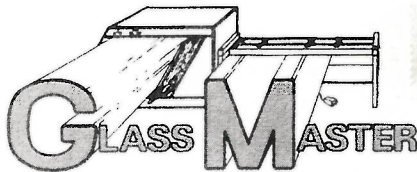


**CertainTeed**  
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## **OPERATING INSTRUCTIONS**

### **Groov-Master® Model E-300-SM**

#### **MACHINE CAPABILITIES**

The Groov-Master®, Model E-300 or Model E-300-SM (with addition of Scrap Master), grooves all thicknesses and types of duct board currently manufactured. Each duct board thickness requires a different set of tools. Eight tools for grooving one, two and four piece duct are furnished.

#### **INITIAL SET-UP**

The "300" and Scrap Master are separate units, yet may be easily joined into one. After selecting the proper location, roll the Scrap Master into position behind the 300. Two short metal straps and one electrical connection couple the machines. The power required is 115 volt and less than 20 amps. If possible, dedicate a 20 amp circuit and use 12/3 or 14/3 cable for connection.

Grooving tools and support arms are located in the end cabinets of your machine. Mount arms flush with feed surface of the front board bed. Hole patterns are pre-drilled and fasteners are included with the support arms. Place grooving tools on machine according to the decal located on the roller guard, set to an exact size and groove one-piece duct. Your machine was fine-tuned at Glass Master, and a sample duct was grooved for your reference. If the two ducts match (proper cut depth and duct dimensions) you are set. If not, continue to Final Set-Up.

