OPERATING INSTRUCTIONS AND PARTS LIST FOR CRAFTSMAN 1/2 H. P. CRAFTSMAN 1/2 H. P. DOUBLE SHAFT EXTENSION 115 Volts, 60 Cycles, 1725 R.P.M.

MODEL NUMBER 113.12140

This is the Model Number of Your Craftsman Motor. It will be found on the nameplate attached to the motor. Always mention the Model Number when communicating with us regarding your motor or when ordering parts.

SAFETY PRECAUTION

Carefully read these instructions and observe all of the safety precautions included to obtain longest trouble-free service from your new Craftsman motor.

HOW TO ORDER REPAIR PARTS

All parts listed herein may be ordered through SEARS, ROEBUCK AND CO. When ordering parts by mail from the mail order house which serves the territory in which you live, 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 NAME.
3. The MODEL NUMBER 113.12140.
4. The NAME of Item—½ H.P. Motor.

COAST TO COAST NATION-WIDE SERVICE FROM SEARS FOR YOUR CRAFTSMAN MOTOR

PROTECTIVE Sears Care MAINTENANCE

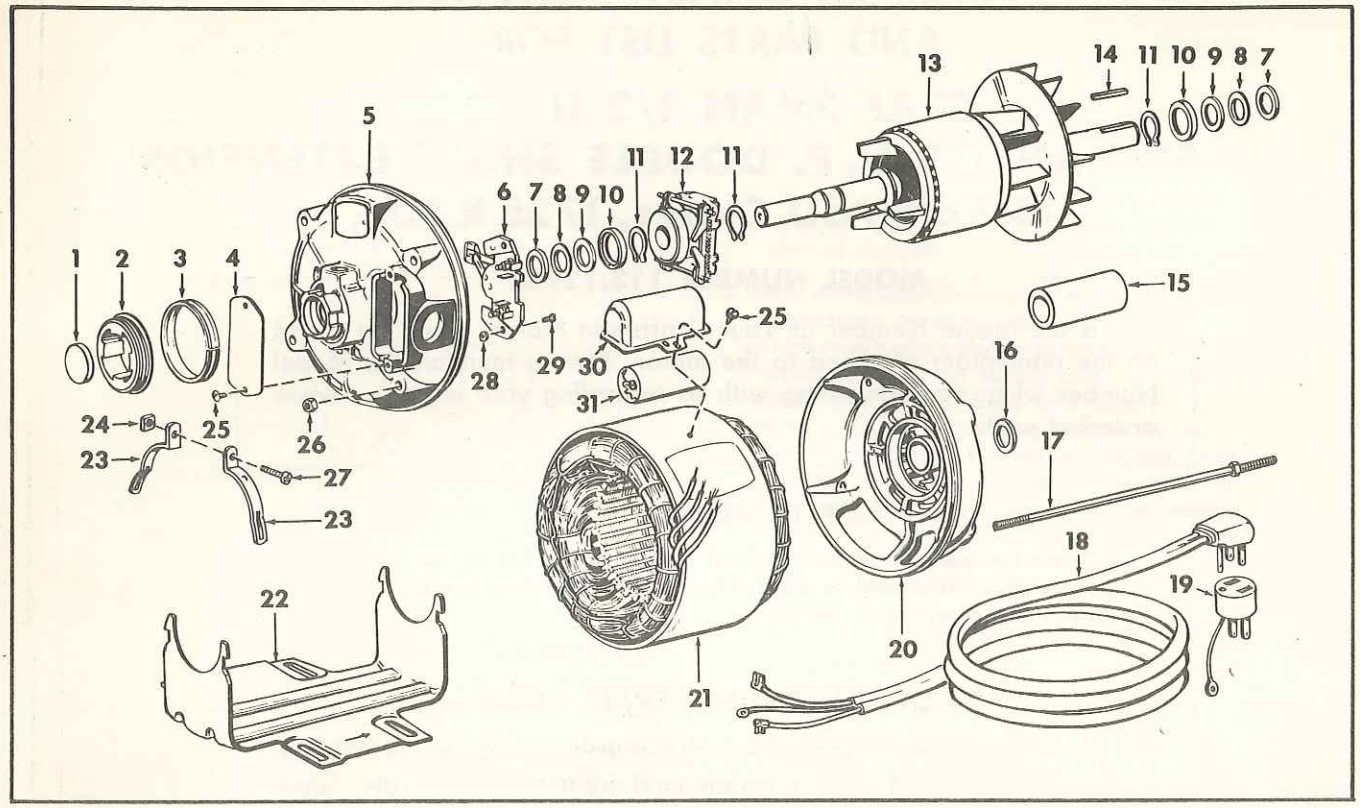
SEARS, ROEBUCK AND CO. backs up your investment with quick, expert mechanical service and genuine CRAFTSMAN replacement parts.

