



CENTAUR

OWNERS MANUAL

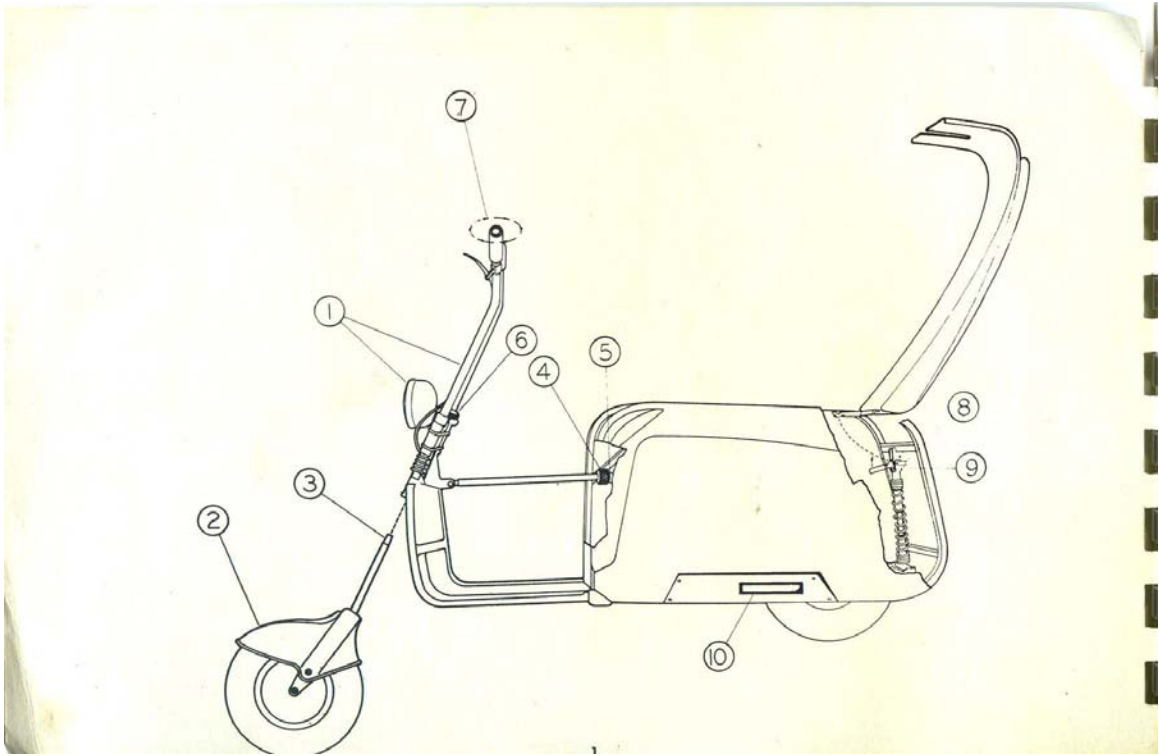
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TABLE OF CONTENTS

	Page
To unfold	2
Gas and oil mixture	4
To start engine	4
To drive the Centaur	5
To fold	7
New Centaur Break-in and Carburetor Adjustment	9
Tire removal - front wheel	11
Tire removal - rear wheel	13
General Maintenance	15
General Information	19
Trouble Shooting Chart	20

All information contained in this manual is based on the latest product information available at the time of printing. The right is reserved to make changes at any time without notice.

