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PROCEDURE TO REPLACE E-MILL HEAD (4 METHODS)

NOTE: The original Bridgeport worm gear needs to be kept but needs to be removed from knuckle and turn off about .008": to fit the Acer head.

The original worm is not turned so that the original 3" dia still fit snug into the knuckle.

Only the portion of the worm that fit into the Acer head had metal removed.

The Acer worm works well with the original Bridgeport worm gear once the small amount was removed to fit the Acer head bore diameter (76mm).

METHOD #1- USING A SLING

1. Use I-Bolt Threading Bar

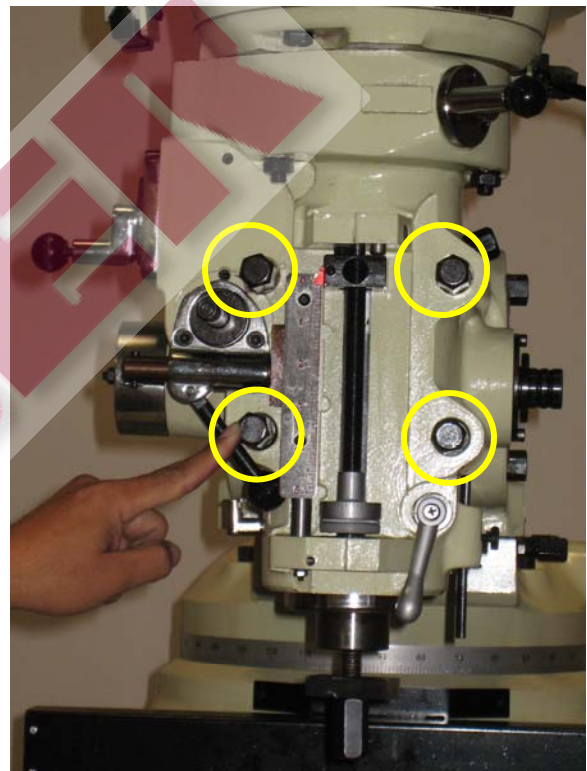


- 1 2. Stick I-Bar into Spindle.
Tighten lock nut on bottom.

3. Lift with a slinger and lifting device (i.e. crane)



4. Loose 4 bolt and slide the head out with 2 people.



6. Slide Head for replacement.

Vice Versa to Replace New Head



Alternative Way to Handle Head Replacement

1. Put sling around machine's head top housing 2. Put head on table and secure it (**Important**). Crank up and down handle to raise head to loosen or tighten position. Cranking cross feed handle to slice out head.

1.



2.



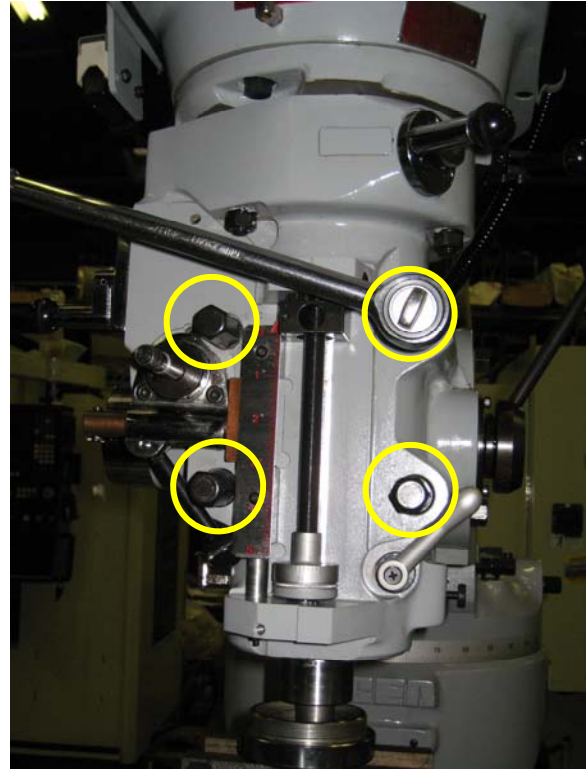
METHOD #2– USING A SUPPORTER IN HEAD

1. Take out head: make a head supporter, 24.8mm diameter x 4 in. and make a slot 5x3mm x 4 in., for the alignment key way.

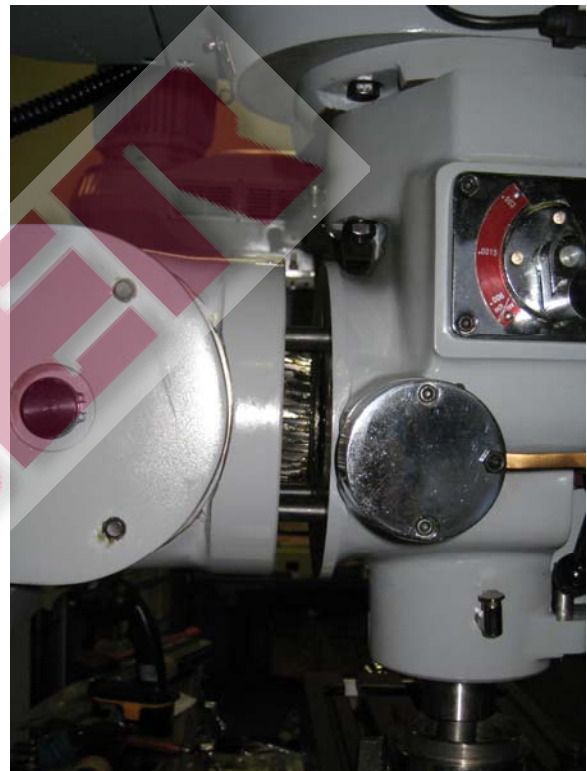


2. Move ram all the way back. Insert the head support into the spindle. Make sure supporter goes into spindle smoothly, by moving table, saddle and knee.

