toward the other side.

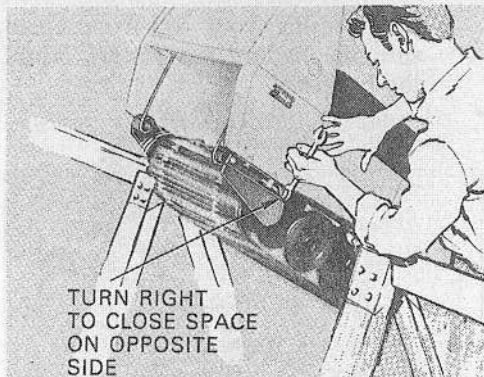


Figure 67

**REMARK:** *Whenever aligning a track, make sure it turns evenly on the sprocket teeth.*

#### M4 CARBURETOR ADJUSTMENT

There are (4) different adjustments on the carburetor of the Rotax engine:

- Idle speed adjustment.
- Idle speed mixture adjustment.
- High speed mixture adjustment.
- Maximum throttle opening.

**REMARK:** *Note that a relationship exists between adjustments "a" and "b" and also between "c" and "d". Do not attempt to correct one adjustment without checking the other.*

**IDLE SPEED ADJUSTMENT:** Turn the idle speed adjuster screw, clockwise to increase speed and counterclockwise to reduce it.\* See Fig. 68 or 69, item a.

**IDLE SPEED MIXTURE ADJUSTMENT:** Be careful when adjusting the idle speed mixture. Too rich a mixture activates carbon formation inside the engine. If the mixture is too lean, the engine will lack lubrication at idle speed. See Fig. 68 or 69, item b.

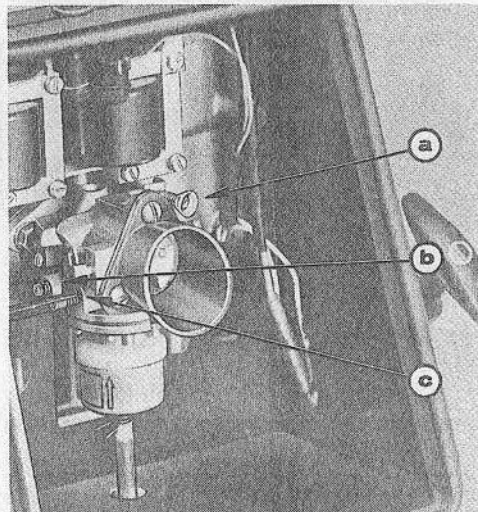


Figure 68

\* *Low idling speed gives you much better control of your machine at slow speed.*

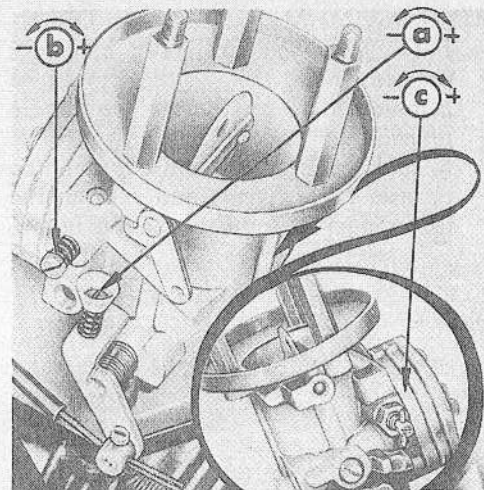


Figure 69

The idle speed mixture screw should be set at  $\frac{3}{4}$  turn open (counterclockwise) for primary adjustments. Open more for richer mixture or close (turn clockwise) for leaner mixture. See Fig. 68 or 69, item b.

#### HIGH SPEED MIXTURE ADJUSTMENT:

The high speed mixture screw is turned clockwise or counterclockwise to give a lean or rich mixture (same as for idle speed mixture). The adjusting screw should be opened  $1\frac{1}{8}$  turns as primary setup. See Fig. 68 or 69, item c.

**M5 MAXIMUM THROTTLE OPENING:** When the accelerator handle is pressed down, the throttle should be completely opened before the handle touches the steering bar. If you have to make any adjustments, loosen the throttle cable ferrule and shorten the upper part of the cable. See Fig. 70.

