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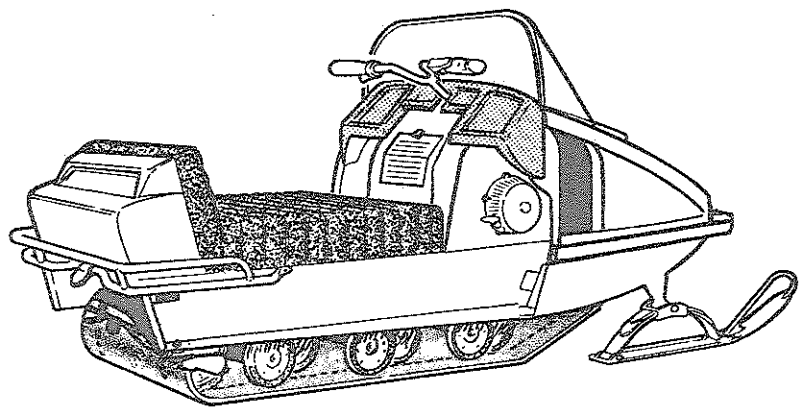
## WELCOME TO THE SNO\*JET FAMILY.

Your Sno\*Jet is the passport to a Winter wonderland of excitement and fun.

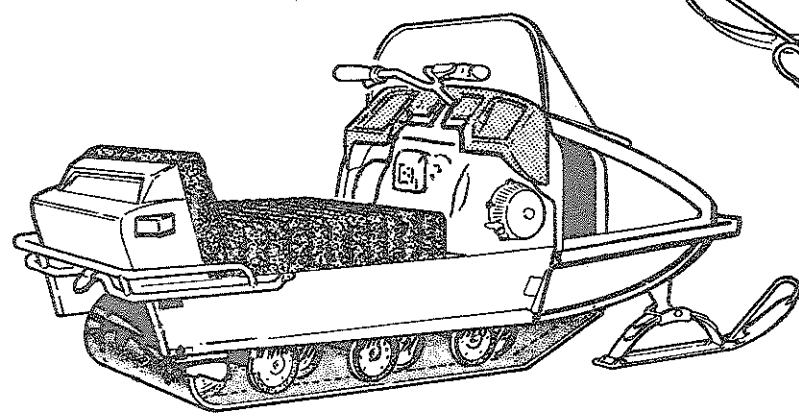
To help you realize its performance and pleasure potential to the full, please read this manual carefully. Keep it handy for ready reference.

Whether you are new to snowmobiling, or a veteran of this unique sport, we are confident you will find

**SNO\*JET®**  
better by design

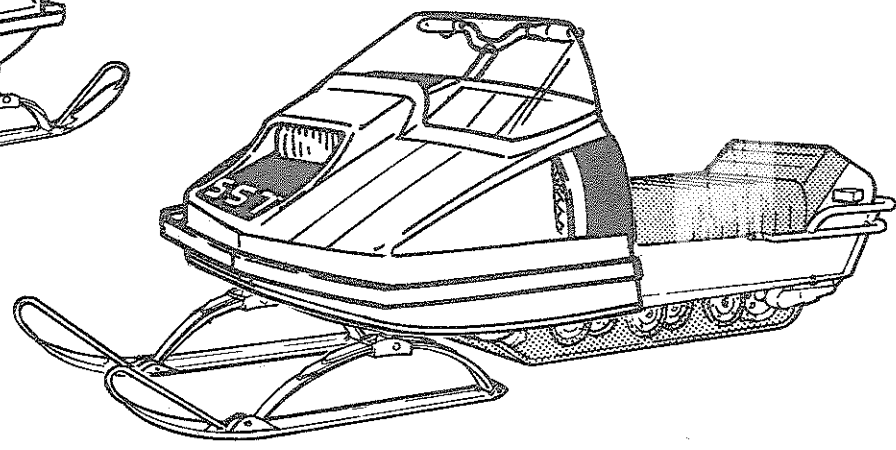


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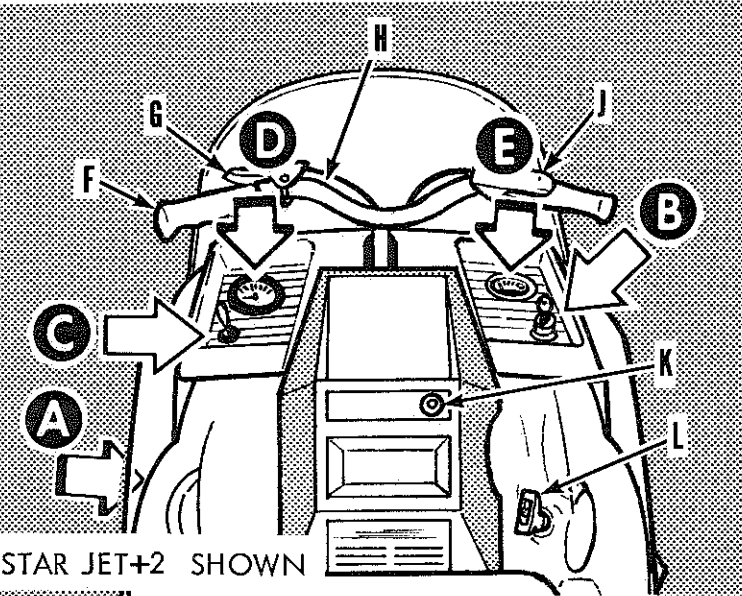


← STAR JET

← STAR JET +2

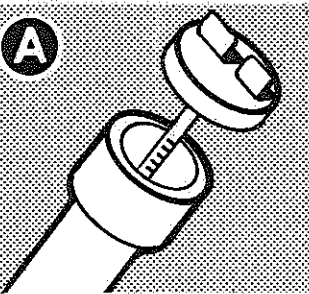


# INSTRUMENTS & CONTROLS

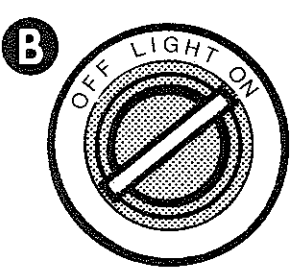


STAR JET+2 SHOWN

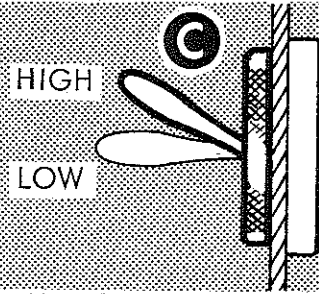
- |                |                       |
|----------------|-----------------------|
| F-HANDLE GRIP  | J-THROTTLE HANDLE     |
| G-BRAKE HANDLE | K-PUSH-BUTTON STARTER |
| H-STEERING     | L-MANUAL STARTER      |



