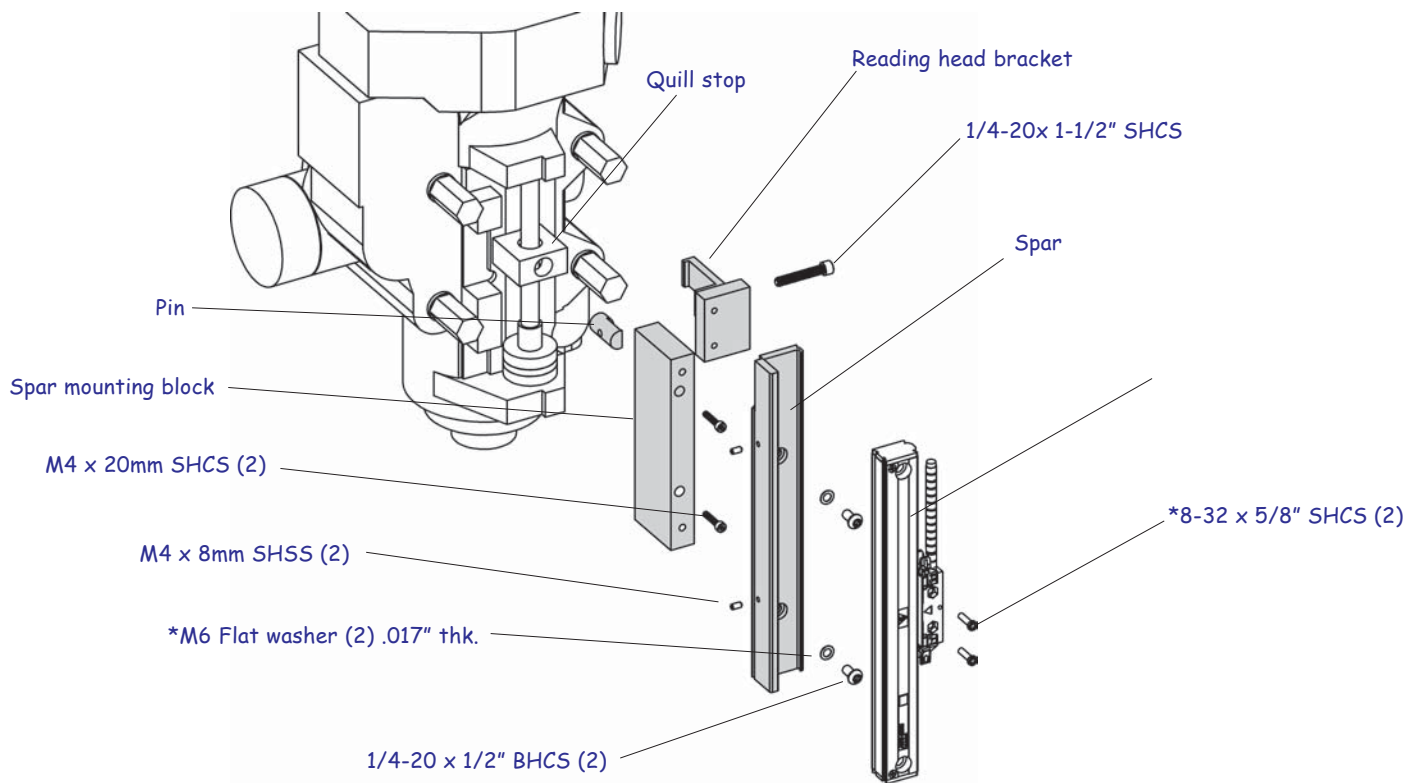


Quill Installation ...

* Supplied with encoder hardware



Mounting Information...

These are application instructions for mounting the quill "Z" axis SENC 150 encoder.

Before proceeding:

- Please read the instructions completely.
- Ensure that the correct length encoder is being used for the total axis travel.
- Keep the reading head centered during installation.
- Clean the mounting surfaces.
- Save the alignment brackets with the Encoder Reference Manual after installation is completed.

First Steps ...

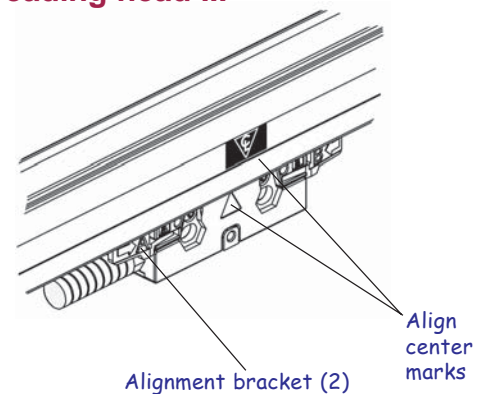
Machine

- ✓ Move the quill to its center of travel.
- ✓ Mark the axis so that it can be re-centered easily.

