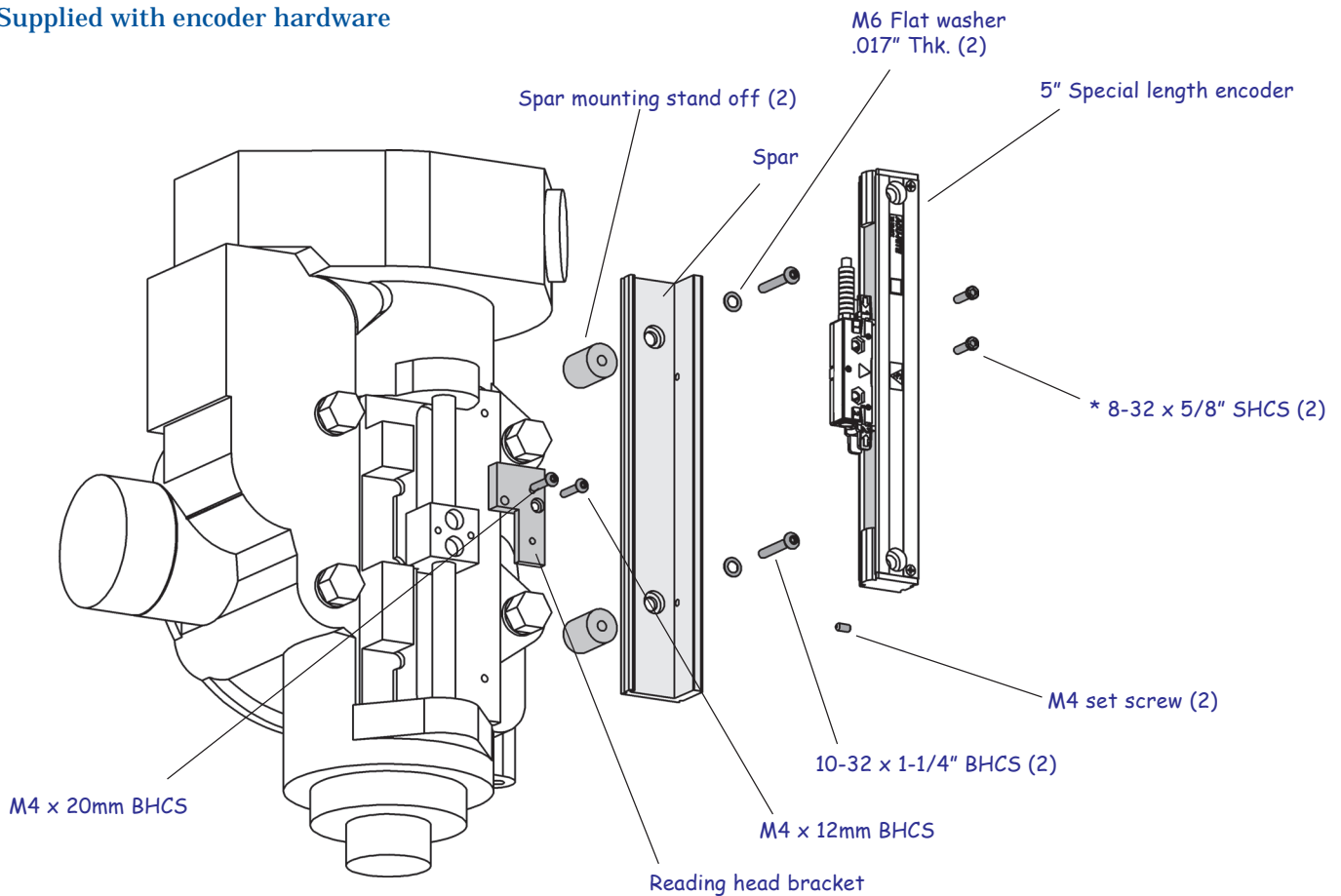


Quill Installation ...