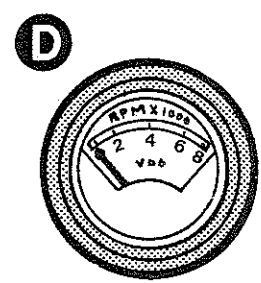
GAS CAP DIP STICK



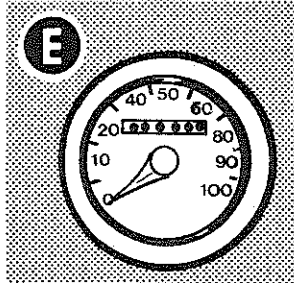
IGNITION SWITCH



HI-LOW BEAM SW.



TACHOMETER

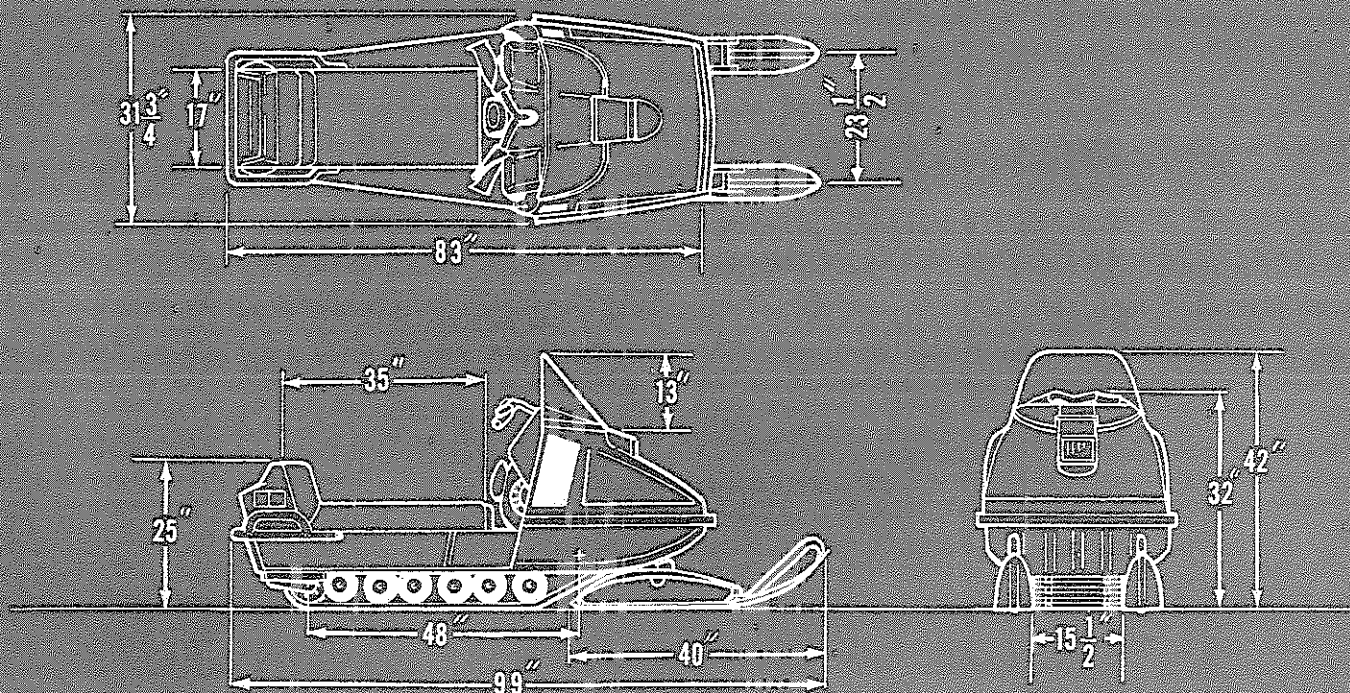


SPEEDOMETER 3

## SPECIFICATIONS

MODEL	STAR JET		STAR JET + 2		SST				SUPER JET
MAKE ENGINE MODEL CAPACITY	HIRTH 193R4E 292 cc.	SNO*JET/YAMAHA Y 292 292 cc.	SNO*JET/YAMAHA SL338 or Y338 338 cc.	SNO*JET/YAMAHA SW, SL or SS396 396 cc.	S 292 292 cc.	S 338 338 cc.	Y 433 433 cc.	S 433 433 cc.	SNO*JET/YAMAHA Y 433 433 cc.
HORSEPOWER	19	19	24	27	24	26	30	37	38
GAS/OIL MIXTURE 20:1 ALL MODELS (5 gallons of gas to 1 quart of oil)									
SPARK PLUG	BOSCH M225.T1	NGK B7ES	NGK B7HS	SW & SL NGK B7HS SS NGK B7ES	NGK B9EN	NGK B10EN	NGK B7HS	CHAM- PION N2G	NGK B7HS
SPARK PLUG GAP (IN)	.020"	.025"	.025"	.025"	.025"	.025"	.025"	.025"	.025"
IGNITION BREAKER GAP (IN)	.016"	.012"	.012"	.012"	.012"	.012"	.012"	.012"	.012"
IGNITION TIMING BTDC } MM IN	4.0 .157	2.6 .103 FULL ADVANCE	1.8 .071	1.8 .071	2.6 .103 FULL ADVANCE	1.8 .071	1.8 .071	1.8 .071	1.8 .071
CARBURATOR Idle mixture } Turns High speed } Open	1 1 1/4	1 1/4 1 1/2	1 1 1/4	1 1 1/4	1 1 1/4	1 1 1/4	1 1 1/4	1 1 1/4	

## SPECIFICATIONS



## GAS/OIL REQUIREMENTS

Your Sno\*Jet is equipped with a 2-cycle engine.

THE ONLY LUBRICATION IT GETS IS FROM THE OIL THAT YOU MIX WITH THE GASOLINE.

Follow the recommendations and procedures below to ensure maximum engine performance and reliability.

### GASOLINE

Never use Naptha, Methanol, Fuel oil or similar products.

