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Procedure for Fitment of Self-Aligning Spindle Parts on 9.5 Tonne Cable Drum Transporters

Applicable Vehicles: Redmond Gary 9.5 Tonne Cable Drum Transporters, S/N: 10755 & 10756

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Overview: This procedure outlines the actions required to correctly install self-aligning spindle parts to the spindle and drum frame.

Ensure all of this work is carried out in a safe working environment. All work is to be carried out by a competent tradesperson in a well ventilated area.

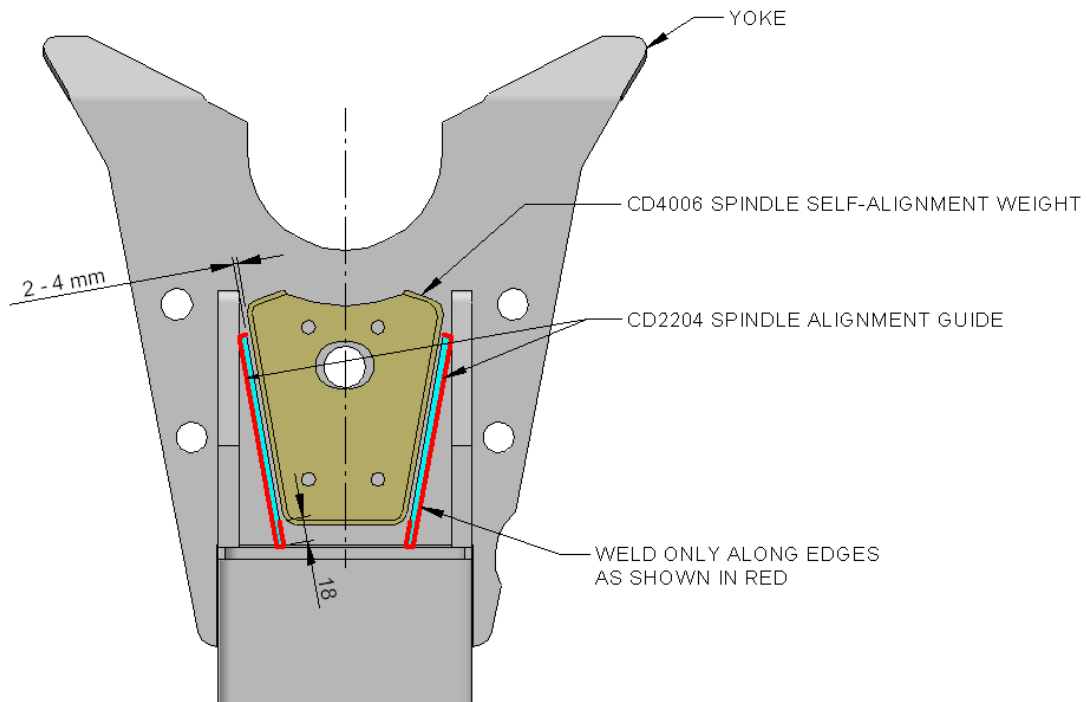
Parts & Equipment Required:

- Safety Glasses & relevant PPE
- 'Tagging Out' / machine shutdown equipment as required by work practices
- Spanner Set
- Socket Set
- Drill & Drill Bits
- Tap & Die Set
- Welder & Welding Equipment
- Angle Grinder
- Lifting Equipment
- Existing Rotating Drum Frame & Spindle
- New parts as provided by Redmond Gary:

Part Number	Description	Quantity
CD2204	Spindle Alignment Guide	2
CD4006	Spindle Self-Alignment Weight	2
N/A	Hex Head Bolt M10 x 25 mm Grade 8.8 Zinc Plated	8
N/A	Flat Washer 10 mm Zinc Plated	8

Step 1: Turn the vehicle's ignition keys off and remove them from the ignition, storing them in a safe place. Isolate the batteries and hydraulic power and 'tag' the machine in accordance with safe work practices.

Step 2: Observe the placement of the new parts CD4006 and CD2204 (x2) as shown below. Grind to remove the galvanising from the surfaces of the Yoke that are to be welded.



Step 3: Dry fit parts CD4006 Spindle Self-Alignment Weight and CD2204 Spindle Alignment Guides onto the existing Yoke of the Rotating Drum Stand Frame. The Spindle Self-Alignment Weight CD4006 should be positioned centrally on the Yoke, with its elliptical hole centrally aligned with the hole in the Yoke.

Step 4: Position the Spindle Alignment Guides CD2204 so they sit parallel with the edge of the Spindle Self-Alignment Weight CD4006. There should be a gap of approximately 2-4 mm between the faces of the guide and the weight on each side. Note: the corners of CD2204 Spindle Alignment Guide are chamfered to ensure they do not foul on the existing welds. If they do not quite fit properly, they may require a small amount of grinding.

