

parts dept

20

Sears

**owners
manual**

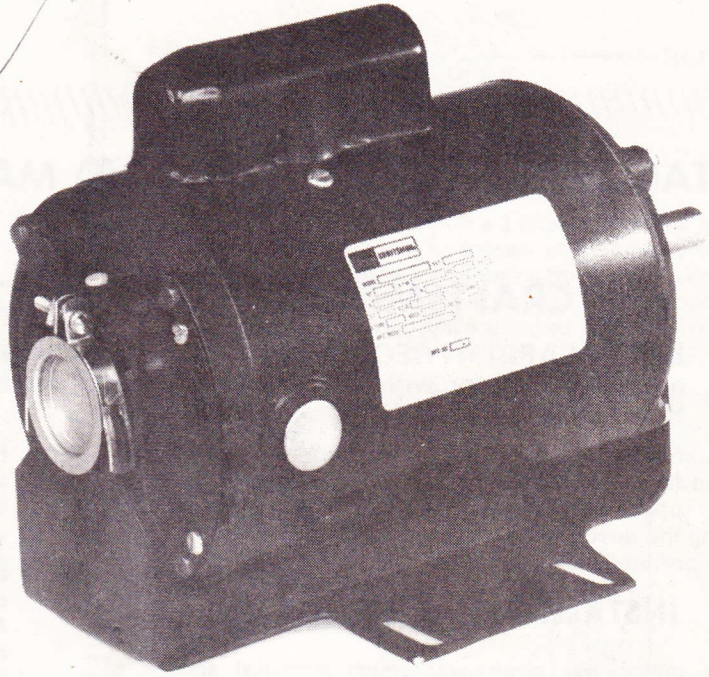
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**MODEL No.
113.12172**

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Sears Repair

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Relax



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CAUTION:

READ
INSTRUCTIONS
and
SAFETY
PRECAUTIONS
carefully

**DO NOT
DESTROY
SAVE FOR
FUTURE
REFERENCE**

CRAFTSMAN

catalog #
F9BT12005
119 99

**1 H.P. CAPACITOR START
A.C. MOTOR**

- *installation*
- *repair parts*

SEARS, ROEBUCK AND CO., Chicago, Il. 60684 U.S.A.
and SIMPSONS-SEARS LIMITED, Toronto

FULL ONE YEAR WARRANTY ON CRAFTSMAN MOTORS

If this Craftsman motor fails to give complete satisfaction within one year from the date of purchase, return it to the nearest Sears store throughout the United States and Sears will replace it free of charge.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SEARS, ROEBUCK AND CO.
BSC 41-3
SEARS TOWER
CHICAGO, IL 60684

INSTALLATION, CONNECTION AND MAINTENANCE INSTRUCTIONS FOR CRAFTSMAN MOTOR - MODEL NO. 113.12172

EXTRA SAFETY PRECAUTIONS: Motor must be properly grounded. (See figure 4). Do not operate motor with key and key clip loose on shaft. Keep hands and clothing away from moving parts.

This Craftsman Motor is of the capacitor start type designed for use on a single-phase, 60-cycle, alternating-current supply of 115 volts, with a simple means of reversing the direction of rotation provided. The motor may be operated in any position.

INSTALLING THE MOTOR

1. This motor was given a thorough electrical and mechanical inspection before it was shipped from the factory. In order to make sure that no damage has occurred during shipment, the following check procedure should be made before mounting the motor in the particular application for which it was purchased.
 - a. Remove key and key clip from shaft.
 - b. Rotate the shaft with the fingers to make sure it turns freely and smoothly.
 - c. Clamp motor base to work bench or table. Insure motor is properly grounded. Do not touch motor while it is energized. Temporarily connect motor to the proper voltage supply in accordance with instructions under "Connecting the Motor". When energized, the motor should operate with only a small amount of electrical "hum" and very low bearing noise.
 - d. Notice direction of shaft rotation to make sure it is correct for the equipment to be driven. If direction of rotation is not correct, reverse rotation as outlined in instructions listed under "Connecting the Motor".
2. Disconnect the motor from temporary power source and mount it in the application for which it was purchased.
3. The motor should be installed in a location as cool and dry as possible and should be protected against excessive deposits of dust, dirt, and moisture. (See figure 1 for mounting dimensions.) The motor must not be confined in a small space that will restrict the flow of cooling air over internal electrical windings.
4. Before tightening the motor mounting bolts, make sure all four mounting points of the base are in contact with the surface to which the motor is being attached. If the motor base does not contact the mounting surface properly, the base (or support) may be warped or cracked when mounting bolts are tightened.
5. Make sure all pulleys are tightened securely on their shafts and correctly aligned. Proper pulley alignment may be obtained by holding a straight edge across the flat sides of the pulleys and adjusting to it. (See figure 2.)
6. Adjust the belt tension so that pressure of fingers on the belt will deflect it readily as shown in figure 3. Excessive belt tension increases the load on the motor and decreases bearing life. Loose belts reduce operating efficiency and shorten belt life.
7. After the motor base has been properly adjusted to the mounting bracket, tighten all motor mounting bolts securely.

