

# SERVICE GUIDE

DEALER INSPECTION—SERVICE
ADJUSTMENTS

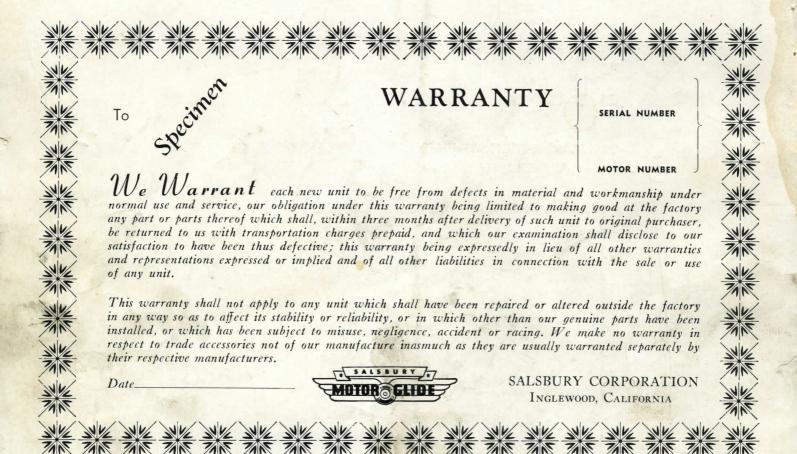
OPERATING INSTRUCTIONS
MAINTENANCE



SALSBURY CORPORATION

INGLEWOOD

CALIFORNIA



A registration card is sent with each Motor Glide (see page 23). Fill it in promptly and mail to Salsbury Corporation. Upon receipt of your registration card, Salsbury Corporation will issue Warranty and mail it to you.

To Every Motor Glide Owner:

This Service Guide explains the construction and operation of your Motor Glide.

You must remember that your Motor Glide is built like an automobile and requires periodic care and attention. Owners following the Lubrication and Adjustment Instructions regularly enjoy the most satisfactory service at minimum cost.

Your Motor Glide may never require attention at many points mentioned in the Maintenance Section, but they are fully covered for your convenience in case of necessity.

Dependability and long life are built into your Motor Glide - that is our responsibility. Reliability can be assured only if your Motor Glide is cared for properly - that is your responsibility.

SALSBURY CORPORATION, Inglewood, California.



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## DEALER

## INSPECTION and SERVICE

Your new Motor Glide is covered by Warranty for three months after date of delivery. Be sure to fill in Registration Card and forward it immediately to Salsbury Corporation so that your Warranty will be issued.

You are entitled to one free Inspection and Adjustment service each week for the first four weeks after delivery. This service will be given only by the dealer from whom you purchased your Motor Glide.

First weekly service includes: Road test. Check and adjust, if necessary, throttle, carburetor, choke, brake, chain and all electrical connections. 100-mile Lubrication Service. (Owner pays for oil used.)

Second weekly service includes: Road test. Check and adjust, if necessary, front and rear wheels, fork bearings, chain, starting clutch, driving clutch and transmission. 250-mile Lubrication Service.

Third weekly service includes: Road test. Tighten all bolts and nuts. 100-mile Lubrication Service.

Fourth weekly service includes: Road test. Tune motor including adjustment of carburetor, cleaning and adjusting spark plug, and checking of magneto points. Test brake and adjust if necessary. Remove starting clutch, clean, lubricate, and replace. Check transmission and chain adjustment. 500-mile Lubrication Service.