Use PREMIUM GAS for all Sno\*Jet/ Yamaha engines.

Use REGULAR GAS for all other Sno\* Jet engines.

### OIL

- Use only high quality AIR-COOLED 2-CYCLE OIL.
- If the container is not printed to show that oil is suitable for air cooled engine, DO NOT USE IT.
- Never use outboard motor oil, or the pre-mixed gas/oil fuel that is available in some locations.
- There are some specially formulated "synthetic" oils available that require a different mixing ratio to nor-

mal. If these are used, the mixing ratio shown on the container should be employed.

**CAUTION:** Sno\*Jet has not tested these products and does not encourage their use.

### MIXING RATIO

For all Sno\*Jet engines is 20:1.  
i.e. 1 quart of oil to 5 gallons of gasoline.

### MIXING PROCEDURE

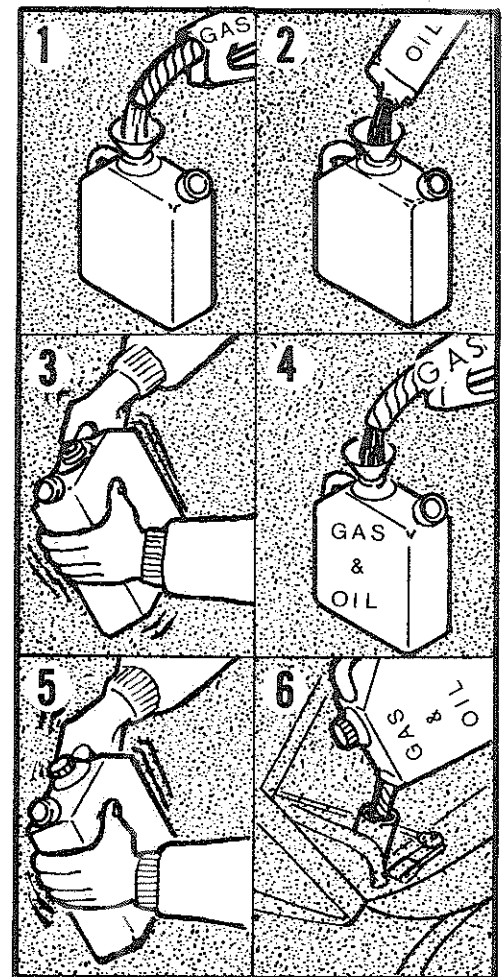
Use a separate container to mix the oil and gasoline.

IT CANNOT BE MIXED PROPERLY IN THE SNOWMOBILE TANK.

1. Half-fill container with gas.
2. Add the full quantity of oil (oil at room temperature mixes easier).
3. Agitate.
4. Add balance of gas. Agitate well until gas and oil are completely blended.

**NOTE:** A paddle is more effective for mixing the fuel than shaking the container.

**CAUTION:** If you store a container of pre-mixed fuel, always agitate it well before using.



## STARTING YOUR SNO\*JET

1. Check tank for adequate fuel level.
2. Agitate fuel by standing astride the snowmobile and rocking it from side to side.
3. Pull out choke control (cold engine only).
4. Check for free operation of throttle control.
- \* 5. Turn key to "ON".
6. Grasp starter handle, pull gently to engage. Now a firm pull will start the engine.  
(Do not pull cord out to the stop. Allow it to feed back into the housing, not snap back.)
7. When engine fires, start returning choke control and release the throttle control.  
Do not run with choke out.

\* Electric start Sno\*Jet, turn key to "START" (or turn key to "ON" and push starter button), when engine fires release key (which will spring back to "ON"). Return choke control and release throttle control.

**CAUTION:** ALWAYS CHECK THROTTLE CONTROL IS FREE AND NOT STICKING BEFORE STARTING ENGINE.  
THE DRIVE ON YOUR SNO\*JET IS BY AN AUTOMATIC CLUTCH CONTROLLED BY THE SPEED OF THE ENGINE.  
A DAMAGED OR ICE-LADEN CABLE CAN CAUSE YOUR SNO\*JET TO RUN AWAY.

## REWIND STARTER

If you have the misfortune to experience a failure of the regular rewind starter, provision has been made for emergency starting.

### SNO\*JET/YAMAHA ENGINE

An emergency starting pulley is provided on the drive clutch (opposite side of engine). Use a piece of rope from your emergency kit, with a knot in one end to start engine.

ALWAYS REPLACE DRIVE PULLEY GUARD IMMEDIATELY ENGINE IS RUNNING.

### HIRTH ENGINE

An emergency starting pulley is provided inside the rewind starter. Remove the complete starter housing to expose the pulley. Use a piece of rope from your emergency kit, with a knot in one end to start engine.

## BREAKING-IN PERIOD

During the first 10 hours use of your new Sno\*Jet, do not use full power.

It is beneficial to drive at varying speeds but do not hold a sustained high speed in this period.

By allowing new machined surfaces to bed-in progressively, you will obtain better performance and longer life from your Sno\*Jet.

Sno\*Jet does not recommend the use of a special gas/oil mixture during break-in. Use the standard mixture 20:1 and observe the simple instructions to drive moderately for 10 hours.

