SNO-JET

OPERATOR'S MANUAL

SNO-JET INC.
THETFORD MINES, P. Q.

YOUR NEW SNO-JET WELCOMES YOU

Your new SNO-JET will allow you to participate in our winter funs. It is the result of many hours of research done by SNO-JET to give you an unequalled service.

Your SNO-JET, powerful and yet very light, will give you a top performance in any kind of snow.

The SNO-JET team at your service is proud that you choosed them to be your partners in winter sport and please do not hesitate to call on them at any time for service.

This booklet, which you must read carefully is very important to you, for you must know everything about the operation, control and maintenance of your SNO-JET in order to get top performance at all times.

REMEMBER:

A snowmobile is not a plaything; it is a finely engineered and well constructed piece of machinery. Treat it that way, with respect and care.

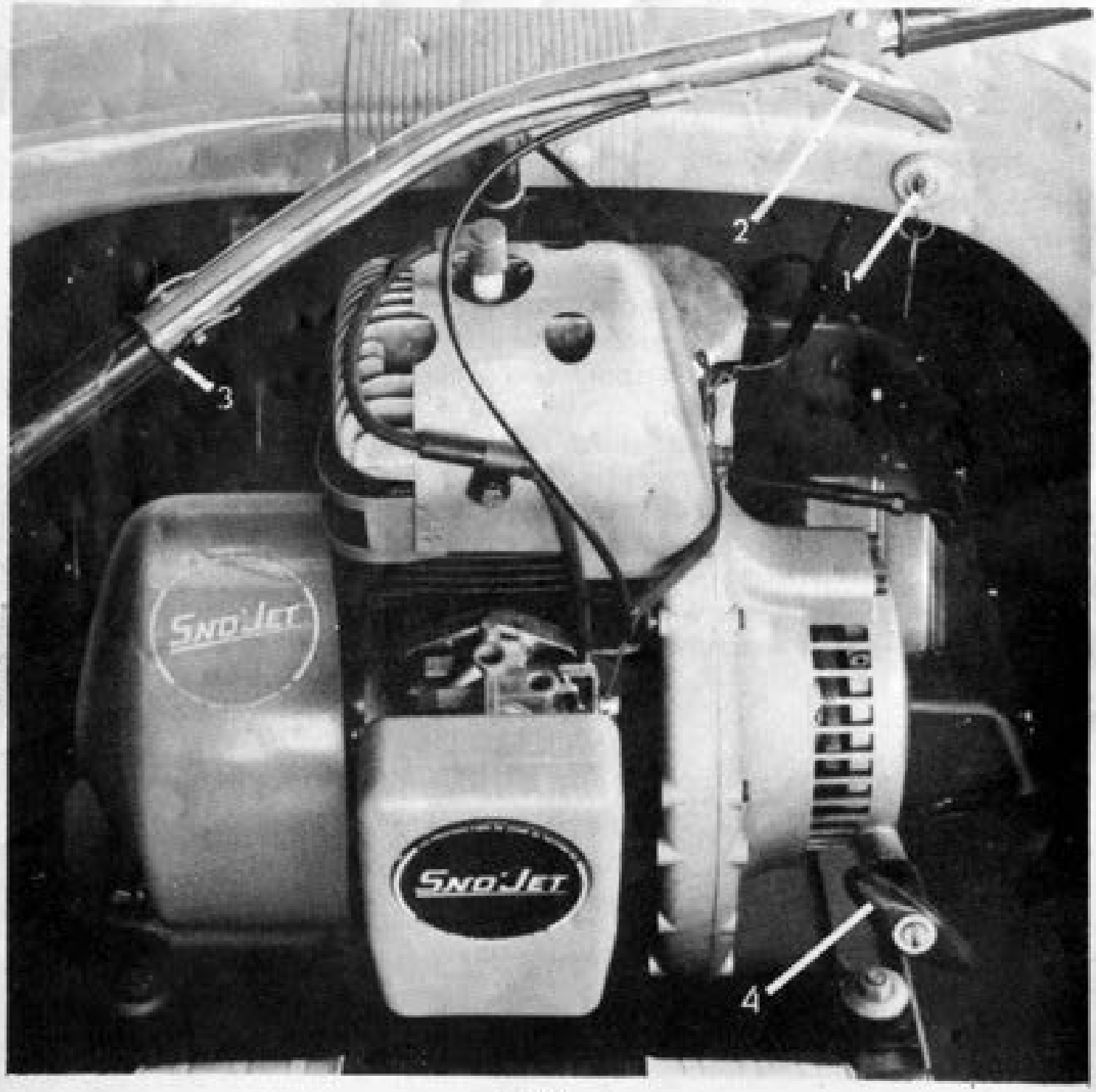
(International Snowmobile Ass.)

FUEL:

For the first ten hours of operation, the oil mixed to the gasoline must be of a quart by 3 gallons of gas and then of a quart by 4 gallons. Too much oil mixed with gas would cause a spark plug electrode carbonisation to the cylinder and exhaust port. Unsufficient quantity will not lubricate the internal parts of the motor which would cause damage to piston, connecting rod and crankshaft. Oil has been developed specially for two stroke motor (Outboard Motor Oil).