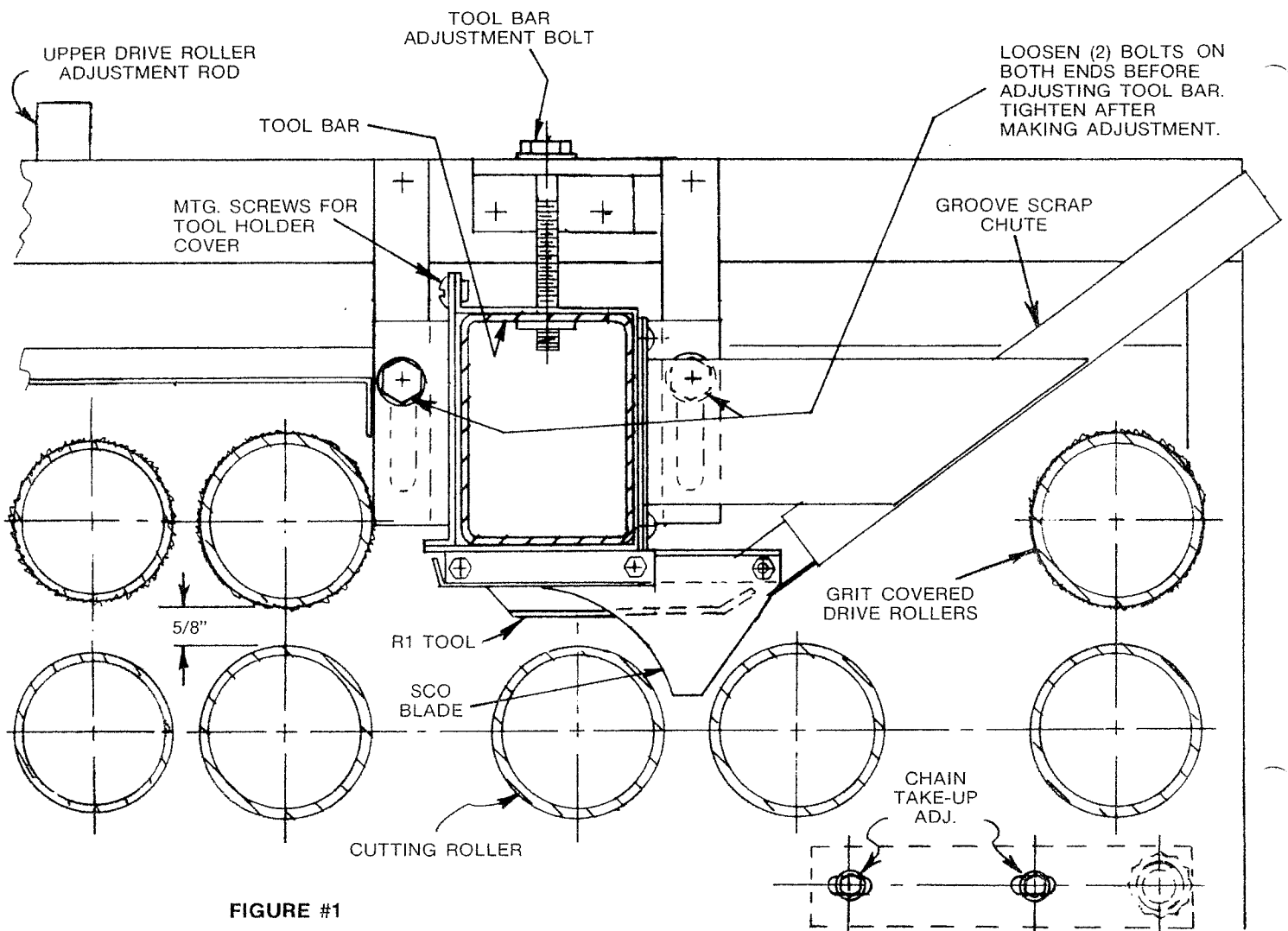


FIGURE #1

## FINAL SET-UP

Sufficient adjustment exists for accurate grooving of any type or thickness of duct board currently manufactured. All important settings will be covered. It is important to remember that all rollers are driven. Also, the chain drive must be able to accommodate various roller settings, so an adjustable idler sprocket is located in the left-end cabinet of the "300" (also see sketch). This sprocket must be loosened and then repositioned when drive roller spacing is adjusted.

DRIVE ROLLER spacing is important. Small decals at each end of the grooving machine identify the correct setting for various board thicknesses. To adjust, loosen "chain take-up adjust" bolts (see sketch) and then turn the adjustment rods which extend from the top of each end cabinet. Remember to reposition idler sprocket and secure bolts after adjustment is made.

The TOOL BAR is the major positioning device for all cutting blades. The relationship of the blade to the cutting roller is critical for precision grooving. Blades must contact the roller for proper depth control on shiplap grooves. Grooving tools are used as set-up gauges.

BLADE ADJUSTMENTS are a matter of fine-tuning each blade or blade-assembly to its holder. A good procedure is to select tools #2, 3 & 4 or #2, 3 & 3 (reverse tooling) and loosen the 8-32 machine screws. Place the larger of the two blades down as far as possible and tighten screws. Raise the companion blade (two piece blade assembly) so that its bottom cut is  $\frac{1}{8}$ " above the other, and tighten the screws. Do this uniformly on all three shiplap tools.