Encoder

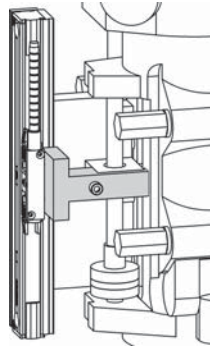
- ✓ Unpack encoder in a safe, convenient location.
- ✓ Do not remove the reading head alignment brackets until instructed.

Center reading head ...



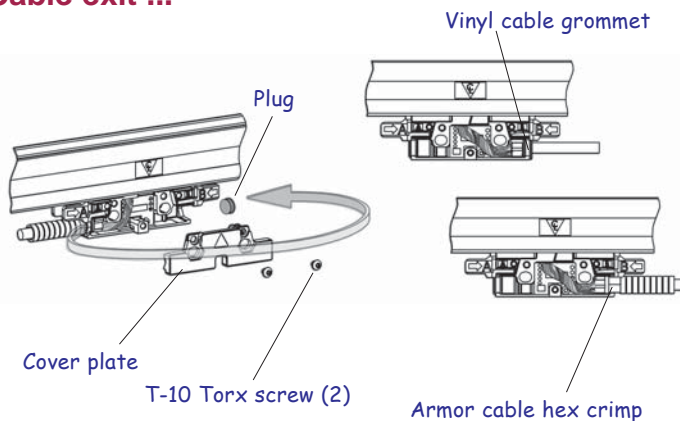
- Slide the reading head and brackets along the scale case until the center marks on the scale case and reading head are aligned.

Encoder orientation ...



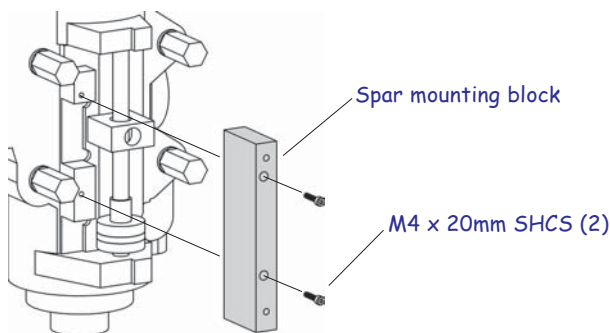
- These instructions will guide you through installing the encoder as shown in this view.

Cable exit ...

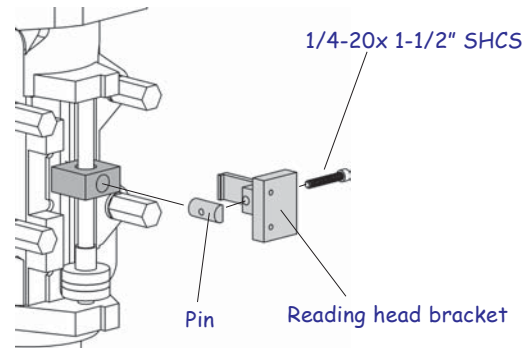


- Determine the cable exit direction before installing the encoder.
- To change the cable exit direction, remove the cover plate and rotate the cable 180°.

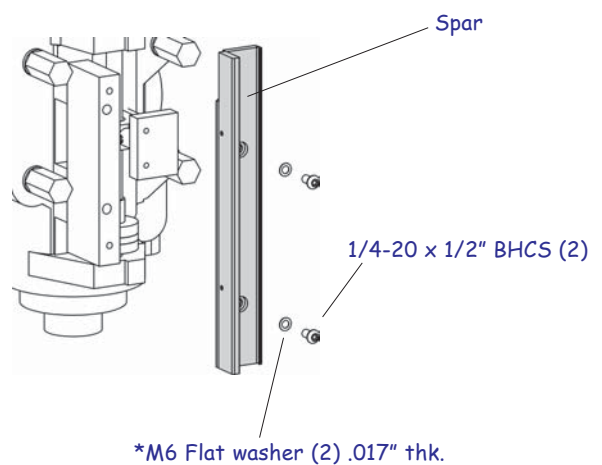
Encoder Installation ...



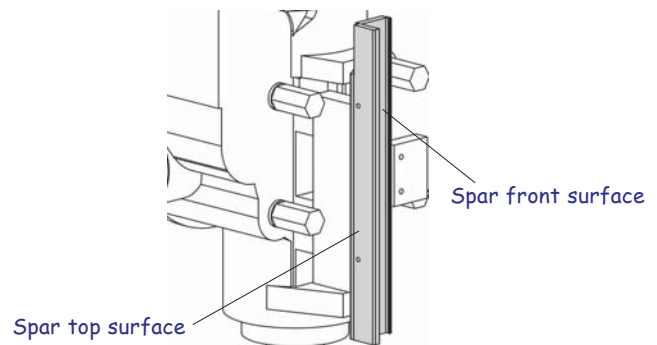
- Remove the 5" ruler, and attach the mounting block using the existing holes.
- Note the block orientation.