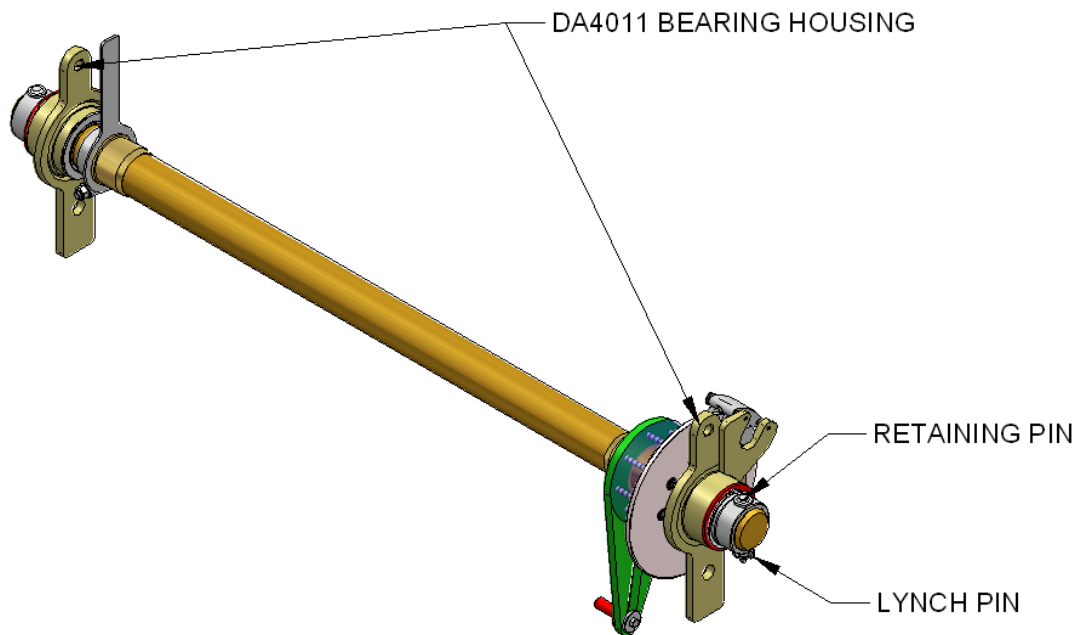
Step 5: Mark out the desired position of the parts and weld with 6 mm fillet welds in the regions indicated by red in the diagram above. *Note: Do not weld along the edge of CD2204 Spindle Alignment Guide closest to the Spindle Self-Alignment Weight CD4006, as when lowering the spindle into the Yoke, the weight could foul on the protruding weld.*

Step 6: Check the Spindle Self-Alignment Weight CD4006 will freely manoeuvre in and out of the Yoke without fouling or getting caught on any parts. It may be necessary to cleanup welds via grinding.

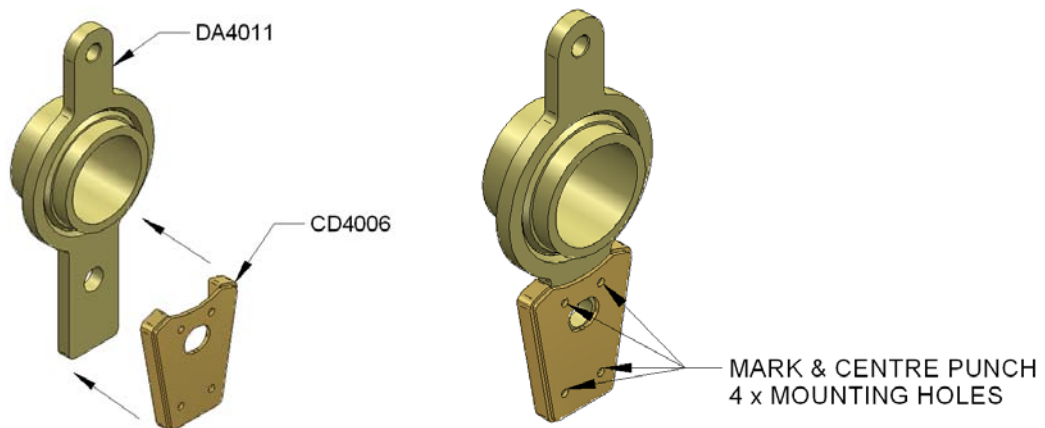
Step 7: Repeat Steps 1 to 5 for the Yoke on the opposite side of the Rotating Drum Stand Frame.

Step 8: Wait for the welded Yoke areas to cool. Apply quality zinc-rich cold galvanising (such as CRC Zinc It) to all bare surfaces.

Step 9: Locate the Bearing Housings DA4011 on the Drum Spindle Assembly. Remove the Bearing Housings DA4011 by removing the Lynch Pins and Retaining Pins on both ends then sliding the Bearing Housings off the ends of the Spindle.



Step 10: Fit the Spindle Self-Alignment Weights CD4006 over each of the Bearing Housings DA4011. Ensure the elliptical hole in the Spindle Self-Alignment Weight CD4006 is centrally aligned on the Bearing Housing DA4011. Mark and centre punch the 4 holes as shown for the Bearing Housing DA4011.



- Step 11:** Drill the 4 centre punched holes on each Bearing Housing DA4011 out to 8.5 mm, drilling through the entire material thickness. Tap each hole with an M10 x 1.5 mm thread.
- Step 12:** Apply a suitable anti-seize thread lubricant to the threads of the M10 bolts. Install the 4 bolts for each housing and tighten.
- Step 13:** Fit the Bearing Housings DA4011 onto the Spindle by sliding them over the Spindle ends. Install the Retaining Pins and Lynch Pins.
- Step 14:** Test the operation of the Self-Aligning Spindle. Load a suitable cable drum onto the Spindle (see the Operating Manual for instructions) and lift into position using a fork lift (adhere to your company's standard safe work practices). Slowly lower the Spindle into the Yoke. *Be careful when lowering the Spindle into the Yoke! It is important that the Self-Aligning Weights do not get jammed in the guides! The Drum and Spindle must be lowered slowly!* Ensure the spindle aligns correctly when seated in the Yokes. Lastly, check the Spindle Lock Pins operate correctly.

If you are unsure of any instructions please ask.

Regards,

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