

skirolite®

owner's manual and maintenance guide 1971

*Subsidiary, Coleman Company Inc.

DEALER MUST COMPLETE REGISTRATION CERTIFICATE AT TIME OF SALE.

[illegible]

MRS. ☐

[illegible]

Please print

ADDRESS

State or Province

DATE OF SALE.

Month Day Year

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[illegible]

Skirdule serial number

[illegible]

Engine serial number

DEALER'S NAME AND ADDRESS

[illegible][illegible]

Dealer's signature: _____

Owner's signature: _____

SKIROULE LIMITÉE

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MR.

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Month

Day

Year

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[illegible]

Skiroule serial number

[illegible]

Engine serial number

DEALER'S NAME AND ADDRESS

[illegible][illegible]

Dealer's signature: _____

Owner's signature: _____

SKIROULE LIMITÉE

Your choice of a SKIROULE '71 snowmobile is a judicious one. With the model you just bought, you own the best that money can buy. Every SKIROULE is precision engineered and constructed to the finest standards of quality and workmanship by expert craftsmen and technicians considered as second to none in the industry.

Your new SKIROULE is a sturdy machine that will give you and your family continued enjoyment with a minimum of care. In order to enhance your winter pleasure, we prepared this Owner's Manual to help you keep your new SKIROULE snowmobile at peak efficiency. Read it carefully, even if you are an experienced snow-goer; the 1971 models have new features that you should learn about. Give special attention to the maintenance section; it is streamlined to make it simple and easy for everyone to enjoy carefree snowmobiling. Always make sure you have your Manual when you hit the trail. If anything should happen, you'll be capable to face the situation with a minimum of inconvenience.

Respect your Skiroule as you would an aircraft, keep it purring happily by giving it careful examination and simple care as suggested in this Manual.

With your brand new SKIROULE '71, the winter is yours to enjoy as you've never enjoyed it before.

skiroule*
snow-how.

*Subsidiary, Coleman Company Inc.

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break-in period

The engine powering your new SKIROULE is a high performance engine that requires a break-in period of ten operating hours before it can be run at full power. All through break-in period, a rich fuel mixture should be used to insure a better lubrication of piston and cylinder wall. At time of delivery, the carburetor on your SKIROULE is adjusted by your dealer for this richer mixture. **THROTTLE SHOULD NEVER EXCEED $\frac{3}{4}$ MAXIMUM DURING THIS PERIOD.**

At the end of the break-in period, return your SKIROULE to your dealer for its first inspection and adjustment. Should it be impossible to bring your SKIROULE to an authorized dealer in your area, you will find it easy to accomplish the required procedure by following carefully the detailed steps that you will find in the MAINTENANCE section of this Manual.

We cannot overstress the importance of the break-in period. It may mean the difference between complete enjoyment and trouble. Take this opportunity to know your SKIROULE well and develop confidence in it and in yourself as a carefree snowmobiler.

checks

AFTER BREAK-IN PERIOD

Carburetor flange nuts	✓
Battery	✓
Chain case grease	✓
Throttle and brake	✓
Engine head nuts	✓
Track tension	✓
Track alignment	✓
Carburetor	✓
Spark plugs	✓
Drive belt alignment	✓
Suspension springs	✓
Ski nuts and bolts	✓

controls

STEERING

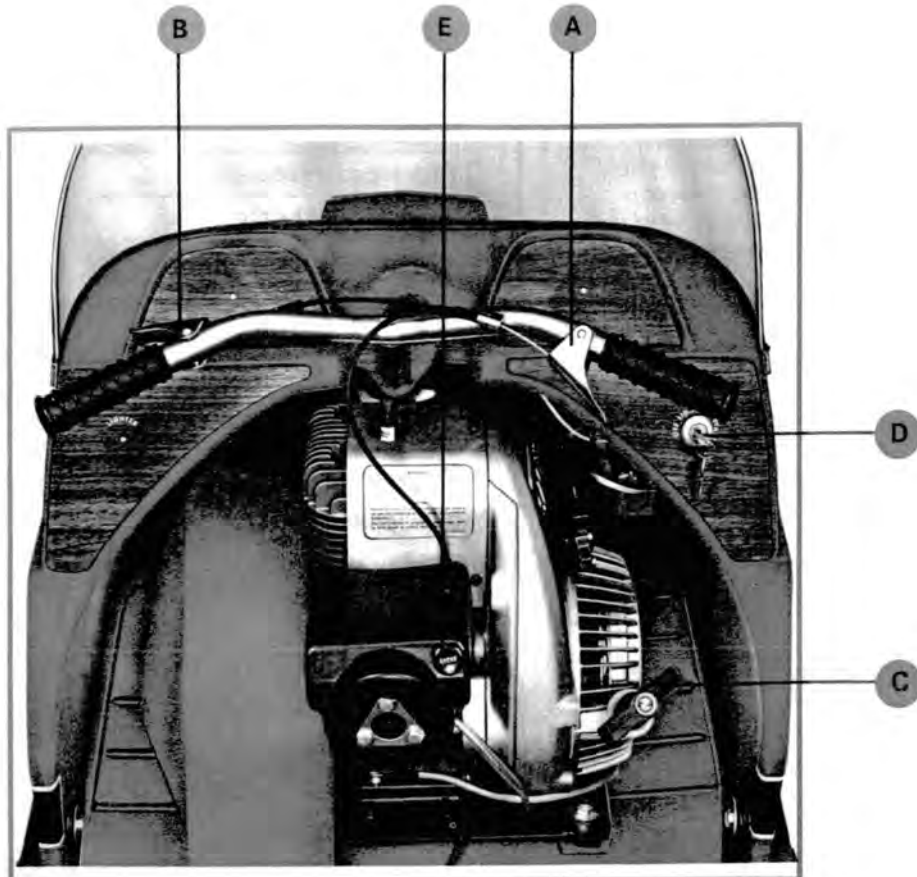
When you rotate the handle bars on your SKIROULE, your snowmobile follows the same direction in which the handle bars are rotated.

A THROTTLE LEVER

Throttle lever, mounted on handle bar, is hand operated. Engine speed increases as lever is depressed. It returns automatically to idle position when lever is released.

B BRAKE LEVER

Also mounted on handle bar, and hand operated, brake lever when depressed activates a sturdy and reliable mechanism. Braking effect is proportionate to the pressure applied on the lever. Releasing the lever stops the braking effect.



