



**"JUBILEE"**  
***Champion***

**OUTBOARD MOTOR**

**MODEL 6M-GS**

**"FEATHERWEIGHT 15"**

**POWER SHIFT**

**FORWARD - NEUTRAL - REVERSE**



**OPERATING INSTRUCTIONS  
AND  
REPLACEMENT PARTS**

**"JUBILEE" CHAMPION**  
**MODEL 6M-GS**  
**"FEATHERWEIGHT 15"**

**SPECIFICATIONS**

|  |   |
|--|---|
| Model 6M-GS .....  | "Featherweight 15"  |
| Gearshift .....  | Forward - Neutral - Reverse                                 |
| Horsepower .....   | 15 H.P. O.B.C. certified                                    |
| Two Cylinder .....   | Bore 2 1/2"; Stroke 2 1/32"                                 |
| Piston Displacement .....  | 19.94 cu. in.   |
| Valves .....   | Dual rotary valve, 2 port                                   |
| Carburetor .....   | Tillotson Dual jet concentric bowl type                     |
| Ignition .....   | Phelon Magneto  |
| Starter .....  | Automatic Rewind  |
| Steering .....   | Automatic co-skipper  |
| Water Pump .....   | Positive Rotary   |
| Controls .....   | Twist Grip Controls   |
| Spark Plugs .....  | Champion J8J - 14 mm.                                       |
| Connecting Rods .....  | Forged steel with Torrington needle bearings                |
| Lubrication .....  | Pressure lubricated main, crankshaft and wrist pin bearings |
| Propeller .....  | 8x11, 3 blade   |
| Drive Gears .....  | Zerol cut for quiet operation                               |
| Gear reduction .....   | 14 to 24  |
| Gas Tank, Separate Cruising .....                                      | 6 gal. capacity   |
| Die-cast aluminum parts, Alrok treated to prevent salt water corrosion |   |
| Speed Range .....  | 0 to 30 miles per hour                                      |
| Weight .....   | Approximately 57 lbs.                                       |

**PLEASE NOTE!**

We reserve the right to change motor specifications contained herein without notice. Any parts contained in your motor that are different from those listed in this parts book were changed either to improve your Motor or were necessary due to material substitutions.

**Champion Motors Company**  
**Minneapolis, Minn.**



# "JUBILEE" CHAMPION

Model 6M-GS

## INSTRUCTION MANUAL

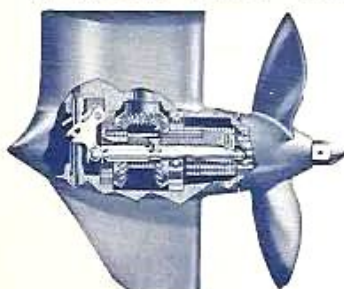
### KNOW YOUR CHAMPION

Your new "JUBILEE" Champion is so new in design and performance we like to consider each new owner as never having had an outboard motor before. With one hand you have complete control of boat and motor. You shift to Forward and control the speed to full throttle. You can shift from Forward into Neutral or into Reverse without removing your hand from the steering handle.

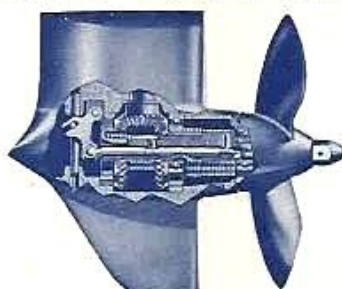
—a "COMPLETE" motor with no extra cans or funnels to carry. The automotive type fuel pump, pumps through a single line from the Champion fully vented, non-pressurized Cruising Tank.

Champion's "EZ-Off Hood" gives complete access to the Powerhead and related components; Starter, Spark Plugs, Magneto, Carburetor and Fuel Pump. Three conveniently located screws, which loosen and unlock the hood, remain attached to the shroud for EZ re-installation.

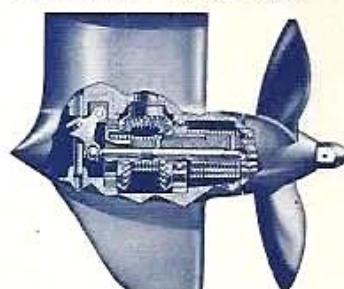
### HERE IS HOW CHAMPION'S "POWER-SHIFT" CLUTCH WORKS



FORWARD



NEUTRAL



REVERSE

When you turn the Shift Control to Forward position the Lower Unit Control Rod (3MGS37) slides forward moving the Drive Spring Friction Pin (3LGS27) up engaging the Drive Spring (6MGS25), which smoothly "Wrap Locks" for positive drive. With Steering Handle in Neutral, Control Rod allows Friction Pins to recess releasing Springs for free turning. In Reverse, Control Rod slides back forcing Reverse Spring Friction Pin (3LGS127) up engaging the Reverse Spring (6MGS125), which smoothly "Wrap Locks" for positive Reverse.

With Champion's exclusive Magic Wand synchronized Throttle and Shift Control you have built-in safety. You CANNOT shift at the WRONG engine speed.

For your convenience Champion had engineered the "Swing-In-To-Boat" feature for easy access to lower unit. WITH THE MOTOR COMPLETELY STOPPED, turn engine to your right, tilt out of water, and swing Lower Unit into boat.

The new "JUBILEE" Champion, with separate Gas Tank, is lighter, cleaner and easier to handle

### OPERATING PROCEDURE

#### LUBRICATION

The most important factor in the operation of any internal combustion engine is proper lubrication. Properly lubricate your motor and you will enjoy many years of highly satisfactory service. Improper lubrication can result in premature wear and unnecessary expense.

Your new "JUBILEE" Champion is a two cycle engine and the lubrication of the Pistons, Cylinders, Connecting Rods and Crankshaft Bearings is supplied by oil mixed with gasoline. The proportions of this mixture and the grades of gasoline and oil are very important.

We recommend the use of any nationally advertised outboard motor oil such as Mobiloil Outboard or Texaco Outboard Motor Oil. Mix oil with any regular grade of gasoline (72 Octane rating or better), using  $\frac{1}{2}$  Pint of Oil to One Gallon of Gasoline for normal operation after break-in period.



6. Your new precision engineered "JUBILEE" Champion is designed to give years of satisfaction. Keep it clean—it will look better and live longer.

## MOTOR ADJUSTMENTS

### CARBURETOR ADJUSTMENTS

1. Close idle adjustment screw until it is snug (do not force needle against seat). Then open idle screw approximately  $\frac{3}{4}$  turn.
2. To re-adjust high speed setting, loosen set screw in High Speed Adjustment Lever with 5/64 Allen Wrench (furnished in Instruction Envelope). Turn needle shaft clockwise for leaner mixture or counter-clockwise for richer mixture until motor runs smoothly at high speed. At this setting align adjusting lever in a vertical position and re-tighten set screw.
3. Move Steering Handle Control to "SLOW" position. The motor should now idle slowly. However, atmospheric changes and fuel mixtures may require opening or closing the idle adjustment screw slightly.

## TILT PIN ADJUSTMENT FOR BEST PERFORMANCE

1. Best performance will be realized by having the propeller shaft on a horizontal plane with regard to the bottom of the boat. Set tilt pin so that anti-cavitation plate (large plate immediately above propeller) is on a horizontal plane approximately one inch below the bottom of the boat or keel. To tilt motor too far under will tend to push the bow down. To tilt too far out will tend to push the stern down, consequently eliminating top performance or causing cavitation.

## CO-PILOT

1. Steering tension is regulated by Co-Pilot Adjustment Nut (1J2701).

## REVERSE LOCK

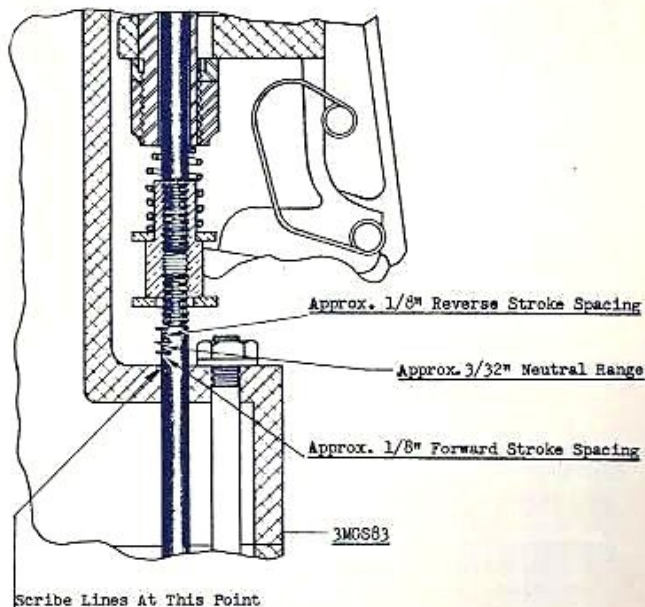
1. Should the reverse lock, which engages automatically when the motor is shifted into Reverse, fail to hold motor from tilting up, remove Reverse Lock Catch Pin (3M51) and Reverse Lock Catch (3M52) giving access to Reverse Lock Guide Body (3M55), which when screwed down (clockwise) will cause Reverse Lock Catch to engage sooner and deeper. Experimental adjusting will produce proper setting. Catch should not engage when Steering Handle is in Forward position.