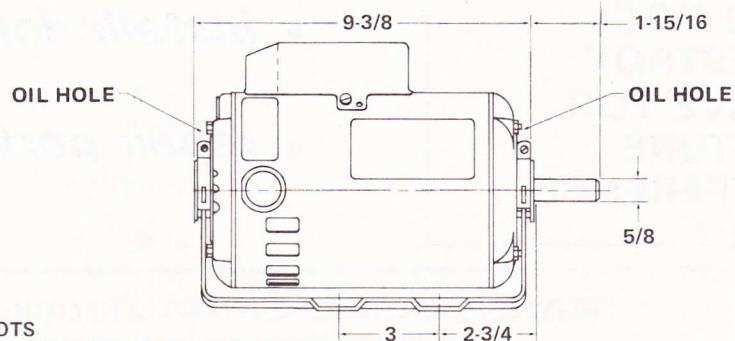
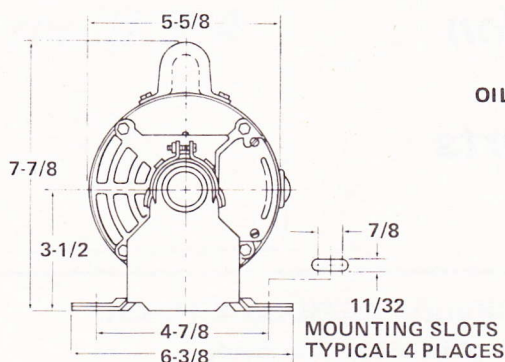


Figure 1

NOTE: In order to prevent accumulation of static electric charges due to belt friction, the motor frame or base should be grounded to a cold water metal pipe which is continuous to earth ground. A metallic connection should also be provided between the motor and the device being driven.

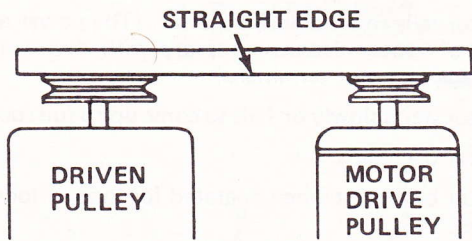


Figure 2

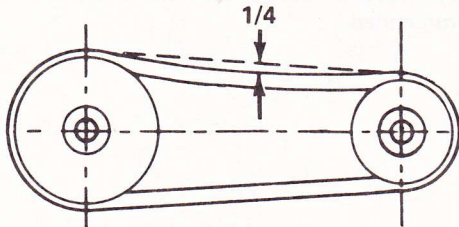


Figure 3

CONNECTING THE MOTOR

CAUTION: This motor will be damaged if connected to a current source other than the voltage and frequency specified on the nameplate.

1. The motor must be operated on single-phase, 115-volt, 60-cycle ac power when connected as outlined in instructions that follow. Wires are color coded to make connections easy to accomplish.
2. Connections between motor and power source should be made through a switch and fuse block. Use a 20 ampere fuse preferably of the delayed-action type.
3. The wire sizes listed below are recommended for circuit connections between motor and power supply.

Length of Three-Conductor Extension	Wire Size Required (American Wire Gauge No.)
100 feet or less	No. 10
100 feet to 150 feet	No. 8
150 feet to 200 feet	No. 6
200 feet to 400 feet	No. 4

NOTE: For circuits of greater length, the wire size must be increased proportionally.

4. A 48-inch, 3-conductor (center ground wire) cord and plug assembly is attached at the factory, with the two power leads connected to the quick connect tabs adjacent to terminal posts "T1" and "T4". (See figure 4.) In event this cord is removed and the motor wired for a permanent installation, connect one power lead to terminal "T1" (or quick connect tab adjacent to it). Connect the other power lead to terminal "T4" (or quick connect tab adjacent to it). Connect the ground wire to the green ground screw located just under the terminal cover.
5. The Black and Red motor leads are connected to quick connect tabs "A" and "B" on terminal board. (See figure 4.)