First Edition

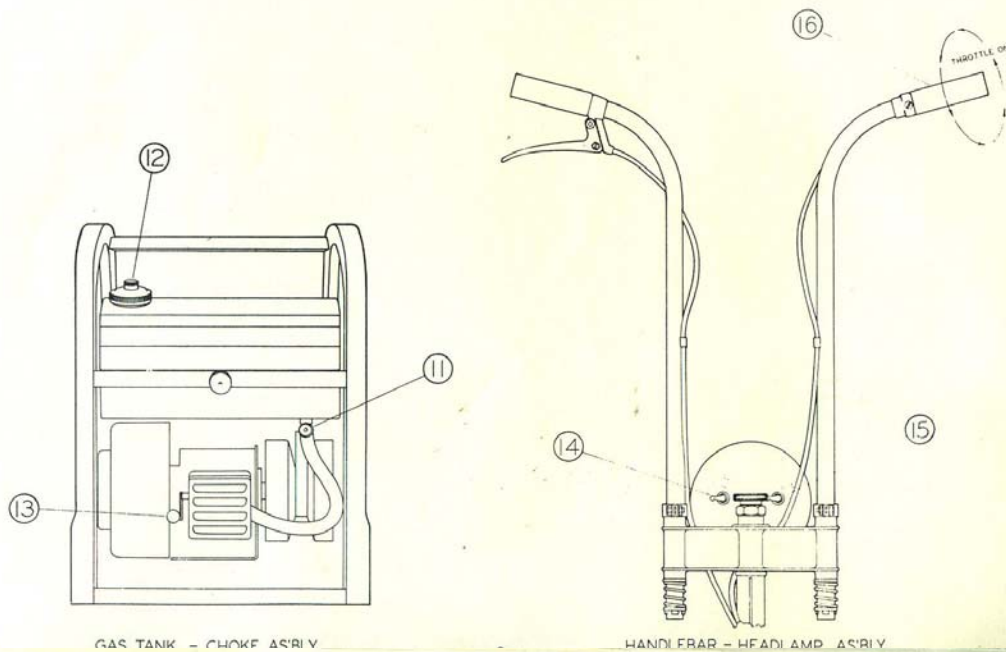


TO UNFOLD	FIG.
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- Pivot to disconnect one side of seat strap... tilt seat back to open position. 1
- Pull handlebar headlamp assembly - up and out - of Centaur body 2
- Remove front wheel assembly - holding edge of plastic fender 2
- Slip stem of front wheel fork assembly into steering column and engage fork lock screw 3 & 6
- Raise front part of Centaur body and connect frame support lock sleeve 4 & 5
- Twist handlebars to locked driving position 7
- Tighten fork lock screw and frame support lock sleeve 4 & 6
- Lift up on shock absorber yoke handle and pull shock forward to disconnect it from the retract hook 8
- Lift back end of body with the shock latch handle and engage shock yoke handle in slots of shock latch lock 9

To put Centaur on kick stand... stand on left side of Centaur... put toe of right foot on end of kick stand so that it touches ground... pull back on Centaur pivoting kick stand into locked position.

Use index finger to pull passenger foot rest pedal out of Centaur body 11



GAS AND OIL MIXTURE

CAUTION: DO NOT ATTEMPT TO RUN CENTAUR ENGINE ON STRAIGHT GASOLINE

- Mix 1/2 pint (8 Oz.) of S. A. E. 30 motor oil or 2 cycle outboard engine oil with one gallon of regular gasoline.
- It is not necessary to use high octane gasoline
- Close gas tap before pouring gas and oil in Centaur gas tank. Mix well.
- Avoid spilling gasoline over engine during refueling.

TO START ENGINE

FIG.

BEFORE STARTING ENGINE - PLACE CENTAUR ON KICK STAND

- Open gas tap and gas cap breather valve. 11 & 12
- Place choke handle in START position 13
- Switch ignition (located headlight) to the ON position 14
- Make sure headlamp light switch is in OFF position before starting engine 15
- Twist throttle control 1/4 turn open (counter clockwise - toward you) . . . 16
- Pull up on starter handle until engine fires once - place choke in drive position - pull up on starter handle until engine starts

IF ENGINE DOES NOT START:

The Centaur is shipped with gas tank and carburetor completely dry and the engine may be difficult to start for the very first time or until air has been forced out of both gas line and carburetor.

- Open throttle control twist grip all the way
- Place choke handle in START position
- Pull up on starter handle until engine fires once, place choke in drive position - pull up on starter handle until engine starts
- Make sure engine is at idle speed and rear wheel has stopped spinning before attempting to remove Centaur from kick stand.