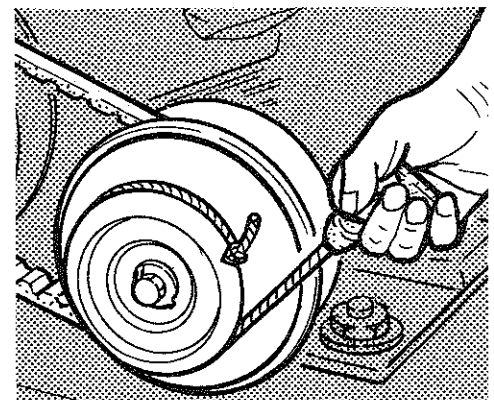
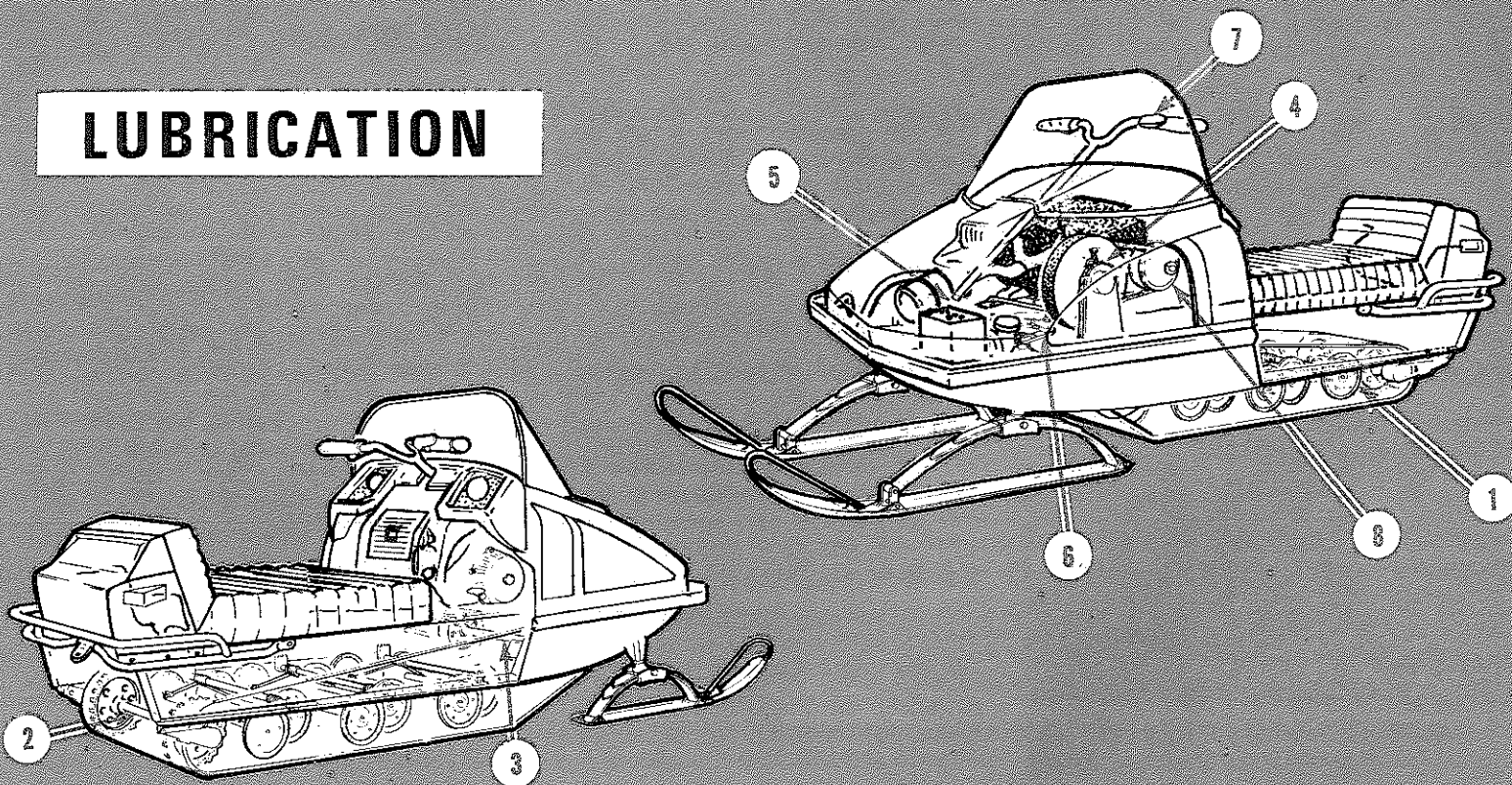


Fig. 1



# LUBRICATION



## LUBRICATION

### GREASE FITTINGS:

- 12 bogie wheels
- 2 rear idler shaft
- 1 front drive shaft RHS.

2 shots of lo-temp grease every 25 hours or 250 miles whichever occurs first. More frequently if your Sno\*Jet has passed through water.

### DRIVE CHAIN

Refill to level plug with Sno\*Jet chain lubricant. Every 2 weeks or 250 miles whichever occurs first.

STEERING COLUMN LOWER  
SUPPORT  
STEERING ROD ENDS  
CONTROL LEVERS  
CONTROL CABLES

Oil can attention as required.

### ENGINE DRIVE PULLEY

2 drops of oil every 25 hours.

## GENERAL MAINTENANCE

Your Sno\*Jet needs the minimum of service and adjustment. However, periodic attention to the following points is recommended to ensure trouble-free operation.

Many adjustments can be safely made by the owner, but for more extensive servicing, we recommend you contact your factory trained Sno\*Jet dealer.

## DRIVE BELT

A visual check for cracks should be made before each trip, or after every 10 hours use.

Replace the belt when it has worn to 1" wide.

## DRIVE BELT REPLACEMENT

The drive belt should be replaced if:

- a) It shows any cracks.
- b) It is worn to 1" wide.
- c) It is worn unevenly along the sides.

To remove drive belt:

- a) Open hood and remove pulley guard.
- b) Pull up on top run of belt. While twisting moveable half of driven pulley Fig. 3.

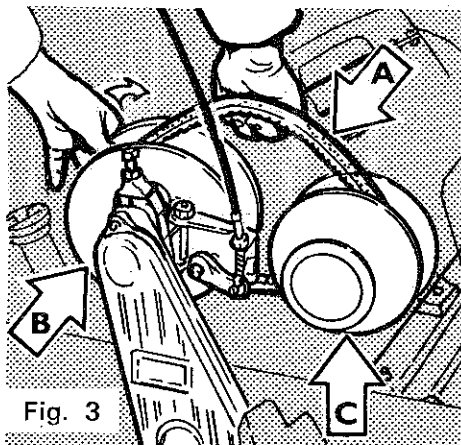
c) Work drive belt off the driven pulley starting at the top.

d) Slip drive belt off the drive pulley.

To install drive belt reverse this procedure.

**CAUTION: Never run engine with pulley guard removed.**

**CAUTION: Carry a spare belt at all times in case of failure away from home.**



## DRIVE CHAIN - ADJUSTMENT

With track off the ground, remove the inspection plug Fig. 4 (A). While rotating the converter pulley in clockwise direction, there should be 1/4" of free play in the chain.

If adjustment is required, loosen the three bolts Fig. 5 (B). Turn the chain adjusting bolt Fig. 5 (D) to correct chain adjustment and lock with nut. Tighten top bolt first (important) followed by two lower bolts. Check chain adjustment again. Replace inspection plug.

## DRIVE CHAIN - LUBRICANT

The drive chain runs in an oil bath chain case.