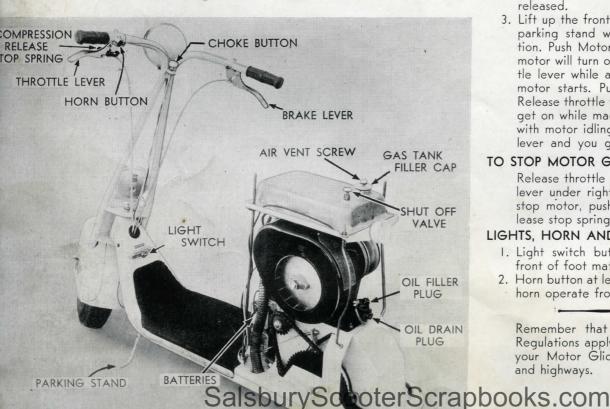
## OPERATING INSTRUCTIONS

Operation of your new Motor Glide should be restricted to top speed of 20 miles per hour for the first 8 hours of use, to assure continuously smooth functioning of its precision-fitted parts. After this "breaking-in" period, your Motor Glide is ready for normal use, which includes continuous full-throttle operation on level roads or uphill grades. Running your Motor Glide with throttle open on downhill roads is not normal use and service, and will remove your machine from coverage by Warranty. Speeds in excess of 35 miles per hour are not desirable from a safety standpoint, and are likely to be harmful to the motor.

#### TO PREPARE MOTOR GLIDE FOR USE.

- 1. Set up on Parking Stand. Press down, with your foot, the tip of parking stand bar on either side of floor board and pull back on handle bars.
- 2. Remove Seat Cushion.
- 3. Remove Hood. Unscrew two large thumb nuts on top of hood and lift it off. It moves easily when you place your hands in front and rear near base of hood and apply pressure firmly both when removing and replacing.
- 4. Check Oil Supply. Remove large oil filler plug on back of motor. There is no oil gauge. The crankcase is full when oil level reaches point of overflow. Oil capacity is one pint. Use only first grade oil, rating S.A.E. No. 20. Do not mix oil with gasoline. Be sure running board of Motor Glide is in horizontal position when checking oil level.
- 5. Fill Gasoline Tank. Remove filler cap. Use

Figure 1.



funnel when filling tank. Do not allow gasoline to overflow. Any regular first grade ethylized gasoline is recommended. (Not straight Ethyl.) Open gasoline shut-off valve by unscrewing (about three turns) small knob next to filler cap. When you replace the filler cap be sure to unscrew the air-vent screw in filler cap (about three turns). Replace Hood and Seat.

6. Check Tires. Pressure recommended: 15 pounds in front tire and 25 to 30 pounds in rear tire. Motor Glide is now ready to start.

#### TO START MOTOR GLIDE

- 1. Pull up Choke Button. Located between the handlebars. (Only necessary when engine is
- 2. Press Compression Release Stop Spring. Permits motor to turn with less effort when you push the Motor Glide. The compression release valve is operated by stop spring in front of the throttle lever under the left handlebar grip. Push it in and the throttle lever will
  - drop down beyond the idling position; thus the motor compression is released.
  - 3. Lift up the front of Motor Glide and parking stand will retract into position. Push Motor Glide forward. The motor will turn over. Pull up on throttle lever while at walking speed and motor starts. Push in choke button. Release throttle to idling position and get on while machine is standing still with motor idling. Pull up on throttle lever and you glide smoothly away.

#### TO STOP MOTOR GLIDE.

Release throttle and pull up on brake lever under right handlebar grip. To stop motor, push in compression release stop spring.

#### LIGHTS, HORN AND BATTERY.

- 1. Light switch button is on frame in front of foot mat.
- 2. Horn button at left thumb. (Lights and horn operate from 6-volt battery.)

Remember that Traffic and Safety Regulations apply to you while riding your Motor Glide on public streets and highways.

## LUBRICATION

To obtain smooth service and long life from your Motor Glide follow these lubrication instructions carefully. If you do not keep a mileage record, remember your Motor Glide travels about 25 miles for each hour of average use. For general usage your Motor Glide should have the 100-MILE LUBRICATION SERVICE at least once each week; the 250-MILE LUBRICATION SERVICE at least once every two weeks; the 500-MILE LUBRICATION SERVICE at least once each month; the 5,000-MILE LUBRICATION SERVICE once each year.

#### 100-MILE LUBRICATION SERVICE.

- 1. Check level of oil in crankcase at each second filling of gas tank. Be sure Motor Glide runningboard is horizontal when checking oil supply. Remove filler plug and fill crankcase to point of overflow. Use any first grade oil, rating S.A.E. No. 20.
- 2. Oil or grease the drive chain. Be careful not to apply too freely. Keep oil off brake drum.