TO DRIVE THE CENTAUR:

- With engine running at idling speed... sit on the seat in such a way as to be able to place your feet on the front platform comfortably.
- With both feet on the ground... slowly and carefully twist throttle control open (counter clockwise) until the Centaur begins to move forward
- Then, immediately close throttle control (clock wise). Repeat this procedure until skill has been obtained in knowing how to open and close the throttle control twist grip.
- Avoid attempting to go fast or make U turns for the first few practice drives.

- 5 -

- Try to place your feet on the platform as soon as possible after the Centaur is in forward motion. Avoid any attempt to use your feet as a means of slowing down or stopping the Centaur. At first drive slowly.
- Driving slowly... close the throttle control and carefully squeeze the handle-bar brake lever until the Centaur comes to a complete stop.
- To turn the engine off... flip the ignition switch to the OFF position.
- Avoid carrying a passenger until you are thoroughly familiar with starting, turning and stopping the Centaur.
- Do not make sudden stops on loose gravel or wet pavement.
- If the Centaur is to be left standing or parked for any appreciable time... close the gas tap (page 3, fig. 11) eliminating the possibility of oil from the gas mixture settling in the carburetor (causes hard starting) or oil and gas leaking from the air filter chamber.
- When Centaur is to be stored for over one month, drain fuel from tank and run engine until carburetor is dry.
- Observe all motor vehicle traffic laws and regulations.

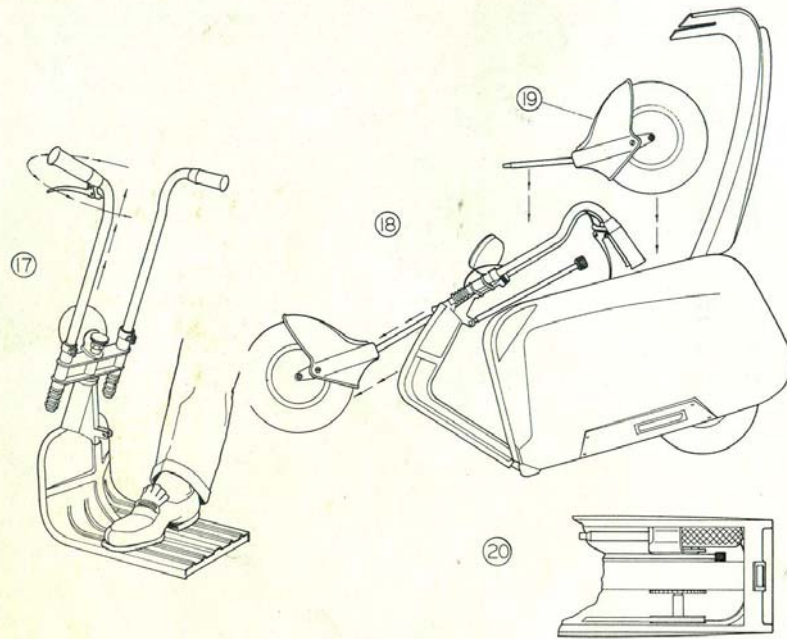
- 6 -

TO FOLD

FIG.

- Open seat... close gas tap and gas cap breather valve 11 & 12
- Lift up and twist handlebars to face rear of Centaur (to obtain leverage, 17
place your foot on the front platform)
- Loosen fork lock screw and frame support bar lock sleeve 4 & 6
- Push Centaur forward and off kick stand
- Disconnect frame support bar - allowing center section of Centaur to 18
rest on the ground (support bar should now rest on top of gas tank)
- Lift shock latch handle up and pull shock yoke handle out of latch lock 9
- Lift up and forward on yoke handle - attaching it to retract hook 8
- Pivot handlebar assembly to rear and slip front wheel out of steering
column
- Place front wheel assembly into Centaur body with front edge of fender 19
facing up
- Fold handlebar assembly back into body - making sure that frame support
bar slips between front wheel and rear wheel - handlebar controls fit
between main frame tubing and engine rear wheel frame tubing 20
- Close seat and attach seat strap

AVOID FORCING ANY PART OF THE CENTAUR INTO THE FOLDED POSITION



NEW CENTAUR BREAK-IN AND CARBURETOR ADJUSTMENT

Because the Centaur has an unusual type of transmission system (Hoover Dri-Draulic completely automatic torque converter), it is not necessary to drive at slower speeds during the so-called break-in period. However, it should be noted that maximum performance cannot be realized until the Centaur has been driven for at least five hours or until the piston rings are seated.