NOTE: Shifting too rapidly into Reverse may cause Lower Unit to drag and tilt up before Reverse Lock Catch engages.

## TO CHECK OR RE-SET SHIFT ROD ADJUSTMENT

Use the following procedure:

Place control in full reverse and then scribe a line on lower shift rod flush with Pivot Base Casting (3MGS83). Maintaining a hand pressure on the propeller in a counter-clockwise direction, turn handle slowly in the "Forward" direction until propeller just breaks free. At this point scribe another line on Shift Rod. Now rotate the





Propeller clockwise and at the same time again turn handle slowly until the Propeller just engages. At this point, scribe another line on Shift Rod. Then turn handle the rest of the way to complete the stroke, and scribe another line on the Shift Rod. Properly adjusted, the spacing of scribed lines should be as per sketch, with the forward and reverse being equal to each other.

To lengthen the forward stroke, set Control in full reverse, and screw Reverse Lock Guide Body up until it just breaks free of Lower Shift Rod. Then turn Guide Body up onto Upper Shift Rod just one complete revolution. Now raise Lower Shift Rod until it just contacts Guide Body. Holding Lower Shift Rod in this position, screw Guide Body back onto it.

To lengthen the reverse stroke, follow same procedure, except to screw Guide Body off of Upper Shift Rod one complete revolution, after pushing Lower Shift Rod down for clearance.

To replace or re-set Control Wire (3M450) set handle so that reverse stroke spacing is approximately  $\frac{1}{8}$  inch as per sketch. Loosen Set Screw (3M2214), hold Control Shaft Arm (3M712) stationary and turn handle clockwise to the reverse notch. Tighten Set Screw.

If Lower shroud has been removed, proper adjustment of shifting stroke can be made by removing Upper Control Rod Hinge Pin (3M732) and turning Upper Shift Rod up or down to obtain correct spacing.

## SYNCHRONOUS CONTROL ADJUSTMENTS

### MAGNETO CONTROL ADJUSTMENT

Turn Steering Handle counter-clockwise to full throttle position. Stator Plate should now be in full advance position. (The Stator Plate Control Pitman (6M500) at bottom of Stator Plate Control Arm (3M511) groove). If not, loosen Control Shaft Arm Pivot Screw (6LL2213) and make proper adjustment. A small allowance should be made for slack in linkage. Stator plate should rotate freely after clamp screws are tightened.

### THROTTLE ADJUSTMENT

1. Adjustment Link Collar (6LL455) should be set so that throttle is fully closed at slow speed and fully open at high speed. The angle and height of the 6MGS725 Upper Control Arm is adjustable and should be set so that the throttle is fully open in forward gear but closed when in neutral.

## MAINTENANCE

### REMOVING THE "E-Z OFF HOOD"

(6MGS990-22 Starter Housing and Engine Cover Assembly.)

1. Loosen the Front Shroud Screw (1J1601) and the two Rear Shroud Screws (3M2102). (These screws loosen and unlock the cover but remain attached for E-Z re-installation.)

## AUTOMATIC RE-WIND STARTER

1. With Starter Housing and Engine Cover removed, emergency Starter Plate is accessible for use while making adjustments on motor or Starter.

## SPARK PLUGS

1. The 14MM Champion J-8J is the proper type plug for this motor. They should be kept clean and the gap set at .030 inch.
2. Common causes of Spark Plug failure.
  - a. Carburetor setting — too rich may cause fouling, too lean may cause overheating.
  - b. Improper mixture of fuels—see "Lubrication" section.
  - c. Improper gap setting.

## MAGNETO

1. Ordinarily these Magnetos will operate over extended periods of time without the need for adjustment or repair. However, if engine operating difficulties are experienced which appear to be caused by the ignition system, the Magneto output can be checked by removing the High-Tension Cables from the Spark Plugs. Remove plugs and re-connect cables. Be sure to hold the threaded portion of plugs against some grounded part of motor. Then turn Flywheel at normal cranking speed. A weak spark or no spark at all may indicate Magneto trouble. The following service steps should be taken:
  - a. Remove the Flywheel. Three tapped holes are provided to adapt a Flywheel puller.
  - b. If the contact points are dirty they can be cleaned with a little clear carbon tetrachloride or nonflammable solvent. Make sure no particles of lint are left between the point surfaces if a brush or cloth is used. If the points are severely burned, install a complete new contact breaker assembly.
  - c. The contacts should have eighteen thousandths of an inch (.018") between the point surfaces. This can be checked with a feeler gauge. If the contacts do not open the proper distance, loosen the screws which hold the contact breaker and shift the assembly slightly so as to obtain the correct clearance of .018" between the point surfaces. Points should be set with Cam Follower on highest position. If there still is no spark, the coil or condenser may be defective. Any autho-



rized Champion Service Station can correct the situation.

- d. After approximately 100 hours of operation, apply four (4) drops of a good grade S.A.E. No. 60 oil to the Cam Oiler Felt. Blot off any excess oil with a clean cloth.

## FUEL SYSTEM

1. This system includes gas lines, fuel pump, primer and coupling, and gas tank.
2. For better operating results:
  1. Thoroughly mix and strain fuel.
  2. Keep tank, lines and coupling clean.
  3. Watch for and correct leaks in fuel system.
    - a. Excessive air bubbles in 3M421 Gas Line (other than during priming) indicate a leak in fuel system.
3. To drain pump and carburetor, remove Coupler and run engine until dry.

## COOLING SYSTEM

1. Water for cooling is provided by a "Positive Rotary Impeller" pump.
2. Always be sure engine is cooling properly by watching for the tell-tale stream of water from outlet on bottom of Cylinder Head.
3. Should water fail to discharge:
  - a. Stop engine immediately.
  - b. Check intake holes on front of Lower Unit Body (3LGS1) and outlet on Cylinder Head for obstructions.

Use care if running motor in small test tank, re-using water continuously may cause overheating. Be sure water level is above intake opening.

## LOWER UNIT

When draining the lower unit, the Filler Plug and Vent Screw should be removed and the motor placed in a vertical position to allow the oil to drain out.

When filling the unit with new oil, the motor should be placed in a horizontal position and the unit filled with Outboard Gear Oil EP90 or equivalent to the level of the Filler Plug. An oil can,

preferably the pump type, should be used for filling the unit.

## INSTRUCTIONS FOR COLD WEATHER USE

1. Cold weather will not affect the running of your motor. However, to prevent freezing, when idle even for a few hours, drain water from motor by placing it in an upright position and pulling Starter Rope a few times.
2. For long period storage see section "Instructions for Storing Motor."

## INSTRUCTIONS FOR STORING MOTOR

1. Drain fuel system by running motor with Fuel Line Coupler disconnected from motor.
2. Drain water from motor by placing it in an upright position and pulling Starter Rope a few times.
3. Drain and refill Lower Unit (See section on "Lubrication.")
4. Remove Spark Plugs and pour about two ounces of oil in each cylinder.
5. Squirt similar amount into Carburetor Intake.
6. Turn motor over several times in Reverse direction. This will spread oil and also lay water pump impeller blades in reverse position so that when motor is started, blades will not have acquired a permanent set in one position.
7. Store upright in clean dry place. We suggest that specially designed shipping carton be used.