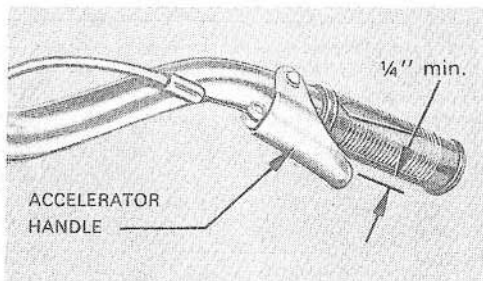


Figure 70

**M6 SPARK PLUG(S) CHANGE-OVER**  
Disconnect the spark plug wire(s). Use the box wrench included in the tool kit to remove the spark plug(s). See Fig. 71.

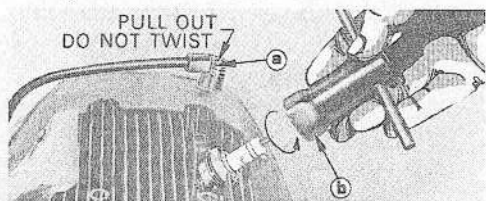


Figure 71

**ADJUSTMENT:** Check the spark plug gap with a wire feeler gauge. Correct the gap if different from 0.020".

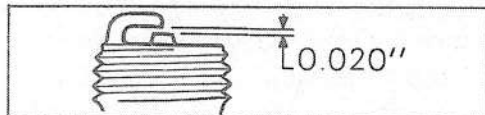


Figure 72

Compare the condition of the spark plug(s) with Fig. 73. This may help you to determine the running condition of the engine.

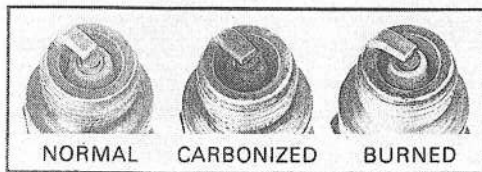


Figure 73

Change the spark plug(s) whenever necessary.

**M7 BATTERY CARE**  
(ELECTRIC MODELS)

For longer life and maximum efficiency of the Ski-Doo battery, pay attention to the following points:

- a) Check the electrolyte level in the battery before going for a long ride.

**NOTE:** *If this level must be corrected, ADD DISTILLED WATER ONLY.*

- b) Check all battery and wire connections (vibrations may loosen them).
- c) When using your Ski-Doo, make sure the battery sits solidly inside the backrest.

\* *Low idling speed gives you much better control your machine at slow speed.*



Figure 74

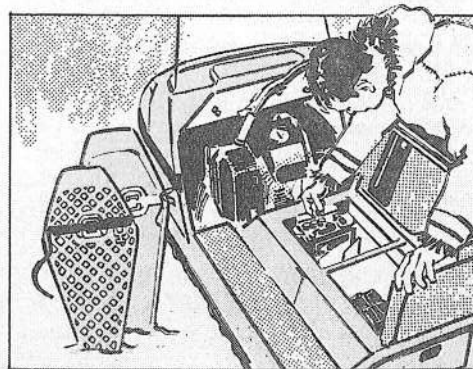
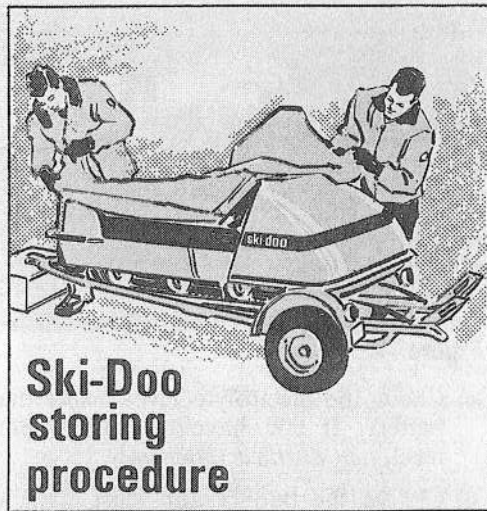


Figure 75



## Ski-Doo storing procedure

During the "Off-Season", rust may damage the vital parts of your Ski-Doo. Therefore, it is essential to store the Ski-Doo properly for this period of idleness. The following storing procedure will help to reduce the cost of the next pre-season tune-up considerably.