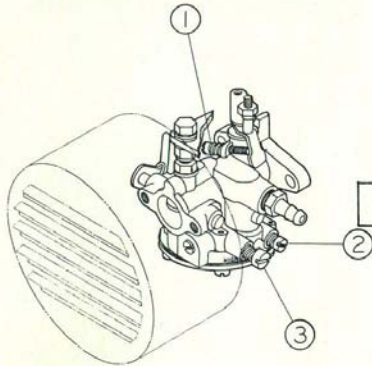
CARBURETOR ADJUSTMENT:

Although the carburetor is set correctly at the factory, it may be necessary to make some minor adjustments to increase engine efficiency. Variations in climate, the type of gasoline used as well as completion of the engine break-in period will all have some effect on carburetion.

INITIAL ADJUSTMENT:

- There are three screws for adjusting the carburetor - idle speed regulating screw (Fig. 1), low speed adjusting screw (Fig. 2), and high speed adjusting screw (Fig. 3).
- Initial setting of low speed screw - 1/2 to 3/4 turn open from fully closed position.
- Initial setting of high speed screw - 3/4 to 1 turn open from fully closed position.

- 9 -



- Idle speed screw is set so that engine idles at 1500 R. P. M. - below the engaging speed of transmission cog belt assembly and quite a bit above engine stalling speed.

FINAL ADJUSTMENT:

- The low speed screw should have a final adjustment for smooth and even running of the engine at idle speed - 1/16 of a turn at a time closed (clockwise) or open (counter clockwise) will give this adjustment.
- The high speed screw should have a final adjustment of 1/16 turn closed (clockwise) or open (counter clockwise) for maximum driving performance. If set too rich (open) at high speed, engine seems sluggish or smokes excessively. If too lean (closed) quick acceleration will cause engine to stall or hesitate before getting enough torque to actuate the transmission.

- 10 -

TIRE REMOVAL - FRONT WHEEL

- Unscrew and remove axle bolts (Fig. 1) and dome washers (Fig. 2)
- Push axle (Fig. 3) out of fork arms (Fig. 4), remove axle spacers (Fig. 5)
- Unscrew lug nuts (Fig. 6) and remove wheel hub bearing assembly (Fig. 7)
- Unscrew wheel half nuts (Fig. 8), remove washers and bolts (Fig. 9 & 10)
- Separate wheel halves (Fig. 11 & 12) and remove inner tube from tire (Fig. 13)

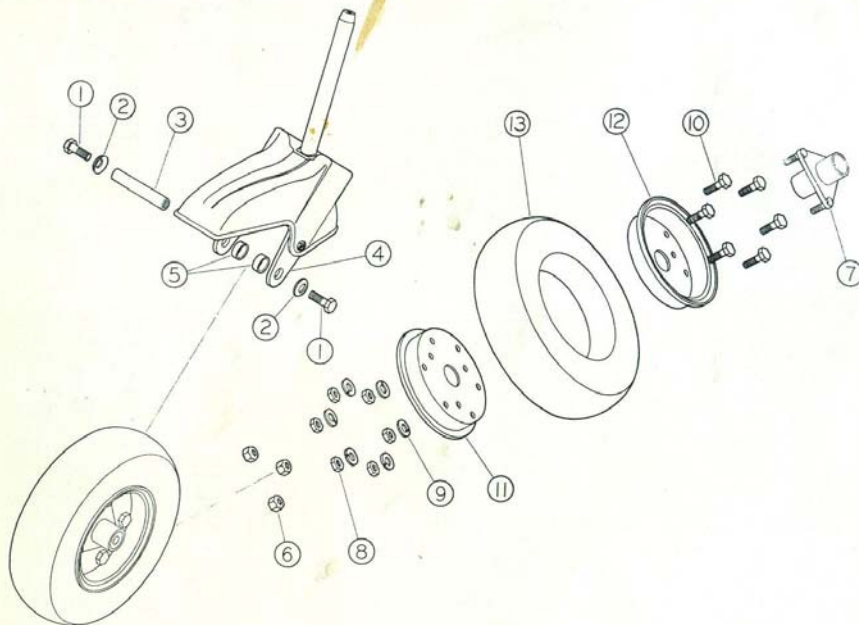
TO REASSEMBLE THE FRONT WHEEL, REVERSE ABOVE PROCEDURE.