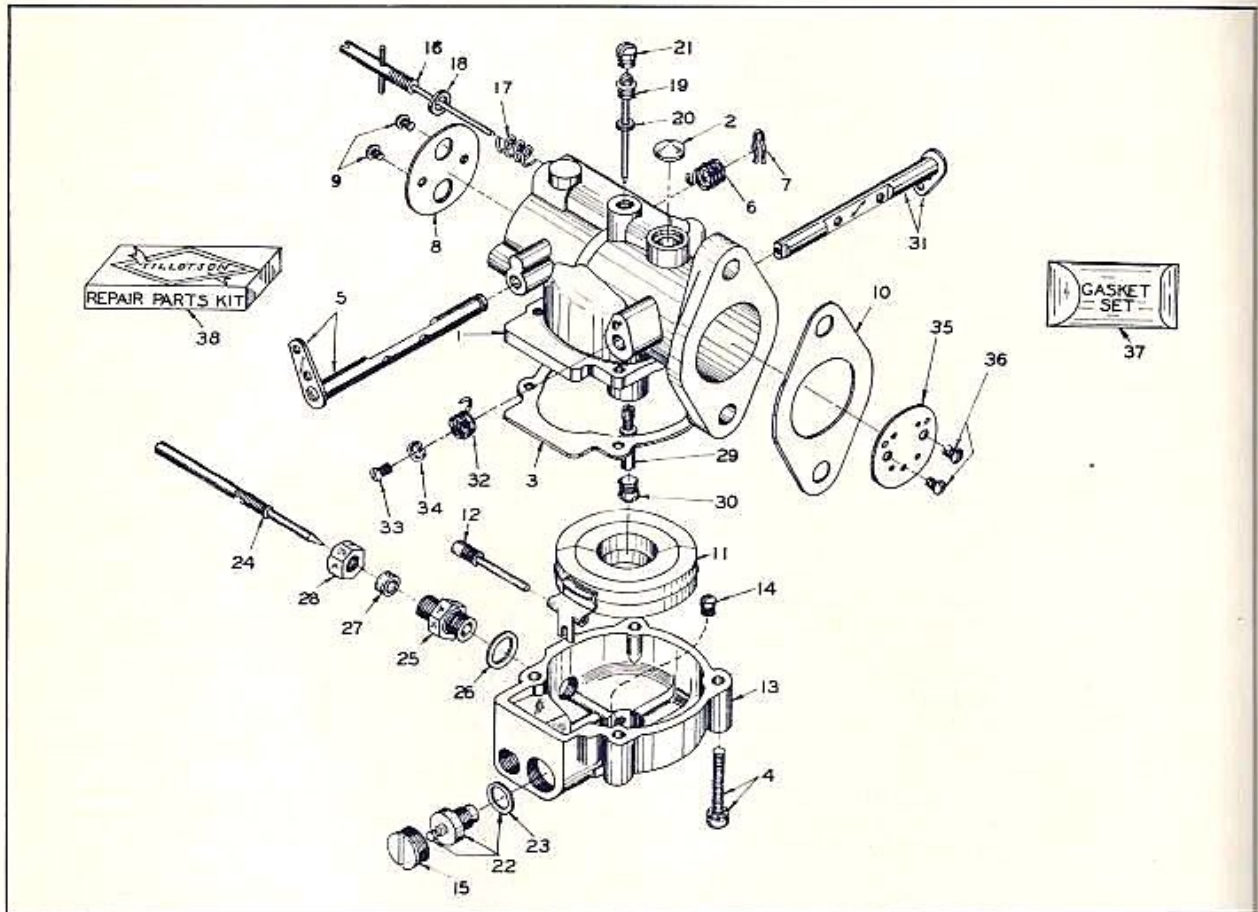
## SPRING CHECK-UP SUGGESTIONS

1. Remove plugs and clean or replace.
  - a. See "Maintenance Section" on Spark Plugs.
2. Pull motor over several times with Starter Rope.
  - a. Wipe excess oil from around Spark Plug holes and replace Spark Plugs.
3. Wipe entire motor clean and inspect for parts broken or out of adjustment.
4. Put drop of light S.A.E. motor oil on all working parts and friction points.

Keep in mind that your Champion dealer is always ready and anxious to be of service to you. See him should there be some questions about your motor which you do not understand.



# TILLOTSON CARBURETOR MODEL MD-84A



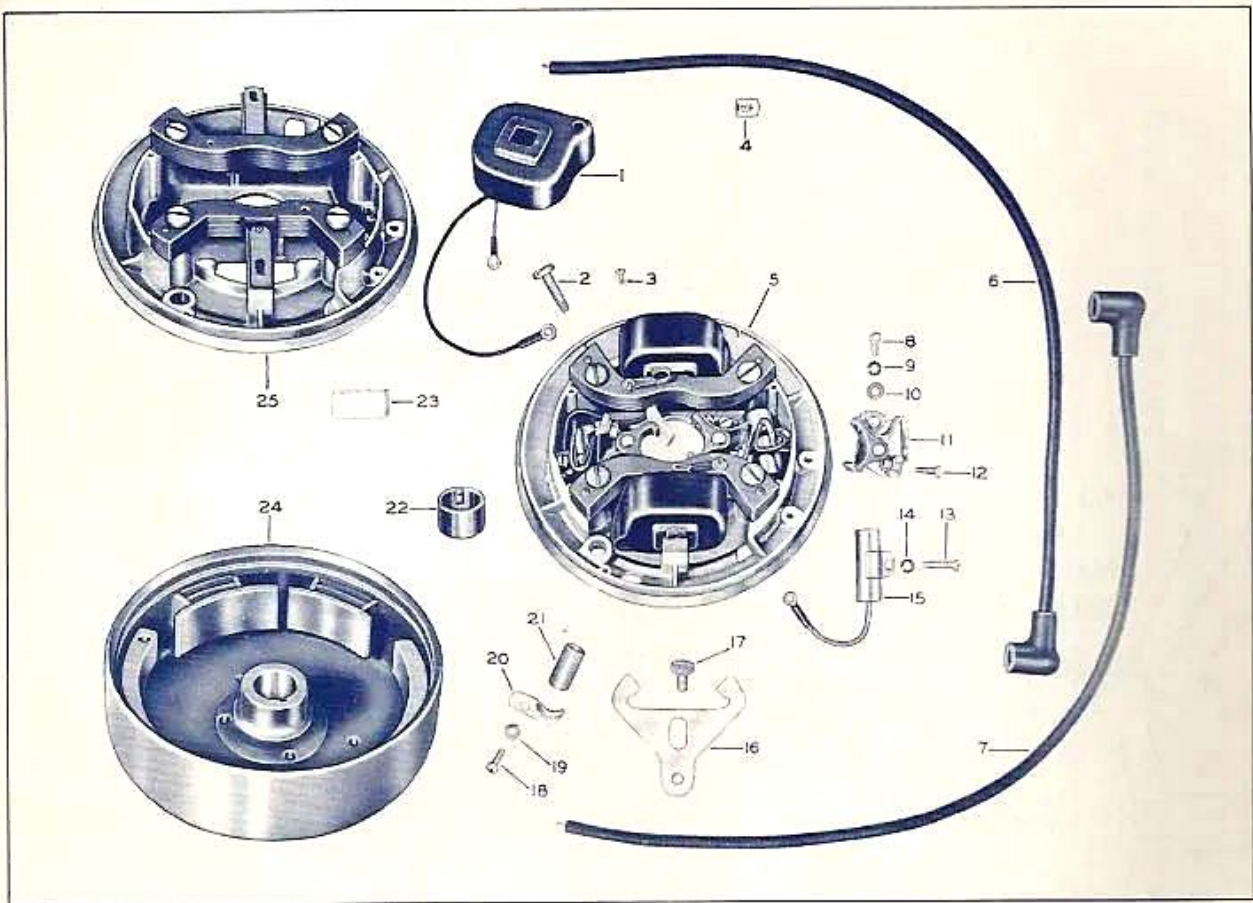
| Ref. No. | No. | Req. | Part No. | Description                              |
|----------|-----|------|----------|--|
|          | 1   | 1    | 010164   | Body, Upper Half                         |
|          | 2   | 1    | *02531   | Body Channel Welch Plug                  |
|          | 3   | 1    | 07903    | Body Gasket                              |
|          | 4   | 4    | 06062    | Body Retaining Screw & Lockwasher        |
|          | 5   | 1    | 010157   | Choke Shaft and Lever                    |
|          | 6   | 1    | 07910    | Choke Shaft Return Spring                |
|          | 7   | 1    | 08597    | Choke Shaft Return Spring Retaining Clip |
|          | 8   | 1    | 09079    | Choke Shutter                            |
|          | 9   | 2    | 05204    | Choke Shutter Screws                     |
|          | 10  | 1    | 06833    | Flange Gasket                            |
|          | 11  | 1    | 07804    | Float                                    |
|          | 12  | 1    | *07901   | Float Lever Pinion Screw                 |
|          | 13  | 1    | 08332    | Fuel Bowl                                |
|          | 14  | 1    | 03311    | Fuel Bowl Drain Screw (Small)            |
|          | 15  | 1    | 07896    | Fuel Bowl Plug Screw (Large)             |
|          | 16  | 1    | *010153  | Idle Adjustment Screw                    |
|          | 17  | 1    | *05725   | Idle Adjustment Screw Spring Washer      |
|          | 18  | 1    | 06095    | Idle Adjustment Screw Spring             |
|          | 19  | 1    | *010154  | Idle Tube                                |