C MANUAL STARTER

Located on the flywheel side of the engine, the manual starter is of the automatic rewind type. Engine will start when handle is pulled as described under Starting Procedure.



D IGNITION SWITCH

On Manual Start models, key operated ignition switch may be turned to position OFF or ON. For Electric Start models, positions are OFF, ON and START.



E CHOKE

Always use choke for easy cold engine starts. Pull choke knob out to activate. Push fully in to disengage. On sport models, Pull choke handle up to activate and down to disengage.



light mechanism

A HEADLIGHT

The powerful, rectangular headlight on your Skiroule is fitted with a standard type, removable bulb. To change bulb, lift hood, disengage light socket by turning counter-clockwise, remove old bulb and replace with new one. Secure socket in position by turning clockwise.

B TAIL LIGHT

Snap-on cover on tail light is easily removed by inserting the tip of a screw driver in the slot located on the top of the cover. The two 5-watt bulbs inside may be changed easily.

OPERATION

Front and rear lights are operated by ignition key.

a) For models with manual starter: key on combination ignition-and-light switch should be turned counter-clockwise to LIGHT when lights are needed.

b) For models with electric starter: key on combination ignition-light-and-starter switch should also be turned counter-clockwise to LIGHT when lights are needed.

A



B



speedometer and tachometer

Both these instruments are standard on some models and optional on others.

A SPEEDOMETER

Twelve-volt speedometer, from 0 to 80 MPH, comes equipped with wires.

To install, make a 3" opening in dash panel.

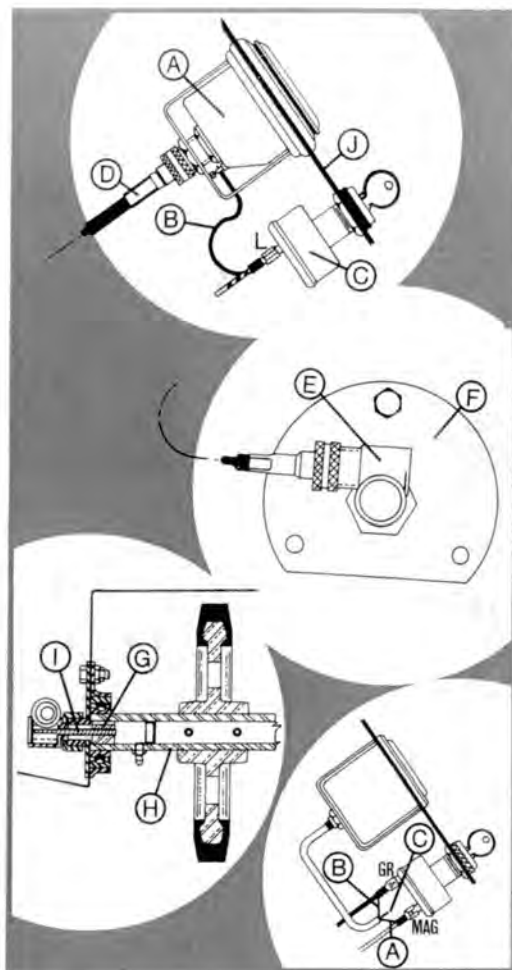
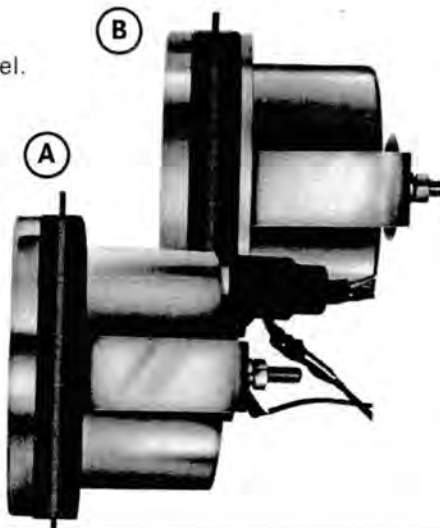
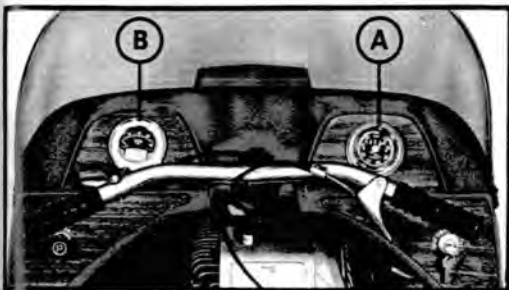
- Connect lighting wire "B" to switch "C" on post "L".
- Take off reinforcing plate "F" and press insert "G" into axle "H".
- Assemble plate "F" to main chassis.
- Insert one end of connecting rod "I" into insert "G", and the other end into 90° angle drive "E". Then, screw "E" to plate "F".
- Connect one end of cable "D" to speedometer body on the dash panel, and the other end to the 90° angle drive "E".

B TACHOMETER

Twelve-volt, equipped with wires.

To install, make a 3" opening in dash panel.

- Connect red wire "A" to magneto.
- Connect black wire to ground.
- Cut off green wire and tape.



fuel mixing

The two-cycle, high performance engine that powers your Skiroule snowmobile is lubricated by the addition of oil to the gasoline. Gas used should be graded between 75 and 100 octanes. Always use special Skiroule mixing oil; it offers high carbon resistance and excellent anti-wear characteristics.

RATIO

CCW engine

20 parts gasoline to 1 part oil is the correct gas to oil mixture ratio for your snowmobile.