#### 250-MILE LUBRICATION SERVICE.

Include operations I and 2, above.

- 3. Place only 2 or 3 drops of oil (S.A.E. No. 20) in the upper pulley crankshaft nut.
- 4. Oil the throttle lever, cable end and cable at both ends of cable casing.
- 5. Oil the brake lever, cable end and cable at both ends of cable casing.
- 6. Oil choke cable head.
- 7. Oil right and left parking stand hangers (under

#### 500-MILE LUBRICATION SERVICE.

Include operations 2 to 7, inclusive, above.

- 8. Drain motor crankcase. Raise front end of Motor Glide about 6 inches. Place parking stand on curb or box, and remove drain plug which is directly beneath filler plug. Refiill crankcase with one pint of oil (S.A.E. No. 20).
- 9. Remove starting clutch. (See Page 13). Clean ratchet teeth with dry cloth and apply film of heat resisting fibre grease to teeth. Be careful to keep clutch facing free of oil or grease.
- 10. Pack acorn nuts on right and left side of front fender with cup grease. This lubricates spring suspension parts.
- 11. Oil the compression release arm and cable clamp.
- 12. Oil throttle bell crank.
- 13. Oil throttle shutter control arm at car-
- 14. Oil choke control arm and cable casing end at carburetor.

#### 5,000-MILE LUBRICATION SERVICE.

Include operations 2 to 14, inclusive, above.

- 15. Repack upper and lower tork head bearings with fibre grease. See Page 17 for instructions on removing fork.
- 16. Repack right and left front wheel bearings with fibre grease. See Page 17 for instructions on removing wheel.
- 17. Repack right and left rear wheel bearings with fibre grease. See Page 18 for instructions on removing wheel.
- 18. Repack sliding half of upper pulley of transmission with heat resisting fibre grease. See Page

Figure 2.

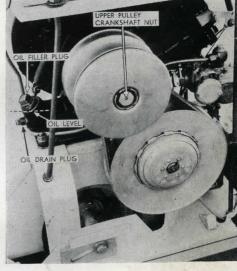
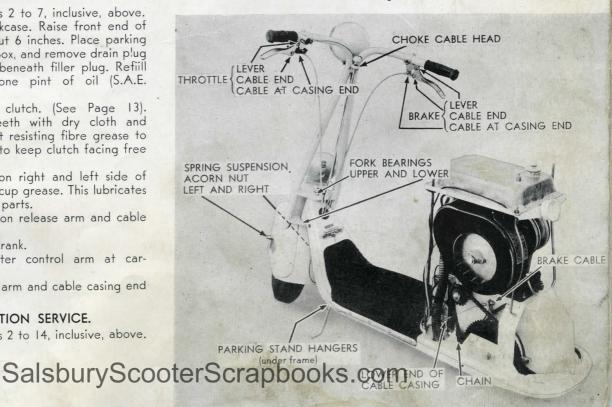


Figure 3.



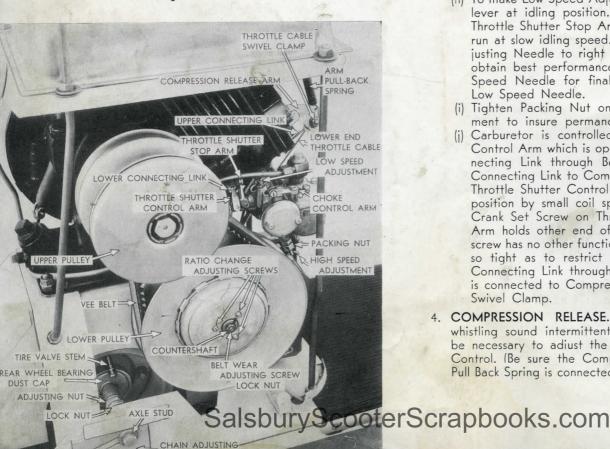


## ADJUSTMENTS

Seven points on your Motor Glide should be checked occasionally for adjustment:

- 1. CHAIN. Operation of your Motor Glide will cause Drive Chain to stretch and wear. This wear is natural and may be reduced to a minimum by systematically oiling Chain as recommended in the 100-MILE LUBRICATION SERVICE.
  - To Adjust Chain, First, loosen Axle Studs on right and left sides of frame. Second, slide Chain Adjustment Plates (held in place by Axle Studs on each side of frame) forward or back as required to correct chain tension. It is important that these Plates be equalized, or rear wheel will run in tilted position. Third, allow slight slack in Chain. Check Chain tension in all positions while turning wheel one complete revolution. Fourth, tighten right and left Axle Studs.
- 2. BRAKE. If Brake Lever travels full distance so that it contacts handle grip, "take-up" or adjustment of Brake is necessary. First, examine lining for excessive wear. This wear may be determined by inspection of Brake Drum through open section between ends of brake band. If Drum shows scoring, brake lining should be replaced. See Page 18. Second, there are two adjustments of the Brake Band. The main point of adjustment is nut at top of Brake Band holding threaded fitting end of cable. Most "take-up" should be made here. The other adjustment is the nut at the lower end of the Brake Band located on floor between exhaust

Figure 4.



pipe and drive chain. Take-up on this adjustment only after top adjustment is made. Third, after adjustment is completed, raise rear wheel of Motor Glide and turn to be sure Brake does not drag. If Brake drags on drum, reset adjustment to give satisfactory clearance.

- 3. CARBURETOR. All motors are thoroughly tested before leaving factory and the Carburetor is properly adjusted and should require no further adjustment. However, in event the original adjustment has been changed or altered, proceed as follows:
  - (a) Close Low Speed Adjustment Needle located on top of Carburetor until it rests gently on
  - (b) Close High Speed Adjustment Needle located at bottom of Carburetor until it rests gently on its seat. (Under no circumstances screw adjusting needles down tightly on seats—to do so will injure both the seat and needle and result in failure thereafter to obtain satisfactory Carburetor Adjustment.)
  - (c) Open Low Speed Adjusting Needle approximately I and 1/2 turns (left).
  - (d) Open High Speed Adjusting Needle approximately 3/4 turn (left).
  - (e) Start motor as instructed and operate until thoroughly warmed up.
  - Open throttle (with rear wheel off ground).
  - (g) Turn High Speed Adjusting Needle to right or left as desired to obtain best performance.
  - (h) To make Low Speed Adjustment, place throttle lever at idling position. Adjust set screw on Throttle Shutter Stop Arm to permit motor to run at slow idling speed. Turn Low Speed Adjusting Needle to right or left as required to obtain best performance. Then readjust High Speed Needle for final setting and recheck Low Speed Needle.
  - (i) Tighten Packing Nut on High Speed Adjustment to insure permanent setting.
  - Carburetor is controlled by Throttle Shutter Control Arm which is operated by Lower Connecting Link through Bell Crank and Upper Connecting Link to Compression Release Arm. Throttle Shutter Control Arm is held in idling position by small coil spring fastened to Bell Crank Set Screw on Throttle Shutter Control Arm holds other end of coil spring. (This set screw has no other function. Do not screw down so tight as to restrict free travel of Lower Connecting Link through Arm.) Throttle cable is connected to Compression Release Arm by Swivel Clamp.
- 4. COMPRESSION RELEASE. If motor makes a whistling sound intermittently while idling it will be necessary to adjust the Compression Release Control. (Be sure the Compression Release Arm Pull Back Spring is connected to gas tank support.)

## MAINTENANCE CONTINUED

#### 6. FORK AND HANDLE BARS

The design of the fork and handle bars on Motor Glide is extremely simple and rugged. The two main support members function in one unit as both fork and handle bars. These members are electrically welded together at the top of fork and connected at frame head by two steel plates electrically welded together. The entire unit is mounted on ball bearings at the upper and lower section of frame head.