(\* ) Indicates contents of repair parts kit

| Ref. No. | No. | Req. | Part No. | Description                                   |
|----------|-----|------|----------|---|
|          | 20  | 1    | 06569    | Idle Tube Gasket                              |
|          | 21  | 1    | *02395   | Idle Tube Channel Plug Screw                  |
|          | 22  | 1    | *07895   | Inlet Needle, Seat and Gasket                 |
|          | 23  | 1    | 02510    | Inlet Seat Gasket                             |
|          | 24  | 1    | *010162  | Main Adjustment Screw                         |
|          | 25  | 1    | 0702     | Main Adjustment Screw Gland                   |
|          | 26  | 1    | 0676     | Main Adjustment Screw Gland Gasket            |
|          | 27  | 1    | 09112    | Main Adjustment Screw Packing                 |
|          | 28  | 1    | 0703     | Main Adjustment Screw Packing Nut             |
|          | 29  | 1    | *010146  | Main Nozzle                                   |
|          | 30  | 1    | 01102    | Main Nozzle Channel Plug Screw                |
|          | 31  | 1    | 010163   | Throttle Shaft and Lever                      |
|          | 32  | 1    | *08647   | Throttle Shaft Return Spring                  |
|          | 33  | 1    | *06393   | Throttle Cam Lever Retaining Screw            |
|          | 34  | 1    | *06396   | Throttle Cam Lever Retaining Screw Lockwasher |
|          | 35  | 1    | 010145   | Throttle Shutter                              |
|          | 36  | 2    | *05204   | Throttle Shutter Screws                       |
|          | 37  |      | *09330   | GASKET AND PACKING SET                        |
|          | 38  |      | RK-139   | REPAIR PARTS KIT                              |



PHELON MAGNETO SPECIFICATION NO. F-514M



| Ref. No. | Part No. | Description                      |
|----------|----------|----------------------------------|
| 1        | FG-1835  | Coil Assembly                    |
| 2        | F-438    | Core Screw                       |
| 3        | F-422    | Ground Terminal Screw            |
| 4        | F-564    | Lead Wire Marker (Top)           |
| 5        | FG-1797  | Complete Stator Assembly         |
| 6        | FG-1370M | Lead Wire                        |
| 7        | FG-1370N | Lead Wire                        |
| 8        | F-204    | Fixed Contact Screw              |
| 9        | F-147C   | Fixed Contact Screw Lock Washer  |
| 10       | F-247    | Fixed Contact Screw Plain Washer |
| 11       | FG-626   | Breaker Assembly                 |
| 12       | F-601    | Breaker Connection Screw         |

| Ref. No. | Part No. | Description                            |
|----------|----------|--|
| 13       | F-1356   | Condenser Screw                        |
| 14       | F-147C   | Condenser Screw Lock Washer            |
| 15       | FG-1770  | Condenser Assembly                     |
| 16       | F-1826   | Friction Clamp                         |
| 17       | F-534    | Friction Clamp Screw                   |
| 18       | F-132    | Lead Wire Tube Clamp Screw             |
| 19       | F-147C   | Lead Wire Tube Clamp Screw Lock Washer |
| 20       | F-1775   | Lead Wire Tube Clamp                   |
| 21       | F-603    | Lead Wire Tube                         |
| 22       | F-539E   | Breaker Cam                            |
| 23       | F-906    | Cam Wiper Felt                         |
| 24       | FG-1796  | Flywheel                               |
| 25       | FG-1793A | Stator and Core Assembly               |