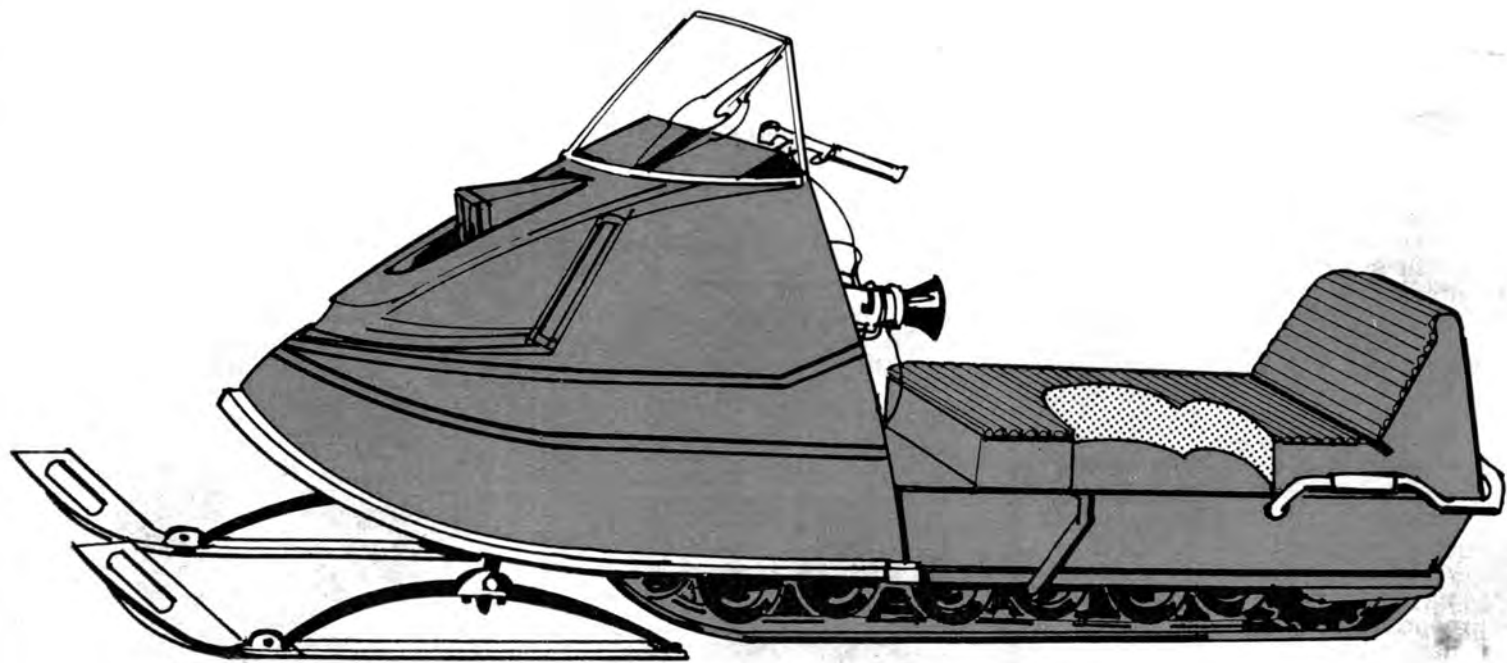
SACHS engine

25 parts gasoline to 1 part oil is the correct gas to oil mixture ratio for your snowmobile.

NOTE: A mixture containing too little oil will cause overheating of the engine, which could result in serious internal damage. Too much oil will cause excessive carbon formation resulting in pre-ignition, fouled spark plugs and loss of power.

PROCEDURE

- 1) Always use a separate and clean container to mix your gas and oil. Do not mix in snowmobile tank.
- 2) Pour the Skiroule oil in the container first; add half of the gasoline; shake thoroughly.
- 3) Pour the remaining gasoline and agitate thoroughly once again.
- 4) When filling your Skiroule tank with this mixture, always use a funnel with a fine mesh screen to prevent entry of fine dirt particles or water.



pre-start inspection

to be made daily, before starting out

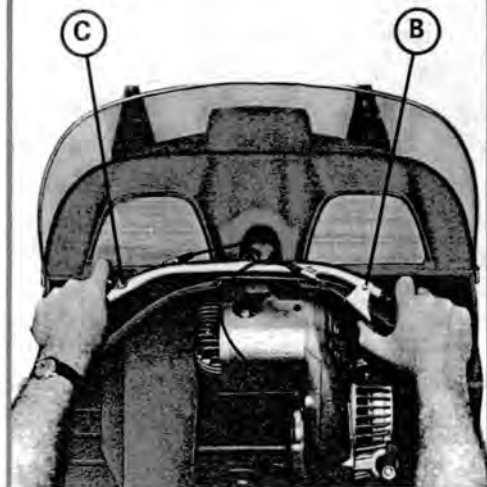
A Check tank to make sure it contains enough fuel for your ride. Make a habit of filling tank before starting out. When leaving for a longer ride, carry a spare can of fuel with you.

B THROTTLE INSPECTION

Check throttle operation by depressing and releasing throttle lever several times. Make sure it opens smoothly and returns swiftly to idle position when released.

C BRAKE INSPECTION

Check brake operation by depressing and releasing brake lever several times. Make sure it closes easily and firmly, and returns swiftly to OFF position when released. Brake should apply fully before lever is pressed approximately $\frac{1}{4}$ " of the handle bar.

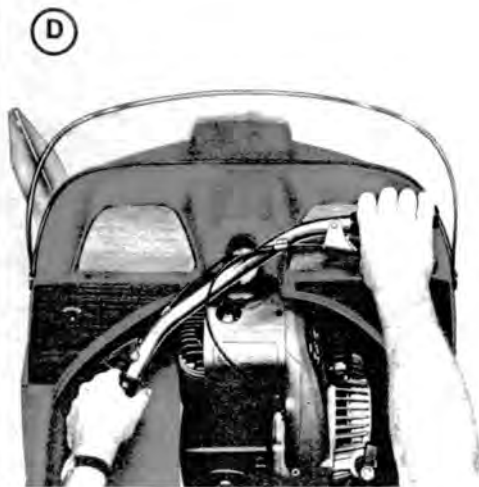


D STEERING INSPECTION

Check steering operation by rotating handle bars. If resistance is felt, check for snow or ice which may obstruct steering action.

LIGHTS INSPECTION

Check headlight and tail-light, to make sure both are working properly.



starting procedure

A MANUAL STARTER

1. Pull choke fully out when engine is cold. If warm, do not use choke.
2. Turn ignition key to ON position.
3. Make sure your feet are in a solid position. Grasp starter handle firmly and pull slowly until you feel a resistance. Then, pull vigorously and engine will start. If engine fails to start, guide handle slowly to its original position and repeat the procedure.

NOTE: Never pull cord all the way out. Never release handle abruptly when cord is out; guide it in place.

