Welding Procedure for Power Train Saver Installation

Preparation of Base Material

All loose or thick scale, rust, moisture, grease, paint or other foreign material that would prevent proper welding or produce objectionable fumes shall be removed to within 2" of weld location.
The repair area shall be prepared by machining or grinding to remove any smeared metal and / or small tears that may be present.

Preheat

Preheating of the Power Train Saver unit is not necessary and should not be done. Weld at room temperature (65°F / 20°C)
The driveline tube can be preheated if needed.

Welder Settings

All welders are different, some may have to be adjusted higher or lower to produce the same amperage. The information below is average settings.
Voltage: 19 - 21
Amperage: 195 - 200

Weld Procedure

The welding process will be flux cored arc welding (FCAW) process, semi-automatic using an E4801 T-9 CH electrode with a 75/25% shielding gas. Use only stringer beads with a radial direction of travel. The driveline should be mounted on rollers and rotated to maintain a flat or horizontal welding position with a controlled rate of weld deposit.

- Slag or flux remaining after a pass, shall be removed before applying the next pass. Similarly cracks or blowholes that appear on the surface of any pass shall be removed before depositing the next pass.
- Care must be used to prevent the containment or trapping of slag, the formation of voids or root porosity.
- Weld geometry must be free from undercut, cold laps, poor transitions and consistent with acceptable weld profiles Figure 5-2 and Clause 5.9.

Cooling of Driveline

The best method is to air cool welds slowly at room temperature (65°F / 20°C). Do not rush the cooling process by quenching welds with coolant or water. This can cause stress cracks not noticeable to the eye.