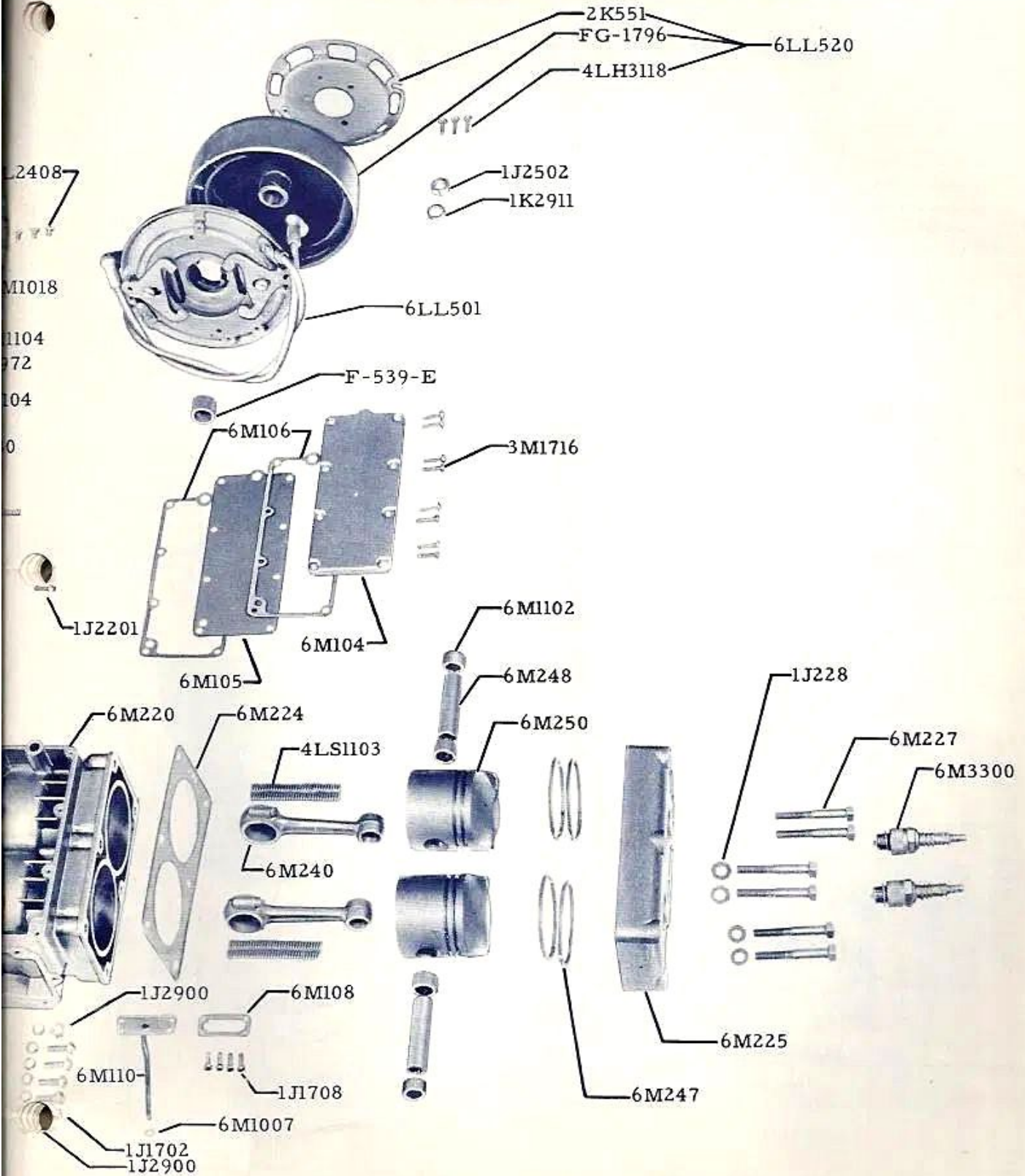










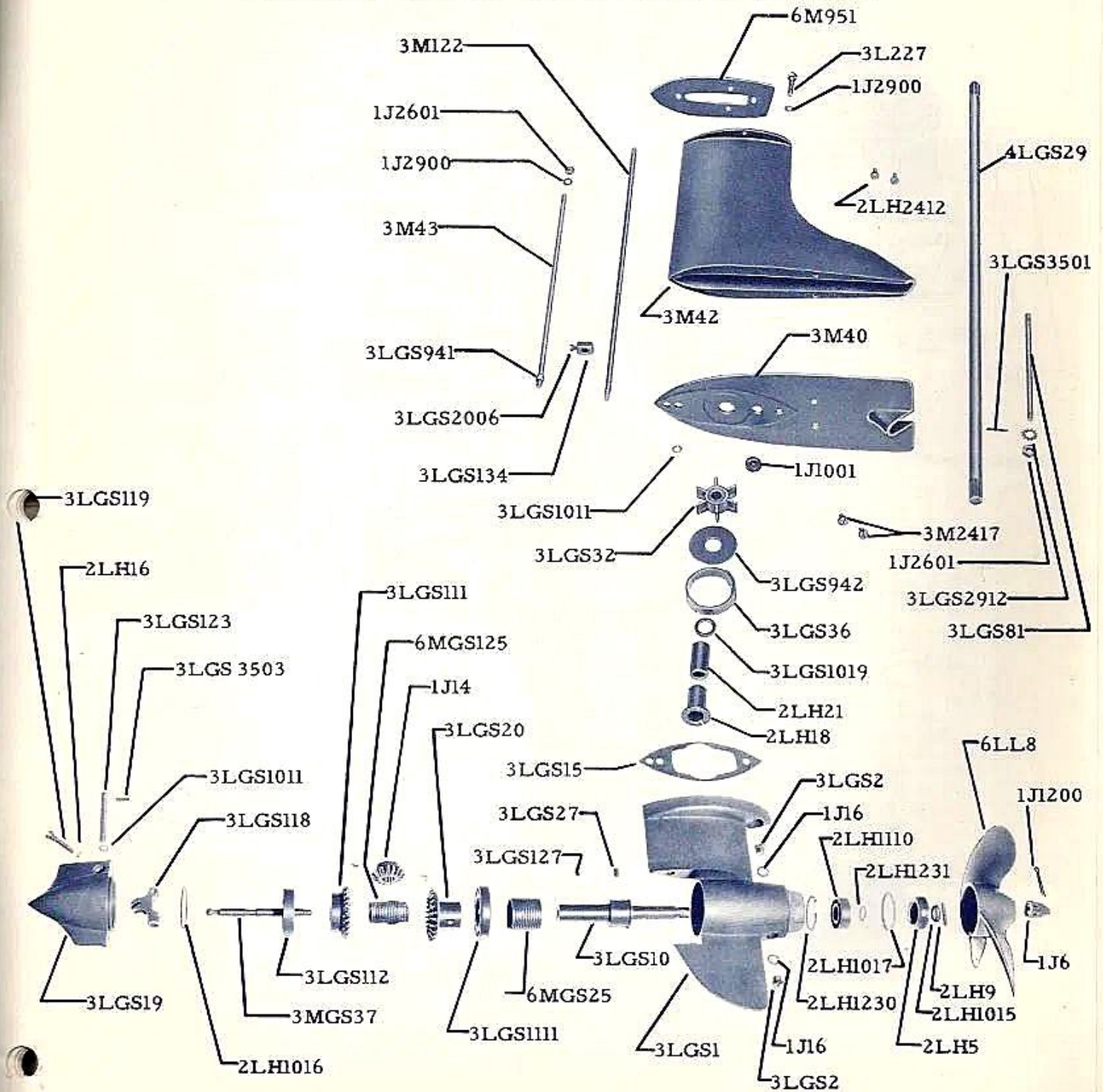






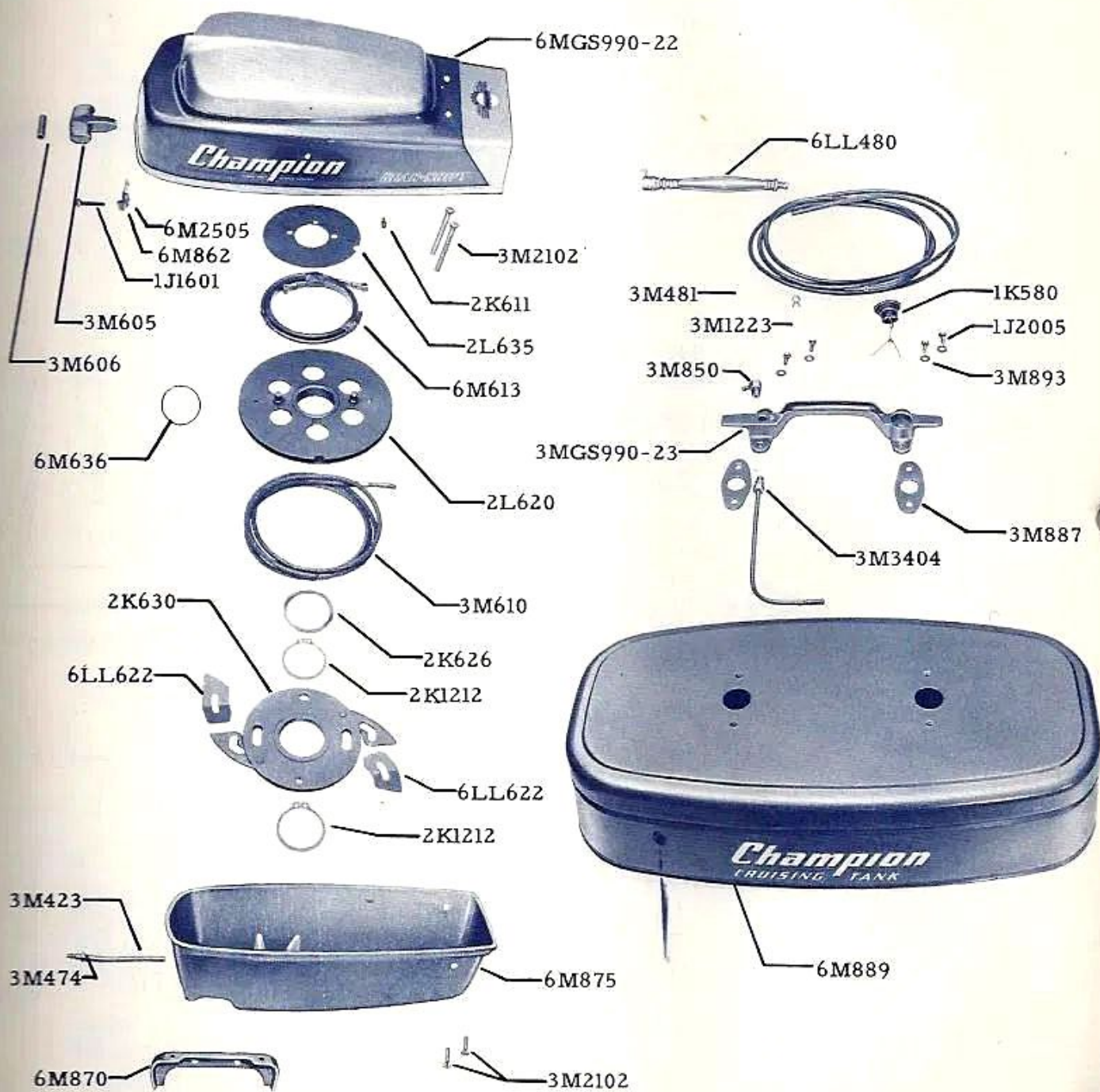


### DRIVESHAFT HOUSING AND LOWER UNIT ASSEMBLY





### STARTER HOUSING AND ENGINE COVER, GAS TANK ASSEMBLIES





## P A R T S   L I S T

| Part No. | Description                                    | No. Req'd | Part No. | Description                              | No. Req'd |
|----------|--|-----------|----------|--|-----------|
| 3LGS1    | Lower Unit Body                                | 1         | 3M89     | Motor Base Gasket                        | 1         |
| 3LGS2    | Lower Unit Filler and Drain Plug               | 2         | 3M91     | Co-Pilot Cushion (Top)                   | 2         |
| 2LH5     | Ball Bearing Lock Ring                         | 1         | 3M94     | Steering Handle Grip                     | 1         |
| 1J6      | Propeller Nut                                  | 1         | 6M96     | Steering Handle Pivot                    | 1         |
| 6LL8     | Propeller                                      | 1         | 6M97     | Steering Handle and Co-Pilot Bracket     | 1         |
| 2LH9     | Shear Pin                                      | 1         | 3M98     | Steering Handle Friction Washer          | 2         |
| 3LGS10   | Propeller Shaft Assembly                       | 1         | 3M99     | Steering Handle Support Cap              | 1         |
| 1J14     | Pinion Gear                                    | 1         | 6MGS100  | Steering Handle Tube Assembly            | 1         |
| 3LGS15   | Lower Unit Gasket                              | 1         | 6M104    | Exhaust Manifold                         | 1         |
| 1J16     | Grease Plug Gasket                             | 2         | 6M105    | Exhaust Manifold Plate                   | 1         |
| 2LH16    | Gasket, Rocker Arm Hinge Pin                   | 1         | 6M106    | Exhaust Manifold Gasket                  | 2         |
| 2LH17    | Gasket, Lock Screw                             | 1         | 6M108    | Water Passage Cover Plate Gasket         | 1         |
| 2LH18    | Pinion Gear Bearing                            | 1         | 6M110    | Water Passage Cover Plate Assembly       | 1         |
| 3LGS19   | Lower Unit Cap                                 | 1         | 3LGS111  | Reverse Gear                             | 1         |
| 3LGS20   | Drive Gear Assembly                            | 1         | 3LGS112  | Reverse Gear Bearing                     | 1         |
| 2LH21    | Driveshaft Center Bearing                      | 1         | 3LGS118  | Rocker Arm                               | 1         |
| 6MGS25   | Drive Spring                                   | 1         | 3LGS119  | Rocker Arm Hinge Pin                     | 1         |
| 3LGS27   | Drive Spring Friction Pin                      | 1         | 6M121    | Upper Shift Rod                          | 1         |
| 4LGS29   | Driveshaft                                     | 1         | 3M122    | Lower Shift Rod                          | 1         |
| 3LGS32   | Water Pump Rotor                               | 1         | 3LGS123  | Rocker Arm Guide                         | 1         |
| 3LGS36   | Water Pump Housing                             | 1         | 6MGS125  | Reverse Spring                           | 1         |
| 3MGS37   | Lower Unit Control Rod                         | 1         | 3LGS127  | Reverse Spring Friction Pin              | 1         |
| 3M40     | Anti-cavitation Plate Assembly                 | 1         | 3LGS134  | Lower Shift Rod Lock                     | 1         |
