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(54) Title: HYBRID AUTOMATED WELDING SYSTEM

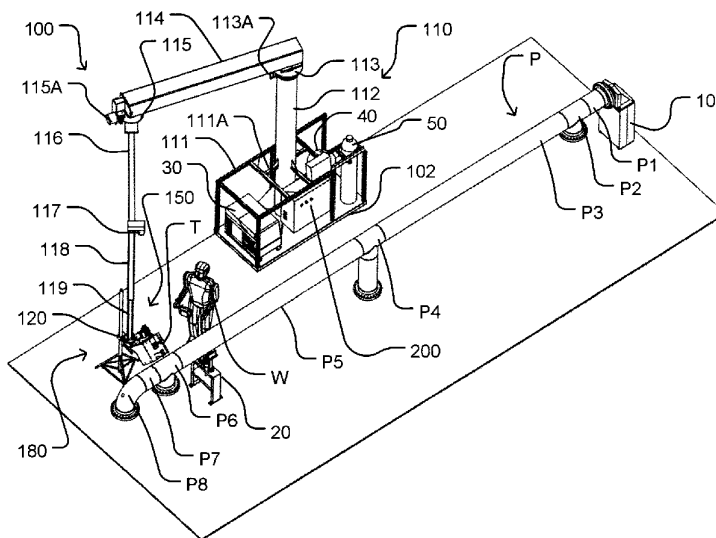


Figure 1

(57) Abstract: A system for welding work pieces together comprises a support assembly configured to permit movement of an end effector assembly throughout a range of operating positions, and an end effector assembly comprising a platform arm pivotally coupled to the support assembly. Radial and longitudinal slide assemblies are coupled between the platform arm and a platform. A rotary actuator is mounted on the platform. A torch arm is coupled to the rotary actuator and extends along an axis of rotation of the rotary actuator. The torch arm has a torch holder at an end thereof configured to hold a welding torch. The rotary actuator can selectively twist the torch arm such that the welding torch undergoes a weaving motion. The system may be operated fully automatically under control of a controller, or in a hybrid mode wherein real time user intervention is permitted to adjust motion and/or operation of the torch.