

174

# OPERATING INSTRUCTIONS and PARTS LIST for Elgin Outboard Motor

**MODEL NUMBER**

571.58301

Always mention both the Model Number and Serial Number of your outboard motor when ordering parts or requesting operating instructions. The serial number is found on the side of the crankcase.

### Confidential Information for Retail and Mail Order Stores

#### 1. ORDERING INSTRUCTIONS—

**Motor Parts**—Send all orders that total less than \$1.00 (factory cost) direct to Chicago Control Store. Send all other parts orders direct to source: West Bend Aluminum Co., Hartford Division, Hartford, Wis.

**Magneto Parts**—Send all orders for magneto parts to: West Bend Aluminum Co., Hartford Division, Hartford, Wisconsin, or to any authorized Wico service station.

2. **Mark-Up**—See straight list for selling prices. The parts listed produce a mark-up of approximately:

Motor Parts—B0

Magneto Parts—C5 *60*

#### Filing Instructions

File this parts list immediately following parts list No. 571.50 in the Division 6 Standard Nomenclature Gray Binder.

## Sears, Roebuck and Co.

# Your Outboard Motor

You have just made a substantial investment in a superbly-engineered, well-built outboard motor. It will pay you handsome dividends in pleasure and performance if you will follow a few simple instructions as outlined in the pages of this booklet.

If on the other hand you ignore the basic instructions for operating this motor, or any out-

board motor for that matter, you are quite likely to run into serious trouble. Experience has shown that more than ninety per cent of the operating difficulties of outboard motors can be avoided by following the manufacturer's instructions. The choice of course is up to you—but remember better care means top performance. And it costs you much less in the long run.

## INSTRUCTIONS for Starting and Operating

*See diagram at bottom of page 3 for reference to numbers mentioned in the instructions.*

**NEW MOTOR**—For the first five hours run motor at medium speed to properly run-in all moving parts.

**INSTALLING MOTOR**—Attach Motor to center of Stern board and see that thumb screw is securely tightened by hand — **do not use wrench or lever of any kind.** It is good practice to tie or chain motor to boat.

**ADJUST POSITION OF MOTOR** by using one of six holes in Stern Bracket with removable pin No. 1, so motor will operate at right angles with surface of water when boat is in motion. The water line on the motor leg should be at or below the surface of the water.

**MOTOR SHOULD TILT** freely on pivot bolt No. 2 which fastens motor assembly to stern bracket. This can be regulated by means of adjusting nut on pivot bolt.

**FUEL**—In a separate clean container **mix thoroughly**  $\frac{3}{4}$  pint of Sears Cross Country or any equally good grade S.A.E. No. 30 lubricating oil with each gallon of gasoline. Use a good grade of gasoline. For continual slow speed operation the mixture may be reduced to  $\frac{1}{2}$  pint of oil per gallon of fuel.

**FILL TANK** with this mixture. Strain when filling tank.

### TO START MOTOR:

- A—Open air vent No. 3 completely.
- B—Open gas line valve No. 4.
- C—Move Magneto Control Lever to "START" position.
- D—Move Carburetor Control Knob No. "5" to "Start Position."

E—Pull choke lever No. 6 forward.

F—Place knot of starter rope in slot on starter plate and wind in clockwise direction.

G—Pull starter rope. Several pulls may be required to start motor.

H—If motor is choked too long, it may become flooded. If that should occur, push choke lever back and move Carb. control knob No. 5 to lean and crank the motor several times; the crankcase will thus be cleaned of excessive fuel. Then repeat starting according to instructions above.

### WHEN MOTOR STARTS:

Push choke lever back slowly, move Carburetor Control knob to best RUN position and move magneto lever to speed desired.

**TO REDUCE MOTOR SPEED** Move magneto control lever towards slow position.

**TO STOP** Move Control lever to "Stop" position. **NOTE.** After motor is well run in and control lever is moved to "Stop" position, the engine may continue to run very slowly. If this occurs, engine can be stopped by turning carburetor control knob to "Lean" position.

**TO START WARM MOTOR**, choking is not necessary. Move Magneto Control Lever to "START" position and pull the rope.

**CAUTION:** Before removing motor from boat be **SURE** to close gas line shut-off valve No. 4 and air vent screw on gas tank.

# Care of Your Motor

See diagram at bottom of page for reference to numbers mentioned in following instructions.

**LUBRICATION**—See operating instructions under heading—**FUEL**.

**TO GREASE PROPELLER GEARS** remove Gear Housing Cap No. 7 and drain all water from housing. Then fill with "Sears Underwater Grease." Replace Gear Housing Cap. The grease in gear housing should be checked after each 30 hours of running. If the propeller shaft is removed, all grease must be removed from gear housing and particularly from propeller shaft bearing, before shaft can be reinserted.

**MAGNETO**—Inspection and service can be obtained at your nearest Wico Service Station, or Sears Retail Store.

**SPARK PLUG**—Clean spark plug periodically and adjust gap to .040 inches. Hard starting and poor running is often due to a defective spark plug. When in doubt try a new spark plug, same as furnished with motor. Keep spark plug cable free from oil. Replace it if it becomes frayed or broken.

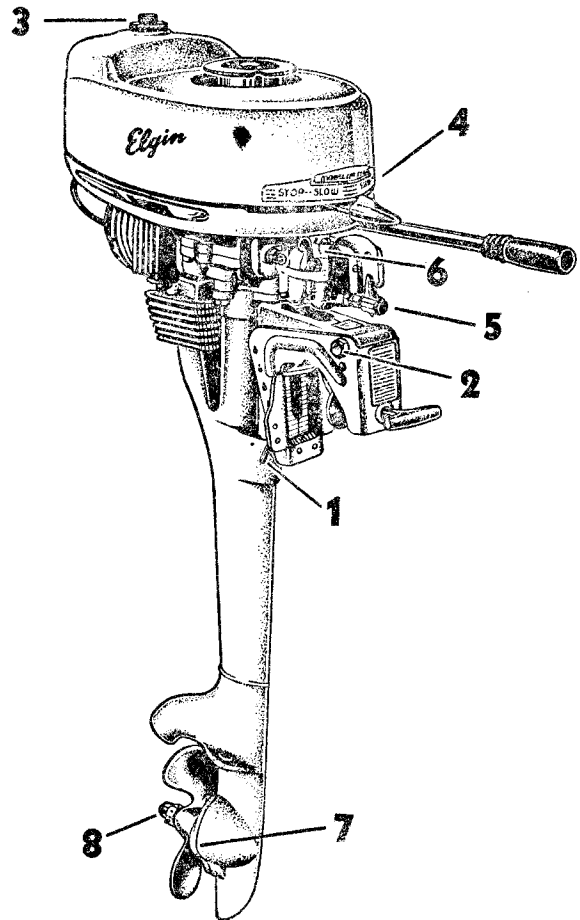
**PROPELLER SHEAR PIN** is provided to avoid breaking or injuring the propeller or motor mechanism. **WHEN SHEAR PIN BREAKS SHUT OFF MOTOR IMMEDIATELY** to prevent damage to motor from racing. To replace broken pin remove cotter pin and nut No. 8, remove the propeller and broken pin and install a new shear pin. Replace propeller on shaft so keyway fits over pin and be careful not to draw propeller nut too tightly. Drawing nut too tightly will shear pin. Replace cotter pin. **CAUTION: Use Only Shear Pin Furnished For This Motor.**