CAUTION: Do not attempt to separate wheel halves with air pressure in tire.

Wheel should not be assembled with axle bolts (Fig. 1) too tight as this will result in the eventual destruction of the sealed bearings.

Tire pressure - front wheel: 18 Lbs.

- 11 -



- 12 -

TIRE REMOVAL - REAR WHEEL

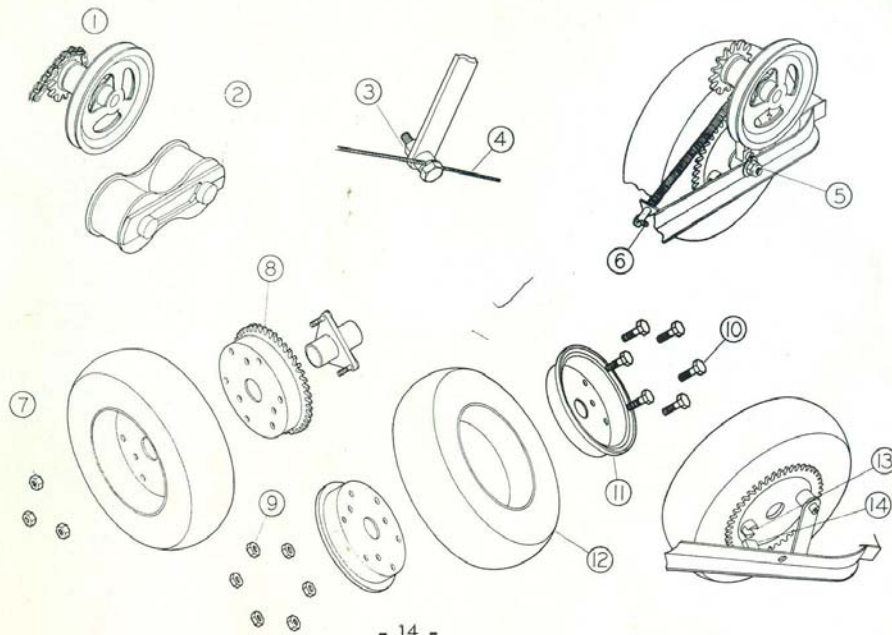
- Remove plastic side panels (do not disconnect starter handle).
- Remove cog belt and disconnect one end of stop light switch spring.
- Position split coupler chain link (Fig. 1) on top of small sprocket and disconnect chain (Fig. 2).
- Loosen brake cable connector (Fig. 3) and disconnect brake inner cable (Fig. 4).
- Remove cotter pin (Fig. 6) from compensating rod - remove spring from rod.
- Unscrew and remove rear axle nut and washer (Fig. 5).
- Drive axle out of compensating arm and remove complete arm assembly.
- Drive axle out of brake plate and wheel hub and remove wheel from frame.
- Remove brake plate assembly from wheel.
- Unscrew lug nuts (Fig. 7) and separate brake drum from wheel halves (Fig. 8).
- Unscrew wheel nuts (Fig. 9) and remove bolts and washers (Fig. 10).
- Separate wheel halves (Fig. 11) and remove inner tube from tire (Fig. 12).