If and when you need repairs or service, call on us to protect your investment in this fine piece of equipment.

SEARS, ROEBUCK AND CO.—U. S. A.
IN CANADA, SIMPSONS-SEARS LIMITED

Printed in U. S. A.
Part No. 37609

CRAFTSMAN 1/2 H. P. CAPACITOR START TYPE ELECTRIC MOTOR
MODEL NUMBER 113.12140



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

1. THE PART NUMBER
2. THE PART NAME
3. THE MODEL NUMBER 113.12140
4. THE NAME OF ITEM — ½ H. P. MOTOR

Always order by Part Number — not by Key Number

PARTS LIST

Key No.	Part No.	Description
1	37575	Cap, Bearing, Cad. Pl.
2	30760	Ring, Mounting
3	30761	Ring, Outer (For Hub Ring)
4	30763	Cover, Terminal
5	37562	Shield Assy., End (Terminal Plate End)
6	37563	Switch Assy., Starting
7	30766	Washer, End Play (Plastic)
8	30767	Washer, End Play (Steel)
9	30768	Washer, Thrust (Rubber)
10	30769	Retainer, Thrust Washer
11	30783	Ring, Retaining
12	30770	Actuator Assy., Centrifugal
13	37602	Rotor Assy.
14	30789	Key, Shaft
15	37574	Guard, Shaft
16	30779	Washer, Oil Sling (Rubber)
17	37148	Stud, Stator
18	37567	Plug and Cord
19	37568	Plug, Adapter
20	37153	Shield Assy., End (Shaft Extension End)

Key No.	Part No.	Description
21	37610	Stator Assy.
22	37604	Base
23	30762	Clamp, Base
24	120611	*Nut, Sq. No. 10-32 x 3/8 x 1/8, Cad. Pl.
25	9404171	Screw, No. 6-32 x 5/16 Type 23, Pan Hd., Cad. Pl.
26	120614	*Nut, Hex, No. 10-32 x 3/8 x 1/8, Cad. Pl.
27	132133	Screw, Mach., No. 10-32 x 1 Fil. Hd., Cad. Pl.
28	120622	*Nut, Hex, No. 8-32 x 11/32 x 1/8, Cad. Pl.
29	447811	Screw, No. 8-32 x 3/8 Type 23, Pan Hd., Cad. Pl.
30	37587	Cover, Capacitor
31	37611	Capacitor
Not Shown	37609	Operating Instructions and Parts List for Craftsman 1/2 H. P. Motor Model Number 113.12140

*Standard Hardware Item — May be Purchased Locally.

MOUNTING, CONNECTION AND MAINTENANCE INSTRUCTIONS FOR CRAFTSMAN MOTOR MODEL NO. 113.12140

This Motor, as Shipped, is Connected for 115-Volt Operation

EXTRA SAFETY PRECAUTIONS: Connect to 115 volts. Use a 10 ampere fuse. Ground motor frame. Disconnect power supply before making or changing connections, or removing capacitor cover or terminal cover. Keep unused shaft extension covered with shaft guard. 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.

MOUNTING 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. Rotate the shaft with the fingers to make sure it turns freely and smoothly.
   b. Clamp motor base to work bench or table and connect motor to the proper voltage supply temporarily 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.
   c. 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 and dirt. (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.
   NOTE: In order to prevent accumulation of static electric charges due to belt friction, the motor frame or base should be grounded to a water or steam pipe. A metallic connection should also be provided between the motor and the device being driven.
8. Included with this motor is a new molded shaft guard that can be easily twisted into place over the unused shaft extension as an extra safety feature.

CONNECTING THE MOTOR

CAUTION: This motor will be damaged if connected to a current source other than 60-cycle alternating-current (ac).

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 10-ampere fuse, preferably of the delayed-action type, such as "Fustat" or "Fusetron", as they are designed to meet the demands of motor protection.
3. The wire sizes listed below are recommended for circuit connections between motor and power supply, or extension cords (if used).

Length of Three-Conductor Extension	Wire Size Required (American Wire Gauge No.)
150 feet or less	No. 12
150 feet to 200 feet	No. 10
200 feet to 350 feet	No. 8

   NOTE: For circuits of greater length, the wire size must be increased proportionally.
4. This motor is wired at the factory with a 48-inch, 3-conductor (center ground wire) cord and plug and connected for clockwise rotation (facing switch end of motor). In event the cord is removed and the motor wired for a permanent installation, connect the ungrounded supply line to terminal No. 1 (either the terminal post or quick connect tab adjacent to it). Connect the grounded supply line to terminal No. 4 (either the terminal post or quick connect tab next to it). (See figure 4.)
   NOTE: To reverse direction of rotation, interchange position of the blue and yellow leads. (See figure 4.)