On pages 35 and 36, the illustrations show all the points which need attention before the "Off-Season".

*NOTE: If you are not equipped with the proper tools or not in a position to complete this procedure correctly, it is advisable to contact your dealer.*

### SKI-DOO CLEAN UP

Remove the hood.

Clean the inside and outside of the machine thoroughly.

Wipe off any excess of water or ice. Clean the track(s) and the suspension assembly.

### S1 SKI AND STEERING MECHANISM

Lubricate the ski and steering mechanism as indicated in the Preventive Maintenance Section.

*NOTE: Before storing, it is advisable to flush out the old grease from all the bearings.*

All bare surfaces of the ski and steering mechanism should be coated with oil or sprayed with Ski-Doo Metal Protector, on hand at your dealer's.

### S2 CHAIN CASE AND PULLEYS

Drain the old oil from the chain case and replace it with fresh oil.

Remove the outer half of the centrifugal governor.

Lubricate all the moving parts of the governor with Ski-Doo oil or Ski-Doo Metal Protector.

Remove the drive belt.

### S3 SUSPENSION AND TRACK(S)

Flush out the old grease from each

bogie wheel. See Page 32, Fig. 48.

*Lubricate the wheels until fresh grease appears at the joints.*

Remove the three suspension bogie wheel sets from the frame, and make sure the suspension assembly moves freely on the cross shafts. Fig. 76.

Lubricate the shafts with Ski-Doo oil.

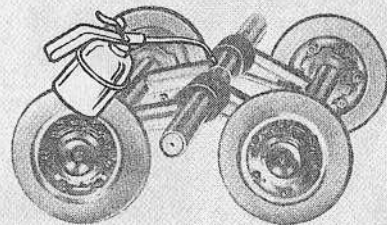


Figure 76

### S4 FUEL SYSTEM

Drain the fuel tank.

*NOTE: Polyurethane tanks (as used on Nordic and Alpine models) are not equipped with drain plugs. Remove the tank from the Ski-Doo before draining.*

Pour about one quart of gasoline into the tank.

Shake well to clean, then drain again.

Replace the tank in the Ski-Doo.

## ENGINE CARE

**S5 CARBURETOR DRY-OUT:** To prevent gum formation in the carburetor during the period of inactivity, you must dry it out before storing the Ski-Doo.

Disconnect the fuel line under the carburetor body. See Fig. 77.

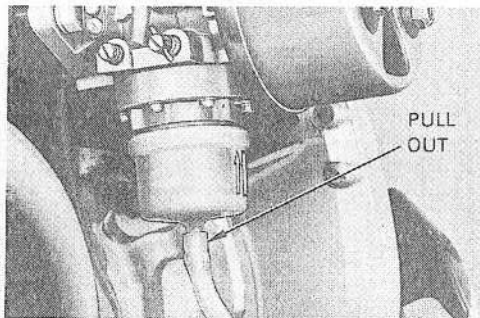


Figure 77

Start the engine and let it turn until it runs out of fuel and stops.

**S6 CYLINDER OILING:** If the cylinders are not lubricated, rust may be formed inside the engine during storage. See Fig. 78.

- Remove the spark plugs.
- Connect the ignition wires on the plugs and ground the latter on the engine head.

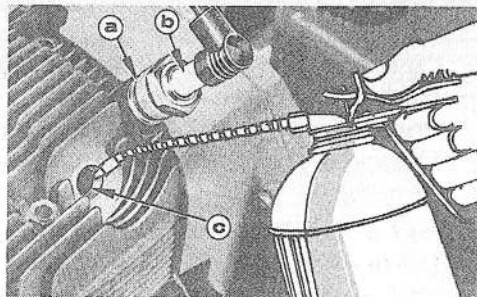


Figure 78

- Pour the equivalent of one spoonful of Ski-Doo Oil into each spark plug hole.
- Block the carburetor throat with a rag.\*
- Turn the engine with the starter for about 30 seconds.
- Remove the rag blocking the carburetor throat and replace the spark plugs.