To remove fork and handle bars, first remove front wheel. Second, remove spring suspension assembly. Third, remove fender, wiring and controls. Fourth, remove 3/8" nut on spindle at lower end of fork head and pull spindle out from top. Fifth, (See Fig. 27), drive upper and lower bushing out of place. (Long, thin punch is required.) Fork may now be removed. Sixth, after dust plates are removed, the ball bearings (remaining in frame head) may be removed for cleaning, inspection and repacking with fibre grease.

Replace fork assembly in reverse manner.

#### 7. SPRING SUSPENSION

Double coil springs with heavy rubber bumper cushions, top and bottom, are the essential elements used in the design of the Motor Glide spring suspension. This unique design utilizes the "caster" or "trailing wheel" principle. The arms connecting the fork ends extend to rear, holding axle and wheel in position. These arms are a part of the yoke extending over top of wheel to which the two coil springs are fastened. These springs are in turn fastened to the fork tubes.

The yoke and arms fluctuate on the two pivot pins at fork ends. These pins are mounted in two felt-sealed, case-hardened steel bushings and drilled for lubrication. Lubricant is applied through acorn nuts on each side of fender. See Page 7.

The entire assembly is concealed under front fender.

To replace spring suspension coil spring, first, remove front wheel. Second, remove bolt at top of yoke holding forward end of spring. Unhook other end of spring from fork. Then install new spring in the reverse manner.

#### 8. FRONT WHEEL

The wheel is pressed steel demountable type so designed that bearing adjustment is not affected by removal of tire.

To remove front wheel, remove nut on either end of axle shaft and pull shaft out. Then wheel may be lowered out of position.

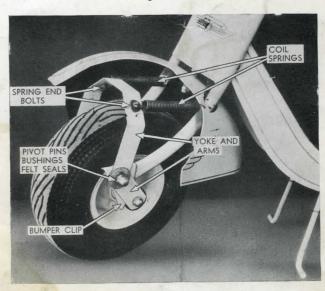
To demount tire after removal of wheel from fork, deflate and remove the three nuts on wheel rim. Rim and tire may then be removed.

Mount tire in reverse manner.

To remove bearings from wheel, after wheel has been removed from Motor Glide, remove lock and adjusting nuts. Press axle out of bearings. Remove dust caps. Bearings may then be removed for inspection.

To replace bearings and axle, be sure felt seals are in place after inserting bearings and bearing cone. Then, press dust caps in position over each bearing. Axle may then be inserted in position. Place adjusting

Figure 26.



## MAINTENANCE CONTINUED



Figure 27.

nut on axle and tighten to remove play in bearings. Tighten nut until bearing binds, then back off one-half turn. If wheel does not turn freely, relieve nut. Then place lock nut on axle and tighten against adjusting nut. Wheel is then ready to be replaced on fork.

#### 9. REAR WHEEL

This wheel is similar in design to the front wheel except that brake drum and sprocket are mounted on left side.

To remove rear wheel, disconnect chain, brake cable and lower brake end from frame of Motor Glide. Remove axle studs at each end of axle. Wheel may then be removed.

To remove and replace tire and/or bearings after wheel has been removed from Motor Glide, follow same procedure as suggested for front wheel. Upon replacing rear tire on wheel, be sure guard ring is in position.

To replace rear wheel in frame, insert wheel in position with sprocket at left side. Be sure chain adjusting plates are in position before placing axle stud with washer in threaded center of each end of axle. Connect chain, brake cable to upper end of brake band, and lower end of brake to frame. See Page 8 for adjustments.

#### 10. BRAKE

The Motor Glide brake is external contracting, self-energizing type. To reline brake, remove rear wheel. Brake band will slip off drum without demounting tire. Lining is riveted to band and is 17" long, 1" wide, and 5/32" thick. See Page 8 for adjustment.

#### II. PARKING STAND

This is an automatically retractable device designed to hold Motor Glide in upright position when parked. It is located at forward end of frame and held in place by two 1/4" bolts fastened to hanger clips on under side of frame. Two coil springs hold parking stand in retracted position for running.