To check the oil level, remove the oil level plug Fig. 4 (E). If oil is not visible, fill with Sno\*Jet chain lubricant through inspection plug Fig. 4 (A).

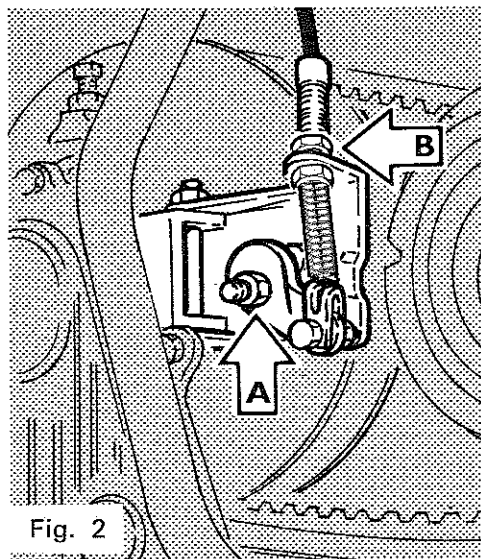
**CAUTION: The maximum level is shown by the level plug. Do not overfill.**

## BRAKE ADJUSTMENT

Turn nut Fig. 2 (A) so that brake control on handlebar applies brake after moving through half its travel.

Shorten brake cable to suit by turning cable adjuster Fig. 2 (B).

Cable should have just noticeable free movement before operating disc brake lever.



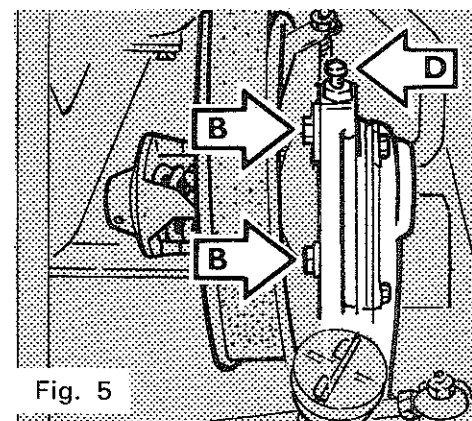
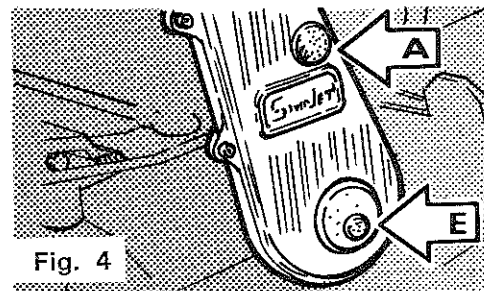
## DRIVE PULLEY ALIGNMENT

The correct drive pulley alignment is of the greatest importance to the successful operation of your Sno\*Jet.

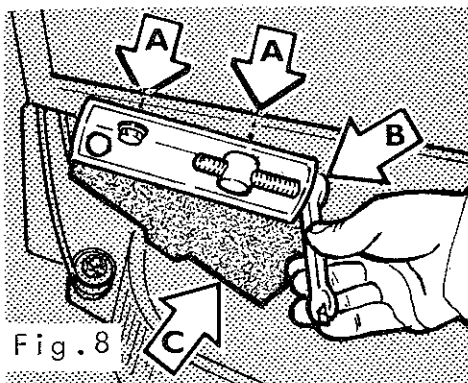
It is strongly recommended that you have your Dealer check and adjust the alignment periodically. Special tools and settings are required for each model.

Some symptoms of incorrect pulley alignment are: -

- a) Heavy uneven wear of drive belt.
- b) Drive belt turns inside out.
- c) Snowmobile tends to move forward with engine idling.
- d) Engine runs well but snowmobile speed low.



## TRACK - TENSION & ALIGNMENT

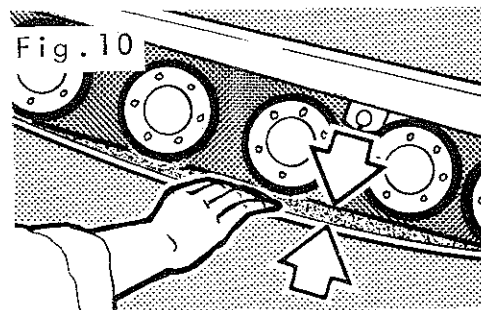


- b) Turn screws Fig. 8 (B) equally each side.  
Clockwise to increase track tension.  
Counterclockwise to decrease track tension.

With tension correct the alignment must be checked.

With the track still off the ground:

- a) Run engine to rotate track slowly.  
b) Observe centring of track at rear Fig. 9. The space between the edges of the track and the suspension plates must be equal.



### 1. BOGIE SUSPENSION:

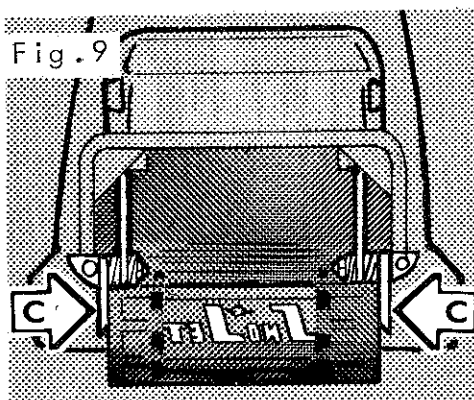
Lift the rear of your Sno\*Jet so that the track is clear of the ground for its full length.

If track is in correct tension your finger will pass snugly between the centre bogie wheel and the track Fig. 10.

Loss of performance results from too much, and from too little, tension.

If adjustment is required:

- a) Loosen nuts about  $\frac{3}{4}$  turn Fig. 8 (A) 2 on each side.



- c) If the track runs to one side, loosen 2 nuts Fig. 8 (A), and turn screw Fig. 8 (B) clockwise, on that side only.  
d) Recheck as in a) & b). If correct tighten 2 nuts Fig. 8 (A).

Note: If adjusting screws Fig. 8 (B) reach the end of their travel, the adjusting brackets can be relocated to another set of holes which provide a new range of adjustment.

### 2. MULTIFLEX SUSPENSION.

Lift the rear of your Sno\*Jet so that the track is clear of the ground for its full length.

If the track is in correct tension, the slide bars Fig. 11 will be flat from the rear to the start of the curved section at the front. This can be checked by laying a straight edge on top on the slide bar.