*On manual start engines, crank the starter 10 to 12 times to lubricate the cylinders.*

\* When you turn the engine, the suction should eliminate the remaining fuel.

**S7 BATTERY (ELECTRIC MODELS ONLY)**

- Disconnect the battery and remove it from the Ski-Doo. See Fig. 79.
- Clean the outside of the battery with a solution of baking soda and water.

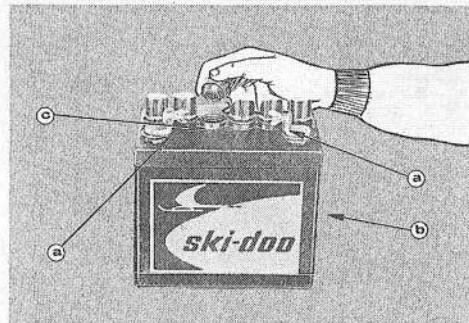


Figure 79

- Check the electrolyte level inside the battery. If you have to correct the level, *add distilled water only*.
- Charge the battery and store it in a cool and dry place. See Fig. 80.

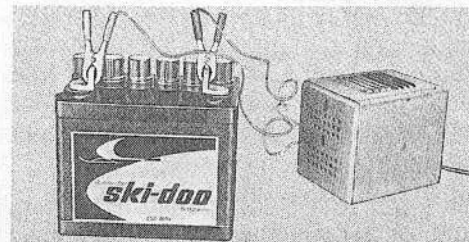


Figure 80

**REMARK:** An inactive battery will lose its charge gradually and become sulfated. For this reason, trickle-charge the battery every 40 days.

## Low performance diagnosis

### THE CHART

The low performance diagnosis chart is provided to you for *emergency cases* only. Whenever you are not entirely satisfied with the performances of your Ski-Doo, contact the nearest dealer. Do not attempt to repair the machine yourself unless it is impossible to reach an authorized Ski-Doo dealer.

### HOW TO USE THE CHART

When you have to use the chart for some reason or other, always remember that the items "Possible Causes" are listed in order of frequency. This chart refers to abnormal situations and is meant to help you in case you are stranded. Whenever you can, it is advisable to submit all low performance diagnoses to your Ski-Doo dealer.

SYMPTOMS	POSSIBLE CAUSES	REMEDIES
ENGINE DOES NOT TURN (ELECTRIC MODELS)	1- Starting system, engine	Try to turn the engine with the manual starter. a) If the engine can be turned manually, check Possible Cause #2. b) If engine cannot be turned, check Possible Cause #5.
	2- Wire connections	Check for loose battery and starter connections. Tighten if necessary.
	3- Battery	Battery may be discharged or defective. To check if the battery is faulty, try to start the Ski-Doo manually.
	4- Starter	If the starter seems defective, contact your dealer.
	5- Seized engine	Seizure is a direct result of poor lubrication. Allow the engine to cool off and verify the fuel mixture (20:1). If you can't restart, contact your dealer.
ENGINE DOES NOT TURN (MANUAL MODELS)	Seized engine	Same as for electric models. Refer to Possible Cause #5 of "Engine does not turn".