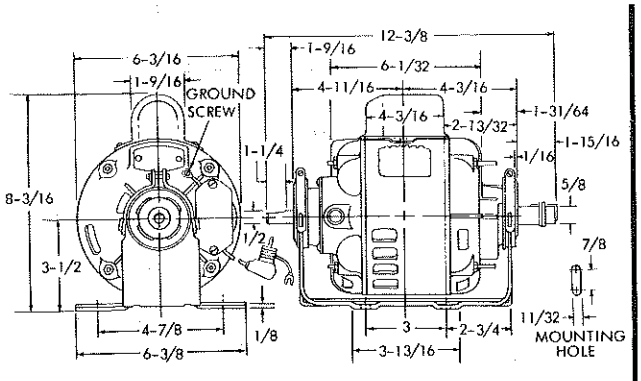


Figure 1

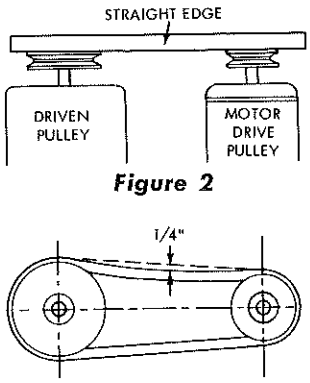


Figure 2

Figure 3

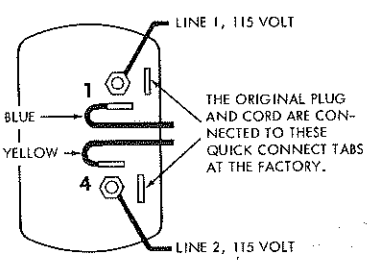


Figure 4

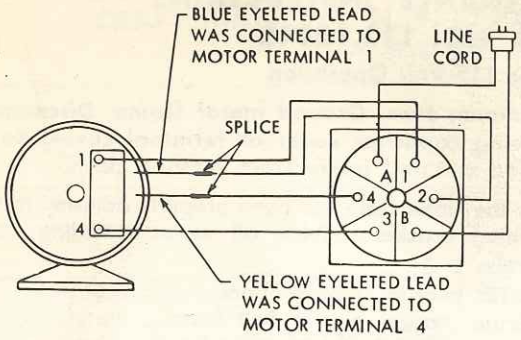


Figure 5

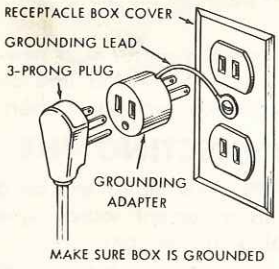


Figure 6

5. The motor cord has the ground wire connected to the motor end shield by a screw. If any other leads are used to connect motor, be sure to use this grounding provision.

6. The motor may be operated with a reversing switch (9M 2982 in catalog). Connect the switch as shown in figure 5. The motor must come to a complete stop before reversing can be accomplished.

   NOTE: If motor rotation does not correspond to switch notations, interchange switch leads 2 and 4 on reversing switch.

7. This motor is equipped with a 3-prong connector plug (Underwriters' Laboratory approved) as a safety measure. The longest of the three prongs is connected to the motor housing through the power cord. When the plug is inserted into a properly grounded receptacle, the user is protected from electrical shock, should the motor insulation fail for any reason. When using an extension cord, make sure it is also a 3-wire cable.

   CAUTION: Many existing receptacle boxes do not have provision for 3-prong plugs and for this reason an adapter is included with the motor. (This adapter is not used in Canada.) To use the adapter, connect the grounding lead to the receptacle box as shown in figure 6, before operating the motor.

LUBRICATION AND MAINTENANCE

1. The sleeve bearings, in both end shields of the motor, have been lubricated at the factory with the correct lubricant. No other part of the motor requires lubrication.

2. In order to relubricate the motor bearings, it is necessary to puncture the top of the rubber oil plug in each end shield. This rubber plug will close after oiling to prevent entrance of foreign material. 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. Most motor troubles may be traced to loose or incorrect 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 will be handled safely on voltages not more than 10% above or below the nameplate voltage. Heavy loads, however, require that voltage at motor terminals be not less than the voltage specified on nameplate.

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. For example: a reduction of 10% in voltage causes a reduction of 19% in maximum power output of which the motor is capable, while a reduction of 20% in voltage causes a reduction of 36% in maximum power output of which the motor is capable.)

   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 when overloaded.

   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. Do not use a fuse of greater capacity without consulting the power company.)

GUARANTEE

This Craftsman Motor was thoroughly inspected and tested before shipment. Should it fail due to faulty material or workmanship, we will repair or replace it, at our option, free of charge if returned to your Sears retail or mail-order store within one year from date of purchase. This guarantee is void if the motor has been tampered with, misused or abused, or if either end shield has been removed in the process of servicing by anyone other than an authorized service station. External parts such as the terminal cover may be removed or replaced without voiding the guarantee.