IMPORTANT: MIX WELL THE GAS AND OIL BEFORE USING.

1. Ignition and lighting switch - 2. Throttle - 3. Brake - 4. Rewind starter



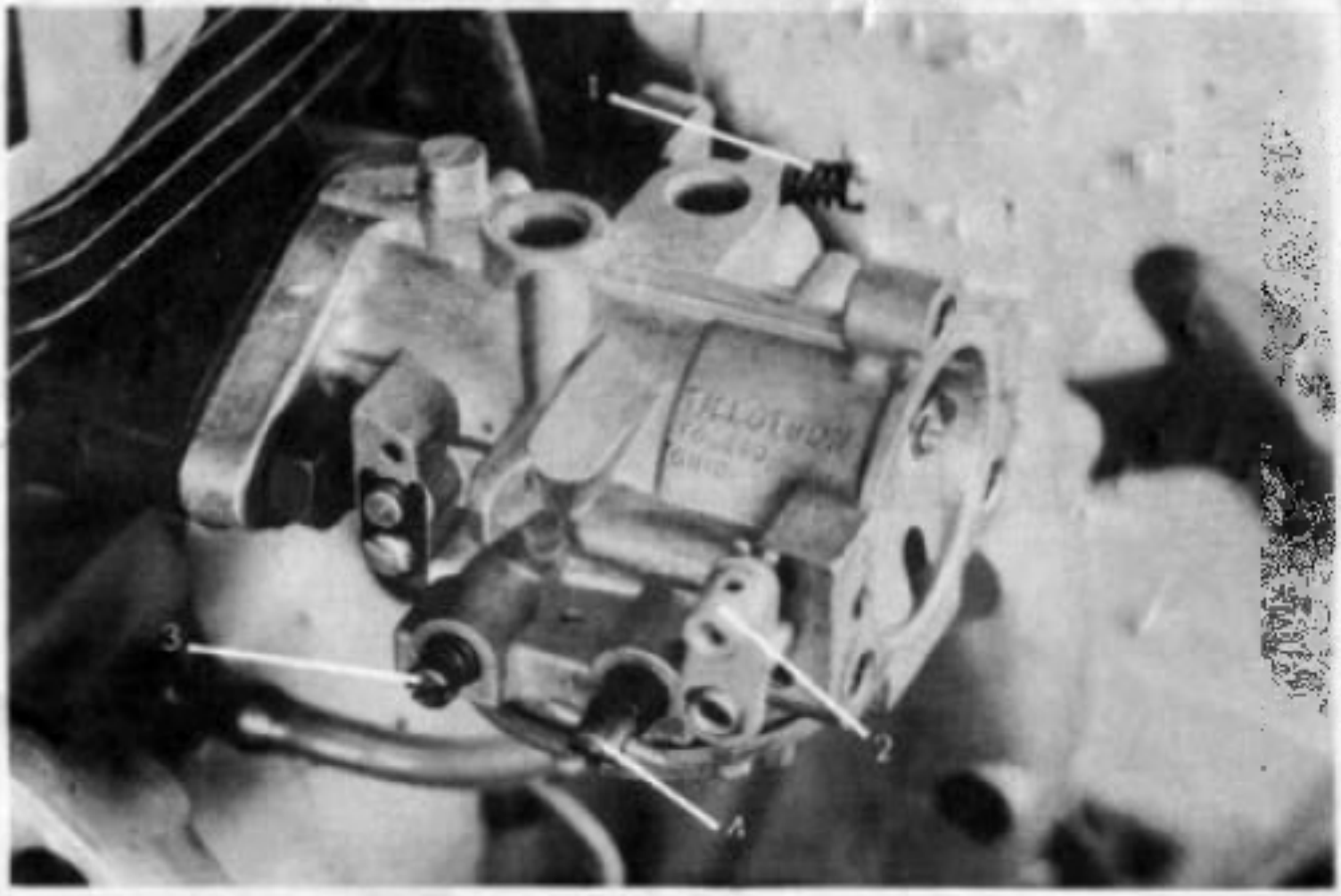
STARTING THE MOTOR:

Close the choke. Pull the starter rope until you feel a resistance; now pull vigorously without unwinding all the rope. When the motor is started, slowly open the choke until the motor turns regularly. If the motor as been stopped for a long period, you should action the starter many times to fill up the carburetor.

CARBURETOR ADJUSTMENT:

In order to have the right mixture: 1. Screw in the two jets (3, 4)
2. Unscrew idle speed jet (3) 1¼ turn (Gas and air mixture)
3. Unscrew high speed jet (4) 1¼ turn (Gas and air mixture)