**ENGINE TURNS OVER SLOWLY BUT DOES NOT START (ELECTRIC MODELS)**

**ENGINE TURNS OVER SLOWLY BUT FAILS TO START OR STARTS WITH DIFFICULTY (ALL MODELS)**

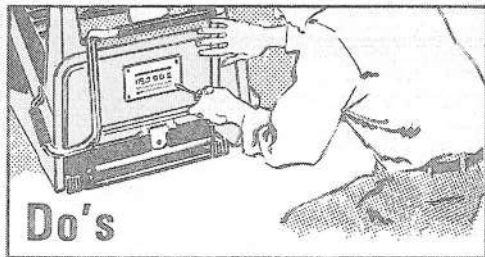
1- Wire connections (starting system)	Refer to #2 in Possible Causes of "Engine does not Turn".
2- Battery or starter	Refer to #3 & 4 in Possible Causes of "Engine does not Turn".
1- No fuel to the engine	Check fuel level in the tank and fill with correct mixture (20:1).
2- Faulty ignition	Remove the spark plug wires and hold them about 1/8" from the cylinder head. Try to start the engine. If no sparks appear at the wire tips, the ignition system is faulty. <i>Do not attempt to repair, contact your dealer.</i>
3- Spark plugs	Check for fouled or defective spark plug(s). Replace if necessary.
4- Flooded engine	Press on the accelerator, push the choke knob to its normal position and try to start the engine. <i>Do not keep electric starter engaged for more than 30 seconds. Allow starter 2 minutes to cool off between each try.</i>
5- Too much oil in the fuel	Drain the fuel tank and fill it with the correct mixture (20 gasoline: 1 Ski-Doo oil).
6- Low speed adjustment incorrect	Screw the low speed adjuster in slightly and come back one turn counterclockwise. Make the final adjustments with the engine running and warm.
7- Clogged fuel line (dirt or ice)	Remove and clean the fuel filter. <i>In case of ice formation in the fuel line, it is advisable to contact your dealer.</i>
8- Faulty carburetor	Contact your dealer for quick repair.
9- Breaker points	Breaker points may be worn or out of adjustment. In this event, contact your dealer.
10- Poor engine compression	Improper fuel mixture may accelerate excessive engine wear resulting in poor compression. Contact your dealer if you notice such a problem of low compression on your engine.

**ENGINE  
LACKS  
ACCELERATION  
OR  
POWER  
(ALL MODELS)**

1- Fouled spark plug(s)	Change the spark plug(s). Fouled plugs may be cleaned, regapped and tested by your dealer.
2- Defective spark plug(s)	Check for defective spark plug(s) and replace if necessary.
3- Dirt or water in the fuel	Clean the fuel filter. Drain the fuel tank if necessary, and refill with the correct mixture.
4- Defective ignition	In case of a defective ignition system, contact your dealer for repair and adjustment.
5- Carburetor	Readjust the carburetor. If the trouble persists, contact the dealer.
6- Engine	Defective engines should be sent to the dealer.

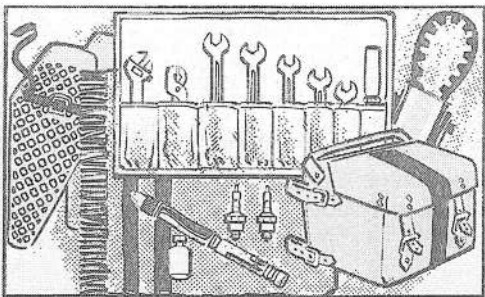
**SKI-DOO  
CAN'T  
GET  
ITS  
FULL  
SPEED  
WHILE  
ENGINE  
TURNS  
MAXIMUM  
(ALL MODELS)**

1- Drive belt	Check for defective or worn out drive belt. Replace it if necessary.
2- Drive chain tension too tight	If drive chain tension is incorrect, have the dealer readjust it.
3- Drive pulleys misaligned	If the drive pulleys are not aligned correctly, contact your dealer for readjustment.
4- Frozen track assembly	A frozen track assembly may reduce the performance of the Ski-Doo. Lift the Ski-Doo rear off the ground, press on the accelerator handle and let the track turn for about one minute.
5- Track assembly too tight or out of alignment	Readjust the tension of the track and center it on the sprockets.



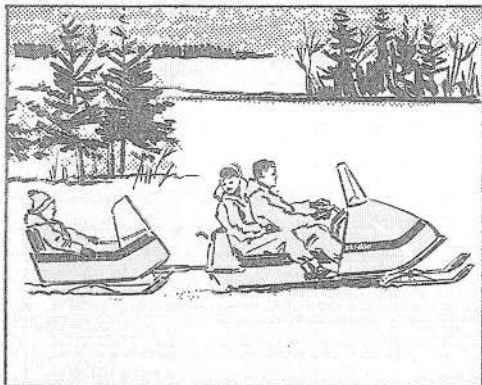
## Do's

- 1—Check the legal status of the Ski-Doo in your area. Obtain a licence if necessary.
- 2—Follow established trail signs. They will keep you on safe and interesting trails and direct you away from avalanche areas. Mark all new trails; trail signs are available from your Ski-Doo dealer.

