



## Steel Auger Maintenance and Hardfacing Instructions

The extrusion auger has two functions, to feed the material into the compaction tube for maximum density, and to propel the Curbilder. These two functions together cause terrific wear on the auger. IT IS VERY IMPORTANT TO REMOVE, INSPECT, AND CLEAN THE CURB FORM, COMPACTION TUBE, AND AUGER DAILY! The Curbilder be cleaned after each days use and job completion by running dry aggregate through the hopper, and spraying with kerosene or fuel oil for asphalt, or water for concrete.

The hard faced steel extrusion augers are one-piece augers. Each steel auger is mounted to the auger shaft with shear bolts. The steel augers that are mounted onto a solid auger shaft have one (1) long shear bolt through the center of the auger. The steel augers that are mounted onto a hollow auger shaft have two (2); short, specially machined shear bolts.

To inspect a steel extrusion auger, remove the extrusion auger from the auger shaft. Examine the auger carefully. The wearing parts of the auger have been hard surfaced. Notice how the full flight on the tip at each end has been completely hard surfaced. The rest of the flights have been hard surfaced just on the leading edge. These we have found are the wearing parts of the extrusion auger. The auger should be removed and the end flight checked daily for wear.

The extrusion auger has been designed to give double life against abrasive wear by being interchangeable end for end. During the daily check if the hard surfacing appears to be worn off of the end flight at the discharge end, or the clearance between the compaction tube and the outside auger edge exceed 3/8", remove the auger and turn it end for end, placing the unworn end to the discharge side of the auger housing for additional use before resurfacing is necessary.

Do not permit auger wear beyond these limits or loss of performance and/or machine damage will result. If worn extrusion auger is not turned end for end or hard surfaced in proper time, a slug of material may lodge in the compaction chamber, putting excessive end thrust on the bearings, causing bearing or other component part failure.

Hard surfacing life depends upon the sand content and type of aggregate used in the mix, and the size of the curb form. Wear life is longer with softer aggregates such as slag, coral rock, limestone, and gravel.

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Harder aggregate such as granite, blue stone, and Catskill mountain flint rock will give shorter wear life. Check the auger more often when using a mix with high sand content or hard aggregate, or when using a small curb form. When the augers hard surfacing is worn off of both end flights, resurface as per instructions.

If a condition exists that causes excessive auger wear, it can manifest itself by causing the auger end flights to wear down to the shaft in a very short period of time. The worn auger end will look pointed like a corkscrew. At this point, the mix and/or the curb form need to be evaluated. If changing the mix or the curb form is not possible, it is recommended that a cast auger (available only in 5" or 6" size) be used. We advise the purchase of two additional augers for each machine. As one is being resurfaced, the others can be used on the job.

### **HARD FACING INSTRUCTIONS**

Welding repair procedure:

1. Two layers of weld for maximum wear.
2. Weld as cold (**Low Heat**) as possible to prevent dilution of hard surfacing with base metal.
3. Position auger to enable welding to be done in a down hand motion.
4. 5/32" - 3/16" diameter electrode, on face of first flight and nose and on outside edges of all flights.

Recommended electrodes or equivalent:

- \* McKay -- Hardalloy 40
- \* Airco -- Aircolite 59
- \* Alloy Rods -- Weararc 40
- Hobart -- Fabtuff 960 (Mig)