Replacing the MCU Jackscrew Nut

Document number: 719-00647A-A

Product

Magnus VLF Multi-Cassette Unit (MCU)

Background

The MCU jackscrew nut is damaged or worn and must be replaced.

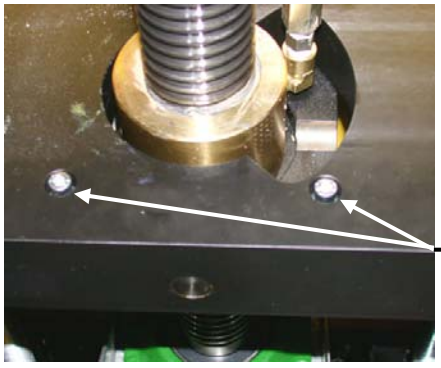
Parts/tools required

Part Number	Part Name	Quantity
500-03683A-A	Jackscrew nut assembly	1
• 252-01627A	square flange	
• 252-04271A	brass nut	
404-00135	Loctite Viperlube grease	1
	Loctite 242	

Note: The jackscrew nut assembly is included in the field service test kit (512-00352A). Only order the nut assembly as a replacement part for the kit, or if the field service kit was not ordered.

Procedure

1. With the rear service access doors of MCU closed, move the forks to the cassette 1 position.
   In service shell, type >>cassette position 1
2. Open the rear doors of the MCU and confirm that the forks are in the cassette 1 position (close to the bottom of the MCU).
3. If an auto lubricator is present, remove the hose and fitting.
4. Remove the two M5 screws that hold the upper jackscrew nut plate to the lower plate.

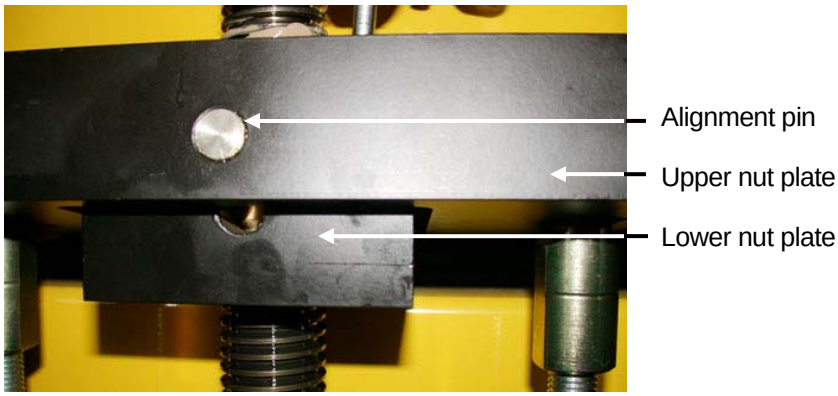


5. Turn the safety interlock override key switch to the **Interlock Override** position.

6. Using the MCU manual jog panel, raise the forks only as high as needed to place the two wooden blocks under the bottom fork—one on each side. The blocks should go between the yellow forks and the black bottom beam.



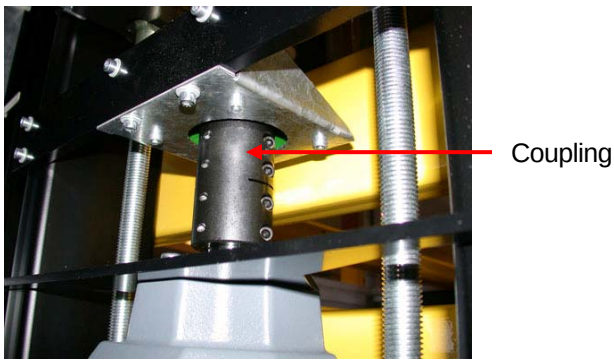
7. Lower the forks until the weight of the forks rests on the wooden blocks. Continue to drive the forks downward until the upper and lower nut plates completely separate and the jackscrew nut can fully spin.



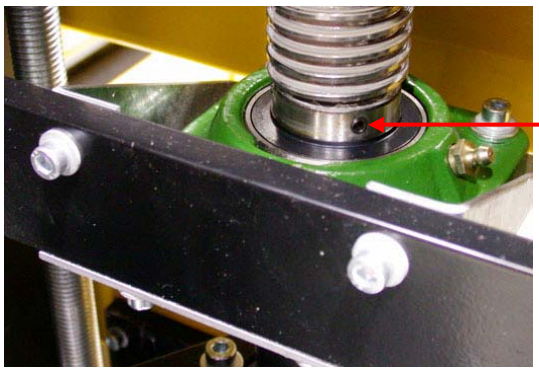
Caution: Ensure that there is no load on the jackscrew and that the forks are fully supported by the blocks.

8. Turn the MCU power off.

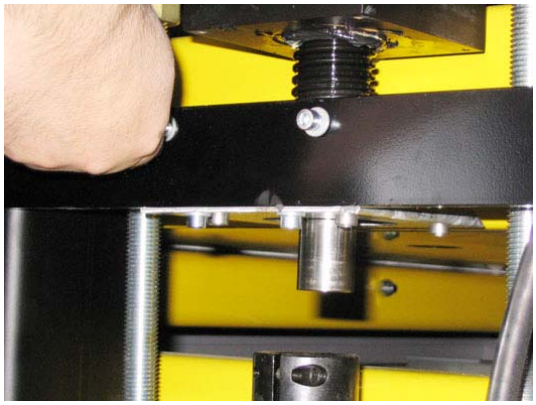
9. Support the drive motor to prevent it from dropping when the coupling screws are loosened. Remove the drive motor and coupling from the jackscrew by loosening the four screws on the top half of the coupling.



10. Release the jackscrew from the bottom pillow block by loosening the two setscrews at the bottom of the jackscrew.



11. Remove the lower bearing bracket and slide the lower bearing off the bottom of the jackscrew shaft.



12. -Spin the jackscrew nut down until the lower bar prevents further spinning. Turn the jackscrew by hand to get the nut clear of the final threads—make sure the nut does not fall as it clears the threads.
13. -Wipe the jackscrew down to clean off old dirty lube.
14. Apply fresh Viperlube to the inside threads of the new nut and thread the nut onto the jackscrew. Ensure that the grooves in the lower nut plate align with pins in the upper nut plate —see the photo in step 7. You will need to turn the jackscrew by hand to pull the lower nut plate upwards for the last bit.
15. Install the lower bearing on the jackscrew shaft and install the bearing bracket.
16. Secure the jackscrew to the bottom pillow block by tightening the two setscrews at the bottom of the jackscrew.
17. Install the drive motor and coupling. Tighten the four coupling screws to 19 Nm.
18. Apply plenty of Viperlube grease to the jackscrew.
19. Turn the MCU power on.
20. Using the jog panel, drive the forks upward until the upper and lower nut plates come into contact.
21. Install the two M5 screws and screw them in only until the heads of the nuts are flush with the surface of the upper plate.

Note: Do not tighten the screws all the way down—they are meant to be loose.

22. Use the jog panel to further raise the forks until they are clear of the wooden blocks.
23. Remove the wooden blocks from the MCU frame.

Test

1. Use the jog panel to move the forks up and down to spread the lube.
2. Listen for any unusual noises while the forks are moving.
3. Turn the safety interlock override key switch to the **Normal Operation** position.
4. Install any panels that were removed and close the MCU rear doors.

See also	Measuring the MCU Jackscrew Nut Backlash (719-00643A) Jackscrew assembly drawing (500-00522A)
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