| 3M42     | Driveshaft Housing                             | 1         | 3M150    | Reverse Lock Guide                       | 1         |
| 3M43     | Lower Unit and Driveshaft Housing Stud (Front) | 1         | 6M200    | Center Main Bearing Assembly             | 1         |
| 3M44     | Tilting Bracket                                | 1         | 6M206    | Carburetor Adaptor Plate Gasket          | 1         |
| 3M45     | Swivel Lock Pin                                | 1         | 1J208    | Cylinder Block Stud                      | 1         |
| 3M47     | Swivel Lock Spring                             | 1         | 6M208    | Carburetor Stud                          | 2         |
| 3M48     | Tilting Bracket Cam Stud                       | 1         | 6M209    | Crankcase                                | 1         |
| 3M50     | Tilting Bracket Assembly (Front)               | 1         | 6M212    | Magneto Mounting                         | 1         |
| 3M51     | Reverse Lock Catch Pin                         | 1         | 6M214    | Center Main Bearing Race                 | 1         |
| 3M52     | Reverse Lock Catch                             | 1         | 3L216    | Screw, Center Main Bearing Lock          | 1         |
| 3M56     | Reverse Lock Catch Spring                      | 1         | 6M216    | Screw, Stator Plate Indicator            | 1         |
| 3M60     | Tilting Pin Spring Assembly                    | 1         | 6M218    | Screw, Stator Shaft Arm                  | 1         |
| 3M61     | Boat Bracket, R.H.                             | 1         | 6M220    | Bottom Main Bearing Seal                 | 1         |
| 3M62     | Boat Bracket, L.H.                             | 1         | 6M222    | Cylinder Block Assembly                  | 1         |
| 3M63     | Boat Bracket Tilting Pin                       | 1         | 6M224    | Cylinder Base Gasket                     | 1         |
| 1J68     | Boat Bracket Clamp Screw Pad                   | 2         | 6M225    | Head Gasket                              | 1         |
| 3M70     | Boat Bracket Clamp Screw Assembly              | 2         | 6M227    | Cylinder Head                            | 1         |
| 3M71     | Tilting Bracket Friction Washer (Large I.D.)   | 1         | 3L227    | Screw, Pivot Base and Driveshaft Housing | 1         |
| 3M72     | Tilting Bracket Shoulder Bolt                  | 1         | 6M227    | Screw, Cylinder Head                     | 6         |
| 3M74     | Co-Pilot Cushion (Bottom)                      | 2         | 1J228    | Washer, Swivel Lock Pin                  | 1         |
| 3M75     | Pivot Bolt Spacer                              | 1         | 6M230    | Washer, Cylinder Head                    | 4         |
| 3M77     | Tilting Bracket Friction Washer                | 1         | 6M240    | Crankshaft                               | 1         |
| 3M78     | Co-Pilot Fibre                                 | 1         | 1J243    | Connecting Rod Assembly                  | 2         |
| 6M80     | Pivot Bolt                                     | 1         | 6M247    | Connecting Rod Cap Screw                 | 4         |
| 3LGS681  | Lower Unit and Driveshaft Housing Stud (Rear)  | 1         | 6M248    | Piston Ring                              | 4         |
| 3M83     | Motor Pivot Base                               | 1         | 6M250    | Wrist Pin                                | 2         |
| 3M84     | Intake Water Line                              | 1         |          | Piston                                   | 2         |
| 1J86     | Water Line Fitting                             | 1         |          |  |           |