4. Push choke back.

B ELECTRIC STARTER

1. Pull choke fully out when engine is cold. If warm, do not use choke.

2. Apply light pressure on throttle lever.

3. Turn key to START position and hold until engine starts.

NOTE: Do not keep key on START for more than 30 seconds. After 30 seconds, allow starter to rest for 2 minutes before attempting another start.

4. Release throttle and return key to ON position as soon as engine has started.

5. Push choke back.



B



be sure to:

- Register your Skiroule snowmobile at the nearest License Bureau, to comply with State or Provincial laws.
- Put your lights on when riding at dusk and at night.
- Insure your Skiroule against public liability.
- Follow established trails until you become an expert snowmobile driver.



- At all times, carry tools and emergency materials and supplies, such as spark plugs, bulbs, drive belt, flashlight, matches, rope, first aid kit, etc.
- Use tow-bar or rigid hitch when pulling a "Cariol" behind your Skiroule.



avoid:

- Cutting across another snowmobile or vehicle.
- Driving on highways or public roads.
- Driving on railway tracks. The noise of approaching trains may be drowned by the sound of your Skiroule engine.
- Driving over fences or cutting through them. (Respect private property.)
- Driving your Skiroule near ski trails.
- Leaving your keys in the ignition switch.
- Overloading your Skiroule. A "Cariol" will carry more weight with greatest ease and allow for better manoeuvrability.



driving hints

SUGGESTIONS TO NEW SNOWMOBILE DRIVERS

Develop confidence in your Skiroule and in yourself as a snowmobiler. Select large, flat areas, clear of trees or other obstructions for your first rides. Get used to the various controls of your Skiroule and to its feel and balance. Do not attempt to travel at high speed or far away.

Avoid the mistake of pressing and releasing throttle and brake levers abruptly. Always squeeze smoothly for jerkless acceleration and braking.

Remember that releasing the throttle lever has a natural slowing action and that a gentle pressure on the brake lever will suffice. You will be less and less dependent on the brake as your driving improves.

TURNING

For wide turns, the handlebars alone are enough to steer your

Skiroule where you wish to guide it. To make fast, tight turns, you must learn to shift your body weight to left or right, and to lower your centre of gravity as much as possible. Practice turning in open field as much as you can.

SURFACE CONDITIONS

DEEP SNOW — Your Skiroule is designed to manage any type of snow. In light, deep snow, keep

as little weight as possible on your snowmobile, travel alone. Maintain a good speed without accelerating beyond the track's ability to manage the soft surface. Don't stop.

If you gain headway and your Skiroule responds reasonably to speed changes, you may feel safe to proceed. If not, make a wide turn and check for firm trail.

ICY SURFACES — Slow down, avoiding abrupt acceleration or braking.





driving positions

The three driving positions for a snowmobiler are:

Sitting - Kneeling - Standing.

For quiet rides, the sitting position proves the best.

For sidehills, use kneeling position, with one knee on seat, and the opposite foot on footboard. When leaning left into the hill, your right knee should be on the seat and your left foot on the footboard, and vice-versa.

On steep hills, it is better to use the standing position, with knees flexed to absorb shocks.



emergency situations

Emergency situations may arise. Be ready to cope with them by having a thorough knowledge of your personal ability as a snowmobiler and of the possibilities of your machine. Always carry a set of tools and spare parts for minor repairs — or even major ones — on the trail.

EMERGENCY MATERIALS

In addition to the standard tool kit supplied with your SKIROULE, carry:

Adjustable wrench — Pliers — Long, thin-bladed screwdriver — Fuses — Fuel filter — Spark plug — Light bulb — Rope — Throttle cable.

TOWING A STRANDED SNOWMOBILE

1. Remove drive belt (see p. 21, under Drive Belt Wear)
2. Tie both skis to your rear bumper.
3. Take driver on your SKIROULE and tow vehicle slowly.

TO AVOID INCONVENIENCE AND EMERGENCY

1. Stay on familiar trails.
2. Travel with other snowmobiles and stay with the group.
3. Insure regular maintenance of your vehicle.



LIGHT BULB

Replace burnt out light bulb as described in page 8.

A BROKEN SKI OR SPRING

Remove ski and ride on remaining one, shifting your weight to keep vehicle's balance.

B BROKEN MANUAL STARTER ROPE

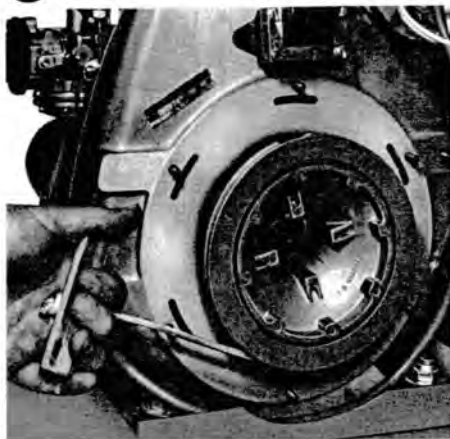
Remove rewind starter unit. Wind rope around starting pulley. Start engine as usual.



C BROKEN THROTTLE CABLE

1. Disengage throttle cable from throttle cable slug at throttle lever.
2. Disengage at pivoting slug by unscrewing throttle cable adjustment screw.
3. Remove cable.
4. Insert new cable.
5. Secure with throttle adjustment screw in pivoting slug.
6. Secure cable to throttle cable slug at throttle lever.

B



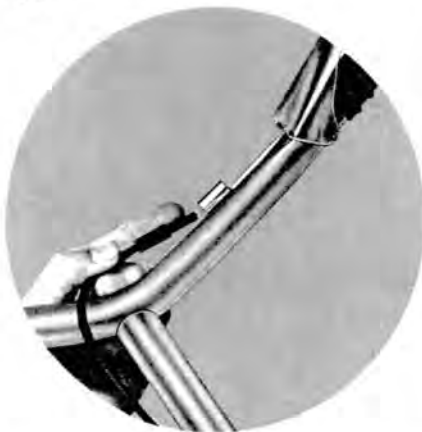
7. Adjust for correct length at cable adjustment screw and tighten screw.