To remove parking stand or tighten bolts holding it to frame, pull floor mat back to location of bolt holes in upper section of frame while removing or tightening nuts. Parking stand is thus removed from frame. Replace in reverse manner. It is not necessary to remove parking stand for replacing either or both coil springs.

### MAINTENANCE CONTINUED

#### 12. CONTROLS

The two main controls on the Motor Glide are the gasoline throttle control to "go" and the brake control to "stop." These controls are hand levers mounted on the handle bars. They are connected to carburetor throttle shutter valve control arm, compression release valve, and brake band by flexible multiple strand cables enclosed in casing.

(a) THROTTLE. To remove throttle cable, disconnect end from swivel clamp on compression release arm. Then pull cable out of casing at throttle lever and disconnect from throttle lever.

To replace cable in casing, cover cable with light cup grease while inserting. Before cable is fully inserted, connect end to throttle lever: then complete insertion and place throttle lever at idling position. Connect to clamp on compression release arm providing clearance of 1/32" between compression release valve stem and arm. See Page

UPPER PULLEY
CRANKSHAFT NUT

CLUTCH

CABLE
CLAMP

UPPER PULLEY
FIXED
HALF
MOVABLE
HALF
SNAP RING

SNAP RING

SNAP RING

ADJUSTING SCREW
LOCK NUT

Figure 28.

(b) BRAKE. To remove brake cable it is necessary to also remove cable casing, as both are made for installation as a single unit. First, cut cable ahead of brake band adjusting nut. Second, loosen clamp holding casing in position on frame base at hood hold-down rod and the clamp inside of frame at forward end. Disconnect cable and casing from brake lever and arm on handle bar. To facilitate replacement of

cable and casing, fasten heavy pilot cord or wire, about six feet in length, to lower end of cable. Then pull cable and casing out of forward end of frame, allowing pilot cord or wire to remain in position in frame.

To replace brake cable and casing, fasten pilot cord or wire to lower end of brake cable and pull through frame in opening at left rear side. If difficulty is experienced in pulling cable end through at rear opening

> to top of frame, pull cable through rear lower opening from under side of frame. Then push cable end straight up through slotted opening in upper section of frame. Then push through cable clamp to brake band. Fasten cable and casing in position at lever arm on right handle bar. Connect lower cable end to brake band and pull casing forward through casing clamp until there is tension on brake cable. Tighten clamp on frame base. Pull slack in casing forward through clamp at head of frame and tighten this clamp. Then adjust brake. See Page 8.

(c) CHOKE. The choke control is a knob located in center of handle bars. Pull up on knob to operate choke valve at carburetor when motor is cold. Choke cable is flexible single strand operating in casing.

To remove choke cable, loosen set screw on choke valve control arm at carburetor and pull out of casing by choke knob. Replace cable in reverse manner.



## CORRECTION CHART

Should your Motor Glide not perform perfectly, it is usually some simple oversight or necessity for minor adjustment. This "Correction Chart" is provided for your guidance and convenience.

#### DIFFICULTY IN STARTING MOTOR

Starting clutch not engaging to turn motor. Gasoline supply inadequate. Gas tank empty. Shut-off valve or air vent in filler cap closed. Clogged fuel line, dirt in carburetor screen. High speed jet clogged. Water or foreign substance in gas tank. Excessive choking. Choke butterfly valve not closing. Carburetor improperly adjusted. Carburetor linkage loose or disconnected. Carburetor loose from mounting.

Faulty ignition. Ignition lead wire to spark plug disconnected. Spark plug fouled by oil or carbon. Spark plug porcelain covered with moisture, cracked or broken. Spark plug points improperly adjusted. Pitted or improperly adjusted breaker points. Loose wiring in magneto. Defective condenser or coil. Key sheared off in flywheel. Lack of compression.

Compression release valve not closing. Cylinder head gasket blown out. Valves sticking or leaky. Piston rings stuck or worn.

#### LOSS OF POWER

Carburetor improperly adjusted. Carburetor connections not giving full throttle opening. Faulty ignition. Lack of compression-valves need grinding. Oil level low in crankcase. Brake dragging. Wheel bearings dry or adjusted too tight. Tire pressure too low.