**AFTER RUNNING MOTOR IN SALT WATER RUN MOTOR IN FRESH WATER TO WASH OFF SALT ACCUMULATIONS.**

**STORING MOTOR.** Drain gasoline tank and carburetor. Remove the spark plug and put one or two teaspoons of pure lubricating oil into the cylinder, revolve the flywheel several times to spread the oil over cylinder walls, and then replace the spark plug. Pack the gear housing with grease. Wipe the exterior of the motor with a cloth. Wrap or cover to prevent dust accumulation. Always store in dry place.

**MOTOR DROPPED OVERBOARD** — Must be thoroughly dried out before restoring to service. Be sure all water is removed from gasoline tank, carburetor, gasoline line, crankcase, cylinder and magneto.

**CARE OF MOTOR IN COLD WEATHER.** To prevent Motor from freezing, drain water and fill gear housing with grease to expel any water that may have entered.



# Emergency Chart

The following information is furnished to aid you in locating and correcting any trouble which might occur:

Should the motor fail to start:

- 1—Make sure gasoline is flowing to the carburetor. If it is not, it may be due to any one of the following reasons:

Empty tank—Fill with fuel.

Vent cap closed—Unscrew vent.

Gasoline line clogged—Remove and blow out.

Dirt preventing flow of gasoline through the strainer—Remove strainer by unscrewing gasoline fitting from underside of tank, and clean.

- 2—Check the ignition system. This can be done by holding the spark plug wire about 3/16" from the cylinder, and rotating the flywheel. If a spark jumps across the gap, the ignition system is in working order.

If no spark is noted upon spinning the flywheel, it may be due to:

Water, oil, or carbon on magneto points—Remove flywheel, and clean points.

Magneto contact points do not come together when crankshaft is revolved—See next paragraph.

To correct magneto troubles, we suggest you consult your nearest Sears or Wico Service Station. Should the flywheel be removed for inspection, at any time, great caution should be taken to see that it is securely fastened on when replaced. Failure to see that this is done will ruin the magneto, and is dangerous. The correct magneto point spacing is .020 inches.

- 3—Check the spark plug. Spark plug trouble may be due to:

Deposit of carbon, oil or moisture on points or porcelain—Remove plug, and clean.

Cracked porcelain—Replace with new plug (C-13 Cross Country 14mm).

Points not properly spaced—Should be .040 inches.

The spark plug may be checked by removing it from the engine, replacing the wire to contact screw, and laying the metal base of plug against the motor. Then revolve the magneto with starting rope, and if the system is in working order, a spark will be seen to jump across the points.

- 4—If both the ignition system and the gasoline supply are in order, the motor should start by following instructions furnished with the motor.

Often repeated attempts to start will result in the

flooding of the crankcase with an excess quantity of unvaporized gasoline. While the motor is in this condition, it is impossible to start it. If you believe the engine to be flooded, crank the engine several times with choke off and the carburetor control knob set at LEAN position, in order to clear the crankcase gasoline. When the quantity of gasoline remaining in the crankcase is decreased to the right amount, the motor will fire and may run for several seconds until the gasoline therein is used. This condition indicates that the crankcase is now clear and restarting, according to starting instructions, should easily start the engine. The following list is furnished to aid you in checking other difficulties which may occur in the life of a motor.

## MOTOR LOSES POWER

Improper Carburetor Adjustment.

Too Rich—Motor will slow down, and run unevenly.

Too Lean—Motor will cough, and usually stop.

Exhaust relief holes plugged—clean out carbon with a stiff wire.

Exhaust ports carboned—Remove the two nuts and the two screws that hold power head to motor leg.

Remove power head from leg. Turn the flywheel so that piston is at the bottom of the cylinder. Open the three exhaust ports by removing carbon with a blunt instrument. Blow removed carbon out of cylinder, and reassemble power head and leg.

## MOTOR OVERHEATS

Insufficient oil in gasoline.

Improper carburetor adjustment.

## MOTOR RUNS, BUT PROPELLER DOES NOT REVOLVE

Propeller pin sheared off.

## MOTOR DOES NOT IDLE PROPERLY

Improper idling adjustment, adjust idling jet through the hole at the top center of carburetor control panel. Normal operation about 1/2 to 3/4 turn open.

This adjustment can be made only when the magneto control lever is moved to the "slow" position.

Dirt in carburetor, remove carburetor and clean.

Exhaust relief holes in exhaust pipe closed by carbon. Clean out with 3/32" drill or wire.

Incorrect spark plug.

**CAUTION:** Motors have been lost in lake by coming loose from stern of boat. Extra precaution is to use separate rope and tie the motor to the boat.

## Be a GOOD SAILOR with Your Outboard Motor

A good sailor knows the simple laws of navigation and the courtesies of boating. Here are a few points you should know.