D BURNT FUSES (electric models only)

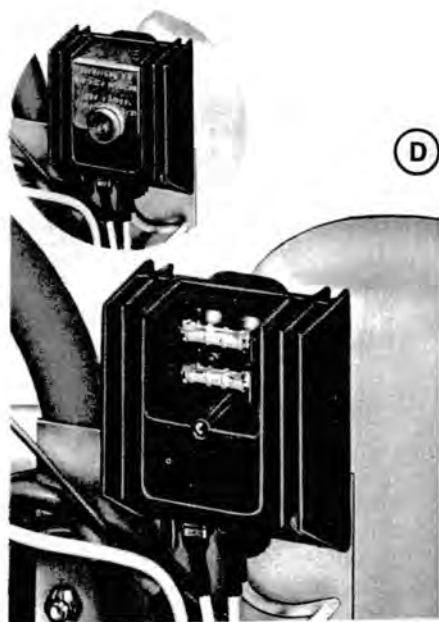
1. Tilt up hood.
2. Remove fuse box cover.
3. Remove each fuse and examine carefully for defective or broken filaments.
4. Replace faulty fuse with new one.

NOTE: Battery may not charge when fuses are defective.

C



D



maintenance

A DRIVE CHAIN AND ADJUSTER GREASING

NOTE: Use chain grease prepared specially for Skiroule.

- To lubricate the drive chain, take off the chain case cover and deposit grease with wide knife. When the chain rotates, the grease will spread in the chain case.
- Lubricate chain adjuster through grease fitting located on top of the main body.
- Check grease in chain case every 300 miles.

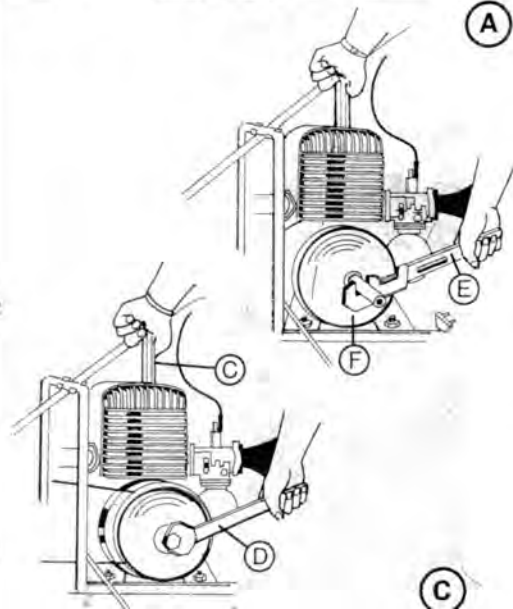
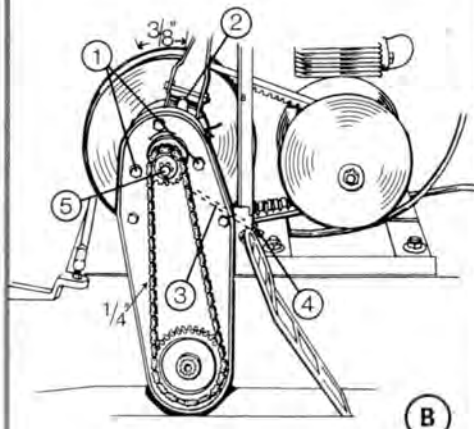
B DRIVE CHAIN TENSION ADJUSTMENT

Set tension to a free play of $\frac{1}{4}$ ". For further adjustments, unscrew bolts ① and nuts ④ of adjusting rod. To tighten chain, turn tensioner lock nut toward the front, as indicated by arrow. To loosen, turn in opposite direction. Retighten bolts ① and nuts ④.

DRIVE AND DRIVEN PULLEYS

C HOW TO REPLACE DRIVE PULLEY

1. Take off belt and insert blocking tool in spark plug location.
2. Remove centrifugal cover with key, and then, outer flange, spring, etc.
3. Using a pipe wrench placed as close as possible to the bearing, turn left to remove engine pulley flange.



D HOW TO REPLACE DRIVEN PULLEY

1. Remove drive belt as indicated under DRIVE BELT WEAR.
2. Remove slotted nut A, Fig. D take out sprocket B and release main shaft C from chain adjuster.
3. To replace cam driver F, take out spring pin E.
4. To release spring hub I, remove spring pin D.
5. To replace driven sheave H, Fig. D, release cam driver as for step No. 3 above, and take out spring G.
6. To give spring G the right torsion when mounting, turn cam driver F clockwise approximately $\frac{2}{3}$ of a turn, after engaging hooked ends of spring in driven sheave H and cam driver F.

E DRIVE BELT ALIGNMENT

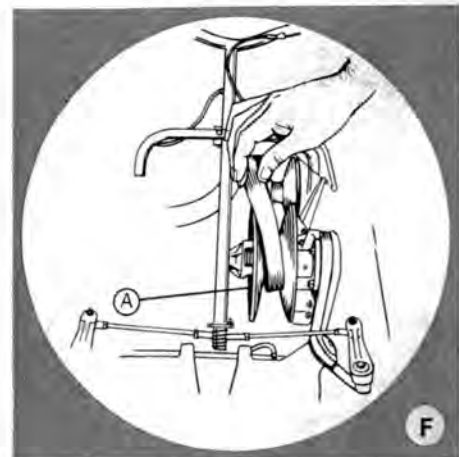
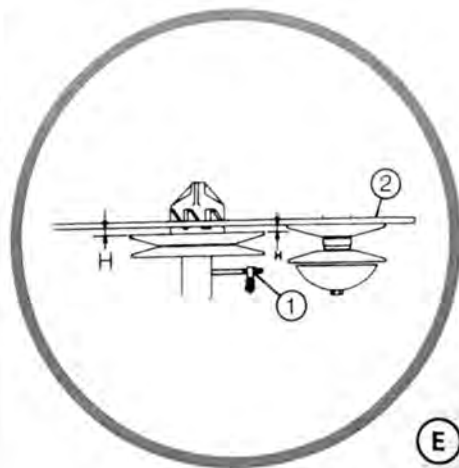
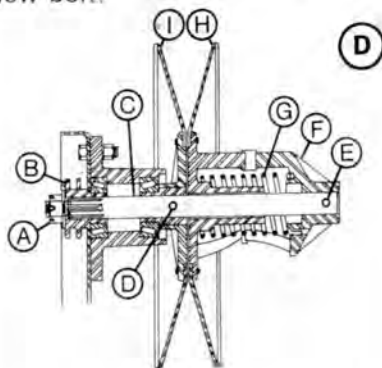
Apply a straight edge bar on the engine side of drive belt pulley. Set adjustment rod in tightening

nuts I, Fig E-1 until flat side of driven pulley is parallel with straight edge bar.