TO REASSEMBLE THE REAR WHEEL - REVERSE ABOVE PROCEDURE

When re-assembling rear wheel - make sure brake plate stop (Fig. 13) is connected to engine "U" frame bracket (Fig. 14) and brake cable is adjusted to correct tension before driving the Centaur. Check tension on stop lite switch spring so that stop lite bulb does not remain on.

Tire pressure - rear wheel: 22 Lbs.

- 13 -



- 14 -

GENERAL MAINTENANCE

TIRE PRESSURE: Front Wheel . . 18 Lbs. Rear Wheel . . 22 Lbs.

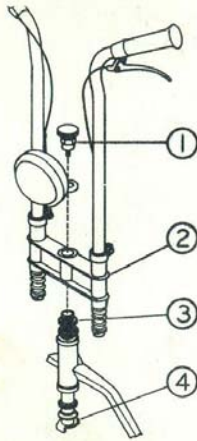
WHEEL BEARINGS: Sealed Bearings . . greasing not necessary.

STEERING COLUMN: The fork sleeve is assembled in the steering column with caged bearings and bearing cones. After the Centaur has been operated for a considerable period of time, the bearings will need lubricating.

TO LUBRICATE BEARINGS: (general purpose chassis lube) or TIGHTEN STEERING:

- Remove front wheel assembly, cap nut and headlamp (Fig. 1)
- Without disconnecting control cables - lift up and remove handlebar "H" member (Fig. 2). Wipe steering column free of all dirt.
- Loosen threaded cone (Fig. 3) enough to expose caged bearing at bottom end of fork sleeve (Fig. 4). Apply lubrication to caged bearings.
- When re-assembling the steering column, avoid tightening the threaded cone (Fig. 3) too much, as this will damage the caged bearings and may bind or lock the complete steering column.

- 15 -



CONTROL CABLE ADJUSTMENT:

- Tension on the throttle (woven inner) cable is adjusted at the cable connector located on the end of the carburetor cam arm - (correct tension will allow maximum open - closed throttle).
- Tension on the brake (woven inner) cable is adjusted using the threaded ferrule located at the bottom end of the brake outer cable. Turning the ferrule counter clockwise will tighten the brake and clockwise will loosen the brake. Avoid tightening the brake cable too much or so that the brake shoes are in contact with the brake drum.

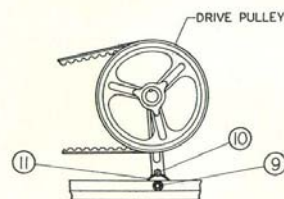
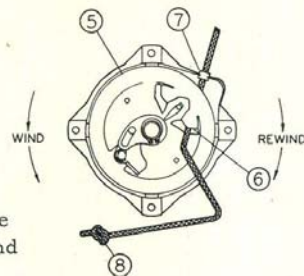
RECOIL STARTER:

Centaur must be completely unfolded for all cable adjustments.

Any breakage of the recoil starter nylon rope generally occurs at the bottom end of the rope. This being the case, it is not necessary to replace the complete rope as it can be repaired as follows:

- 16 -

- Remove starter handle from broken rope - use match to melt frayed end.
- Remove starter from engine blower housing.
- Wind starter spring loaded pulley (Fig. 5) counter clockwise 3 complete turns so that knot hole in pulley (Fig. 6) lines up with grommet (Fig. 7).
- Thread rope through knot hole and grommet so that rope knot (Fig. 8) fits snug in knot hole. Do not release pulley.
- Tie a slip knot in rope approximately 10 inches above grommet (Fig. 7). Carefully allow pulley to rewind clockwise.
- Assemble starter to engine blower housing so that grommet (Fig. 7) faces up.
- Thread rope through side panel starter hole and starter handle - tie single knot at end of rope - pull knot into starter handle.
- Attach side panel and release slip knot in rope.



- 17 -

CHAIN ADJUSTMENT:

After the Centaur has been driven for a considerable length of time, drive chain will need tightening.