1. If you use your motor on a boat on the Great Lakes, or navigable rivers, the boat is classed as a "Motor Boat" and must be registered with the U. S. Coast Guard.
2. A "Motor Boat" must carry the following equipment:
  - (a) Legal lights if you are out after sundown.
  - (b) A life preserver or buoyant cushion for each person aboard.
3. When meeting other boats keep to the right. One blast of a whistle means "I am directing my boat to the right."
4. In special cases boats may meet and pass on each

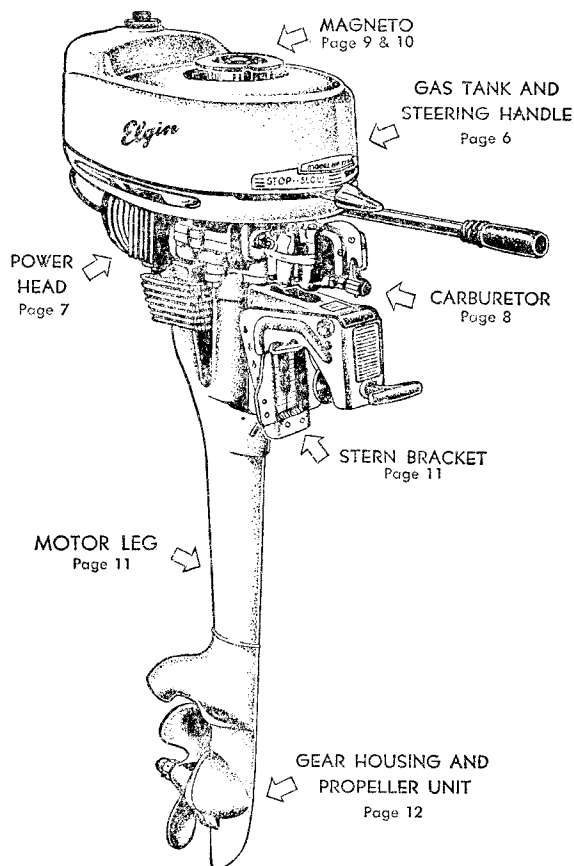
other's right-hand side. In this case two blasts on the whistle means "I am directing my course to the left."

5. A boat approaching on your right has the right of way.
6. Sail boats have the right of way at all times.
7. When you are overtaking another boat it has the right of way and you must keep clear.
8. Keep out of the way of large boats, regardless of your legal right of way.
9. A good sailor will not spoil the sport of others by creating a lot of noise around other groups, running fast through an anchorage, approaching other boats too closely, or otherwise making a nuisance of his boat and motor.

# How To Order Parts

The following parts may be ordered either in Sears' retail or mail order stores. All parts are shipped postpaid except magneto parts. WHEN ORDERING ALWAYS GIVE THE FOLLOWING INFORMATION: 1. Part number in this list. 2. Part name in this list. 3. Model number of the motor which is 571.58301. 4. The serial number, which will be found on the side of the crankcase.

If you need parts for your outboard motor, go to your nearest Sears Store, or order direct from Mail Order Store.



## Specifications

HORSEPOWER—1 $\frac{1}{4}$  O.B.C. Certified Brake H. P. at 4000 R.P.M.

MOTOR—Single Cylinder 2-port type.

BORE AND STROKE—1 $\frac{1}{2}$ " bore x 1 $\frac{3}{8}$ " stroke.

PISTON DISPLACEMENT—2.43 cubic inches.

FUEL SYSTEM—Tillotson Float Feed, Carburetor.

IGNITION—High Tension, flywheel type Magneto.

CYLINDER—Cast Aluminum with Special Iron Cylinder Sleeve.

PISTON—Light Weight Aluminum Alloy.

CONNECTING ROD—Special Aluminum Die Cast with cast-in bronze bearings.

CRANK SHAFT—Drop Forged Carbon Steel Hardened and Ground.

BEARINGS—Phosphor Bronze, upper crankshaft bearing is a roller bearing.

CRANK CASE—Die Cast Aluminum Alloy.

GASOLINE TANK—Pressed Aluminum Tanks. Cap. 3 $\frac{1}{2}$  pts.

PROPELLER & DRIVE SHAFTS—Stress-proof Carbon Steel ground and Polished.

GEARS—Straight Bevel Hardened Steel.

PROPELLER—Aluminum Alloy. Diameter 6 $\frac{1}{2}$ ", Pitch 5". Left Hand.

COOLING SYSTEM—Aircooled.

TRANSOM HEIGHT—13".

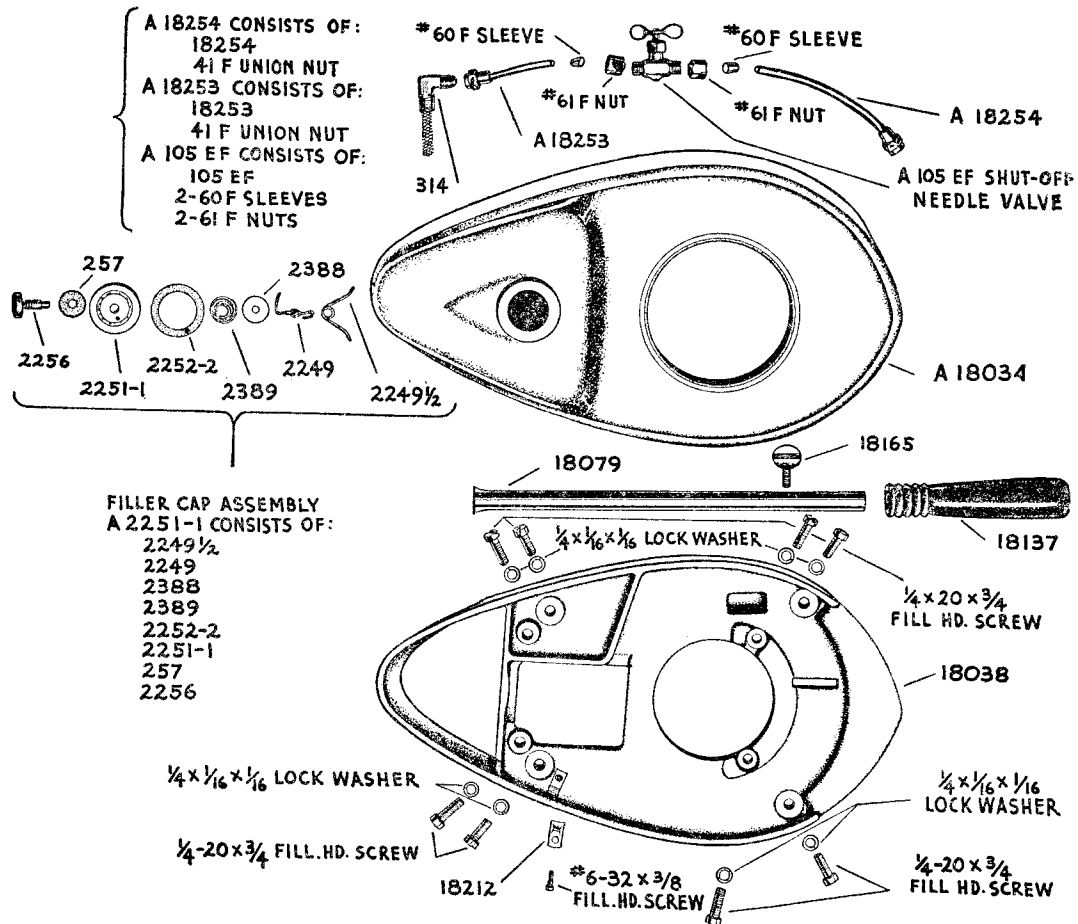
WEIGHT—19 $\frac{1}{2}$  pounds.