F DRIVE BELT WEAR

When drive belt is less than $\frac{7}{8}$ " wide, it should be replaced as follows:

1. Open driven pulley by pushing and twisting the sliding half.
2. Pull belt over top edge of sliding half.
3. Slip belt out from drive pulley and remove by passing it over driven pulley.
4. Reverse procedure to install new belt.



throttle and brake lubrication

Oil brake and throttle cable slugs to permit free rotation in levers.

Make sure oil coats internal cable.

Oil throttle lever shaft and pivoting slug at carburetor.

A IDLE SPEED ADJUSTMENT

With screwdriver, turn adjusting screw clockwise to increase speed, and counter-clockwise to decrease speed.

B IDLE SPEED MIXTURE ADJUSTMENT

As primary adjustment, WITH ENGINE OFF, turn screw fully clockwise until it closes. Then counter-clockwise for $\frac{3}{4}$ of a turn.

Turning clockwise produces leaner mixture — counter-clockwise produces richer mixture.

Adjust for peak response to throttle, WITH ENGINE WARMED UP. Turn adjusting screw clockwise until engine reaches maximum RPM. Then turn adjusting screw $\frac{1}{8}$ of a turn counter-clockwise.

C HIGH SPEED MIXTURE ADJUSTMENT

As primary adjustment, WITH ENGINE OFF, turn adjusting screw fully clockwise until it closes. Then counter-clockwise for $1\frac{1}{8}$ turns.

Turning clockwise produces leaner mixture — counter-clockwise produces richer mixture.

Lift rear end of snowmobile and support it off the ground. Start engine and bring to full throttle. Turn adjusting screw clockwise until engine reaches maximum RPM. Then counter-clockwise for $\frac{1}{8}$ of a turn.



battery

The battery on your SKIROULE (electric starter models only) is a 12-volt, 35-amp. type. It should have been activated at the factory or by the SKIROULE dealer.

Check acid level at each cell. Acid must touch ring at bottom of filler hole. If necessary, add distilled water up to this level.

Check for tight battery connections and freedom from corrosion at poles. Use stiff brush to remove corrosion and clean with a solution of baking soda and water. BE CAREFUL NOT TO LET CLEANING SOLUTION ENTER CELLS, as it will destroy the acid.

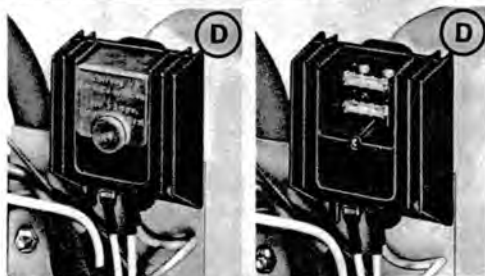
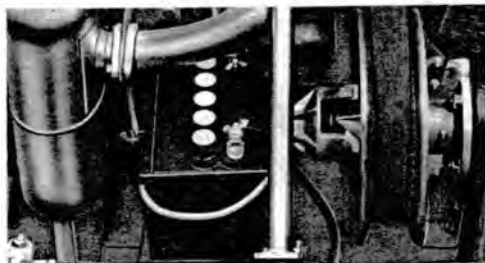
D RECTIFIER FUSES (electric models only)

Remove rectifier metal cover. Inspect each fuse. Replace fuse if filaments appear broken or defective.

E SPARK PLUGS

Engine performance depends upon spark plug condition. To check:

1. Disconnect spark plug wire.
2. Remove spark plug.



Carbonized Normal Burnt

3. Check condition:
Normal color is brownish.
Carbonized spark plug is black.
Burnt spark plug is pale grey.

4. Adjust spark plug gap to 0.020" with feeler gauge.

ELECTRICAL WIRING

Check monthly for defects.

F ENGINE

1 ENGINE HEAD NUTS

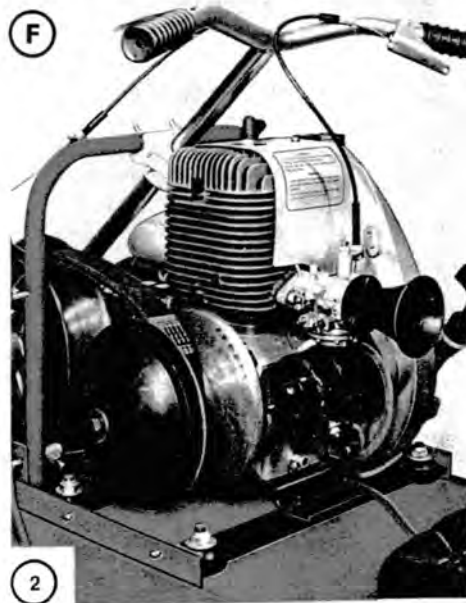
Tighten to eliminate vibration.

2 ENGINE MOUNT BOLTS

Tighten to eliminate vibration.

CARBURETOR

Set as described on page 22.



track

With the rear of your Skiroule lifted and supported off the ground, AND ENGINE OFF, rotate track by hand and inspect for bad cuts and missing inserts. If such conditions are noted, see your Skiroule dealer.

A TRACK TENSION

Lift the rear of your Skiroule and support it off the ground. Press down with hand on the middle part of the track. Free play between track and center suspension unit should be between 2½" and 3".

B TRACK TENSION ADJUSTMENT

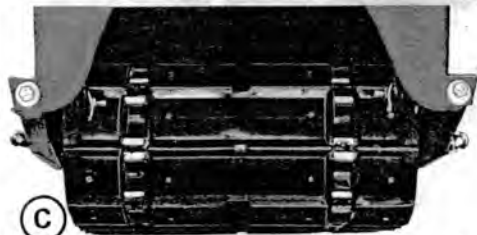
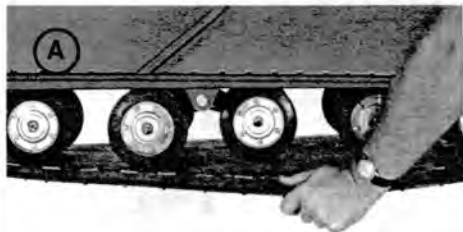
Loosen track tensioners by unscrewing lock nuts on the inner side of suspension rear springs. Adjust to proper tension by turning tensioner adjusting screws. Make sure both sides are adjusted equally. Then tighten tensioner lock nuts.

