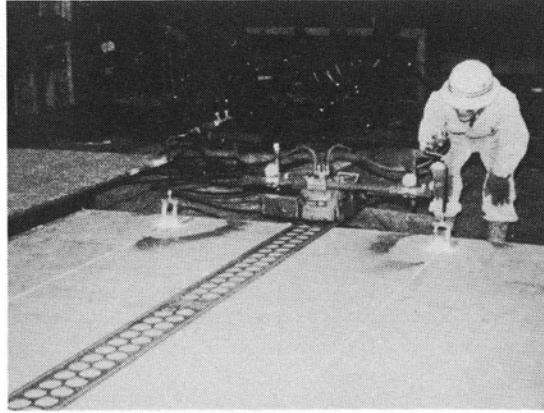
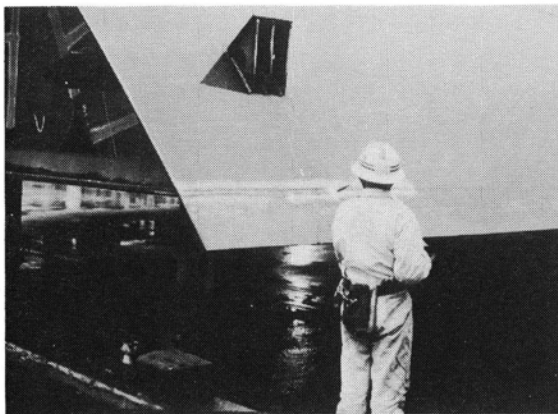


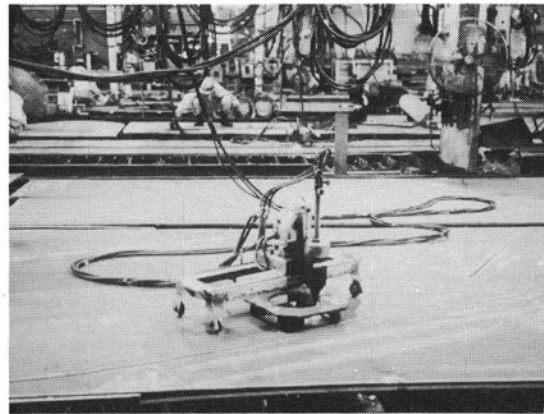
A.



B.



C.



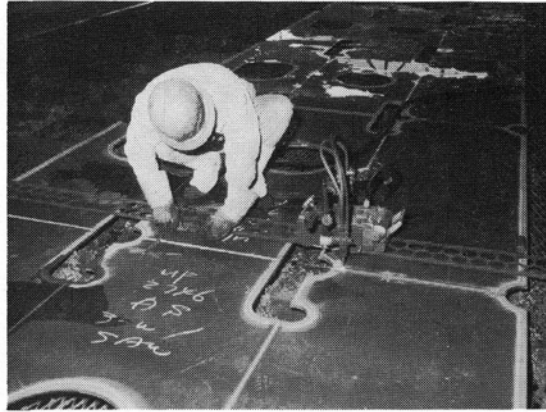
D.

FIGURE 6-12: Among the variety of matters that A/C engineers address are:

- A. Gas cutting techniques to achieve very sharply defined finished edges.
- B. Line heating techniques for removing distortion from sub-blocks.
- C. Line heating techniques for removing distortion from blocks.
- D. Development of machines such as a self-propelled, caster-rigged gas cutter which follows one of a number of patterns to accurately cut holes.



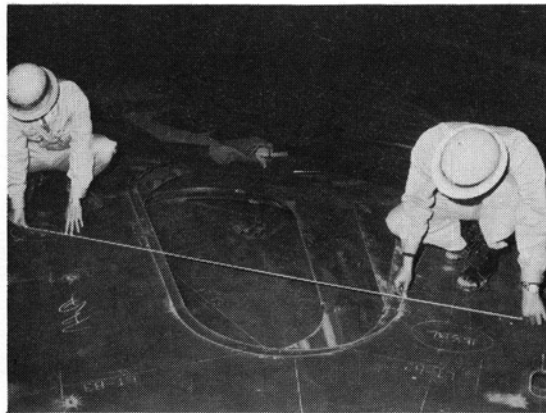
A.



B.



C.



D.