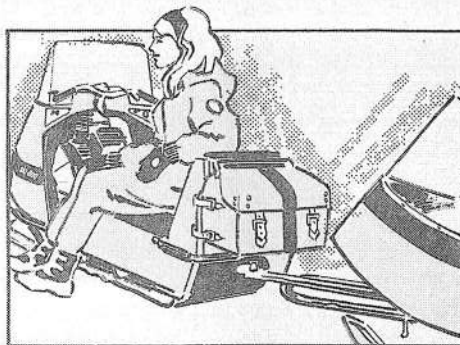


- 3—Always carry emergency material such as: spare spark plug, spare drive belt, snow shoes, tools, matches, flares, warm blanket, etc.

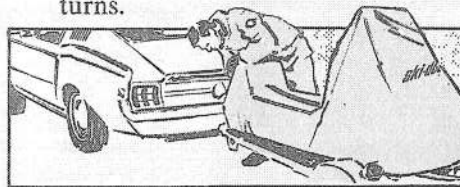
- 4—Check the weather forecast before long drives. Make sure you carry enough fuel.



- 5—Be careful when giving children a ride. Go more slowly, exert extra care, avoid treacherous sidehills and broken terrain. Check frequently if child is riding correctly.
- 6—Always use lights when riding at night. Reduced visibility makes it a must to protect yourself and those riding with you or following you.
- 7—Be careful when going up or down steep hills. Place one knee on the seat for better balance on sidehills.
- 8—Wear warm waterproof clothing for long trips. Since your feet don't move much and are often encased in snow, warm, waterproof boots are a must.



- 9—Use a tow-bar when pulling a trailer behind your Ski-Doo. Rigid hitch prevent tailgate collision with sudden stops and provide better control in turns.

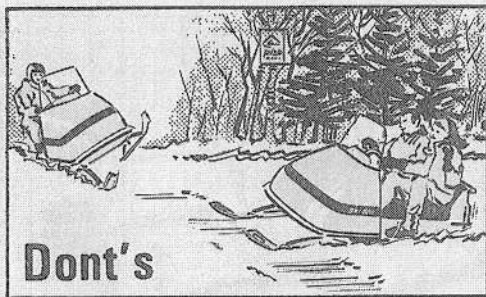


- 10—When trailering your Ski-Doo, make sure it is properly secured. Protect it with a bright cover — also well tied down. Check lights and hitch before leaving.

## FOR SAFER SNOWMOBILING

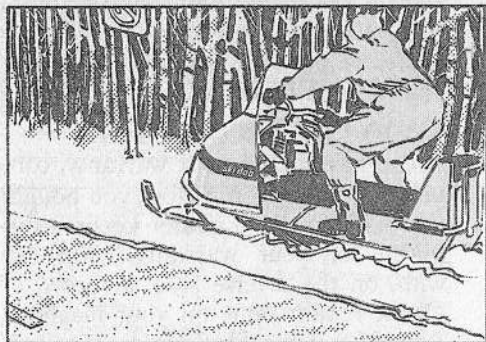
These safety hints have been developed in cooperation with the Canadian Highway Safety Council and the National Safety Council in the United States.



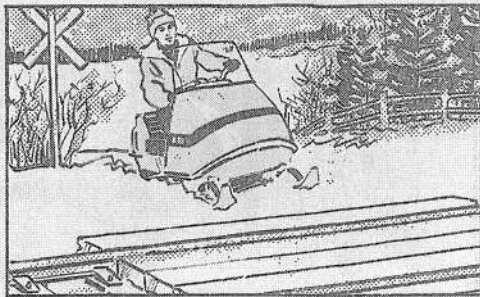


## Dont's

- 1—Don't cut across another's right of way. Prevent injury to yourself and to others.
- 2—Don't jump over rocks, stumps, etc. Your carelessness may result in serious damage to you and your machine.



- 3—Don't forget to check local traffic regulations. Driving a snowmobile on a highway is illegal in some areas, dangerous in all.



- 4—Don't speed across roads or railway tracks. Make a complete stop and check traffic. Cross only if local regulations permit.
- 5—Don't smoke while refuelling.



- 6—Don't leave your keys in the ignition switch. It represents an invitation to theft and a danger to unsupervised children, especially if your snowmobile is an electric-start model.