BOATS SUITABLE—Canoes, Rowboats, Dinghies.

CONTROL—Spark and Throttle interconnected for one lever control.

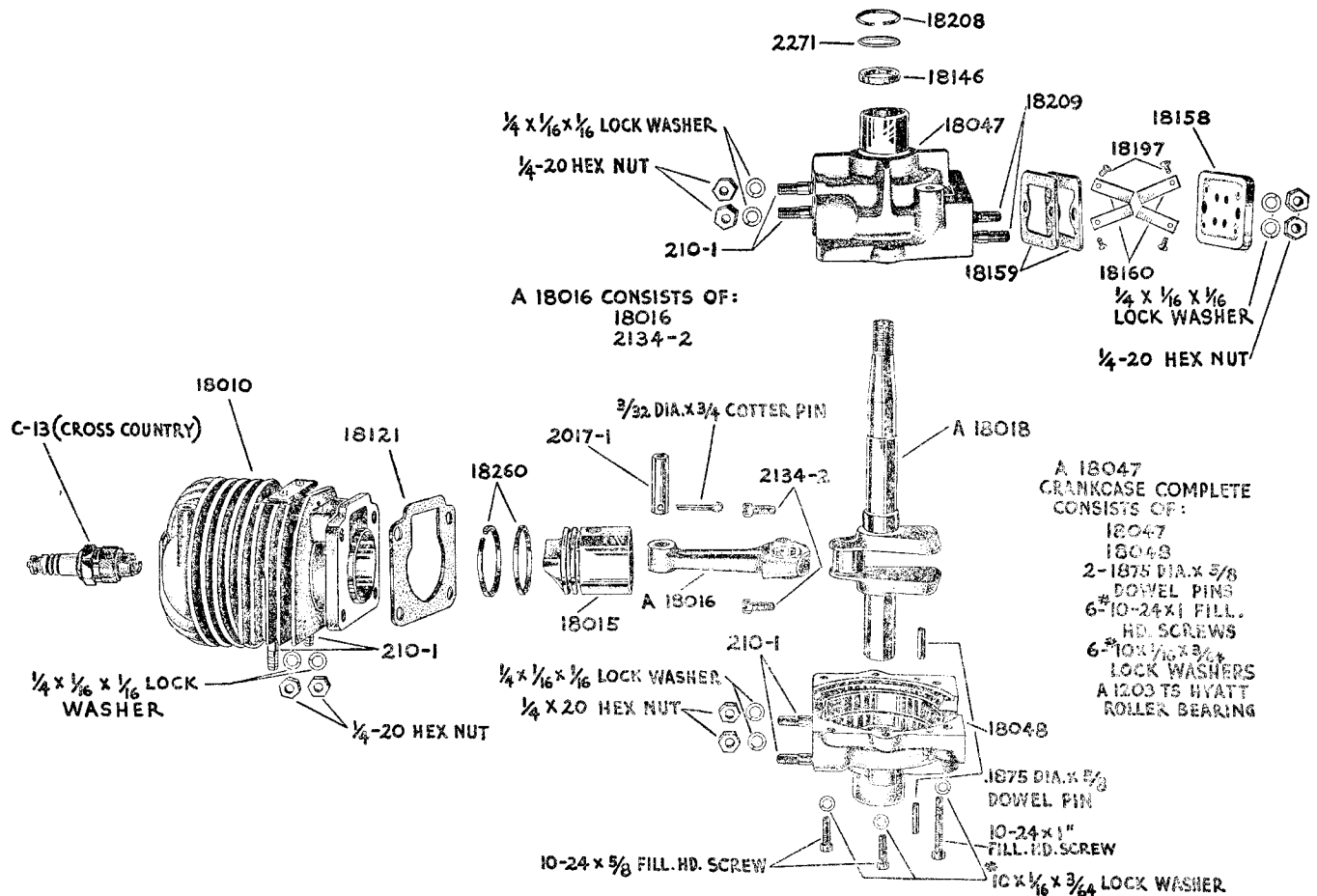
SPEED—Up to 5 Miles Per Hour.

# Gasoline Tank and Steering Handle

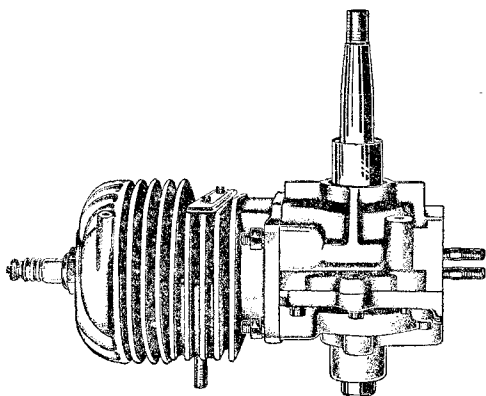


- |        |                                   |         |  |
|--------|-----------------------------------|---------|--|
| A18034 | Gas tank with decals.             | 2252-2  | Gas tank filler cap gasket.  |
| 18137  | Steering handle grip.             | 2251-1  | Gas tank filler cap only.  |
| 18165  | Steering handle thumb screw.      | 257     | Gas tank vent screw gasket.  |
| 18079  | Steering handle.                  | 2256    | Gas tank vent screw.   |
| 18038  | Gas tank support plate.           | A2251-1 | Gas tank filler cap assembly consisting of the above eight parts.    |
|        | 1/4-20 x 3/4 Fill. hd. screw.     | 314     | Gasoline line elbow with screen.                                     |
|        | 1/4 x 1/16 x 1/16 lock washer.    | A18253  | Gas line with one 41F union nut (shut-off valve to tank).            |
|        | No. 6-32 x 3/8 Fill. hd. screw.   | A105EF  | Gas line shut-off valve with two 60F sleeves and two 61F nuts.       |
| 18212  | High tension cable clamp.         | 60F     | Sleeve.  |
| 2249½  | Gas tank filler cap anchor.       | 61F     | Nut.   |
| 2249   | Gas tank filler cap anchor chain. | A18254  | Gasoline line with one 41F union nut (Shut-off valve to carburetor). |
| 2388   | Gas tank filler cap disk.         |         |  |
| 2389   | Gas tank vent screw spring.       |         |  |