1—Idle adjustment screw
2—Choke
3—Idle speed jet
4—High speed jet



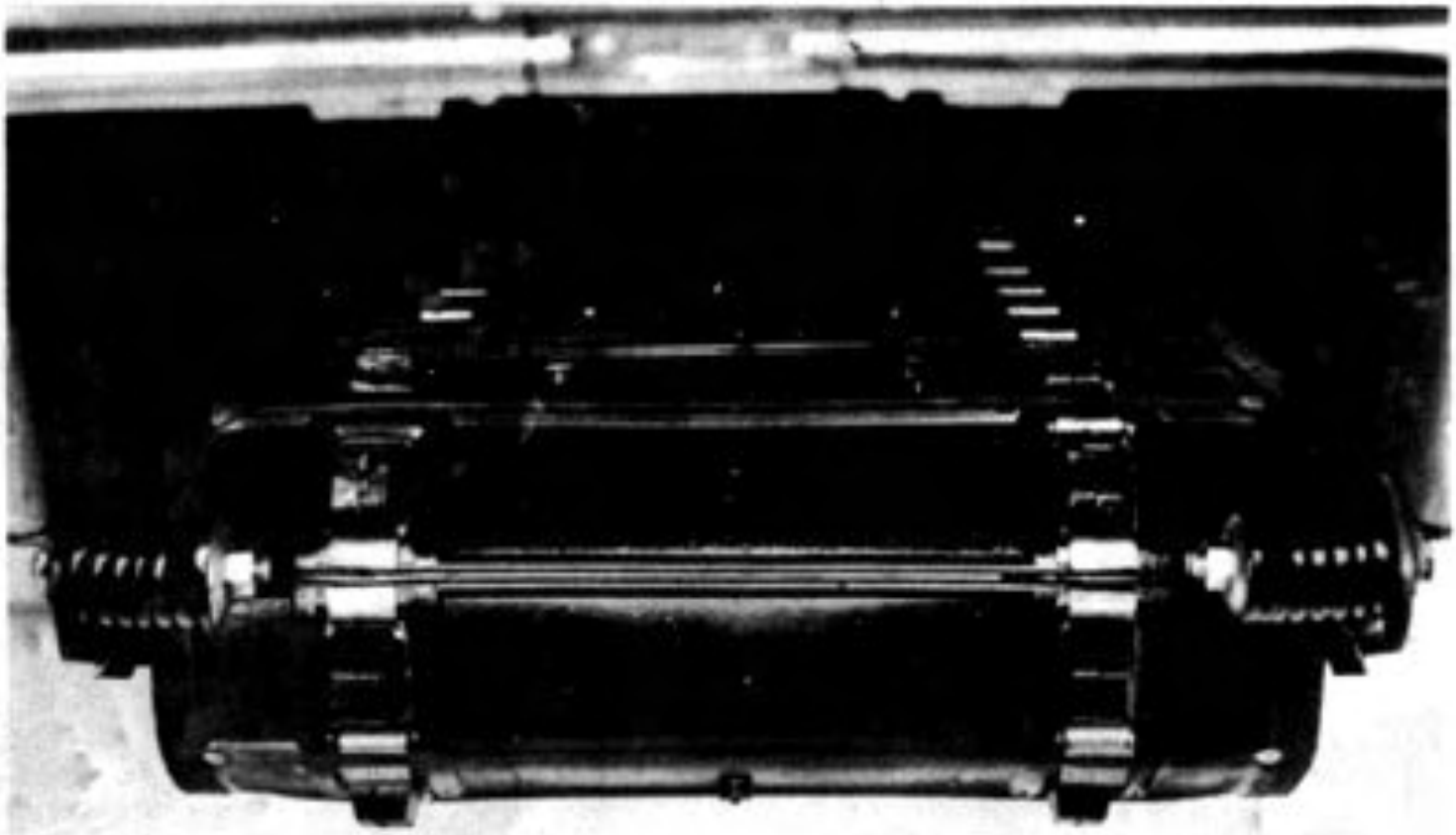
IMPORTANT

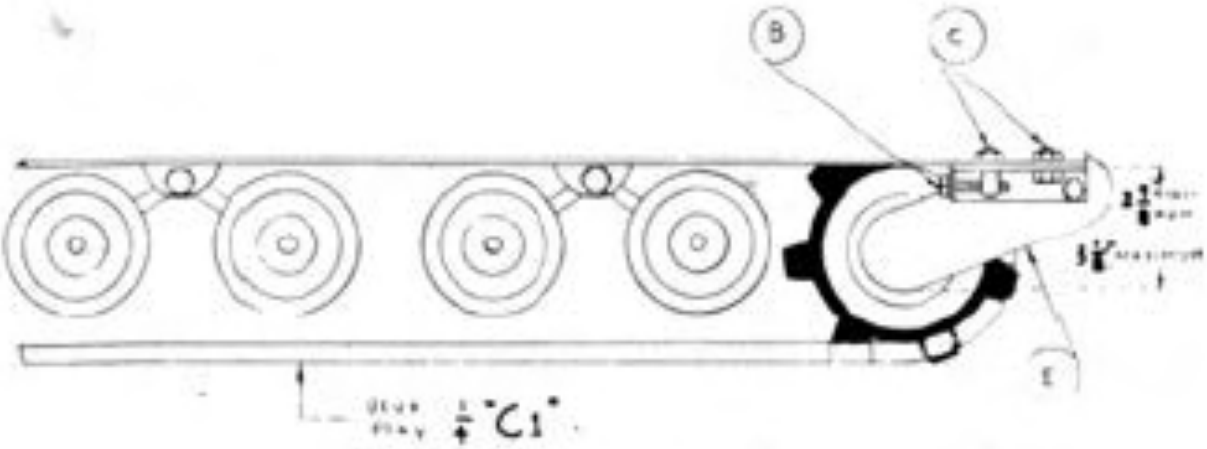
MOTOR OPERATION:

The motor must be operated with precaution during the first ten hours and not turned at full speed until its internal parts have been thoroughfully run in. This is why it's worth to use precaution in order to give a better performance thereafter. To stop the motor, turn off the switch.