NOTE: To reverse direction of rotation, interchange position of Black and Red motor leads.

WARNING: Do not change any of these connections with current on.

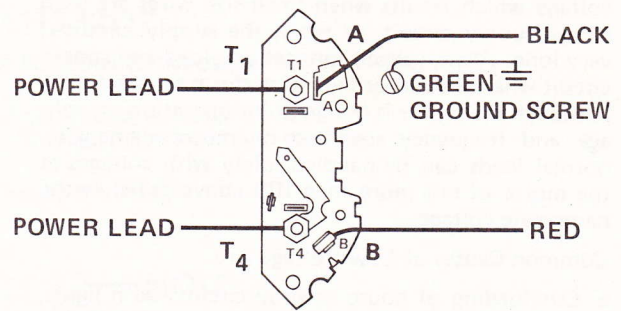


Figure 4

6. This motor is equipped with a 3-prong connector plug as a safety measure. The longest of the three prongs is connected to the motor housing through the power cord. Be certain the plug is inserted into a properly grounded receptacle. When using an extension cord, make sure it is also a 3 wire cable. (See figure 5.)

CAUTION: MAKE SURE RECEPTACLE IS PROPERLY GROUNDED.

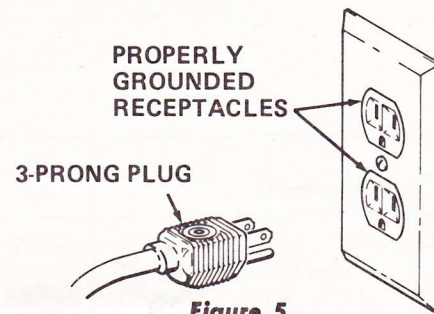


Figure 5

LUBRICATION AND MAINTENANCE

1. The sleeve bearings, in both end shields of the motor, have been lubricated at the factory with correct lubricant. No other part of the motor requires lubrication.
2. Re-lubricate motor bearings in accordance with the instructions on the nameplate. (See figure 1.) Be sure to wipe off dirt or grit if present around oil holes to prevent any possibility of foreign material contaminating the oil wicks that supply the bearings with oil. Use a good grade of medium weight mineral oil, such as automobile engine oil, SAE 20.
3. If disassembly of the motor is necessary, it should be returned to your nearest Sears retail or mail-order store in order to prevent voiding the guarantee.

NOTE: The speed of this motor cannot be regulated or changed.

4. Every effort should be made to prevent foreign material from entering the motor. When operated under conditions likely to permit accumulations of dust, dirt, or waste within the motor, a visual inspection should be made at frequent intervals. Accumulations of dry dust can usually be blown out successfully.

NOTE: Motors used on wood-working tools are particularly susceptible to the accumulation of sawdust and wood chips and should be blown out or "vacuumed" frequently to prevent interference with normal motor ventilation and proper operation of the centrifugally-operated starting switch.

5. Many motor troubles may be traced to loose or incor-

rect connections; to overloading; to reduced input voltage which results when small size wires are used in the supply circuit, or when the supply circuit is very long. Always check connections, load and supply circuit when the motor fails to perform satisfactorily. Although the motor is designed for operation on voltage and frequency specified on motor nameplate, normal loads can be handled safely with voltages at the motor of not more than 10% above or below the nameplate voltage.

6. Common Causes of Low Voltage Are:

- a. Overloading of house or shop circuits with lights, electrical appliances or other motors.
- b. Undersized wires in supply circuits or extension cords.
- c. General overloading of the power company's facilities. (In many sections of the country, demand for

electrical power exceeds the capacity of existing generating and distribution systems. If it is suspected that voltage being supplied is low, request a voltage check from the power company.)

7. Some Effects of Low Voltage Are:

- a. Motor fails to develop full power. (The power output of motor decreases rapidly with decrease in voltage at motor terminals.)
- b. Motor starts slowly or fails to come up to full speed.
- c. Motor overheats.
- d. Motor burns out when operated for long periods of time.
- e. Frequent opening of fuses or circuit breakers. (This may also result if motor is overloaded, or if the motor circuit is fused with a fuse other than those recommended.)

