

INTERNAL RISER INSPECTION DEVICE AND METHODS OF USING SAME

ABSTRACT OF DISCLOSURE

5 A system for inspecting a pipe weld from within a pipe through use of magnetic particle imaging "MPI" includes an apparatus having a head unit that carries a wire wheel brush for cleaning an inspection area along an inner diameter of a pipe weld, and an MPI medium dispenser for spraying an MPI medium upon the inspection area, both controlled by an operator. The head unit also includes a video inspection device controlled by the operator and used for viewing at least portions of the inspection area after being sprayed with the MPI medium and when under the influence of a magnetic field to determine if the weld has any defects. The head unit is connected to a drive unit. The drive unit includes a frame having a longitudinal axis and mounted on a set of drive wheels, and a set of support wheels spaced axially from the drive wheels. A linear drive motor mounted to the frame and coupled to the drive wheels moves the head unit linearly along an interior of the pipe between weld inspection areas to allow the operator to locate and inspect the welds from within the pipe.

Figure : None