The track should sag below the rear of the slide bars by  $\frac{1}{4}$ ". Fig. 11 (A).

#### IF ADJUSTMENT IS REQUIRED:

- a) Loosen nuts about  $\frac{3}{4}$  turn Fig. 11 (B) one on each side.  
b) Turn screws Fig. 11 (C) equally each side.  
Clockwise to increase track tension.  
Counterclockwise to decrease track tension.

- c) Tighten nut Fig. 11 (B).

### TRACK ALIGNMENT

The distance from the slide bar to the outside edge of the track should be the same on both sides. Measure at front and rear as shown in Fig. 12 (A).

If adjustment is required:

On the side with the greatest measurement:

- a) Loosen nut about  $\frac{3}{4}$  turn Fig. 11 (B).  
b) Turn screw Fig. 11 (C) clockwise until measurements are equalised.  
c) Tighten nut Fig. 11 (B).

#### CAUTION

If the track is too loose, it will tend to jump off the rear sprockets.

If track is too tight, the slide bars will be forced into a reverse curve (low at the centre) and the wear bars of the slides will suffer heavy local wear.

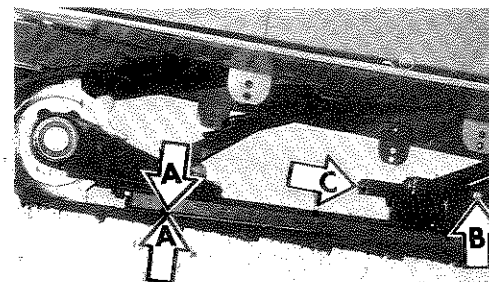


Fig. 11

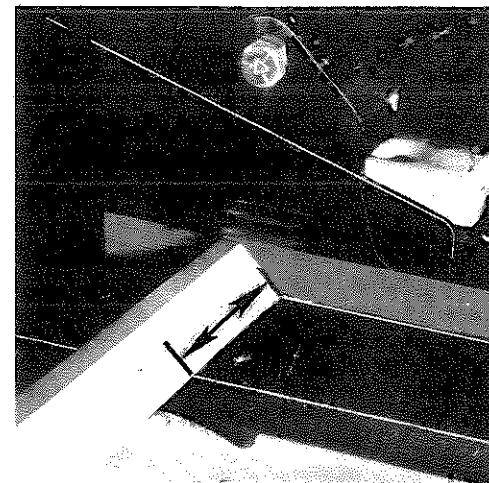


Fig. 12



### 3. ARCTIC CAT SUSPENSION. TRACK ALIGNMENT

Track alignment should be checked periodically to make sure that the track is centered and running evenly Fig. 12. To check, support the rear of the machine off the ground, start the engine and accelerate slightly to rotate the track several times. If track runs to the right, tighten the right track tension bolt, if the track runs to the left, tighten the left track tension bolt. Start engine and run track, recheck and readjust if necessary.

**NOTE:** Engine should always be OFF while any adjustments are being made.

### RIDE ADJUSTMENT

Adjustment for a softer or firmer ride can be easily made by use of the individual adjustment bolts located on each side of the suspension frame. The rear adjustment (Fig. 13 (A)) should be made for the weight of the operator to eliminate "bottoming" on all but the most severe bumps. The front adjustment (Fig. 13 (B)) should be made for snow conditions for your area. For hard packed conditions, the adjustment should be tightened to maintain maximum track surface on the snow. For soft snow, the adjustment should be loosened to allow the machine to stay on top of the snow.

**NOTE:** There are two adjustment bolts for the rear and two for the front of the suspension frame, and they must be adjusted equally on each side.

### TRACK TENSION

A check of the track tension can be made by supporting the rear of the machine off the ground and grasping the track midway between front and rear of suspension frame and pulling downward. There should be 2" between the track and the slide rail. If adjustment is necessary, adjust track tension bolts (Fig. 13 (C)) equally to maintain proper track alignment.

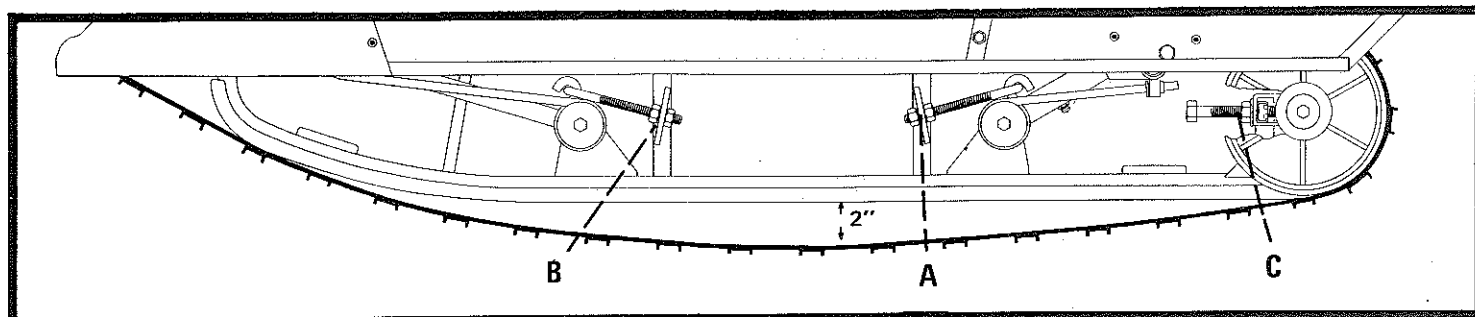


Fig. 13

### CARBURETOR

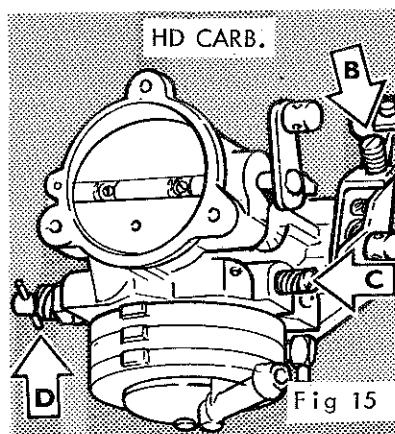


Fig 15

There are three adjustments on the carburetor fitted to your Sno\*Jet.

