III-467 ENCODER CONFIRMATION

A calibration check shall be performed at intervals not to exceed one month or prior to first use thereafter, made by moving the encoder along a minimum distance of 20 in. (500 mm) and the displayed distance being ±1% of the actual distance moved.

III-470 EXAMINATION

III-471 GENERAL EXAMINATION REQUIREMENTS

III-471.1 Examination Coverage. The volume to be scanned shall be examined with the TOFD probe pair centered on and transverse to the weld axis and then moving the probe pair parallel to and along the weld axis. If offset scans are required due to the width of the weld, repeat the initial scan with the probes offset to one side of the weld axis and again with the offset to the opposite side of the first offset scan.

III-471.4 Overlap. The minimum overlap between adjacent scans shall be 1 in. (25 mm).

III-471.5 Multiple Zone Examination. When a weld is broken down into multiple zones, repeat III-471.1 for each weld zone.

III-471.6 Recording Data (Gated Region). The unrectified (RF waveform) A-scan signal shall be recorded. The A-scan gated region shall be set to start just prior to the lateral wave and, as a minimum, not end until all of the first back-wall signal with allowance for thickness and mismatch variations, is recorded. Useful data can be obtained from mode-converted signals; therefore, the interval from the first back-wall to the mode-converted back-wall signal shall also be included in the data collected when required by the referencing Code.

III-471.8 Reflectors Transverse to the Weld Seam. An angle beam examination shall be performed in accordance with T-472.1.3 for reflectors transverse to the weld axis unless the referencing Code Section specifies a TOFD examination. In these cases, position each TOFD probe pair essentially parallel to the weld axis and move the probe pair along and down the weld axis. If the weld reinforcement is not ground smooth, position the probes on the adjacent plate material as parallel to the weld axis as possible.

III-471.9 Supplemental I.D. and O.D. Near Surface Examination. Due to the presence of the lateral wave and back-wall indication signals, flaws occurring in these zones may not be detected. Therefore, the I.D. and O.D. near surfaces within the area of interest shall be