3. Loosen the 4 nuts, take out nuts.



4. Move the crossfeed forward.



5. Loosen ACER's set screw and replace this worm gear with original Bridgeport worm gear (Figure A).

OR

Replace the Bridgeport adjustment gear on ram's side knuckle and put on ACER's adjustment gear (Figure B).

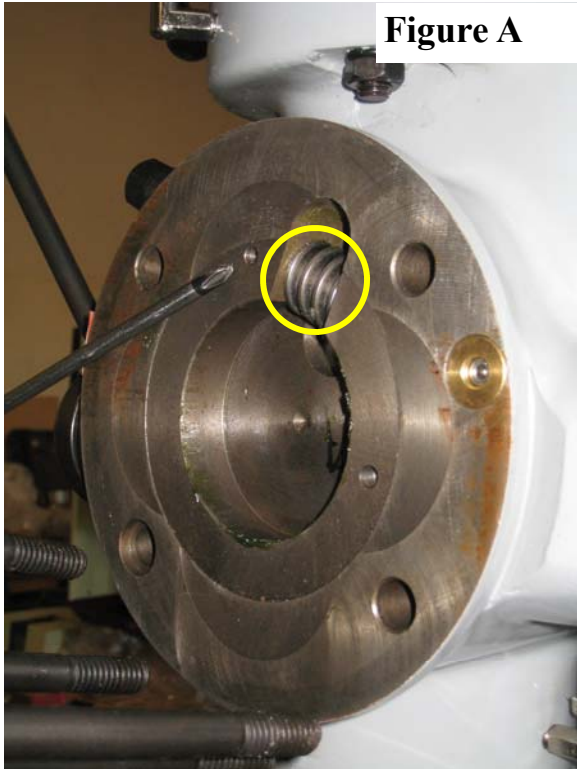


Figure A

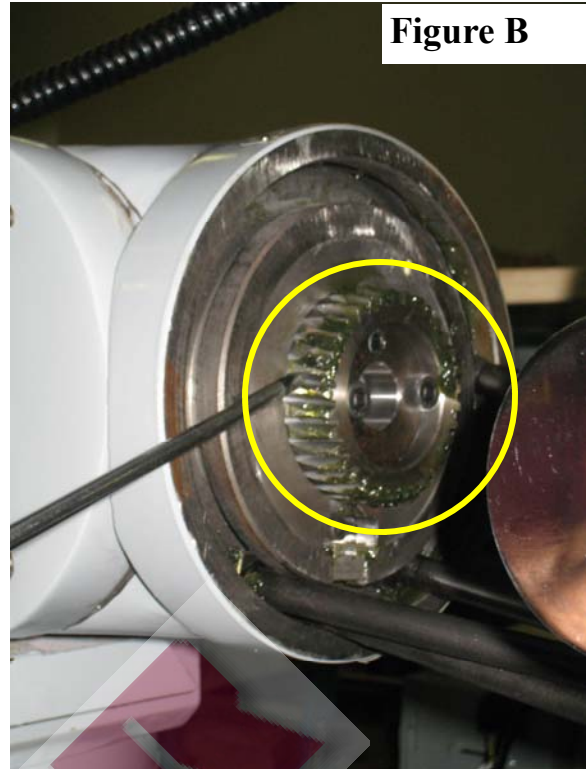
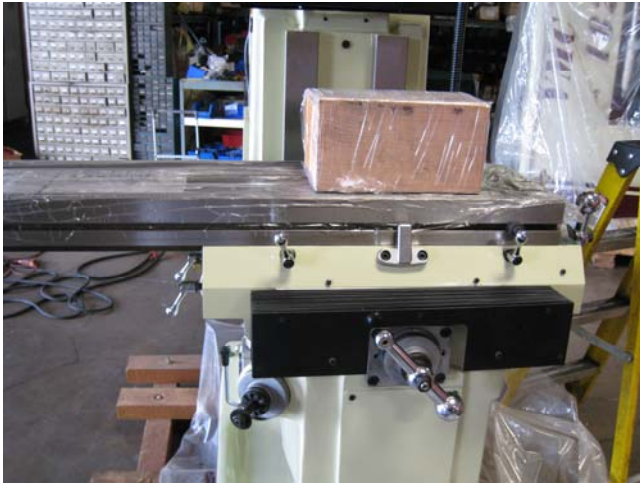


Figure B

Vice Versa Procedure to Put Back New Head

METHOD #3– REPLACING WITHOUT A FORKLIFT

1. Move table all the way to the left and front. Prepare a block of wood about 5-1/2” square high or higher.



2. Loosen 4 bolt holes.





3. Rotate head down, all the way 180° so head is upside down.

4. Put wooden block under head and raise table. Make sure head and block has full contact on the head. Put a small plate between the motor and knee to level head.



5. Move ram back, to loosen head from ram.



6. Put a bar through collet. Pull and move out table to the end while pulling the bar in head to level the head. Move ram all the way back to separate head.

7. Prepare the original wooden box for the head or use a stand to support table. Lower table down until knee is level with box.



8. Move table to right slowly while 2nd person holding bar in collet of head, (to prevent the head from tipping.)



9. Lower down table. Put head on crate. Take out wooden block off table. Free head. The head weighs about 300 lbs.



Vice Versa Procedure to Put Back New Head

Alternative Method

1. Take out motor, then do same process.

METHOD #4– USING A HOIST

When there was room to maneuver, use a hoist or "cherry picker" to remove the old Bridgeport head and refit the new Acer head.

Only a single strap attached with choke style in front of motor and under head of course. Good balance there.

When no room to use hoist, dismantle the motor and upper half of head and assembled in pieces on the knuckle.