* 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.
- Insure 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 ...

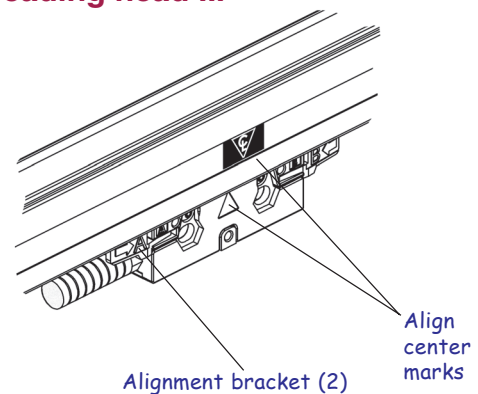
Machine

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

Encoder

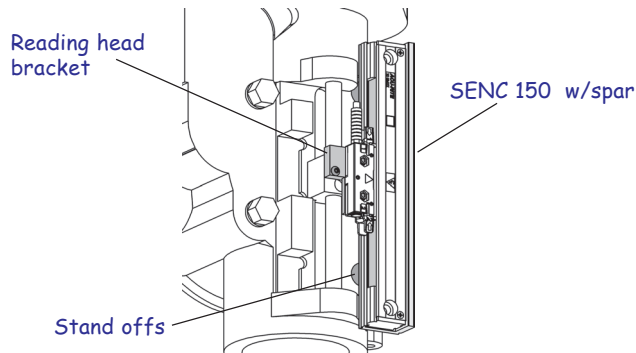
- ✓ Unpack encoder in a safe, convenient location.
- ✓ Do not remove the reading head alignment brackets until instructed.

Center reading head ...



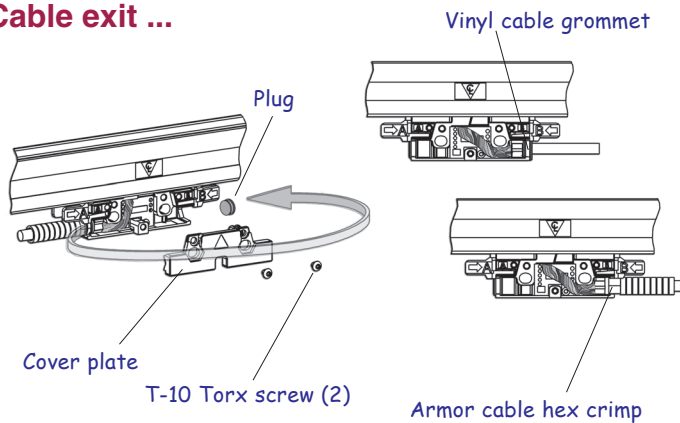
- Slide the reading head and brackets along the scale case until the center marks on the scale case and reading head are aligned.

Encoder orientation ...



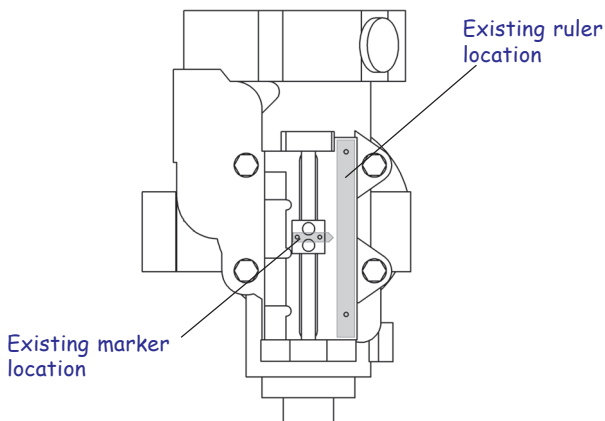
- These instructions will guide you through installing the encoder as shown in this view.

Cable exit ...