# Power Head



- |        |  |       |  |
|--------|--|-------|--|
| C-13   | Spark plug (Cross Country).  | 18208 | Snap ring for crankshaft seal.   |
| 18010  | Cylinder (without studs No. 210-1).  | 2271  | Crankshaft seal retainer.  |
| 210-1  | Cylinder stud.<br>1/4 x 1/16 x 1/16 lock washer for stud.<br>1/4-20 Hex. nut for stud. | 18146 | Crankshaft seal.   |
| 18121  | Cylinder gasket.   | 18047 | Upper crankcase assembly only (See note).  |
| 18260  | Piston ring.   | 18209 | Carburetor stud.   |
| 18015  | Piston without pin.  | 18159 | Reed plate gasket.   |
| 2017-1 | Piston pin only.<br>3/32 x 3/4 cotter pin for piston pin.                              | 18160 | Reed.  |
| A18016 | Connecting rod complete with screws.   | 18197 | Reed screw.  |
| 2134-2 | Connecting rod screw.  | 18158 | Reed plate.<br>1/4 x 1/16 x 1/16 lock washer.<br>1/4-20 Hex. nut.  |
| A18018 | Crankshaft with bearing race.  | 18048 | Crankcase—lower assembly only.<br>*(See note).<br>.1875 dia. x 5/8 dowel pin.<br>No. 10-24 x 1 Fill. hd. screw.<br>No. 10 x 1/16 x 3/64 lock washer.<br>No. 10-24 x 5/8 fill. hd. screw. |

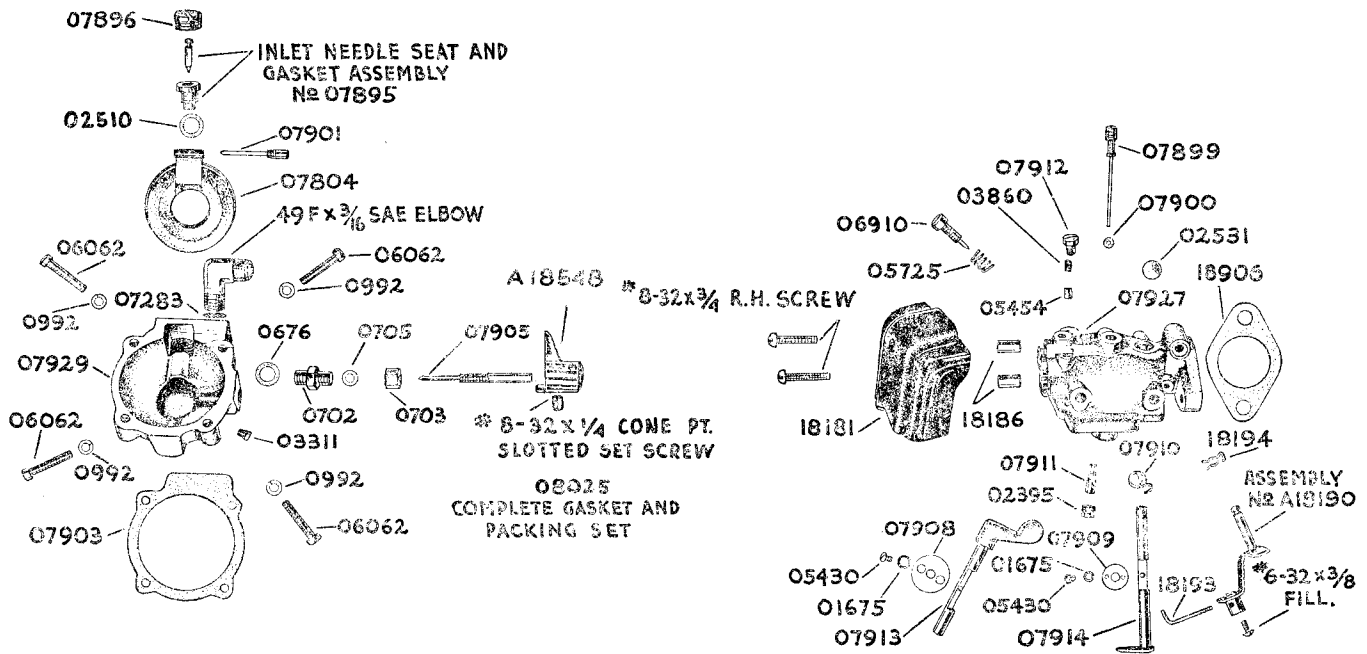


## \*A18047 Crankcase.

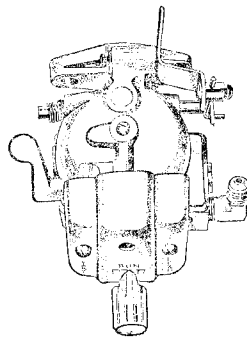
\*Note: A18047 crankcase sold as complete unit only consisting of:

- |   |         |                                    |
|---|---------|------------------------------------|
| 1 | 18047   | Crankcase—upper.                   |
| 1 | 18048   | Crankcase—lower.                   |
| 2 |         | .1875 dia. x 5/8 dowel pins.       |
| 6 |         | No. 10-24 x 1 fill. hd. screws.    |
| 6 |         | No. 10 x 1/16 x 3/64 lock washers. |
| 1 | A1203TS | Hyatt roller bearing.              |