- a) Idle speed screw Fig. 15 (B)
- b) Idle mixture screw Fig. 15 (C)
- c) High speed mixture T-screw Fig. 15 (D)

A typical carburetor is shown in Fig. 15. But different types are used on some Sno\*Jet models. These carburetors vary in detail, but all have the three adjustment screws listed above.

#### IDLE SPEED SCREW

Located close to the end of the throttle cable. Fig. 15 (B).

Turn clockwise to increase speed or counterclockwise to reduce engine speed.

#### IDLE MIXTURE SCREW

Located on the side of the carburetor body Fig. 15 (C), it is a simple screw with screwdriver slot.

Turn clockwise to weaken mixture, or counterclockwise to richen mixture.

Adjustment of idle mixture may require further adjustment of idle speed.

Refer to Specifications page 4 for standard setting.

**NOTE:** Minor alterations of this setting may be required for varying altitude and temperature conditions.

#### HIGH SPEED MIXTURE T-SCREW

Located on the side of the carburetor body Fig. 15 (D) it has a T-bar and a screwdriver slot to facilitate identification. Turn clockwise to weaken mixture or counterclockwise to richen mixture.

Refer to Specifications page 4 for standard setting.

**NOTE:** Minor alterations of this setting may be required for varying altitude and temperature conditions.

**CAUTION:** Carburetor settings are critical for the proper performance of your Sno\*Jet engine. If in doubt refer to your Sno\*Jet dealer.



## STORING YOUR SNO\*JET

The preparation of your Sno\*Jet for Summer storage is recommended as a Dealer operation. If this is not possible, the following lists the minimum requirements for safe storage:

1. Block snowmobile off the ground, to remove weight from track and skis.
2. Loosen track tension.
3. Drain fuel tank. Protect tank from rusting by pouring in one quart of SAE 30 oil and tilting snowmobile from side to side to coat the walls.
4. Drain carburetor by running engine until carburetor is dry.
5. Remove spark plug(s). Pour a tablespoon of SAE 30 oil into each cylinder. Rotate engine 4 times slowly. Replace spark plug.

6. Remove battery (if fitted). Trickle charge monthly to maintain its condition.
7. Clean all dirt or rust from metal parts.
8. Use an oily rag to wipe all bare or bright metal parts.
9. Perform grease gun lubrication. 12 bogie wheels, 2 rear idler shafts, 1 front drive shaft.
10. Protect from dust, and store in a dark, cool dry place.

**NOTE:** Your Sno\*Jet Dealer will also protect all crankshaft bearings and lubricate the drive pulley hub while doing above. These operations are not practicable for owners.



## WARRANTY REGISTRATION

SNO\*JET requires its Dealers to complete a pre-delivery inspection on every new Sno\*Jet, to ensure it is in perfect order when delivered to you.

The Sno\*Jet Dealer also has to complete and mail to SNO\*JET, the Warranty Registration Form supplied with each snowmobile.

Failure to complete these duties renders the Sno\*Jet Warranty invalid.

Sno\*Jet Warranty applies solely to repairs carried out by an authorized Sno\*Jet Dealer. Repairs made by any other means are not covered.

All Sno\*Jet Warranty Claims must be signed by the owner of the subject Sno\*Jet to validate them for processing.

## WARRANTY – GENERAL STATEMENT

**SNO\*JET** Division of Conroy of Canada, Inc., guarantees each Sno\*Jet snowmobile for the complete snowmobile season in which it is purchased, against defects in materials and workmanship, provided the snowmobile is properly maintained and used in normal conditions, subject to specific limitations listed below.

In the case of a purchase made within 60 days prior to the end of a season, considered to be April 30th of any year, the warranty will apply from the date of purchase until January 1st of the following year.

The warranty is limited to the original retail purchaser.

The obligation of SNO\*JET, Division of Conroy of Canada, Inc., under this warranty is limited to the repair or replacement of defective parts by an authorized Sno\*Jet dealer, when parts are proven to be defective in either material or workmanship.

This warranty is not valid if the Sno\*Jet snowmobile has been: misused, improperly maintained, damaged by accident, immersed under water, altered, raced, repaired by unauthorized persons, repaired with parts not designed for Sno\*Jets or used on surfaces other than ice or snow.

All warranties are invalid on any Sno\*Jet snowmobile delivered to the retail purchaser in the shipping crate and not properly prepared for delivery.

This warranty is expressly in lieu of all other warranty obligations, expressed or implied, legal or conventional, on the part of SNO\*JET, Division of Conroy of Canada Inc., which neither assumes, or authorizes any other person to assume for it, any other warranty responsibility in connection with Sno\*Jet snowmobiles.

## WARRANTY – SPECIFIC LIMITATIONS

SNO\*JET, Division of Conroy of Canada, Inc., limits or excludes from the terms of the Warranty – General Statement, the following parts or services:

### EXCLUDED:

- Assemblies, unless they cannot be placed in good condition by replacement of component parts.
- Time spent in the diagnosis of a cause of malfunction.
- Consumable items including: Spark plugs, ignition points, condensers, light bulbs, coil suspension springs, fuel filters, brake linings, ski-runners, gaskets, windshields and carburetor diaphragms or needle valves.
- Normal services including: Tune-ups, adjustments and alignments.

### LIMITED TO 30 DAYS FROM DATE OF RETAIL PURCHASE

- Leaf springs, throttle and brake control cable assemblies, electrical wiring, upholstery.

### ENGINES – HIRTH

- 90 days from date of retail purchase or from 1st December, whichever date is the latest in the same snowmobile season.

### ENGINES – SNO\*JET/YAMAHA

- Model R:  
No warranty (special racing engine).
- Model S:
  - 90 days from date of retail purchase or from 1st December, whichever date is the latest in the same snowmobile season.
- Other models:  
6 months from date of retail purchase or from 1st December, whichever date is the latest in the same snowmobile season.

### TRACK

- The moulded rubber Sno\*Jet track is warranted for the same period as the snowmobile, and is subject to depreciation of \$4.00 per month elapsed from the date of retail purchase.

## SAFETY FIRST

## - PLAY IT SAFE AND HAVE A BALL

- Before you leave, make sure your Sno\*Jet is 100% ready.
- Check for full tank. (No smoking).
- Wear suitable outdoor clothing.
- Use safety helmet and goggles.
- Do not wear long scarfs, that can get caught in the moving parts of the machine.
- When using a trailer, make sure your Sno\*Jet is properly secured.
- Know your Municipal and Provincial or State laws.
- Before crossing roads, stop and look both ways.
- Never Sno\*Jet along railroad tracks.
- Never venture on unknown lakes and rivers.
- Respect private property, ask permission.

