

GRACEY'S CARTRIDGE CASE TRIMMER

READ INSTRUCTIONS BEFORE OPERATING TRIMMER

This case trimmer will simultaneously trim cases to the proper length with a perfect 90 degree angle to the axis of the case, put a chamfer on the inside of the neck and remove the burr from the outside.

The above is accomplished by the use of two carbon steel cutter blades mounted in the face of a rotating shaft. The shaft turns counterclockwise in an oil impregnated bushing in the shaft pedestal and is held in place by a retaining collar.

Replacement cutter blades are available upon request but those with the trimmer should trim several thousands of cases before replacing.

A protective sheet metal guard is provided for use with the trimmer.

IMPORTANT: Make regular checks to keep the cartridge case holder free of all grease, grit, grime and chips. This can affect the overall length of the case.

TO OPERATE THE TRIMMER

Grasp cartridge case between the thumb and forefinger and insert into the cartridge case holder (*Figure A*). Case to be trimmed is pushed forward and engaged by cutter blades. The trimming, chamfering and deburring action will continue until the case being trimmed is stopped by the shoulder of the case - contacting the shoulder in the cartridge case holder. *NOTE: This trimmer is designed to accept only full length resized cases. If a customer neck sizes he will need to send two of his neck sized cartridges to us for special machining on the case holder to effect a proper fit.*

SET-UP INSTRUCTIONS

ALIGNMENT OF POWER SOURCE: Assure that there are no lateral loads or forces on the cutter shaft bearing. If an electric drill is used, support its weight with blocks or some appropriate support. The power trimmer is equipped with a 1/15 h.p. motor that turns counterclockwise.

LUBRICATION: Fill oil reservoir under cap fully. Any good machine or motor oil will do. Continue to lubricate trimmer as you trim cases. **Do not become alarmed when oil appears around the shaft.** When this happens the oil impregnated bearing has merely absorbed all it can hold. From this point it is only necessary to oil occasionally to keep the porous bearing material saturated.

INSTALLATION OF CUTTER BLADES IN FACE OF CUTTER SHAFT: Position the cutter shaft so that the long deburring cutter slot is on the bottom as depicted (*Figure D*). Insert the deburring (L-shaped) cutter blade (see Cutter Arrangement illustration, *Figure C*) into the deep slot, tapping it all the way to the bottom of the slot and insert a resized cartridge case into the cartridge case holder. Adjust the cartridge case holder in or out as necessary to position the cartridge case mouth approximately 1/16" from the face of the cutter shaft.

Slide the deburring (L-shaped) cutter blade laterally so that the cutting edge just contacts the outside of the cartridge case neck. The cutting surface has a one and one half degree angle ground into it and is used to trim any burrs that are produced on the outside of the cartridge case mouth.

Tighten the rear set screw (set screw, *Figure E*.) to secure the deburring cutter in position. Rotate the cartridge case in the cartridge case holder and watch for a change in the amount of

cutter contact. If any binding is encountered, or cutter contact is judged to be excessively heavy, re-adjust cutter to contact the cartridge case neck at the high spot in the rotation of the cartridge case. Turn the cutter shaft and look again for a change in cutter-to-case neck contact. It is important to perform these steps carefully as this assures perfect concentricity between the cutter and the cartridge case neck. The more precise the adjustment, the more precise the result.

INSTALLING THE TRIMMER AND CHAMFER CUTTER

Turn the cartridge case holder out to provide clearance for installing the trimmer and inside chamfer cutter (cutter arrangement illustration, Figure F). The angle chamfer cutter should be on the same side of the shaft as the (L-shaped) deburring cutter, as depicted in the cutter arrangement illustration (Figures F & C).

Turn the cartridge case holder in while keeping the cartridge case firmly seated in the cartridge case holder until the case mouth contacts the trimmer cutter edge. This seats the trimmer cutter squarely in its slot (see Figure D of cutter slots illustration). Move the cutter laterally in its slot until the inside chamfer cutter (cutter arrangement illustration, Figure G) contacts the inside of the cartridge case mouth. Lock the cutter in place with the front set screw (Figure H of the cutter arrangement illustration).

Turn the cartridge case holder back out so that the cartridge case no longer touches the cutters. Then, turn the cartridge case holder in a little more. This will allow the cartridge case to engage the cutters when they are turning and provide a positive mechanical stop when the cartridge case shoulder contacts the shoulder of the cartridge case holder. Lock down the cartridge case holder adjustment set screw (cartridge case holder Illustration Figure B).

Before applying power to the cutter shaft, remove the cartridge case from the cartridge case holder.

If the instructions are followed and adjustments made correctly, the mouth of the cartridge will have a flat spot on the outside periphery and there will be a chamfer on the inside of the Cartridge mouth (See Illustration I).

TRIMMING THE CARTRIDGE CASE

Turn on the power source and then insert the cartridge case fully into the cartridge case holder until the cutters stop cutting. To assure perfect concentricity of the cartridge case mouth, rotate the cartridge case one full revolution in the cartridge case holder.

FINE ADJUSTMENTS

Some lateral adjustment of the trimmer and chamfer cutter may be required if the chamfer on the inside of the cartridge case mouth (see case mouth illustration) is too wide or too narrow. Once the chamfer cutter is set to give the desired amount of chamfer on the inside of the cartridge case mouth, length adjustments can be made by simply adjusting the cartridge case holder in or out to obtain the desired cartridge case length.

If a burr is present on the outside of the cartridge case mouth, it can be removed by moving the deburring (L-shaped) cutter laterally to achieve closer contact with the outside of the cartridge case neck.

If satisfactory results are not obtained on the first try at adjusting the cutters on your Gracey Trimmer, you may want to repeat the entire procedure, as it becomes much easier to get good results the first time after a little practice.

Always use a cartridge case length gauge, micrometer, or vernier caliper to assure that the cartridge case length is correct.

If any shaft end play should develop it can be eliminated by holding the shaft against the bearing (insert small screw driver between face of shaft and case holder pedestal). Loosen

retainer collar, slide forward against bearing pedestal; lock in place. All end play will be eliminated.

YOU ARE NOW READY TO TRIM CARTRIDGE CASES EASIER, FASTER AND MORE ACCURATELY THAN YOU EVER IMAGINED POSSIBLE.

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