C TRACK ALIGNMENT

With the rear of the snowmobile lifted and supported off the ground, start engine and depress accelerator slightly so that track turns slowly. Check if track is well centred and if distance between its edges and the link plates is the same on both sides.

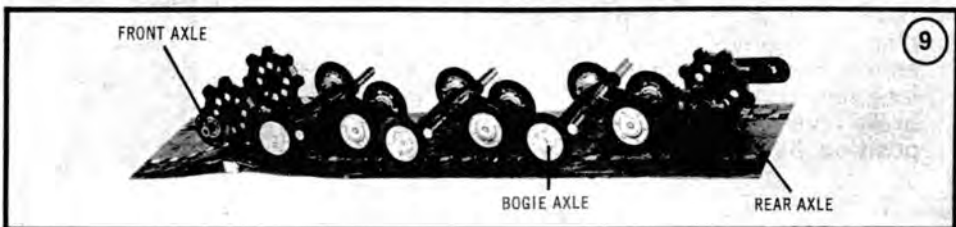
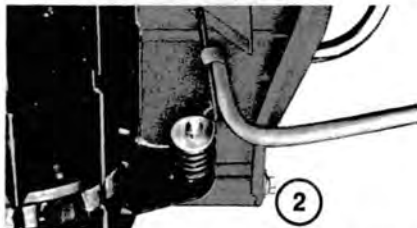
D TRACK ALIGNMENT

Loosen tensioner lock nuts on inner side of rear springs. Adjust by tightening the adjusting bolt on the side where the track is closest to the link plate.



HOW TO CHANGE TRACK

- 1 Remove chain and sprocket from chain case to free front axle.
- 2 Remove suspension rear springs.
- 3 Remove rear axle.
- 4 Remove six bogie wheels.
- 5 Remove front axle.
- 6 Remove old track.
- 7 Install new track.
- 8 Reinstall front axle.
- 9 Reinstall bogie wheels.
- 10 Reinstall rear axle.
- 11 Reinstall suspension rear springs.
- 12 Adjust track tension.
- 13 Reinstall sprocket and chain in chain case and adjust chain tension.



steering mechanism

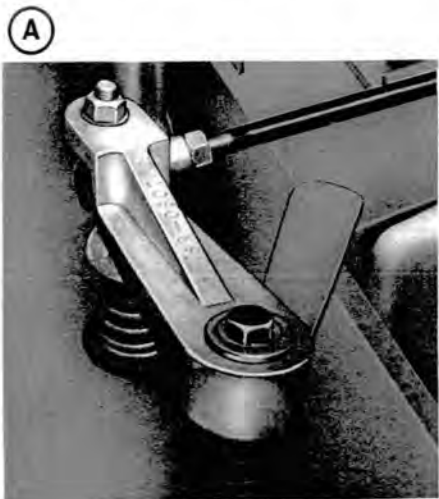
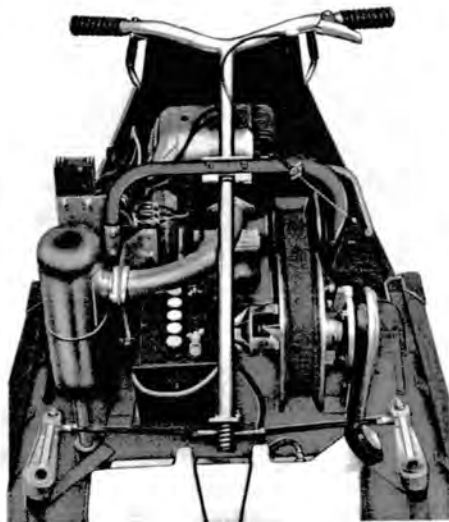
Using Skiroule especially prepared oil, lubricate all mobile contact points.

A STEERING ADJUSTMENT

Make sure that skis are parallel to each other, using metal tape to measure distance between skis at front and back. Skis should also be parallel to vehicle when handle bars are at zero steering. To re-adjust: Tilt hood. Unscrew nuts locking tie rods in place. Turn tie rod until ski alignment is corrected. Retighten nuts firmly.

B BRAKE ADJUSTMENT

Unscrew nut several turns, on the side of the brake shoe mount. For low brake lever, shorten brake cable by pulling free end with pliers and pulling evenly. Retighten nut. For high brake lever, lengthen brake cable. Depress brake lever slowly to desired position. Retighten nut.



ski assembly and suspension

Oil spring coupler bolt on skis with Skiroule Oil. With small brush, apply grease on copper glider for smoother movement of main spring blade.

C BOGIE WHEELS

Grease all suspension bogie wheels with low-temperature grease, using Skiroule low pres-

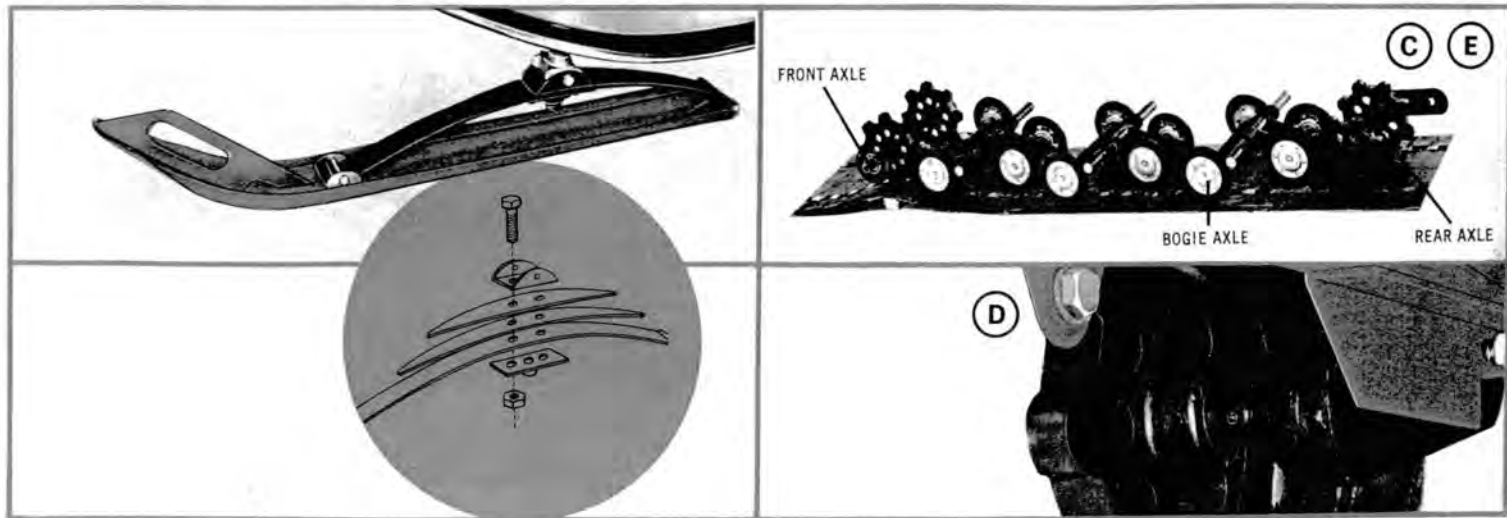
sure gun. Push grease into grease fittings at center of each wheel until new grease appears at the joints.