ALIGNMENT OF THE TRACK:

1. Run the engine so that the track will turn slowly and check if it is well centered. The distance between the track and the adjuster linkplate **(E)** should be the same on each side, that is approximately ¼".
2. If the track is not well centered, tighten the adjusting screw (B) on the side where the track is closer to the adjuster link plate (E) and it will move to the other side. When the adjustment and alignment of the track are completed, tighten the bolts (C) which hold the adjustment bracket to the running board.





IMPORTANT

The life and efficiency of the track depend to a great extend on its correct tension and alignment. Therefore it is necessary to check tension adjustment and alignment at least once a week and correct when necessary.

ADJUSTMENT OF TRACK TENSION:

1. Lift the rear end of the SNO JET so the track does not rest on the ground.
2. Check the tension of the track by measuring the distance between the running board and the underneath of the adjuster link plate (E) See sketch. A distance of a minimum of 2 $\frac{3}{8}$" to a maximum of 3 $\frac{3}{8}$" is required.
3. If an adjustment is necessary, loosen the two bolts (C) which hold the adjuster bracket to the running board and accordingly tighten or loosen the adjusting screws (B). Adjust the two bolts equally.
4. As a final check, see if there is an up and down play of $\frac{1}{2}$" to $\frac{3}{4}$" at the center of the track.
5. Before tightening the two bolts (C) which hold the adjuster bracket to the running board, please read instructions for alignment of the track.

To remove the drive pulley from the engine, diassemble it as follows:

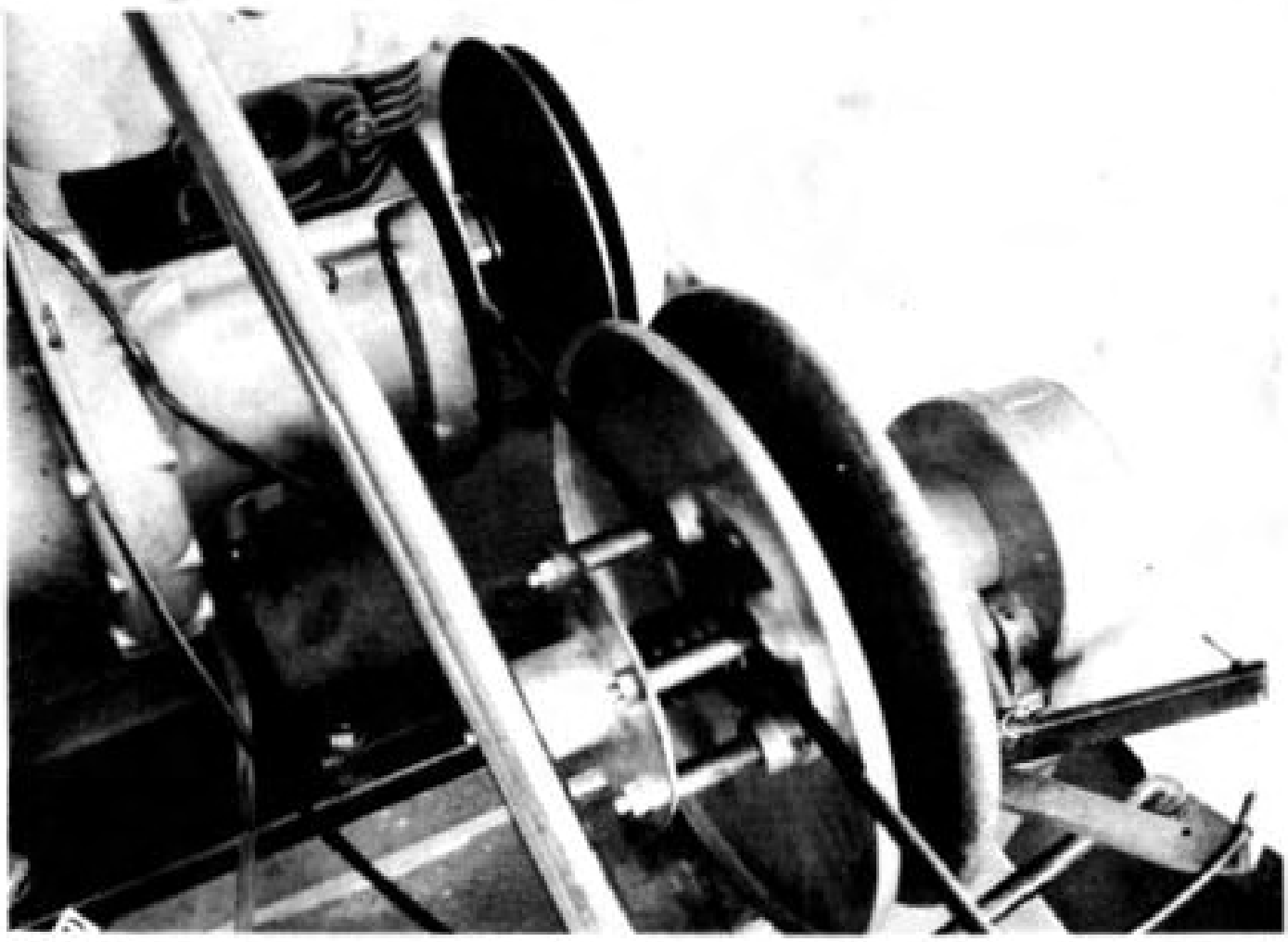
ALIGNMENT OF THE DRIVE BELT

Lift the back of the SNO JET so that the track can run freely; start the engine and run it at full speed so that the drive belt comes up to the edge of the drive pulley; the belt should run perfectly straight on both pulleys. If it is not perfectly aligned, it will have a tendancy to turn over.

If an adjustment of the pulleys is necessary to align the drive belt, we recommend that you see your SNO JET dealer who has the tools, to make this adjustment or proceed as follows:

Adjustment and inspection of the pulleys

1. Remove the drive belt and turn the driven pulley to make sure that it is true.
2. Line up a straight edge bar, available from your SNO JET dealer, under the spring along the driven pulley and project the end of the bar towards the motor side edge of the drive pulley. The drive pulley inner half should be $\frac{1}{4}$" off-set towards the engine.

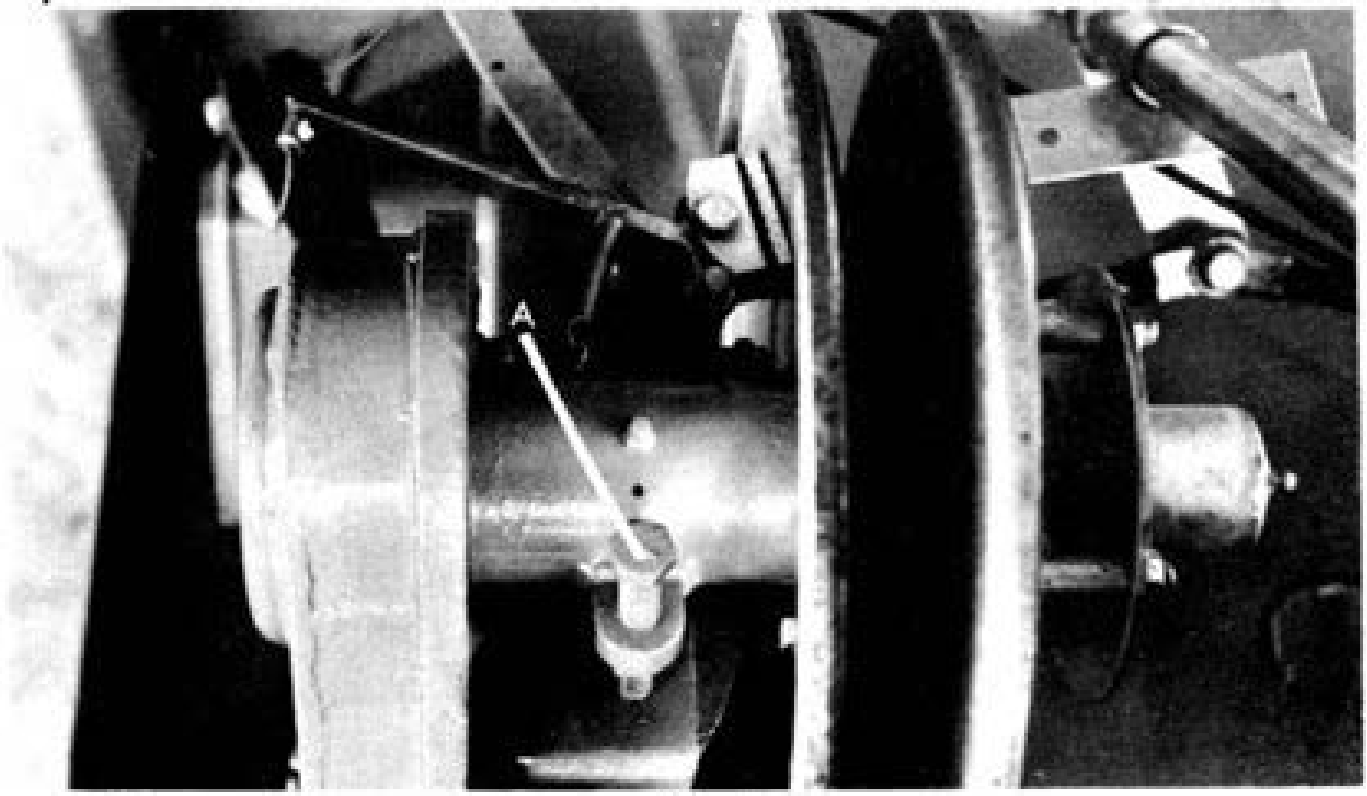


To remove the drive pulley from the engine, diassemble it as follows:

1. Remove pulley guard.
2. Block piston stroke by inserting special tool in place of spark plug. This will prevent crankshaft from turning.
3. Remove centrifugal governor bolt.