- 7—Don't cross a river or a lake before checking the ice thickness. If the ice is very thin or if you are in doubt, do not take unnecessary chances.



- 8—Don't drive your Ski-Doo in the vicinity of skiers. Keep off ski trails and ride only in areas provided for snowmobiles.
- 9—Don't attempt any stunts. Excessive speed threatens others and can possibly result in personal injury.



- 10—Don't overload your Ski-Doo. A trailer carries far more than you can, without any loss of maneuverability.

Get your free copy of "Play Safe for More Winter Fun" booklet, from which these safety hints have been taken, by writing to Bombardier Limited, P.R. Department, Valcourt, P.Q., Canada.

## How to make a claim

To make a claim under this warranty, contact the dealer who originally sold you the machine, or any authorized Ski-Doo dealer. Nobody else is authorized to repair a warranted Ski-Doo or this will render warranty void.

**IBM WARRANTY CARD:** For the warranty to apply, you must be certain that it has been registered with us by the dealer at the time of sale. The IBM warranty card, completed and returned to us, will register the warranty in your name and permit us to have a detailed operation record of your Ski-Doo.

**CLAIMS:** When completing the claim papers, the dealer should give you a copy for your records. *Your signature is required on this form, as owner of the Ski-Doo, to authorize repairs.*

## Parts and service

Make sure that you install genuine Bombardier Ski-Doo parts whenever replacements are required. This will ensure a more pleasurable use and longer life of the Ski-Doo at all times.

### DEALER INSPECTION

After 10 to 15 hours of operation, bring the Ski-Doo back to your dealer for inspection. Following this break-in period, all parts should be checked and readjusted if necessary. Further good periodic maintenance can ensure you a winter of sheer enjoyment with your new Ski-Doo.

Good care of Ski-Doo parts and body is essential to keep performances at a

ski-doo



maximum. Ski-Doo dealers only can provide specialized hands and materials to your entire satisfaction. Have your dealer inspect the Ski-Doo whenever you judge it necessary.

### SKI-DOO LIFE RECORD CARD

If you have to use your warranty, contact the dealer from whom you bought the Ski-Doo. Each dealer keeps a duplicate of your warranty certificate with, on the reverse side, a record of all the repairs done on your machine. Whenever your Ski-Doo is repaired, be sure to *sign your Ski-Doo life record card*, on hand at your dealer's. This will save you a lot of time if you ever have to make further claims.





# Warranty

Bombardier Limited, as manufacturer, warrants to the original retail purchaser, that each new Ski-Doo snow vehicle is free from defects in material and workmanship for a period of one (1) year from date of purchase by the original retail purchaser. ORIGINAL RUBBER PARTS and battery are warranted under the terms of this warranty for a period of ninety (90) days from the date of first use by said original retail purchaser.

Restricted under this warranty are:

- a) Alpine 640 E. model, including all components, is warranted for a period of ninety (90) days from date of first use by the original purchaser;
- b) The TNT and Olympic SS series of Ski-Doo snow vehicles, including all components, are warranted for a period of thirty (30) days from date of first use by the original retail purchaser.

Manufacturer's obligation under this warranty is strictly limited to repair or replace any defective part which has been returned to the manufacturer, shipping costs prepaid, and determined by them to be defective.

It is essential in the application of this warranty, that the Ski-Doo was not subjected to any accident or