D REAR AXLE

Grease rear axle with low-temperature grease, pumping grease through rear axle fitting with Skiroule gun.

E SUSPENSION SPRINGS

Make a weekly inspection of bogie wheel suspension springs and of two link plate springs at rear sprocket. Replace or ask your Skiroule dealer to replace weak or broken springs.

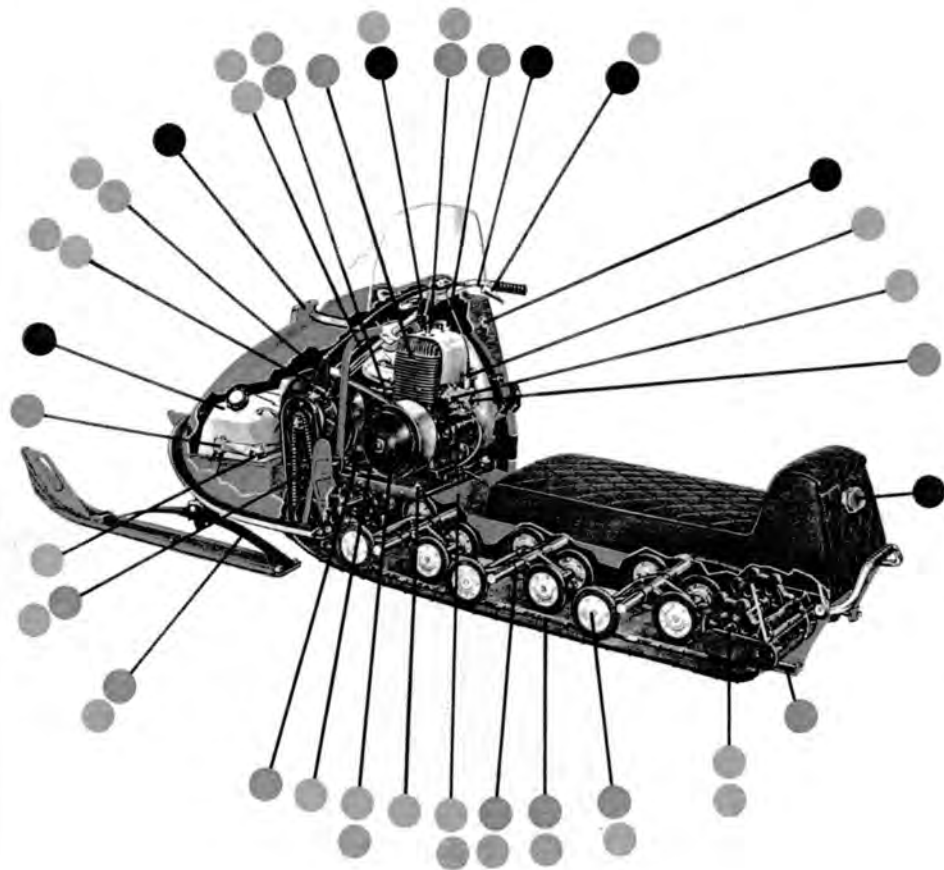


general inspection of snowmobile

Make a thorough monthly inspection of your Skiroule snowmobile.

With hood tilted, inspect the vehicle and tighten all loose nuts, bolts and joints.

After closing hood, clean the chassis thoroughly, repair dents in hood with Skiroule fiberglass kit, touch up with Skiroule paint and wax cab for greater protection.



general inspection & checking chart

	DAILY	WEEKLY	MONTHLY	STORAGE
Battery		●		●
Bogie wheels		●		●
Brake			●	●
Brake operation	●			
Carburetor		●		
Carburetor flange nuts			●	
Chain case grease		●		●
Drive and driven pulleys			●	●
Drive belt alignment		●		
Drive belt wear			●	
Electrical wiring			●	●
Engine head nuts		●		
Engine mount bolts			●	
Fuel tank contents	●			
Lights	●			
Rear axle			●	●
Rectifier fuses		●		
Ski assembly		●		●
Snowmobile general inspection			●	●
Spark plugs		●		●
Steering adjustment			●	
Steering mechanism		●		
Steering operation	●			
Suspension springs		●		●
Throttle and Brake			●	
Throttle operation	●			
Track		●		●
Track — tension and alignment		●		

trouble shooting

Engine difficult to start — Fuel line blocked or leaking. Ruptured fuel pump diaphragm. Ignition 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. Piston seizure due to overheated engine. Carburetor setting not rich enough.

Engine working irregularly — Spark plug loose, defective or soiled. Ignition wiring defective. Ignition timing incorrect. Carburetor trouble: Check fastening screws, Clean carburetor, Renew flange gasket.

Engine working four stroke — Choke closed. Main carburetor setting incorrect. Dirt preventing carburetor inlet needle from seating properly.

Engine losing 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 backfiring — Carburetor fuel supply channel clogged. Defective or incorrect spark plug. Defective ignition coil or condenser.

Engine overheating — Fuel mixture not rich enough. Obstruction in the ventilating system. Carburetor setting not rich enough. Insufficiently advanced ignition timing. Improper oil-gas mixture. Improper grade of oil.

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