Work Instruction: Rework of SPL®250 Lite Two-Piece Driveshaft

1. Purpose

To replace both halves of the OEM two-piece SPL®250 Lite driveshaft with the ***Neapco® N250 Lite*** tubing adapter, midship components, and weld assemblies while ensuring correct alignment, balance, and fit to the vehicle.

2. Required Components

Front shaft

1. Weld-on adaptor
2. Midship stub shaft
3. Center bearing
4. ½ Round End yoke
5. ½ Round Strap kit
6. Universal joint

Rear Shaft

1. Weld-on adaptor
2. Weld sleeve
3. Yoke shaft
4. Boot & Clamps
5. Universal joint x 2

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3. Required Tools & Equipment

- Cutting saw or lathe for sectioning OEM shafts
- Press (for adaptor, stub, and sleeve installation)
- Welding equipment
- Brass hammer for straightening / Alignment of components
- Dial indicator
- Driveshaft balancer
- Torque wrenches, measuring tools (calipers, tape, angle finder)

4. Safety

- **Wear eye, hand, and hearing protection when cutting or welding.**
- **Use lifting devices for heavy driveshaft handling.**
- **Ensure press operations are guarded and stable.**

5. Procedure

Step 1 – Preparation

1. Remove OEM driveshaft from vehicle.
2. Separate the two halves of the two-piece OEM driveshaft.
3. Mark cut locations on both shafts.
    - **Front Half:** Measure **2.0”** from the weld on the sleeve.
    - **Rear Half:** Measure **10.375”** from the weld on the weld yoke.

Critical Checkpoint: Have a second operator verify measurements before cutting.

Visual Aid:

Cutoff measurement on the sleeve (Front Shaft):

Cutoff measurement on the Weld Yoke (Rear Shaft):

Step 2 – Sectioning

1. Cut the OEM weld sleeve side at the marked distances.
2. Deburr and clean cut ends.
3. Remove OEM end components.

Step 3 – Component Installation

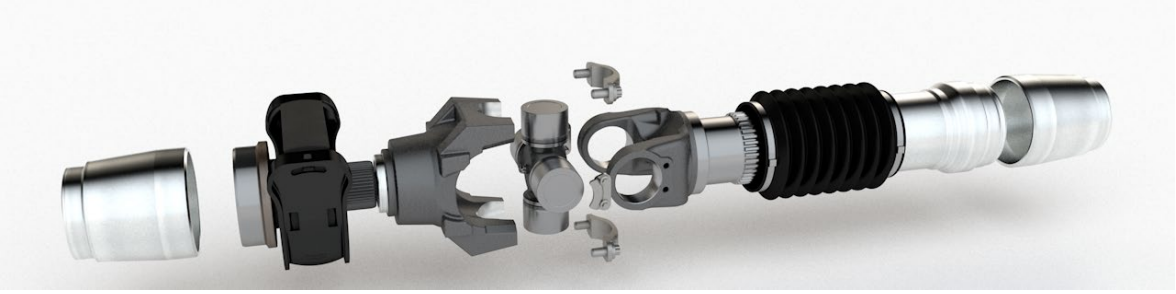
1. **Press & Weld on the Adaptor**
    - Press the adaptor into each end of the two-piece driveshaft
    - Straighten to under 0.005” of runout
    - Weld and let cool down
2. **Press & Weld Midship & Sleeve:**
    - Press the midship into the front shaft and weld the sleeve onto the rear shaft.
        1. Ensure that the sleeve is clocked correctly for the yoke shaft
        2. Straighten to 0.005” or less runout
    - Ensure components are seated fully and aligned.
    - Weld and let cool down

Alternate Method:

Pressing, straightening, and welding the adaptor and its mating component for each shaft in a single operation is acceptable, provided all runout, alignment, welding, and clocking requirements meet the specifications defined in the steps above.

3. **Assembly**
    - Press the center bearing over the midship stub. When done, press the end yoke onto the midship stub and tighten down the nut to spec
    - On the other side, put the boot with clamps on the sleeve and insert the yoke shaft into the sleeve.
        1. Make sure to keep the yoke ears in line with the weld yoke on the other side of the shaft
    - Apply grease to the yoke shaft and sleeve as necessary
    - Assemble the Universal joint into the yoke shaft

Visual Aid:



Step 4 – Balancing

1. Place each shaft in the balancer.
2. Balance both halves to the required spec.

Step 5 – Assembly & Verification

1. Assemble front and rear shafts: yoke shaft with universal joint to ½ round end yoke.
2. Torque all fasteners to spec.

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6. Final Checks

- Confirm welds are continuous, free of cracks/porosity.
- Verify runout and balance meet spec.
- Double-check center bearing alignment.
- Ensure U-joint movement is smooth with no bind.