PARTS LIST FOR CRAFTSMAN 1 H.P. CAPACITOR START A.C. MOTOR

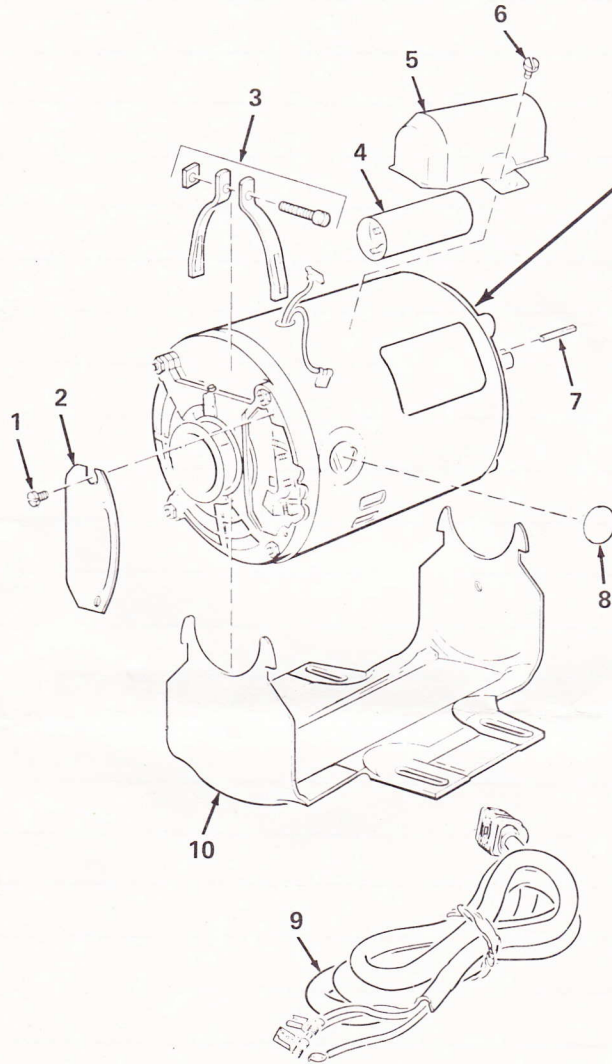
MODEL NUMBER 113.12172

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST:

1. THE PART NUMBER
2. THE PART DESCRIPTION
3. THE MODEL NUMBER - 113.12172

4. THE NAME OF ITEM - 1 H.P. CAPACITOR START A.C. MOTOR

Always Order by Part Number - not by Key Number



NOTE:

ANY ATTEMPT TO REPAIR THIS MOTOR MAY CREATE A HAZARD UNLESS REPAIR IS DONE BY QUALIFIED SERVICE TECHNICIAN.

REPAIR SERVICE IS AVAILABLE AT YOUR NEAREST SEARS STORE.

Key No.	Part No.	Description
1	60306	Screw, 8-32 x 3/8, Thread Cutting, Slotted, Serrated Hd.
2	64088	Cover, Terminal
3	64089	Clamp, Base
4	37588	Capacitor
5	37587	Cover, Capacitor
6	64142	Screw, 10-32 x 3/16, Thread Forming, Serrated Hd.
7	30789	†Key, Shaft 3/16 x 1-1/4
8	37189	Plug, Conduit
9	64258	Cord with Plug
10	64321	Base
	64688	Owners Manual (Not Shown)

† Catalog Item

Figure 6

Sears

**owners
manual**

**MODEL No.
113.12172**

**Sears
SERVICE
is at
YOUR
SERVICE
wherever YOU
live or move
in the U.S.A.**

How To ORDER Repair Parts

The Model Number will be found on the nameplate attached to your motor. Always mention the Model Number when requesting service or repair parts.

All parts listed herein may be ordered through SEARS, ROEBUCK AND CO. or SIMPSONS-SEARS LIMITED. When ordering parts by mail, selling prices will be furnished on request or parts will be shipped at prevailing prices and you will be billed accordingly.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

1. The PART NUMBER
2. The PART DESCRIPTION
3. The MODEL NUMBER 113.12172
4. The NAME OF ITEM — 1 H.P. CAPACITOR START A.C. MOTOR

Your Sears merchandise takes on added value when you discover that Sears has over 2,000 Service Units through out the country. Each is staffed by Sears-trained, professional technicians using Sears approved parts and methods.

**SEARS, ROEBUCK AND CO., Chicago, Il. 60684 U.S.A.
and SIMPSONS-SEARS LIMITED, Toronto**