| Part No. | Description                             | No. Req'd | Part No. | Description                              | No. Req'd |
|----------|---|-----------|----------|--|-----------|
| 6M401    | Carburetor Gasket                       | 1         | 2K630    | Ratchet Assembly                         | 1         |
| 6MGS402  | Carburetor                              | 1         | 2L635    | Spring Cover                             | 1         |
| 6M403    | Carburetor Adaptor Plate                | 1         | 3M636    | Starter Spool Shim                       | As. Req'd |
| 3M409    | High Speed Adjustment Knob              | 1         | 6M641    | Starter Housing and Engine Cover         | 1         |
| 6M412    | Carburetor Choke Lever                  | 1         | 6MGS709  | Shift Control                            | 1         |
| 3M414    | Spacer, Carburetor Choke Lever          | 3         | 3MGS710  | Control Shaft Assembly                   | 1         |
| 3M416    | Spring Washer, Choke Lever              | 1         | 3M713    | Control Shaft Arm Pivot                  | 1         |
| 3M421    | Gas Line, Long                          | 1         | 6M713    | Stator Shaft Arm Pivot                   | 1         |
| 6M422    | Gas Tank Outlet and Screen              | 1         | 6M714    | Control Cable Casing Guide               | 1         |
| 3M423    | Gas Line, Short                         | 1         | 6M715    | Control Cable Mount                      | 1         |
| 3M425    | Gas Line Swivel                         | 2         | 6M716    | Control Cable Mount Slide                | 1         |
| 3M440    | Control Guide Assembly                  | 1         | 6M717    | Control Cable Mount Bracket              | 1         |
| 6M445    | Control Cable Bracket                   | 1         | 6M718    | Shift Control Spring                     | 1         |
| 6M446    | Control Cable Casing                    | 1         | 6M719    | Throttle Control                         | 1         |
| 6M448    | Stator Control Cable                    | 1         | 6MGS720  | Steering Handle Sub-Assembly             | 1         |
| 3M450    | Steering Handle Rack and Wire Assembly  | 1         | 6M721    | Throttle Control Pin                     | 1         |
| 6LL452   | Synchronous Control Arm Post            | 1         | 6M722    | Throttle Control Pin Guide               | 1         |
| 6LL455   | Collar, Syn. Cont. Adj. Link            | 1         | 6M723    | Throttle Control Pin Bushing             | 2         |
| 6LL456   | Synchronous Control Adjustment Link     | 1         | 3M724    | Upper Control Arm Bushing                | 1         |
| 3L458    | Spacer, Control Shaft                   | 1         | 6MGS725  | Upper Control Arm                        | 1         |
| 6LL460   | Synchronous Control Assembly            | 1         | 6M726    | Throttle Control Pin Sleeve              | 2         |
| 3M470    | Fuel Pump Outlet                        | 1         | 6M728    | Throttle Control Screw                   | 1         |
| 3M474    | Gas Line Nipple                         | 1         | 3M730    | Control Arm Pivot Assembly               | 1         |
| 6LL480   | Auxiliary Primer Assembly               | 1         | 3M731    | Lower Control Arm                        | 1         |
| 3M481    | Auxiliary Gas Line                      | 1         | 3M732    | Upper Control Rod Hinge Pin              | 1         |
| 3M483    | Valve, Gas Tank Relief Valve, Fuel Pump | 1         | 3LGS734  | Washer (Co-Pilot Bracket and Pivot Tube) | 1         |
|          | Valve, Fuel Outlet                      | 2         | 6MGS735  | Control Cam                              | 1         |
| 3M484    | Connector, Fuel Pump Inlet              | 1         | 3M763    | Control Arm Pivot Hinge Pin              | 1         |
| 6LL485   | Fuel Pump Lock Ring                     | 1         | 3M850    | Gas Tank Fuel Outlet                     | 1         |
| 3M486    | Fuel Pump Mounting Plate                | 1         | 6M862    | Engine Cover Catch                       | 1         |
| 3M487    | Fuel Pump Body                          | 1         | 6M870    | Lower Engine Cover Bracket               | 1         |
| 3M488    | Fuel Pump Diaphragm                     | 1         | 6M875    | Lower Engine Cover                       | 1         |
| 3M491    | Fuel Pump Gasket                        | 1         | 3M877    | Engine Cover Screen                      | 1         |
| 6LL492   | Fuel Pump Spring Guide                  | 1         | 3M887    | Gas Tank Gasket                          | 2         |
| 6LL493   | Fuel Pump Spring                        | 1         | 6M889    | Gas Tank                                 | 1         |
| 6M500    | Control Pitman Assembly                 | 1         | 6M890    | Gas Tank Assembly                        | 1         |
| 6LL501   | Magneto                                 | 1         | 3M891    | Gas Tank Handle                          | 1         |
| 6MGS503  | Magneto Clamp Screw                     | 2         | 3M893    | Washer, Gas Tank Handle                  | 4         |
| 3L505    | Flywheel Key                            | 1         | 3MGS901  | "Champion" Gear Shift Decal              | 2         |
| 6M509    | Stator Shaft Arm                        | 1         | 6LL909   | Choke Decal                              | 1         |
| 3M511    | Stator Plate Control Arm                | 1         | 2M911    | "Champion" Emblem Decal                  | 1         |
| 6M511    | Stator Plate Indicator                  | 1         | 6MGS912  | Stop - Slow Shift Range Decal            | 1         |
| 6M518    | Control Shaft Bracket                   | 1         | 6MGS913  | Start - Fast Decal                       | 1         |
| 6LL520   | Flywheel Assembly                       | 1         | 6MGS914  | Instruction Decal                        | 1         |
| 2K551    | Starter Plate                           | 1         | 6MGS916  | Forward - Neutral - Reverse Decal        | 1         |
| 1J573    | Gas Cap Vent Screw                      | 1         | 6M917    | "15" Horsepower Decal                    | 1         |
| 1J574    | Washer, Gas Cap Vent Screw              | 1         | 6M918    | Feather Weight "15" Decal                | 2         |
| 1J579    | Gasket, Gas Cap                         | 1         | 3M919    | Cruising Tank Decal                      | 2         |
| 1K580    | Gas Cap Assembly                        | 1         | 3M933    | Steering Handle Spring Washer            | 1         |
| 3M605    | Ready Pull Handle                       | 1         | 3M938    | Pivot Stop Washer                        | 2         |
| 3M606    | Handle Cable Lock                       | 1         | 3M939    | Pivot Bolt Key                           | 1         |
| 3M610    | Starter Rope Assembly                   | 1         | 3M940    | Co-Pilot Bolt Assembly                   | 2         |
| 2K611    | Starter Spring Anchor Screw             | 1         | 3LGS941  | Anti-cavitation Plate Nut                | 1         |
| 6M613    | Starter Recoil Spring                   | 1         | 3LGS942  | Water Pump End Plate (Bottom)            | 1         |
| 2L620    | Starter Spool Assembly                  | 1         | 3M943    | Washer, Shoulder Bolt                    | 1         |
| 6LL622   | Starter Ratchet Spring                  | 2         | 3M945    | Washer, Shoulder Bolt Lock               | 1         |
| 2K626    | Spring Washer                           | 1         | 3M946    | Shoulder Bolt Lock                       | 1         |



| Part No. | Description                               | No. Req'd | Part No. | Description  | No. Req'd |
|----------|---|-----------|----------|--|-----------|
| 3M947    | Pin, Tilting Bracket Cam Stud             | 1         | 1J2005   | Screw, Gas Tank Handle   | 4         |
| 6M951    | Spray Plate                               | 1         | 3LGS2006 | Screw, Lower Shift Rod Lock                                    | 1         |
| 6M972    | Spacer, Top Main Bearing                  | 1         | 3M2008   | Fuel Pump Screw  | 4         |
| 1J1001   | Water Line Grommet                        | 1         | 3M2102   | Shroud Screw, Rear   | 2         |
| 6M1006   | Top Main Bearing Seal                     | 1         | 1J2201   | Center Main Bearing Screw                                      | 2         |
| 6M1007   | Water Passage Tube "O" Ring               | 1         | 3M2209   | Screw, Upper Control Arm                                       | 1         |
| 3LGS1011 | Anti-cavitation Plate "O" Ring            | 1         | 6LL2213  | Screw, Stator Shaft Arm Pivot                                  | 1         |
|          | Rocker Arm Guide "O" Ring                 | 1         | 3M2214   | Screw, Control Shaft Arm Pivot                                 | 1         |
| 2LH1013  | Water Line "O" Ring                       | 1         | 3M2215   | Set Screw, High Speed Adj. Knob                                | 1         |
| 2LH1015  | Propeller Shaft Seal                      | 1         | 3L2408   | Magneto Mounting Screw   | 4         |
| 2LH1016  | Lower Unit Cap Seal                       | 1         | 4K2409   | Lower Shroud Screw, Rear                                       | 2         |
| 2LH1017  | Ball Bearing Lock Ring Seal               | 1         | 2LH2412  | Screw, Pivot Base and Driveshaft Housing                       | 2         |
| 6M1018   | Bearing Adaptor "O" Ring                  | 1         | 2LH2414  | Starter Rope Anchor Screw                                      | 1         |
| 3LGS1019 | Driveshaft Seal                           | 1         | 3M2417   | Lower Cavitation Plate Screw                                   | 2         |
| 3L1100   | Needle Bearing, Center Main               | 36        | 2J2501   | Nut, Control Cable Bracket                                     | 1         |
| 6M1102   | Wrist Pin Bearing                         | 4         | 1J2502   | Flywheel Nut   | 1         |
| 4LS1103  | Connecting Rod Needle Bearing             | 128       | 6M2505   | Nut Retainer, Engine Cover Catch                               | 1         |
| 6M1104   | Main Bearing                              | 3         | 1J2601   | Motor Base Nut   | 2         |
| 2LH1110  | Propeller Shaft Ball Bearing              | 1         | 1J2602   | Crankcase and Cylinder Block Nut                               | 1         |
| 3LGS1111 | Lower Unit Housing Ball Bearing           | 1         | 3LGS2603 | Lower Unit and Driveshaft Housing Nut                          | 2         |
| 3M1199   | Cotter Pin, Tilting Bracket Shoulder Bolt | 1         | 6M2607   | Carburetor Nut   | 2         |
|          | Cotter Pin, Reverse Lock Catch Pin        | 1         | 1J2701   | Co-Pilot Tension Adjustment Nut                                | 1         |
| 1J1200   | Propeller Nut Cotter Pin                  | 1         | 2K2703   | Nut, Co-Pilot Cushion  | 2         |
| 1J1203   | Synchronous Control Arm Spring Cotter     | 1         | 3M2704   | Nut, Tilting Bracket Bolt                                      | 1         |
| 3M1211   | Clip, Shroud Screw                        | 2         | 3M2705   | Lock Nut, Shoulder Bolt  | 1         |
| 2K1212   | Starter Spool Lock Ring                   | 2         | 1J2900   | Pivot Base Screw Lock Washer                                   | 7         |
| 3M1223   | Clamp, Gas Line                           | 5         |          | Cyl. Block and Crankcase Lock Washer                           | 6         |
| 6M1226   | Snap Ring, Throttle Control Pin           | 1         |          | Lock Washer, Pivot Base and Driveshaft Housing Bolt            | 1         |
| 2LH1230  | Lower Unit Ball Bearing Snap Ring         | 1         |          | Lower Unit and Driveshaft Housing Stud Lock Washer             | 1         |
| 2LH1231  | Propeller Shaft Snap Ring                 | 1         | 1J2906   | Lock Washer, Control Guide                                     | 2         |
| 2LH1232  | Cotter, Upper Control Rod Hinge Pin       | 1         |          | Lock Washer, Control Shaft Bracket                             | 3         |
| 3M1237   | Snap Ring, Swivel Lock Pin                | 1         | 1J2907   | Lock Washer, Carburetor Nut                                    | 2         |
| 1J1601   | Shroud Screw, Front                       | 1         |          | Lock Washer, Tilting Bracket Cam Stud                          | 1         |
| 1J1602   | Stator Plate Control Screw                | 2         | 3M2908   | Lock Washer, Upper Control Arm                                 | 1         |
| 3M1607   | Screw, Co-Pilot Fibre                     | 3         | 4K2910   | Lock Washer, Fuel Pump Screw                                   | 4         |
| 6MGS1611 | Screw, Control Cable Mount Bracket        | 1         |          | Lock Washer, Cont. Cable Brkt. Steering Handle Cap Lock Washer | 2         |
| 1J1701   | Pivot Base Screw (Rear)                   | 1         | 1K2911   | Flywheel Nut Lock Washer                                       | 1         |
| 1J1702   | Pivot Base Screw                          | 2         | 3LGS2912 | Lower Unit Body Stud Lock Washer                               | 1         |
|          | Cylinder Block and Crankcase Screw        | 5         | 6MGS2913 | Lock Washer, Control Cable Mount Bracket                       | 1         |
| 6LL1705  | Screw, Control Shaft Bracket              | 3         | 6M2915   | Lock Washer, Shroud Screw, Rear                                | 2         |
| 1J1706   | Screw, Adjustment Link                    | 1         | 1J3000   | Starter Spring Dowel Pin                                       | 1         |
| 1J1708   | Screw, Water Passage Cover Plate          | 4         | 6M3010   | Center Main Bearing Dowel                                      | 1         |
|          | Screw, Control Guide                      | 2         | 4LH3118  | Starter Plate Rivet  | 3         |
|          | Screw, Upper Control Arm Bushing          | 1         | 6M3300   | Spark Plug   | 2         |
| 3M1714   | Screw, Control Cable Bracket              | 1         |          |  |           |
|          | Screw, Steering Handle Cap                | 2         |          |  |           |
| 3M1716   | Exhaust Manifold Screw                    | 8         |          |  |           |
| 6M2000   | Pivot Base and Lower Engine Cover Screw   | 2         |          |  |           |
| 1J2004   | Motor Base Screw                          | 2         |          |  |           |