#### UNEVEN RUNNING

Defective spark plug. Improperly adjusted carburetor. Gasoline low in tank. Carburetor loosely mounted. Loose electrical connections. Pitted or corroded ignition points. Weak condenser or coil.

#### **OVERHEATING**

Oil level in crankcase too low. Carburetor adjusted too lean. Restricted airflow around engine hood. Engine overloaded. Valves need grinding. Piston rings siezed in ring grooves. Excessive carbon accumulation.

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## CORRECTION CHART CONTINUED

KNOCKING

Flywheel loose on crankshaft.
Connecting rod loose.
Wrist pin loose.
Pre-ignition—faulty spark plug.
Engine overloaded.
Excessive accumulation of carbon.
Carburetor adjustment too rich.
Broken chain link.

Broken or worn sprocket.

MOTOR WILL NOT IDLE Carburetor out of adjustment.
Improper adjustment of throttle shutter stop screw.
Low speed jet clogged.
Defective spark plug.
Faulty ignition.
Lack of compression.
Starting clutch does not release.
Driving clutch dragging.

EXCESSIVE FUEL CONSUMPTION Leak in gas tank, line or connections. Improperly adjusted carburetor. Faulty rings or valves. Improperly adjusted transmission. Faulty ignition.

Wheel out of line.

EXCESSIVE OIL CONSUMPTION

Oil leak at crankcase cover, main bearing oil seals or any other points about motor. Worn piston rings or cylinder.
Worn valve guides.
Overheating.
Improper or poor grade of oil.

DIFFICULT STEERING Fork bearing dry or improperly adjusted.
Fork bent out of line.
Control cables too tight.
Spring suspension arms or yoke bent out of line.
Frame twisted.
Improperly adjusted wheel bearings.
Improper tire pressure.

INEFFECTIVE BRAKE Brake not properly adjusted.
Oil or grease on brake drum or band.
Worn brake lining.
Brake cable casing slipping through clamp.
Worn or broken cable.

EXCESSIVE CHAIN WEAR Improper adjustment.

Worn or faulty sprockets.

Countershaft sprocket out of line with wheel sprocket.

Rear wheel tilted by failure to equalize chain adjusting plates.

Tire underinflated, permitting chain to strike pavement.

IMPROPER
SHIFTING OF
TRANSMISSION

Incorrect setting of the three ratio-change adjusting screws.

Lack of motor power.

Upper pulley sticking.

Lack of lubrication.

LIGHTS OR HORN DO NOT OPERATE Battery too weak.
Check wire for break or loose connections.
Check switch for short circuit or loose conncetion.
Check ground at horn button.
Check ground at headlight reflector.
Defective bulbs.

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## Parts Returned to Factory

Consult your Dealer or Parts Catalog when parts are needed.

When returning parts to factory for inspection, service or replacement, remember to ship transportation charges prepaid. Write also a letter stating:

- (a) Name and address of owner.
- (b) Date of purchase.
- (c) Name of Dealer.
- (d) Motor and serial numbers. (Motor number is located on flywheel shroud. Serial number on right rear side of frame.)
- (e) Name and number of the part or parts returned.
- (f) How shipped and when arrival at factory can be expected.
- (g) Explain trouble experienced with part or unit.
- (h) Advise condition under which Motor Glide is being operated.

Follow this procedure carefully to avoid delays at the factory.

## SALSBURY CORPORATION

INGLEWOOD, CALIFORNIA

REGISTRATION CARD	Serial No
Name of Owner	
Home Address	
City	State
Purchased from	Address
Date purchased	How do you like your Motor Glide?
Saw advertisement in	
	er, movie exhibit or other advertising medium which dyour interest)
Here is a good prospect for a Motor G	lide
Name	Address

A registration card is sent with each Motor Glide. Fill it in promptly and mail to Salsbury Corporation. Upon receipt of your registration card, Salsbury Corporation will issue Warranty (See Page 2) and mail it to you.

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