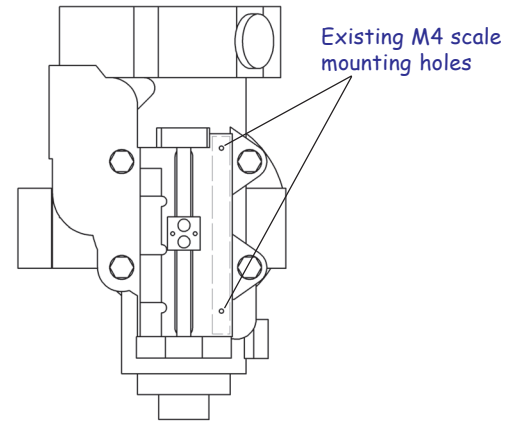


- Determine the cable exit direction before installing the encoder.
- To change the cable exit direction; remove the cover plate and rotate the cable 180°.

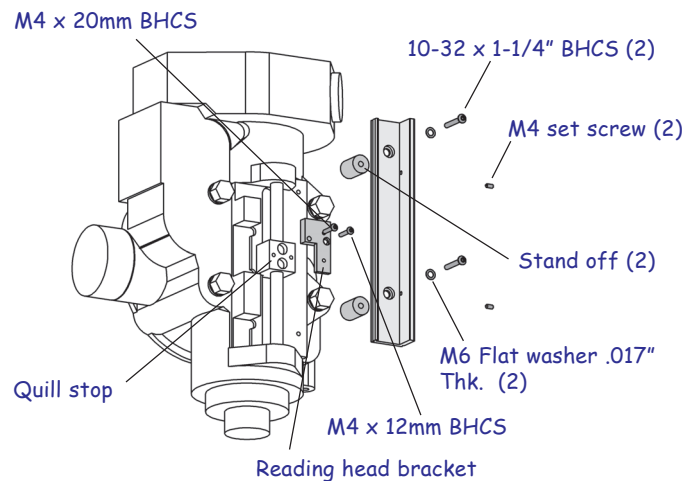
Encoder Installation ...



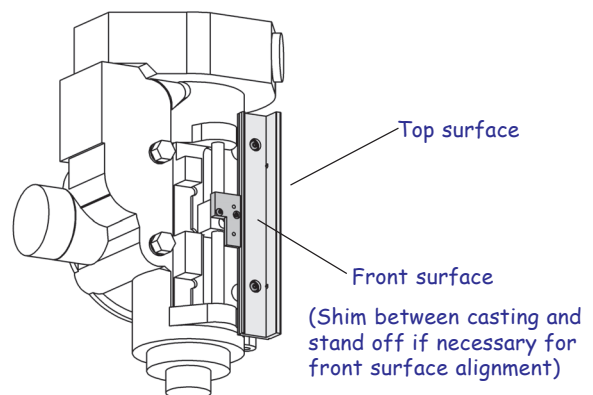
- Remove ruler and marker from the head and quill stop.



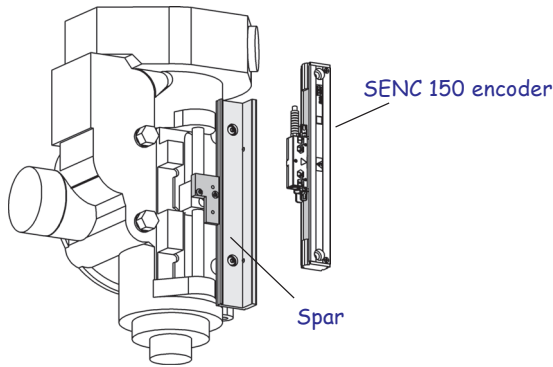
- Drill and tap existing M4 scale mounting holes for a 10-32 using existing hole depth.



- Attach the bracket to the quill stop.
- Attach the spar with the two stand offs, and insert the two M4 set screws.