ADJUSTMENT OF THE DRIVING CHAIN

If an adjustment is necessary on the driving chain, tighten the adjustment screw (A) up to a resistance, then, unscrew 1 complete turn. The chain should be playing of ¼". You should check the tension of your driving chain as often as possible.

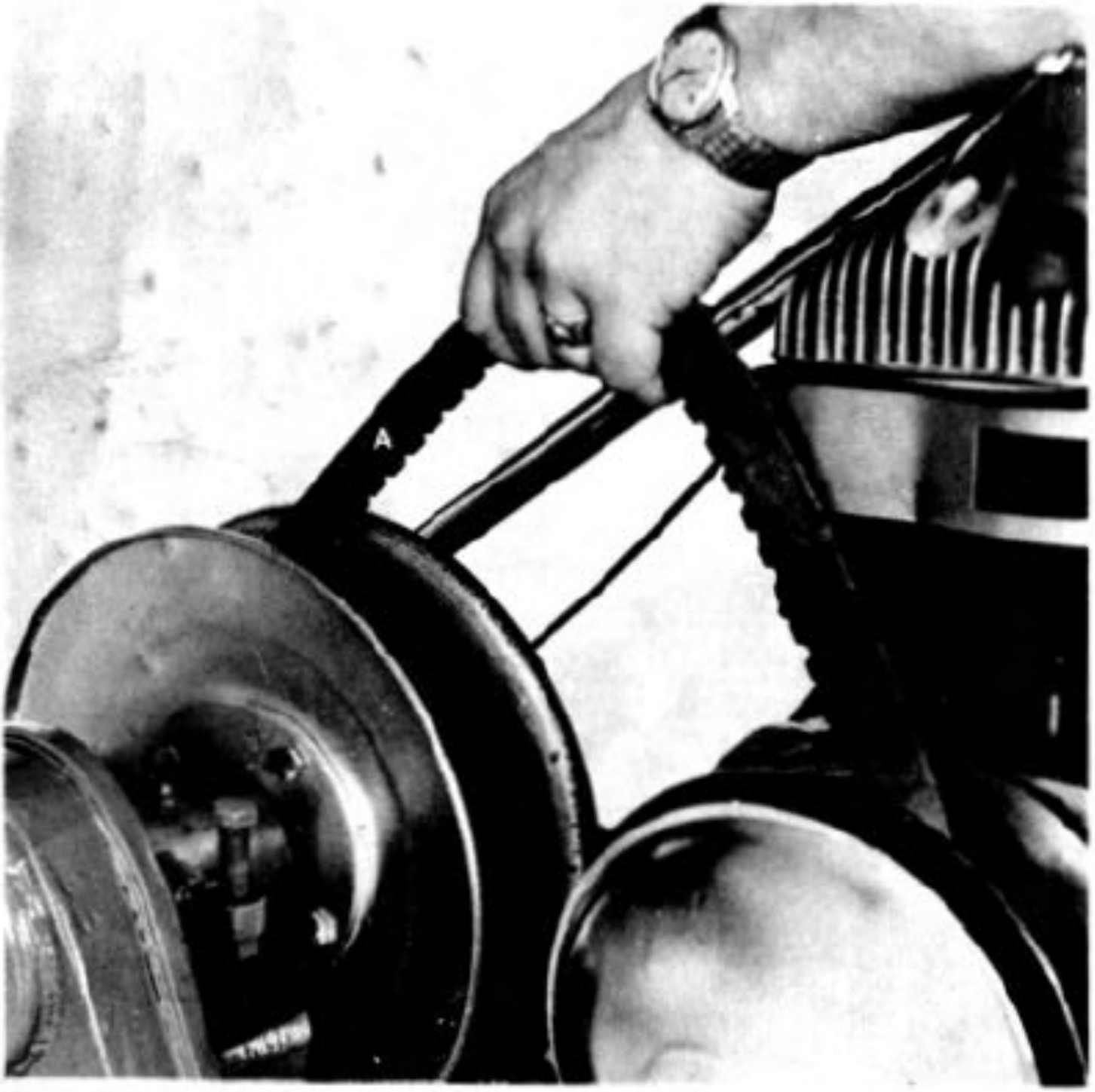


REPAIR INSTRUCTIONS

Replacement of drive belt

To remove the drive belt, remove pulley guard, and pull on belt (A). This will open the sides of the driven pulley. Then slide it over the driven pulley (B) and from under the drive pulley (C).

To reinstall the drive belt, insert it in the driven pulley and pull on it to push open the sides of the pulley. Then pass it over the centrifugal governor into the drive pulley.



Removal of the track:

1. Loosen the track.
2. Remove all the bogie wheels by removing the bolt on each side of the cross shafts which hold them to the chassis.
3. Remove the bolts which hold the adjuster link plates to the running board.
4. Remove the drive axle as per previous instructions.
5. Remove the drive axle bearing seals using a small screwdriver. Then remove outside bearing housing and cover; pull the drive axle towards the outside to free the inside end from the chain driven sprocket and remove the drive axle. Then remove the track. To install the track reverse the foregoing operation.