# Carburetor

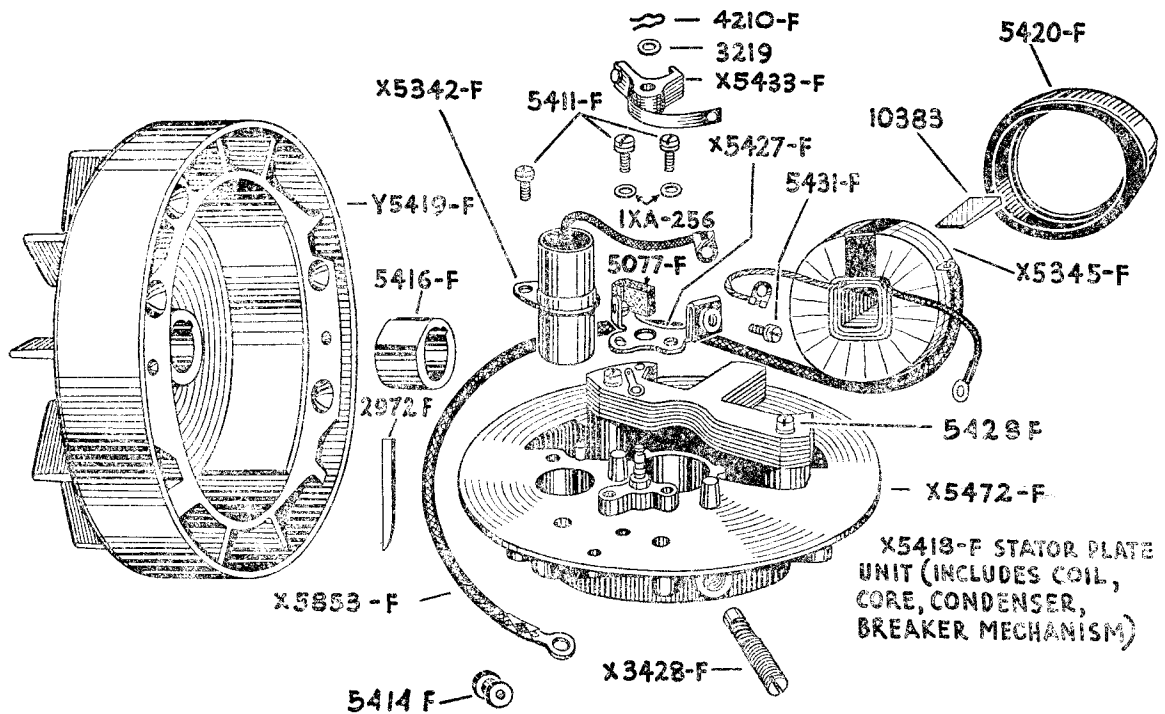


- |        |   |        |  |
|--------|---|--------|--|
| 07896  | Fuel bowl plug screw (large).   | 02531  | Body channel welch plug.   |
| 07895  | Inlet needle, seat and gasket assembly.   | 07927  | Carburetor body upper half * (Assembly only—see note).   |
| 02510  | Inlet seat gasket.  | 18906  | Carburetor flange gasket.  |
| 07901  | Float lever pinion pin.   | 18194  | Throttle bellcrank shaft retainer spring.  |
| 07804  | Float.<br>49F x 3/16 SAE elbow.   | A18190 | Throttle bellcrank assembly.<br>No. 6-32 x 3/8 Fill. hd. screw.  |
| 07283  | Inlet connection screen.  | 18193  | Throttle link.   |
| 06062  | Body retaining screw.   | 07914  | Throttle shaft and lever.  |
| 0992   | Body retaining screw lock washer.   | 05430  | Choke shutter screw.   |
| 07929  | Fuel bowl * (assembly only—see note).   | 01675  | Choke shutter screw lock washer.   |
| 07903  | Body gasket.  | 07909  | Throttle shutter.  |
| 03311  | Fuel bowl drain plug (small).   | 07910  | Throttle shaft return spring.  |
| 0676   | Main adjustment screw gland gasket.   | 07911  | Main nozzle.   |
| 0702   | Main adjustment screw gland.  | 02395  | Main throttle channel plug screw.  |
| 0705   | Main adjustment screw packing.  | 07913  | Choke shaft and lever.   |
| 0703   | Main adjustment screw packing nut.  | 07908  | Choke shutter.   |
| 07905  | Main adjustment screw.  | 01675  | Throttle shutter screw lock washer.  |
| A18548 | Carburetor needle valve control knob with set screw.<br>No. 8-32 x 1/4 Cone pt. slotted set screw.<br>No. 8-32 x 3/4 Rd. hd. screw. | 05430  | Throttle shutter screw.<br>(Parts not shown)   |
| 18181  | Carburetor control panel.   | 08025  | Complete gasket and packing set.<br>Note: *MD-1A Carburetor (Sold as complete unit only—the following items are not included). |
| 18186  | Carburetor control panel spacer.  | 49F    | SAE elbow.   |
| 06910  | Idle adjustment screw.  | 18548  | Carburetor control knob.<br>8/32 x 1/4 cone pt. slotted set screw.   |
| 05725  | Idle adjustment screw spring.   | 18181  | Carburetor control panel.  |
| 05454  | Choke friction pin.   | A18190 | Throttle belt crank assembly.  |
| 03860  | Choke friction pin retaining spring   | 18193  | Throttle link.   |
| 07912  | Choke friction pin retaining screw.   | 18906  | Carburetor flange gasket.  |
| 07899  | Idle tube.  | 18186  | Panel spacer.<br>8-32 x 3/4 Rd. hd. screw.   |
| 07900  | Idle tube gasket.   |        |  |