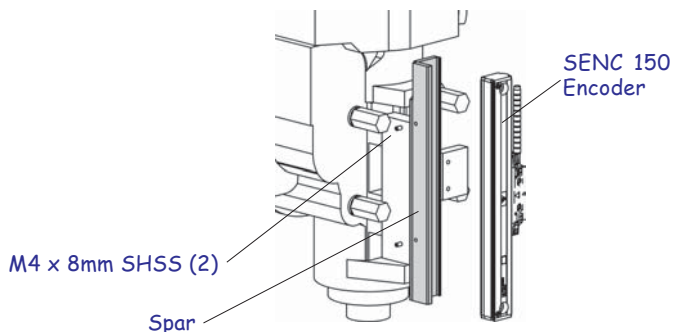
- Attach the reading head bracket to the stop.
- To secure the reading head bracket on older machines that have a radius front stop, install a locking screw through the side of the bracket threaded into the side wall of the stop (not shown).



- Attach the spar to the mounting block.

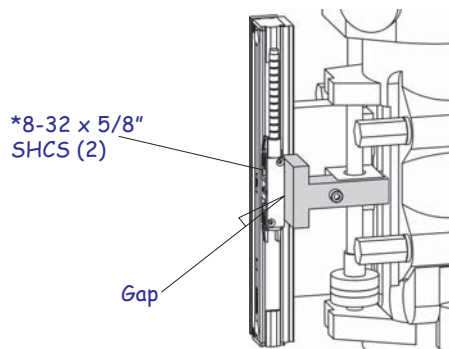


- Align the spar front surface to within .010 TIR of the stop travel.
- Align the spar top surface to within .010 TIR of the stop travel.
- Tighten fasteners maintaining this alignment.

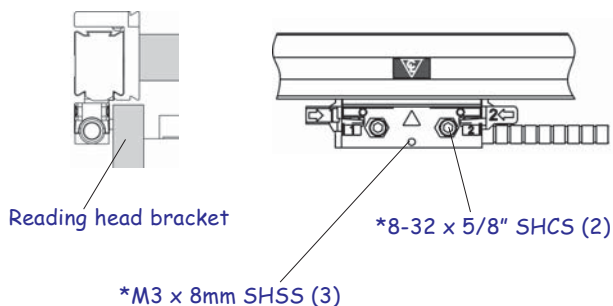


- Insert the encoder into the spar, position with the ends flush.
- Secure the encoder in place using the spar locking set screws.

Reading head attachment ...



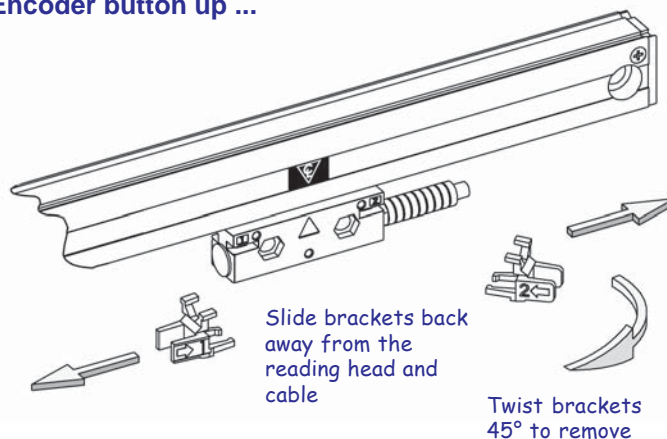
- A gap will exist between the reading head and the mounting bracket.
- With the reading head at the center of the scale case, align the bracket mounting holes to the reading head.
- Insert the two 8-32 SHCS, but **do not tighten**.



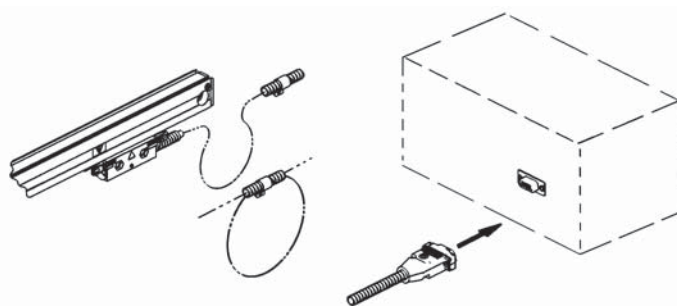
- Insert the leveling screws, and set each by placing a .001" - .003" feeler gage between the set screw and the bracket.

- Adjust each set screw until a slight drag is felt on the feeler gage.
- **Evenly tighten** the two 8-32 x 5/8" SHCS.

Encoder button up ...



- Use allen wrench from set screw adjustment to slide alignment brackets away from the reading head.
- Remove alignment brackets and save.
- Move the axis through its full travel. Confirm that the assembly does not interfere with the machine movement.



- With the longitudinal axis installation complete, route the cables providing sufficient slack loops for machine movement to the readout.
- Secure cables by fastening with clips or ties.
- Attach the linear encoder connectors to the readout.
- Complete the installation by following the steps in "Checking Your Installation" section in the encoder "Reference Manual".