NOTE: Make sure that the bearing seals on the drive axle are perfectly installed and locked in the grooves of the bearing housing.

Replacement of the drive sprockets

To replace the drive sprocket the track has to be removed as per previous instructions.

Replacement of a wheel suspension spring

1. Remove the set of bogie wheels on which a suspension spring must be replaced by removing the cross shaft bolts on each side.
2. Remove the cross shaft from the tube of the wheel supports.
3. Unhook the ends of the spring and remove it from the wheel support.
4. To reinstall a spring, reverse the foregoing operation.

Replacement of wheel bearings

1. Remove the wheel flange rivets, outer flange and tire.
2. Remove the bearing from the wheel support as follows:
   a) Push the inner wheel flange away from the bearing.
   b) Set the inner side of the bearing on suitable supports, one on each side of the tube.
   c) With a steel rod or a tube carefully hammer out the wheel support from the bearing.
3. Install a new bearing, then strike lightly with a hammer to flare out the end of the wheel support.
4. Reinstall the tire, the outer flange and rivets.

Replacement of rear sprocket bearings or sels

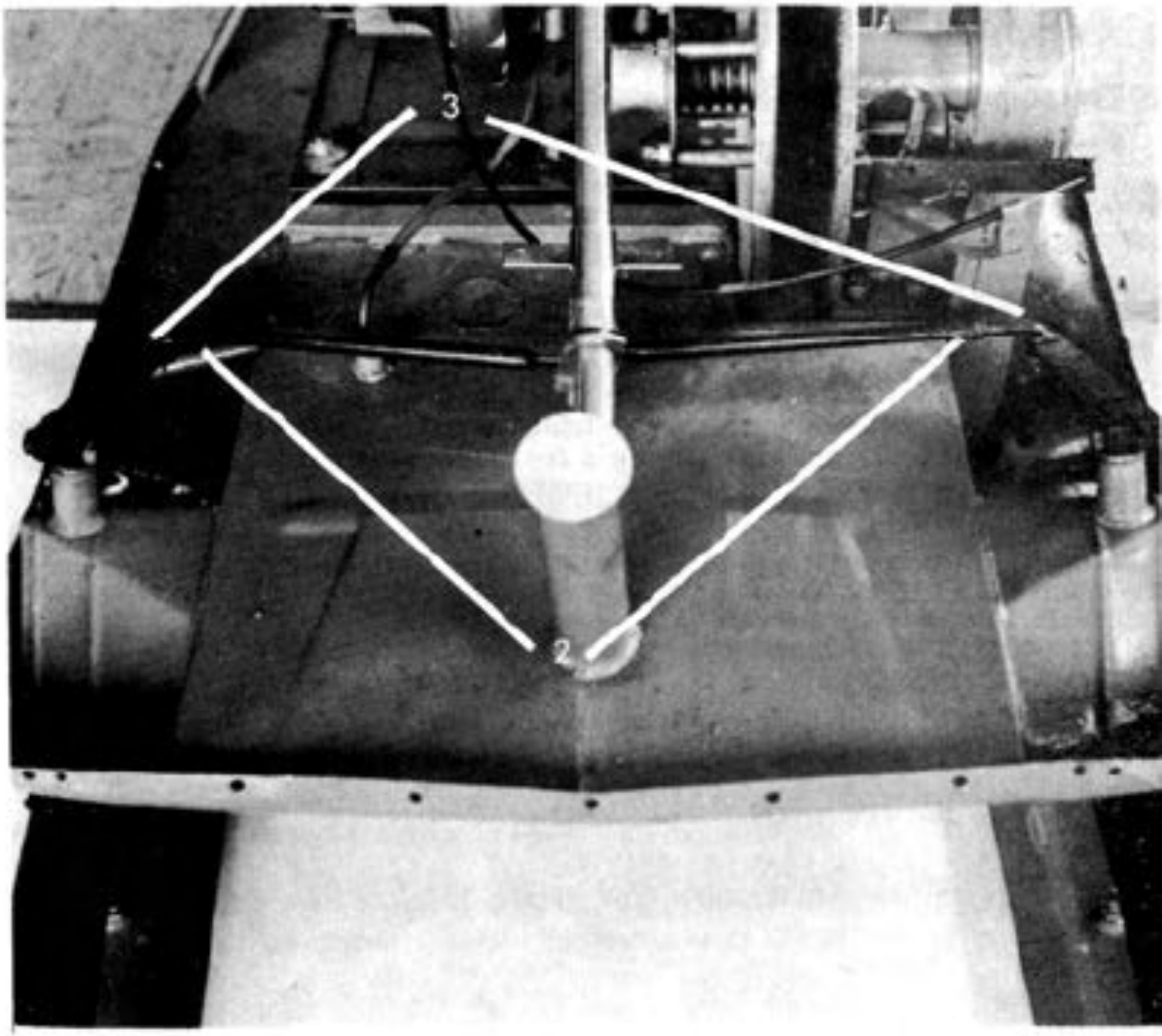
1. Remove the complete rear wheel assembly by removing the bolts which hold the adjuster link plate to the running board.
2. Remove the bearing from the hub using a steel rod or tube.
3. Install a new bearing and flare the end of the hub as described above.