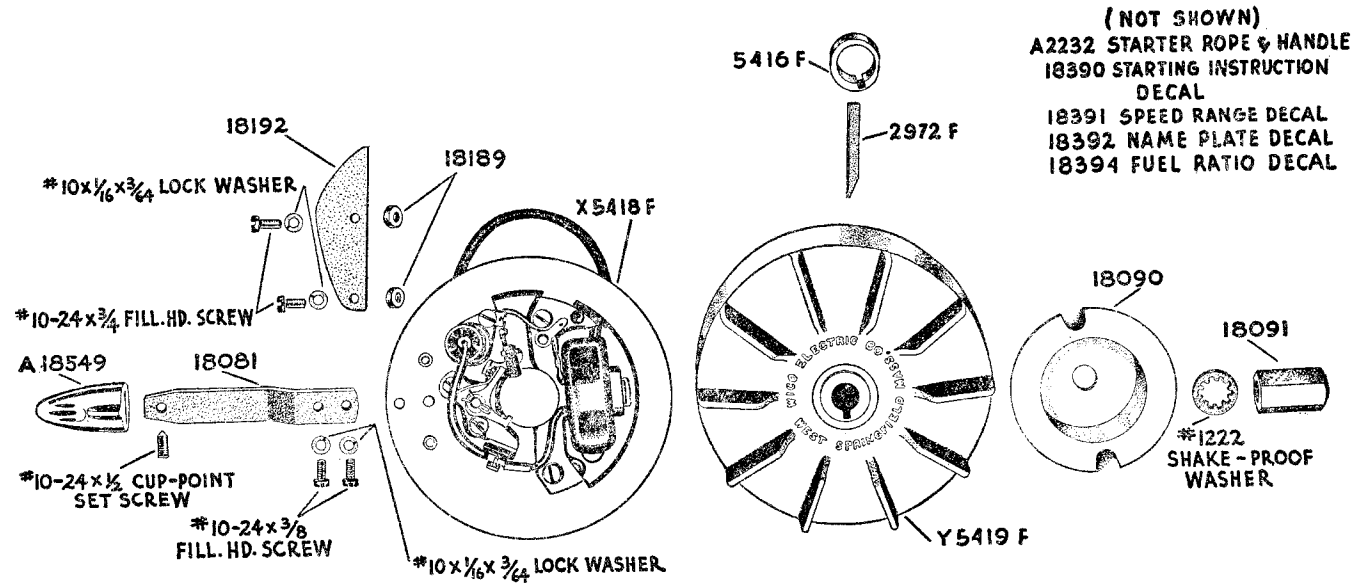
# Magneto



- |        |   |         |   |
|--------|---|---------|---|
| Y5419F | Rotor.                                      | 5431F   | Breaker spring clamp screw.   |
| 5416F  | Breaker cam.                                | X5472F  | Stator plate casting only with core.                                    |
| 2972F  | Crankshaft key.                             | 5428F   | Core screw.   |
| 4210F  | Breaker arm lock.                           | X5853F  | Lead wire group.  |
| 3219   | Breaker arm pivot washer.                   | 5414F   | Lead wire bushing.  |
| X5433F | Breaker arm group * (See note).             | X3428F  | Friction shoe group.  |
| 5411F  | Fixed contact clamp screw with lock washer. | X5345F  | Coil.   |
| IXA256 | Fixed contact clamp screw plain washer.     | 10383   | Coil wedge.   |
| X5342F | Condenser group.                            | 5420F   | Coil terminal protector.  |
| 5411F  | Condenser clamp screw w/lock washer.        | X5418F  | Stator plate unit (Includes: Coil, Core, condenser, breaker mechanism.) |
| 5077F  | Cam wiper felt.                             | FW-1724 | Magneto complete with cam and key.                                      |
| X5427F | Fixed contact group * (See note).           | *X5474F | Breaker group complete.   |

Note—Items X5433F and X5427F sold only as X5474F breaker group complete.

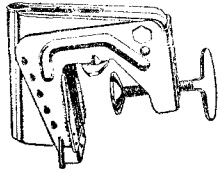
# Magneto



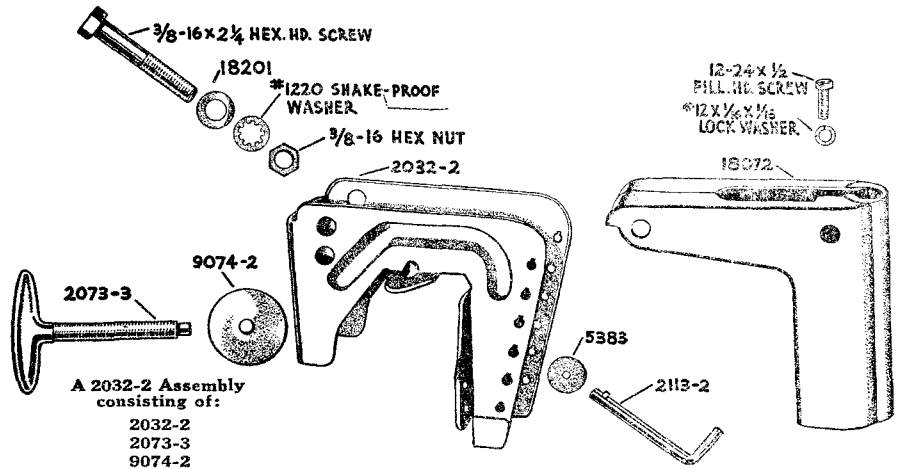
A18549 Magneto control knob w/set screw.  
 10-24 x 1/2 Cup-point set screw.  
 18081 Magneto control handle.  
 No. 10-24 x 3/8 Fill. hd. screw.  
 No. 10 x 1/16 x 3/64 Lock washer.  
 No. 10-24 x 3/4 Fill. hd. screw.  
 18192 Throttle cam.  
 18189 Throttle cam spacer.  
 X5418F Stator plate unit complete.  
 5416F Breaker cam.  
 2972F Crankshaft key.

Y5419F Rotor.  
 18090 Starter rope plate.  
 No. 1222 Shake-proof washer.  
 18091 Flywheel nut.  
 (Parts not shown).  
 A2232 Starter rope and handle.  
 18390 Starting instruction decal (To start motor).  
 18391 Speed range decal (Stop — Slow — Start — Fast).  
 18392 Name plate decal (Elgin).  
 18394 Fuel ratio decal (Fuel ratio).

