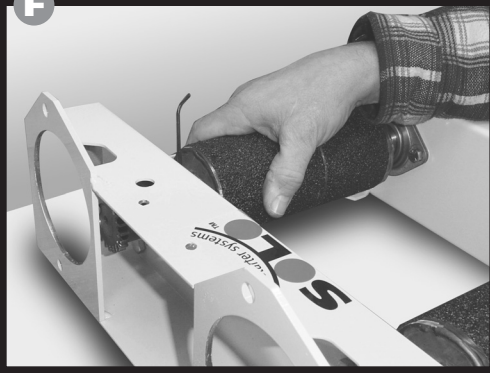


Assembly Instructions

Setting the lateral position of the roller shafts



- A** Working on a clear flat surface, insert roller assembly (3) through motor mount channel (1B) and right channel (2).

NOTE: If using one motor, place geared roller assembly into the ramp end of the frame (where the motor mount plate is welded closest to the edge).

NOTE: The powder coating will fill some holes. Specifically, scrape or lightly grind away paint from motor mount adapter hole and bearing mount holes.

- B** Place crossties (4) inside channels (1B&2) align holes. Rear wheel brackets (11L, 11R) should be placed as shown in exploded view.
- C** Loosely bolt together the frame using 3/8x1" lg. Hex bolts, lockwashers and nuts (14,15,16). Also place 3/8 bolts, nuts, and lock washers through wheel brackets and rear cross tie.
- D** Insert 5/16 x 3/4" lg. Hex bolts, lockwashers, and nuts (16,17,18) through the flange bearings (part of the roller assembly 3) and through the channels (1B&2).

NOTE: Ensure the bolt heads are mounted inside the channel.

- E** Tighten all 3/8 bolts, nuts and lock washers. Proceed in a zigzag pattern. Finally, tighten rear wheel brackets.

THE FOLLOWING PROCEDURE ENSURES MINIMUM GEAR WEAR AND MAXIMUM POWER TRANSMISSION THROUGH THE GEARS.

- F** Move the roller shafts (3) laterally away from the motor plate channel (1B). Ensure rear hub of driven gear is against flange bearing. Using an Allen key, lock all 8 of the set screws in the bearing collars. Using thin strips of duct tape, wrap each collar to ensure that the setscrews cannot loosen and fall out.
- G** Mount a Ford Starter motor in either of the motor plates using 3/8 x 1" hex bolts and nuts. Lock in place.
- H** Remove small retainer screw from the Bendix actuator cover on top of the Ford Starter and remove cover. The actuator lever is now exposed. Depress the lever while gently rocking the roller. The small pinion gear will now engage the affixed drive gear on the end of the roller. With both gears engaged, again rock the roller back and forth and observe the amount of free play between the gears. Generally, it is not possible to create a locking condition between these mating gears. The proper adjustment will allow for a small amount of play between the mating teeth. When this has been set, finger tighten the 5/16 x 1" hex bolts, nuts and lock washers. The final tightening using wrenches, can now be accomplished. Repeat this procedure for the next roller. It is advisable at this time to apply power to the starter(s). This will necessitate the mounting of the solenoid as well as the associated cables and foot switch and battery. (See accompanying drawing for solenoid mounting as well as wiring diagram for switch mounting.) Depress the foot switch and run the SOLO. Observe the engagement and disengagement of the gears. The operation should be smooth and the pinion of the Ford starter should retract smartly when the foot switch is let go. If there should be a "hang gear" condition, (i.e. pinion doesn't retract smartly) repeat the above procedure.

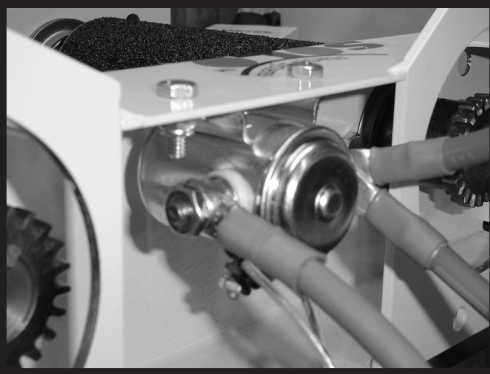
CAUTION: DO NOT FREE RUN STARTER MOTORS EXCESSIVELY, THIS COULD CAUSE DAMAGE TO THE UNITS.

- I** The ramps may now be mounted (7,9) See exploded drawing. The narrow ramp (7) is mounted to the front of the SOLO assembly. Before mounting the side guard (22) ensure all bolts on the frame and all 5/16 bearing flange bolts are secured.
- J** Your SOLO starter is now ready for service.

Allow for a small amount of play between the mating teeth



Solenoid is attached under motor mount channel



View showing motors, solenoid, cables and foot switch



One Motor Option

- A** In right channel (2) mount sprockets (15) on roller ends using 1/4" square keys (19).
- B** Apply Loctite blue to set screws, position and align both sprockets and lock in place using Allen key. Cut thin strips of duct tape and wrap hubs. This ensures that the small setscrews will not be lost if they should work free. Assemble chain onto sprockets with master link. Mount chain tensioner block (17) using 5/16" hex bolts (18).
- C** Mount chain guard using 1/4" bolts, and nuts.

Battery Selection

A deep cycle marine battery (850 CCA or greater) is recommended. Hard wiring is recommended. #4 cable (nominal length-36") should be used between the battery and the starters and #4 cable should be used between starters and solenoid. (Nominal length 12") Some applications may require the use of an additional 6-Volt battery. Read the applicable wiring diagram and wire accordingly.