BE SURE TO GIVE MODEL AND SERIAL NUMBER OF MOTOR WHEN ORDERING PARTS

| Part No. | Description                   | No. Req'd | Part No. | Description                                     | No. Req'd |
|----------|-------------------------------|-----------|----------|---|-----------|
| 3M3401   | Carburetor Inlet Elbow        | 1         | 6MGS3509 | Pin, Shift Control Stop                         | 1         |
| 3M3404   | Connector, Gas Tank           | 1         | 6MGS3510 | Pin, Shift Control Lock                         | 1         |
| 3LGS3501 | Water Pump Rotor Pin          | 1         | 3LGS3601 | Crankcase Plug                                  | 2         |
| 3LGS3503 | Rocker Arm Guide Pin          | 1         | 3M3700   | Socket Screw Wrench, High Speed Adjustment Knob | 1         |
| 3M3507   | Groove Pin, Control Pivot Cam | 1         |          |   |           |
| 6M3508   | Pin, Steering Handle          | 1         |          |   |           |

## ASSEMBLIES

| Part No.  | Description   | No. Req'd | Part No.    | Description   | No. Req'd |
|-----------|---|-----------|-------------|---|-----------|
| 6MGS720   | Steering Handle Sub-Assembly (includes 3M94, 6MGS100, 6M446, 6M448, 6M715, 6M716, 6M717, 6M719, 6M721, 6M722, 6M723 (2), 6M726 (2), 6M728, 6M1226, 6MGS1611, 6MGS2813)  | 1         |             | 2LH1016, 2LH1017, 2LH1110, 3LGS1111, 2LH1230, 2LH1231, 3M2417)  | 1         |
| 6M890     | Complete Gas Tank Assembly (includes 6M422, 6LL480, 3M481, 3M483, 1K580, 3M887 (2), 6M889, 3M891, 3M892, 3M893 (4), 3M850, 6M914, 3M919 (2), 3M1223, 1J2005 (4), 3M3205, 3M3404)  | 1         | 6LLGS990-18 | Connecting Rod and Piston Assembly (includes 6M240, 6M247 (2), 6M248, 6M250, 6M1102 (2), 4LS1103 (64))  | 2         |
| 3LGS990-1 | Lower Unit Body Sub-Assembly (includes 3LGS1, 2LH18, 2LH21)   | 1         | 6MGS990-22  | Starter Housing Assembly (includes 3M610, 6M613, 2L620, 6LL622 (2), 2K626, 2K630, 2L635, 6M641, 2K1212 (2), 2LH2414)  | 1         |
| 6MGS990-6 | Lower Unit Assembly (includes 3LGS990-1, 3LGS2, 2LH5, 3LGS10, 1J14, 3LGS15, 1J16 (2), 2LH16, 2LH17, 3LGS19, 3LGS20, 6MGS25, 3LGS27, 4LGS29, 3LGS32, 3MGS37, 3M40, 3M43, 3LGS81, 3LGS111, 3LGS112, 3LGS118, 3LGS119, 3LGS123, 6MGS125, 3LGS127, 3LGS1011, 2LH1015, | 1         | 3MGS990-23  | Gas Tank Handle Assembly (includes 3M483, 3M891, 3M892, 3M3205)   | 1         |
|           |   |           | 6MGS990-28  | Complete Set of Gaskets (includes 3LG15, 1J16 (2), 2LH16, 2LH17, 3MGS89, 6M106 (2), 6M108, 6M206, 6M223, 6M224, 6M401, 3M491, 1J574, 1J579, 3M887 (2), 3LGS1011 (2), 2LH1015, 2LH1016, 2LH1017, 6M1018, 3LGS1019) | 1         |
|           |   |           | 3MGS990-32  | Ready Pull Handle Assembly (includes 3M605, 3M606)  | 1         |

\* NOTE: The model and serial number of your motor must be furnished when ordering parts.

Keep in mind that your Champion dealer is always ready and anxious to be of service to you. See him should there be some questions about your motor which you do not understand.



## WARRANTY    ADJUSTMENT    AGREEMENT

Champion Motors are warranted to be free from defects in material and workmanship under normal use and service for a period of 90 days from the date of purchase. Our obligation under this warranty is limited to replacement only by an authorized Champion Dealer or Service Station any part or parts of said product that in our judgment show evidence of such defect, provided that said product shall have been registered by returning the Guarantee Registration card within the period specified from date of purchase and provided further that said product shall be returned to the authorized Champion Dealer or Service Station by the purchaser.

The warranty does not imply or carry with it the obligation of the Company to pay any labor or transportation charges.

The warranty is expressly in lieu of all other warranties and of all other obligations on our part, and no representative or other person is authorized or permitted to make any warranty or to assume for this Corporation any liability not strictly in accordance with the foregoing.

The warranty shall not apply to any product which has been tampered with or altered in any way or which has been subject to misuse, negligence, accident, or which has the serial number altered, effaced, or removed.

CHAMPION MOTORS CO.



# Golden Rules of Outboarding

- 1** Respect the rules and regulations of waterway travel. Accidents can be eliminated if everyone possesses a thorough knowledge of outboard boating rules and ethics and then lives up to them.
- 2** Never cause undue disturbance by running your motor with open exhaust. Be considerate of those who may be seeking the peace and quietness they had hoped their lake place would give them.
- 3** Assist your fellow outboard enthusiasts should they be in trouble and need help. Perhaps your knowledge of boat and motor operation will help him to solve his problem and likewise add to his hours of pleasure.
- 4** Avoid running too close to boats containing fishermen so as not to spoil their favorite phase of outdoor recreation. This is one of the many rules of good sportsmanship.
- 5** Never overload your boat. Make sure that it is of proper size, construction and in good condition then carry only the number of passengers it can transport safely. When renting a boat, inspect it carefully and follow the above suggestions.
- 6** Avoid stormy weather. If you are caught out in a heavy storm, proceed at moderate speed, seat all passengers on the floor, head into the wind at a slight angle and remain calm.
- 7** Give the right-of-way to larger craft. Your small outboard is more easily maneuvered than larger boats. Practice good seamanship; give all boats a wide berth when passing.
- 8** It is good sportsmanship to give the swimmer a fair break. Never run your boat near a swimming beach. Should it be necessary to do so, slow down and observe the rules of good seamanship.
- 9** Don't stand up. Standing up in any small boat can be dangerous. Sit down! It's safer.
- 10** The fire hazard is very remote, however it is wise to practice precaution at all times where there is gasoline.

Practice good sportsmanship and regard for others when traveling the waterways. Outboard boating is a pleasant, healthful form of recreation. Help others enjoy it!

## CHAMPION MOTORS CO.

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