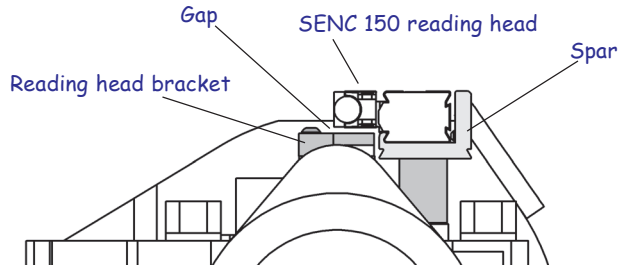


- Align the front spar surface to within .005" TIR of the quill stop travel.
- Align the spar top surface to within .005" TIR of the quill stop travel.
- Secure fasteners maintaining alignment.



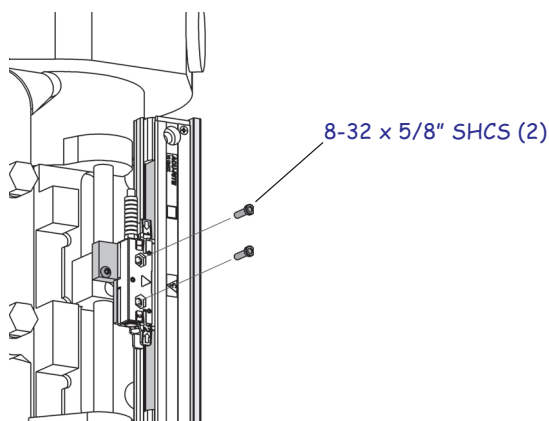
- Insert the encoder into the spar, positioning the ends flush.
- Secure the encoder in place using the M4 set screws.

Encoder installation viewed from the bottom

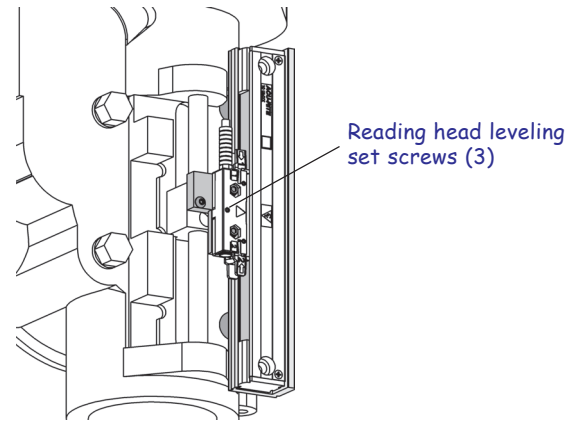


- A gap of .03" - .18" will exist between the bracket and the reading head.

Reading head attachment ...

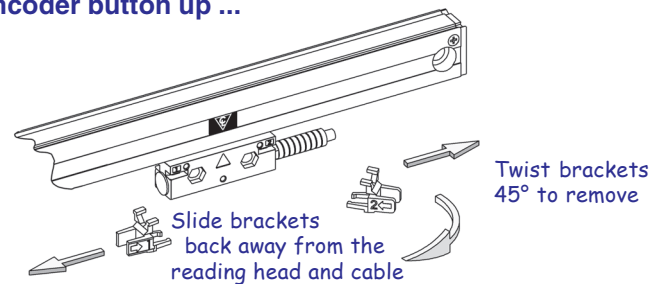


- Align the bracket with the reading head mounting holes, and lock quill in place.
- Attach the reading head to the bracket. Do not tighten fasteners.

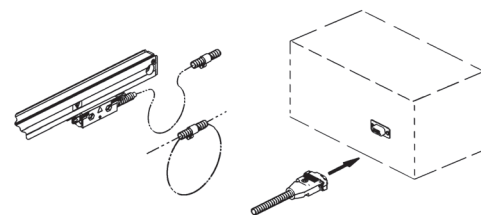


- Set each leveling set screw by placing a .001"-.003" feeler gage between the set screw and the bracket.
- Adjust each set screw until a **slight** drag is felt on the feeler gage.
- **Evenly tighten** the two 8-32 x 5/8" SHCS.

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".