# Stern Bracket



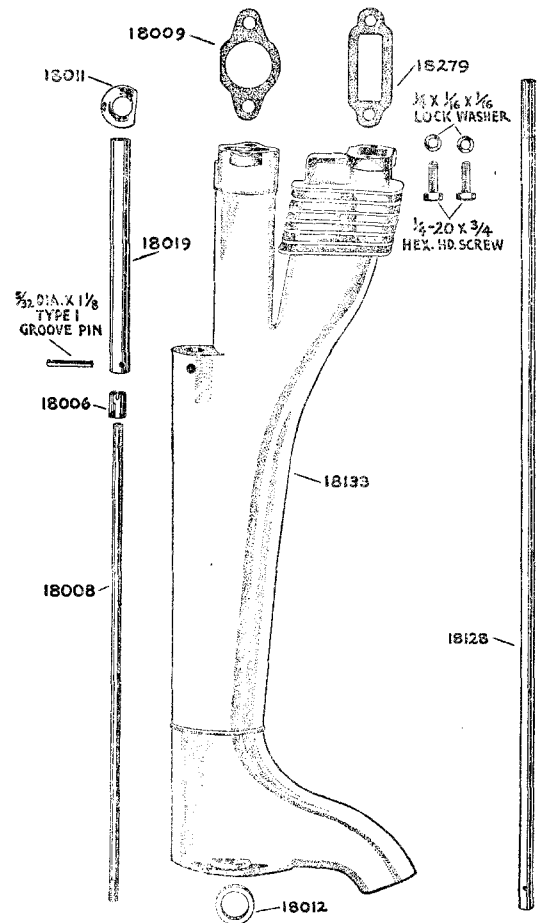
- 2073-3 Stern bracket clamp screw.
- 9074-2 Stern bracket clamp screw foot.
- 2032-2 Stern bracket.  
3/8-16 x 2 1/4 Hex. hd. screw.



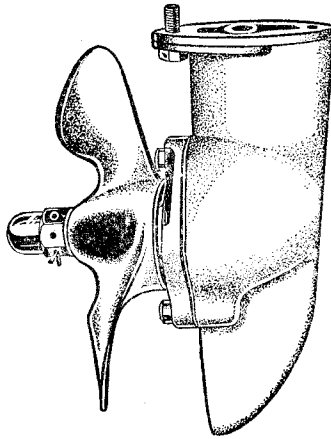
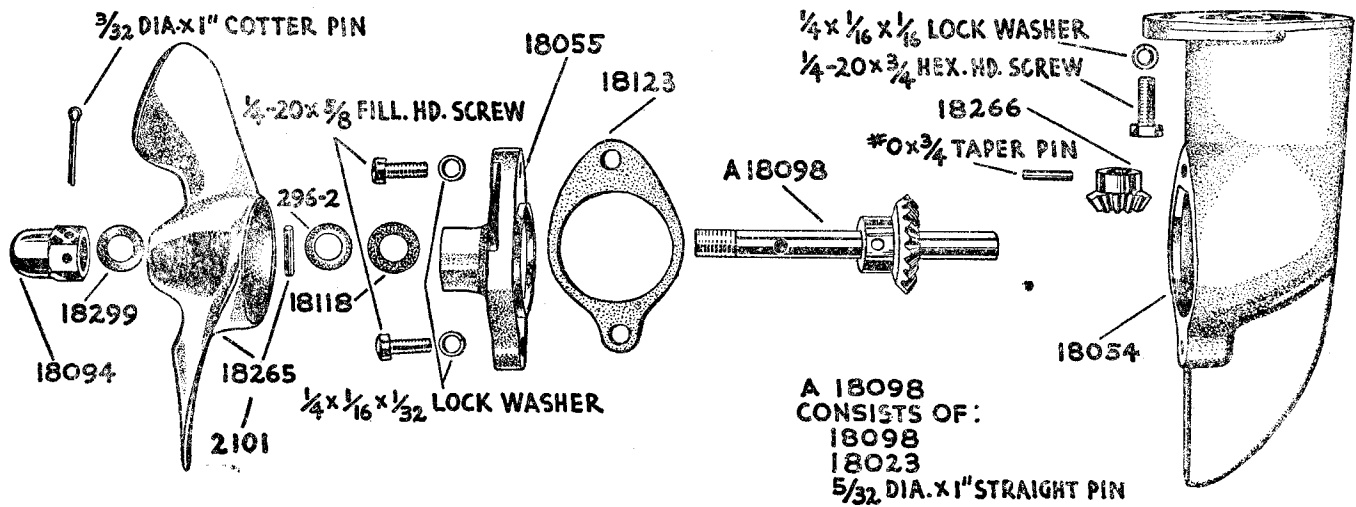
- 18201 Stern bracket bolt washer.  
No. 1220 Shakeproof washer.  
3/8-16 Hex. nut.
- 5383 Rubber washer for lock bar.
- 2113-2 Stern bracket lock bar.
- 18072 Swivel bracket.  
No. 12-24 x 1/2 Fill. hd. screw.  
No. 12 x 1/16 x 1/16 lock washer.

# Motor Leg

- 18011 Swivel bracket thrust washer.
- 18019 King pin.  
5/32 dia. x 1 1/8 type I groove pin.
- 18006 Nut for gear housing stud.
- 18008 Gear housing stud.
- 18009 Crankcase to motor leg gasket.
- 18279 Cylinder exhaust gasket.  
1/4 x 1/16 x 1/16 lock washer.  
1/4-20 x 3/4 Hex. hd. screw.
- 18133 Motor leg.
- 18128 Drive shaft.
- 18012 Gear housing pilot.



# Gear Housing and Propeller Unit



- |       |   |        |  |
|-------|---|--------|--|
| 18094 | Propeller shaft nut.<br>$\frac{3}{32}$ dia. x 1" cotter pin.  | A18098 | Propeller shaft and bevel gear assembly. *(See note).  |
| 18299 | Propeller shaft washer.   | 18266  | Bevel pinion gear.<br>No. 0 x $\frac{3}{4}$ Bevel pinion taper pin.  |
| 18265 | Propeller.  | 18054  | Gear housing.<br>$\frac{1}{4}$ -20 x $\frac{3}{4}$ Hex. hd. screw.<br>$\frac{1}{4}$ x $\frac{1}{16}$ x $\frac{1}{16}$ Lock washer. |
| 2101  | Shear pin.  |        |  |
| 296-2 | Propeller shaft seal retainer.  |        |  |
| 18118 | Propeller shaft seal.<br>$\frac{1}{4}$ -20 x $\frac{5}{8}$ Fill. hd. screw.<br>$\frac{1}{4}$ x $\frac{1}{16}$ x $\frac{1}{32}$ Lock washer. |        |  |
| 18055 | Gear housing cap.   |        |  |
| 18123 | Gear housing cap gasket.  |        |  |
- Note: Sold as complete assembly only consisting of:
- |       |  |
|-------|--|
| 18098 | Propeller shaft.                                       |
| 18023 | Bevel gear.<br>$\frac{5}{32}$ dia. by 1" straight pin. |