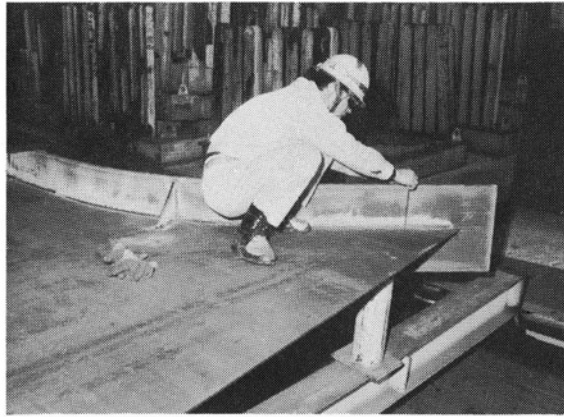
FIGURE 6-13: Members of the A/C group are involved in many activities.

A. A group member checks the \bar{x} -R control chart which is posted at the work station where parallel edge parts are cut. Work schedules are posted alongside.

B. A/C engineers make rules for how parts are to be designed, nested and/or bridged. As shown, double-bottom floor panels are nested with top and bottom edges contiguous and so that cutouts match. The parts are not cut apart by the N/C machine as concentrated heat in the vicinity would cause unacceptable shrinkage of each cutout's length. The intact surrounding material minimizes such shrinkage. The panels, as shown, are separated later by semi-automatic cutting.

C. A/C engineers specify the check points for using a line marked for setting a longitudinal as a reference line in order to measure deformation caused by gas cutting.

D. They also specify how to use buttock lines as reference lines to check a transverse web of an upper wing tank for deformation caused by gas cutting.



A



B



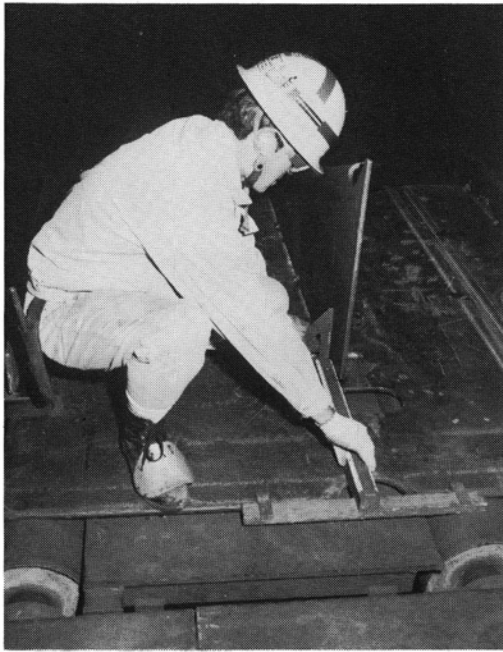
C



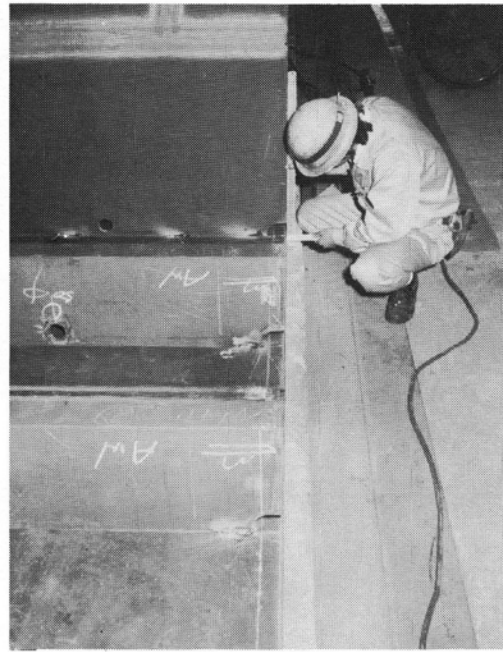
D

FIGURE 6-14: Typically A/C engineers establish standard procedures for:

- A. Checking the face-plate position on a web.
- B. Using a protractor and plumb bob for measuring the fitting angle of an internal member of a curved block.
- C. Checking a bracket for fitting angle, match marks, etc.
- D. Checking a finished edge for an erection butt-joint.



A



B



C



D

FIGURE 6-15: Specific A/C procedures apply to: A. Checking a measurement between panel and bracket edges in a sub-block. B. Checking a measurement between the edges of a panel and internal structure in a block. C. Checking alignment of a tank-top panel relative to a bottom-shell panel in a block. D. Monitoring bottom alignment between keel laying and launching. The distance measured is that from the bottom shell to a reference line marked on the vertical angle-iron which is fixed to the dock floor.