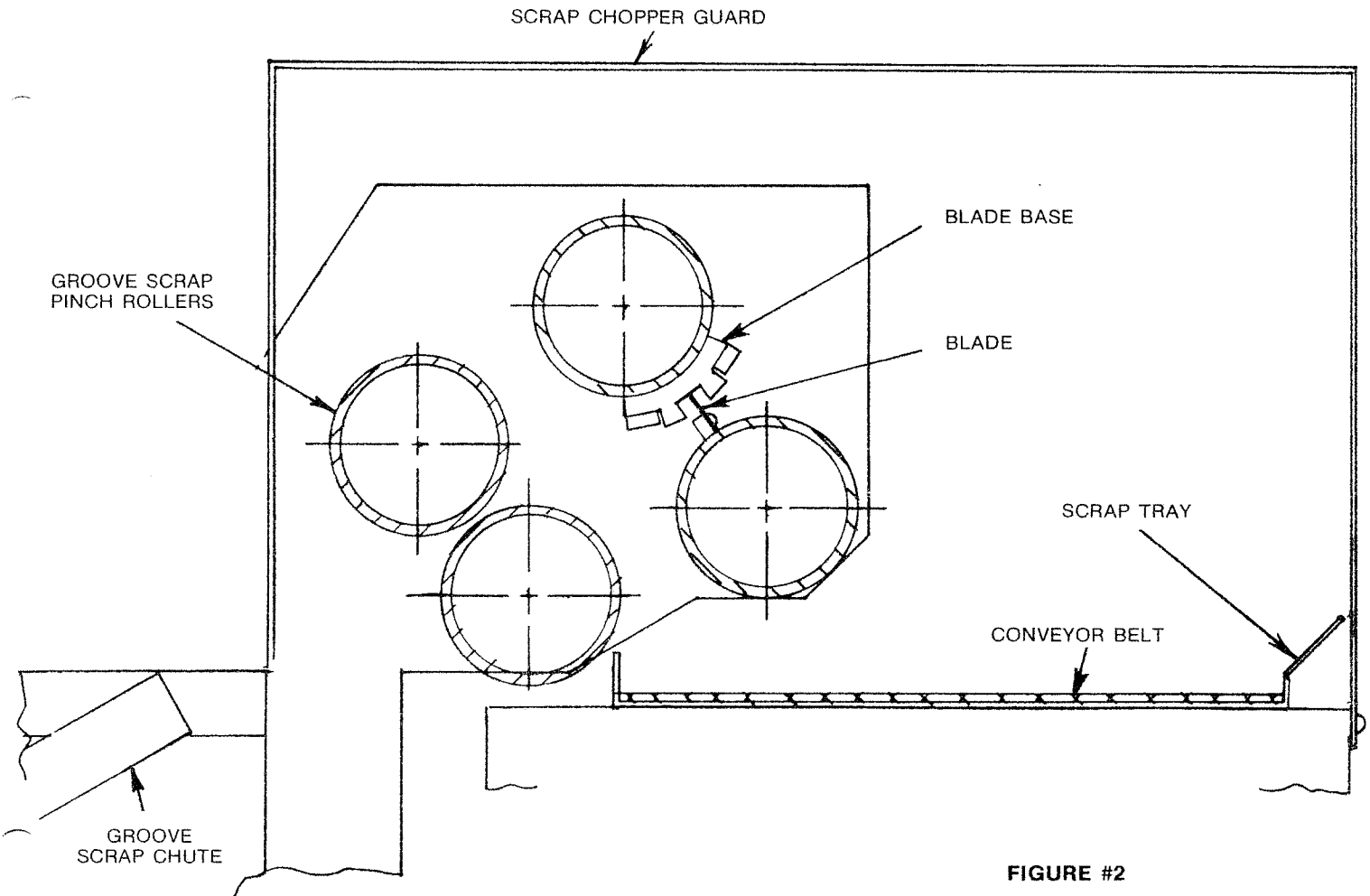


FIGURE #2

Place these tools on the tool bar and position equally across. The tool bar can now be lowered until each blade assembly contacts the "cutting roller". Tools should be able to move freely and still maintain contact with the roller. Secure the tool bar in this position. Fine-tune all other blades as required. Cut depth is the real criteria and the sample duct enclosed in the machine crate is your proper guide.

The SCRAP MASTER rarely needs adjustment. The short blade sections are vertically adjustable and should be set to just "whisk" the bottom of the slot in the urethane blade base (see sketch). Properly adjusted, you will cut the groove scrap cleanly and quietly (no thumping or pounding noise).

The conveyor belt rides in a scrap tray. No tension is required for proper conveyor operation. Adjusting screws on a take-up frame are opposite the output end, in case adjustment is ever required.

**Warning!** Be very careful while scrap chopping blades are exposed. Keep the foot switch under the machine or the forward-reverse switch in neutral during this time.

## **MACHINE OPERATION**

Position tools starting at left index and measure desired I.D. between numbered white tabs. Locking knobs secure tool for grooving.

Place the factory formed female shiplap edge (no loose facing) into the front drive rollers. Square duct between rollers with left edge against the board guide. Depress foot switch and push. The 300 gives maximum control of board position, however if the board turns or jams, release the foot switch and reverse the board out before it is damaged.

The extraction blades direct the groove scrap into the groove chutes. Occasionally a piece of groove scrap can remain lodged in the blade or groove chute, causing a jam on the next duct.

## **MACHINE MAINTENANCE**

Blades are sharpened, formed, heat treated and coated to give you the longest blade life possible. Some mechanics are able to resharpen blades for a little extra performance, but in general, it is a losing situation. Dull and poorly positioned blades cause most grooving problems.

Upper drive rollers are coated with a non-skid material which will eventually wear off. It is important to replace it correctly. Apply one coat of marine deck enamel and while it is tacky, apply a liberal coating of fine metal grit (or other non-skid material). After it is firmly set, apply a second coat of paint.

Clean and lubricate chain and sprocket drives on the E-300 and the Scrap Master twice a year. Clean the tool bar and tools, including the small nylon rollers on each tool. Lubricate with a light silicone spray monthly. Gear boxes on the drive motors have oil inspection plugs. Check at least once each year and add SAE 90 type EP oil as needed.