Replacement of drive axle, bearings and seals

1. Remove the complete rear wheel assembly by removing the bolts which hold the adjuster brackets to the running board.
2. On the opposite side of the chain case, take off the nuts that hold the front axle bearing housing.
3. Remove outside bearing housing and cover, as per previous instructions.
4. Push the track forward and remove the drive axle from the vehicle.
5. Change the bearings and/or seals and then reinstall.

ADJUSTMENT OF SKIS

1. The two skis should be parallel and in a straight line. Place the handle bar straight with the SNO JET Body.
2. To align skis, loosen the lock nuts on the tie rods (2).
3. Adjust the tie rod until the distance between the skis is the same (3) (front and rear). Then tighten both lock nuts (2), while keeping handle bar straigt.



LUBRICATION

1. The suspension wheels are to be lubricated after each 75 hours of operation. However if the SNO JET is used extensively under adverse conditions it should be lubricated more often. SNO JET grease.
2. The engine is lubricated by the proper mixture of oil in the gasoline.
3. Check lubricant level in chain case every week. Add SNO JET lubricant.
4. Lubricate steering mechanism linkage and handle bar bushing twice monthly. (Low temperature type grease).

WEEKLY CHECK-UP

1. Check tension and alignment of the track.
2. Check alignment of the drive belt.
3. Check adjustment of the driving chain.
4. Check the suspension and springs.
5. Check lubricant in chain case.

INSTRUCTIONS FOR STORING

IMPORTANT: It is of the utmost importance to make the annual overhaul and prepare the SNO JET for storage as soon as the operating season is over in order to avoid possible damage due to the formation of rust during the idle season. Follow the procedure outlined below.

CARBURETOR

Drain by disconnecting the fuel line. Start the engine which will run until the carburetor is dry.

CYLINDER

Remove the spark plug, pour one tablespoon of oil (SAE 30) through the spark plug hole and crank the engine a few times to distribute the oil on the piston and cylinder wall. Replace the spark plug.

FUEL TANK

Drain by removing the drain screw. To prevent the formation of rust, pour one quart of oil (SAE 30) into the fuel tank and tilt the SNO JET from side to side to lubricate all the fuel tank walls.

NOTE: Drain this oil completely before filling the tank when the SNO JET is put back in service.

DRIVE AXLE

Remove, wash bearings and inside of tube in detergent and reinstall pack outside bearings in grease. Clean chain case completely. Pour special SNO JET lubricant into the chain case.

WHEELS

Grease with low temperature type grease, to clear any water that could be inside.

REAR WHEEL HUB

Disassemble, wash bearing in detergent, reinstall and grease with low temperature type grease.

TRACK

Loosen track tension as per previous instructions. Lift the back of the SNO JET off the ground in order to remove any pressure or weight from the track.

HOW TO MAKE A CLAIM

To make a claim under this warranty, contact the authorized SNO JET dealer from whom you originally purchased your vehicle, or the nearest authorized SNO JET dealer. Mark all parts to be returned with your SNO JET Model and Serial numbers along with your name. Have your dealer ship prepaid the part in question to SNO JET INC., Thetford-Mines, Que.

FOR SERVICE AND PARTS SEE YOUR
NEAREST AUTHORIZED SNO JET DEALER.

TROUBLE SHOOTING

Engine difficult to start: Fuel line blocked or leaking; ruptured fuel pump diaphragm. Ignition or switch wiring loose or defective; spark plug soiled or defective; contact breaker points soiled or burnt.

Engine stops: Fuel flow obstructed. Ignition system defective; check spark plug, ignition cable and contact points. Engine too hot and piston seizing; carburetor setting not rich enough.

Engine working irregularly: Spark plug loose, defective or soiled; ignition or switch wiring defective. Carburetor trouble; check fastening screws, clean carburetor, renew flange gasket. Ignition timing incorrect.

Engine working four strokes: Choke closed; main carburetor setting incorrect. Dirt preventing carburetor inlet needle from seating properly.

Engine loosing power: Carburetor loose. Bad compression; tighten head and crankcase screws. Incorrect ignition timing. Piston rings sticking due to the use of improper oil. Cylinder needs decarbonizing.

Engine back firing: Carburetor fuel supply channel clogged. Defective or incorrect spark plug. Defective ignition coil or condenser.

Engine getting too hot: Fuel mixture not rich enough. Obstruction in the ventilation system. Carburetor setting too lean. Insufficiently advanced ignition timing. Improper oil/gasoline mixture. Improper grade of oil.

Excessive fuel consumption: Carburetor fuel line or tank leaking. Choke closed. Incorrect carburetor setting. Defective needle and seat.

Your SNO JET dealer will be pleased to show you the SNO JET accessories he has in stock like SNO JET covers (A), mud pads (B) and waterproof cushion (C). Many other accessories are available at your dealer now.

(Français du côté opposé).