- Loosen the rear axle nut (Fig. 9) and socket head screw (Fig. 10), turn chain adjust sleeve (Fig. 11) clockwise or counter clockwise until slack is taken out of chain - do not tighten chain so that it binds on drive sprockets.
- Tighten socket head screw and rear axle nut. Test for side play in pulley arm.
- If there is play in pulley arm - loosen rear axle nut and holding top of pulley - pull pulley arm from side to side until axle is seated in frame axle hole.
- Tighten axle nut and re-check side play in pulley arm.

HEADLAMP AND TAIL LAMP:

- Headlamp bulb G. E. No. 4411 can be replaced by removing set screw in top of lamp housing bezel - pull bezel off of housing and disconnect wires from bulb.
- When re-assembling bezel, make sure glass knob on bulb fits in groove of lamp housing and that gasket is correctly positioned in bezel.
- Tail and stop light bulbs - G. E. No. 89 can be replaced by removing the four screws at corners of reflector bezel.

- 18 -

TROUBLESHOOTING CHART

CAUSE	REMEDY
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Clogged air filter Remove filter element and clean with gasoline

ENGINE LACKS POWER

Exhaust ports clogged Remove manifold and clean carbon from port
 Air filter clogged Remove filter element and clean with gasoline
 Carburetor out of adjustment See section on CARBURETOR ADJUSTMENT
 Crankcase seal leaks Replace worn seal
 Brakes or wheel bearings binding . . Adjust brakes or replace bearing
 Not enough air in rear tires Fill tire to 22 Lbs.
 Improper fuel mixture Drain tank and fill with 1/2 pint oil to 1 gal. gas
 Muffler clogged Replace muffler

ENGINE MISSES WHILE DRIVING

Spark plug fouled Clean, regap or replace plug
 Carburetor out of adjustment See section on CARBURETOR ADJUSTMENT

TROUBLESHOOTING CHART

CAUSE	REMEDY
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Crankcase seal leaks Replace seal located on engine main shaft.
 Pitted magneto points Replace points. Set gap to .020".

BRAKE INOPERATIVE

Incorrect cable adjustment See section on Control Cable Adjustments.
 Broken or frayed inner cable Replace inner cable.
 Crack or kink in outer cable Replace outer cable housing.
 Brake cam stuck in boss Put drop of oil between brake lever and boss
 and work lever by hand until cam is free.
 Inner cable stuck in housing Disconnect inner cable at both ends and remove
 it for inspection - replace if frayed.
 Grease on brake lining Remove rear wheel and clean lining and drum.
 Brake lining worn Replace brake shoes.

TROUBLESHOOTING CHART

CAUSE	REMEDY
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THROTTLE CONTROL INOPERATIVE

Twist grip jammed	Loosen twist grip lock screw and slip grip off of handlebar Check cable connector and spiral groove in twist grip - lubricate or replace connector and, if necessary, replace twist grip.
Inner cable frayed	Replace inner cable
Outer cable housing kinked	Replace cable housing
Carburetor cam lever bolt loose	Tighten cam bolt (top of carburetor) - avoid tightening so that cam binds on bolt
Cable connectors (mounted in twist grip or cam arm) loose	Adjust cable length and tighten connector.

EXCESSIVE PLAY IN STEERING

Handlebar "H" member spring	Tighten spring clip nuts - do not tighten so that clamp loose.
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TROUBLESHOOTING CHART

CAUSE	REMEDY
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Fork sleeve lock tabs (bottom of steering column) loose	Bend tabs inward until top of fork can be slipped between tabs without binding.
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Keyway in handlebar H member enlarged	Remove front fork cap lock nut, headlamp, H member and gib head key. Expand key by hammering gib end, being careful not to distort the overall straight shape.
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TRANSMISSION ENGAGES REAR WHEEL AT IDLE SPEED

Engine R. P. M. too high	Adjust idle screw for 1500 R. P. M. idle speed
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Clutch segments in transmission have loose or broken spring	Remove transmission from engine main shaft Disconnect spiral lock ring from transmission Remove clutch part of transmission for repair or replacement.
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All major engine repairs should be done by a qualified Centaur Service Shop.