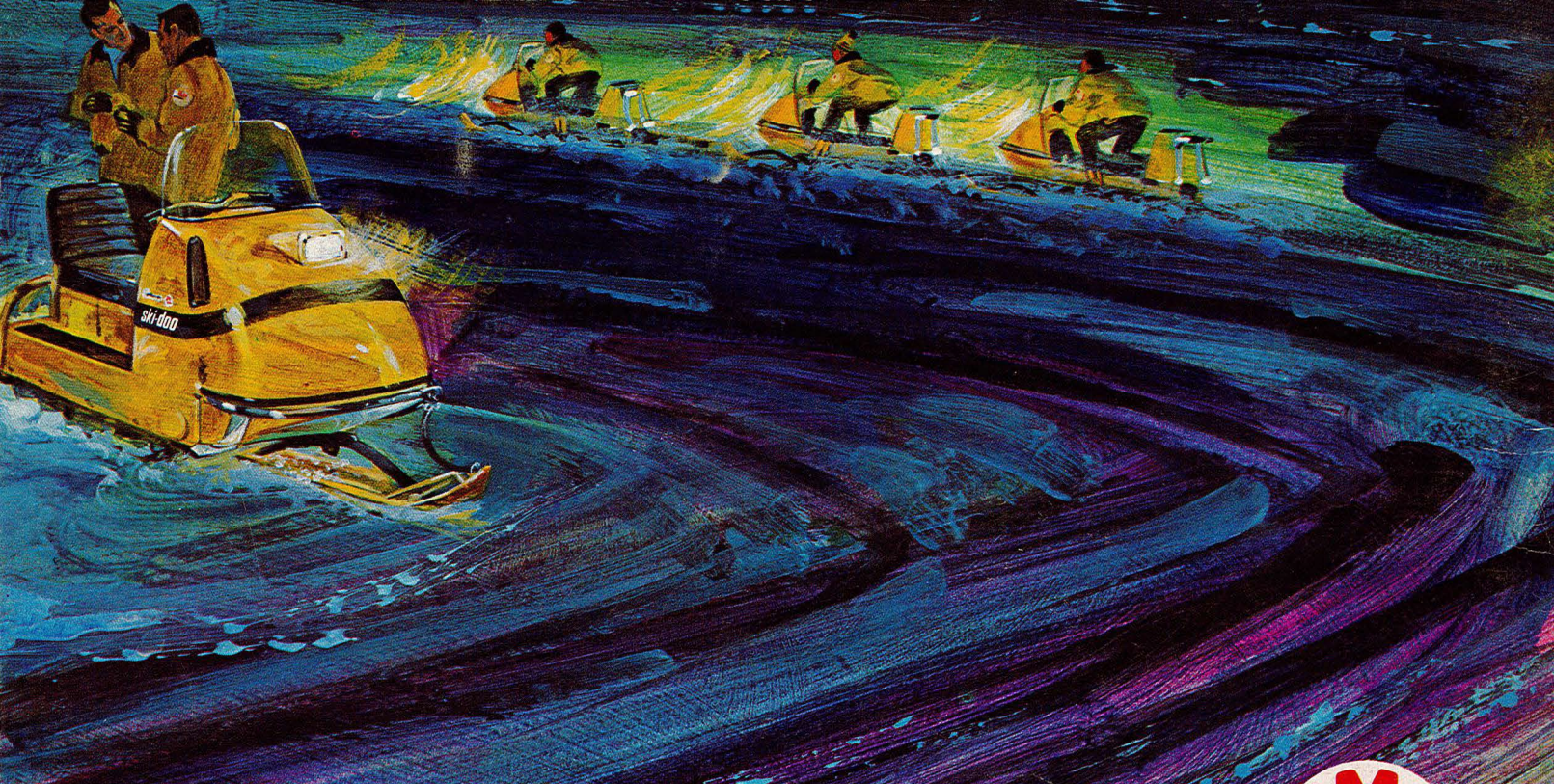
misuse, and has always been repaired with genuine Bombardier replacement parts, by an authorized Bombardier Ski-Doo dealer. A Ski-Doo snow vehicle will not be warranted if modified in any way, unless such modification has been previously approved in writing by the Manufacturer. Operating a Ski-Doo snow vehicle in a race, or modifying it with high performance parts, whether such parts be supplied by Manufacturer or not, or operating a Ski-Doo snow vehicle on other surfaces than snow or ice will be considered misuse and the warranty will not apply.

This warranty does not apply, if a Ski-Doo snow vehicle has been used by an authorized Ski-Doo dealer or any other person prior to the original retail sale.

This contractual warranty, limited to the aforementioned periods, replaces all other legal warranties, and the manufacturer will not be responsible, under any circumstances, for any loss or damage as a result of any hidden defects, accidents, misuses or other faults. No one is authorized to modify the conditions of this warranty.

**BOMBARDIER LIMITED,**  
Valcourt, P.Q.  
Canada.





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