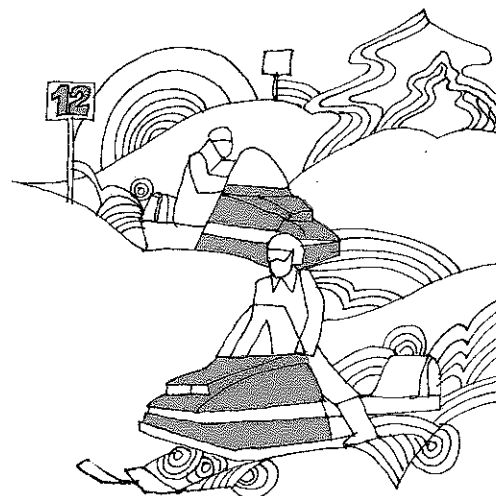
- Never snowmobile alone, use the buddy system.
- When travelling in single file, allow at least 3 machine lengths per 10 mph of speed, between you and the next snowmobile.
- Be especially cautious in unfamiliar territory, the tracks you follow may lead you to a cliff, a wire fence or a hole in the ice. Don't be the second person to make the mistake.

Add to this list for longer trips:

- Axe.
- Waterproof matches.
- Compass.
- Flares.
- Snow shoes.
- Extra clothing.
- More fuel mixture.

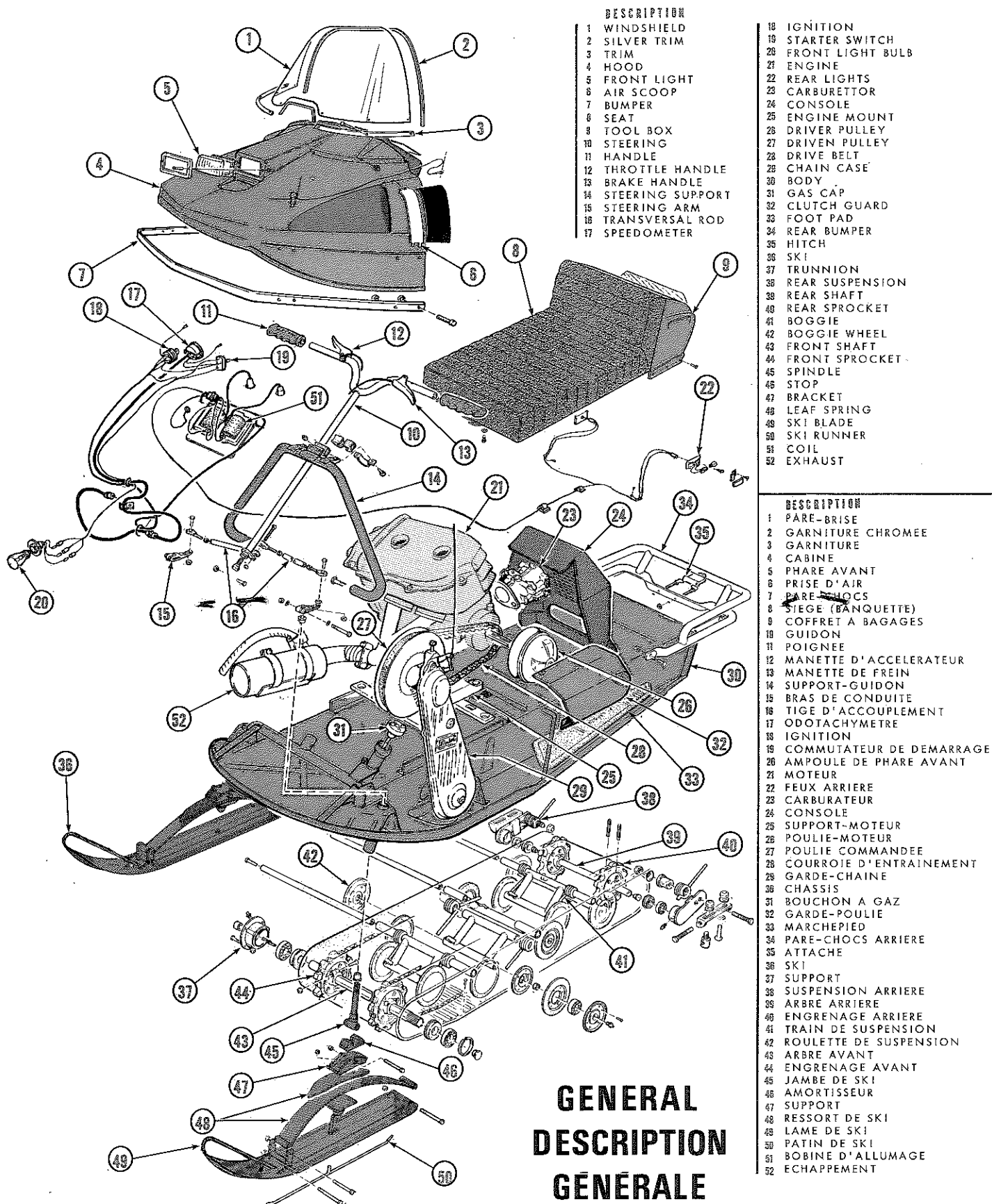
## EMERGENCY KIT

- Sno\*Jet tool kit.
- Adjustable wrench.
- Drive belt.
- Two spark plugs.
- Headlight bulb.
- 6 ft of 1/4" nylon rope.
- Small container of fuel mixture.
- Flashlight.



## WIND CHILL CHART

ESTIMATED WIND SPEED IN M.P.H.	ACTUAL THERMOMETER READING (°F)											
	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
	EQUIVALENT TEMPERATURE (°F)											
CALM	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	16	4	-9	-21	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-36	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-124
25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-20	-35	-49	-67	-82	-98	-113	-129	-145
40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	-132	-148
❄️ (WIND SPEEDS GREATER THAN 40 MPH HAVE LITTLE ADDITIONAL EFFECT)	LITTLE DANGER (for properly clothed person)				INCREASING DANGER				GREAT DANGER			
					Danger from freezing of exposed flesh							



## GENERAL DESCRIPTION GÉNÉRALE