Removing LS-32-C Spindle from LTC-F20 Turning Center

If there is a need to remove the LS-32-C spindle from the LTC-F20 turning center whether for maintenance or replacement, please follow the instructions bellow to safely remove the spindle.

1. Move the tool turret to the home position on the Z axis.
2. Move the tool turret to the negative over travel limit on the X axis.
3. Shut off the machine by turning the “Main Switch” to the off position.
4. Disconnect the main power cable of the machine from its power source.
5. Let the machine sit idle for 5 minutes to allow any potential energy to dissipate.
6. Remove the “Spindle Cover” located on the left side of the machine when looking at it as the operator would during normal operations. You will need a 3 mm Allen wrench to remove the screws.
7. Once the cover is off, you will see something like Image 1.

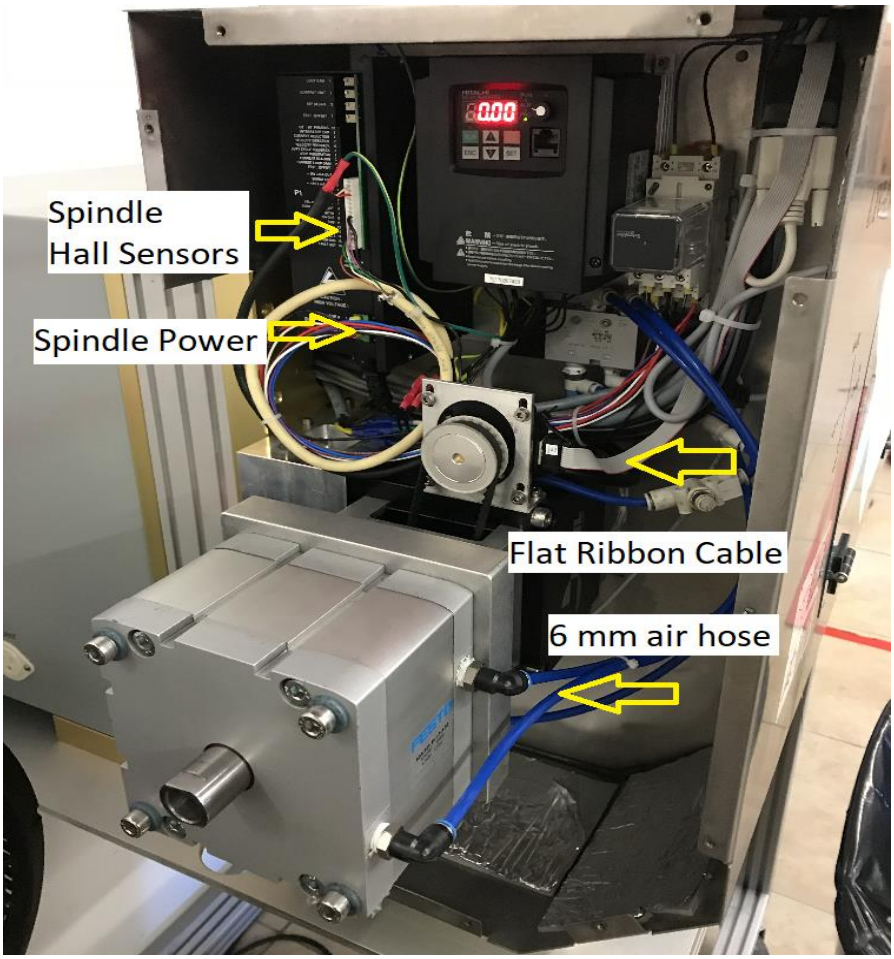

Image 1. Spindle Electronic bay without side cover.

8. Some systems might have extra accessories as the spindle depicted on Image 1.
9. Inside the machine, remove the chuck, chuck plate and spindle cover plate. Please reference Image 2 to see the components that need removal. You will nee the following tools. 6 mm Allen wrench, 5 mm Allen wrench, 4 mm Allen wrench.

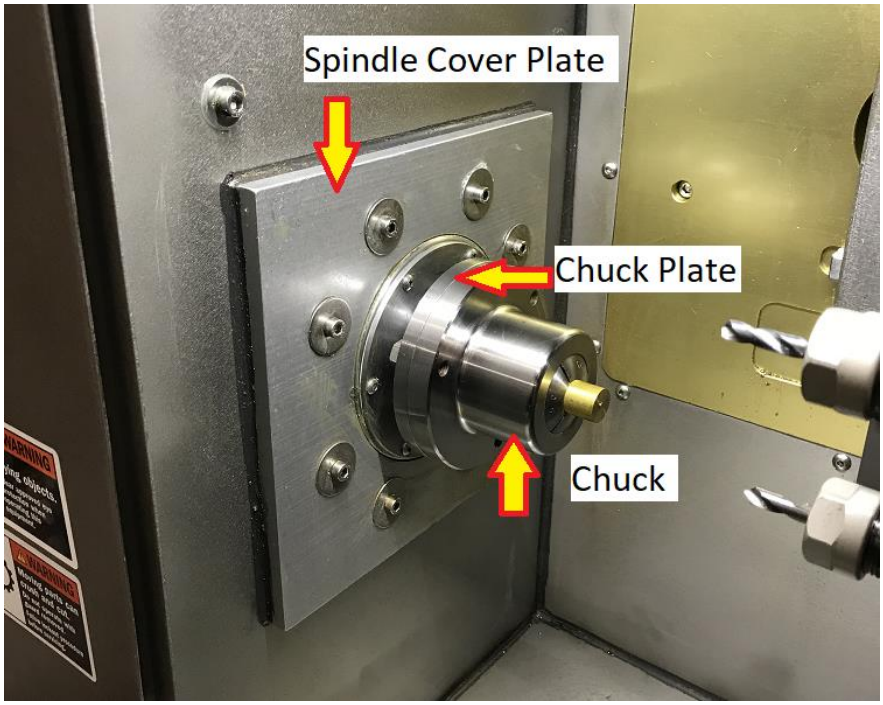

Image 2. View of the Spindle inside the work Area.

10. Now, it is time to remove the cables from it's connections. Please refer to Image 1. Remove the Hall Sensor cables (#10-#14 connections on the white connector going to the AMC spindle driver.
11. Remove the power connections (Motor A, Motor B and Motor C) from the AMC spindle driver.
12. Remove the 6 mm air hose connected to the spindle.
13. Remove the flat ribbon cable from the encoder connection.
14. The spindle is now disconnected from all power sources.
15. Remove the 4 screws spindle raiser plate to the machine. You will need a 13 mm open end wrench. Please refer to Image 3 below. Be carful when removing the screws as all the weight of the spindle is on them. It is recommended to have a second person helping to hold the spindle as the screws are removed to keep the spindle from damage.
16. Once the screws are removed, double check that there are no cables still connected before pulling the spindle away from the machine.

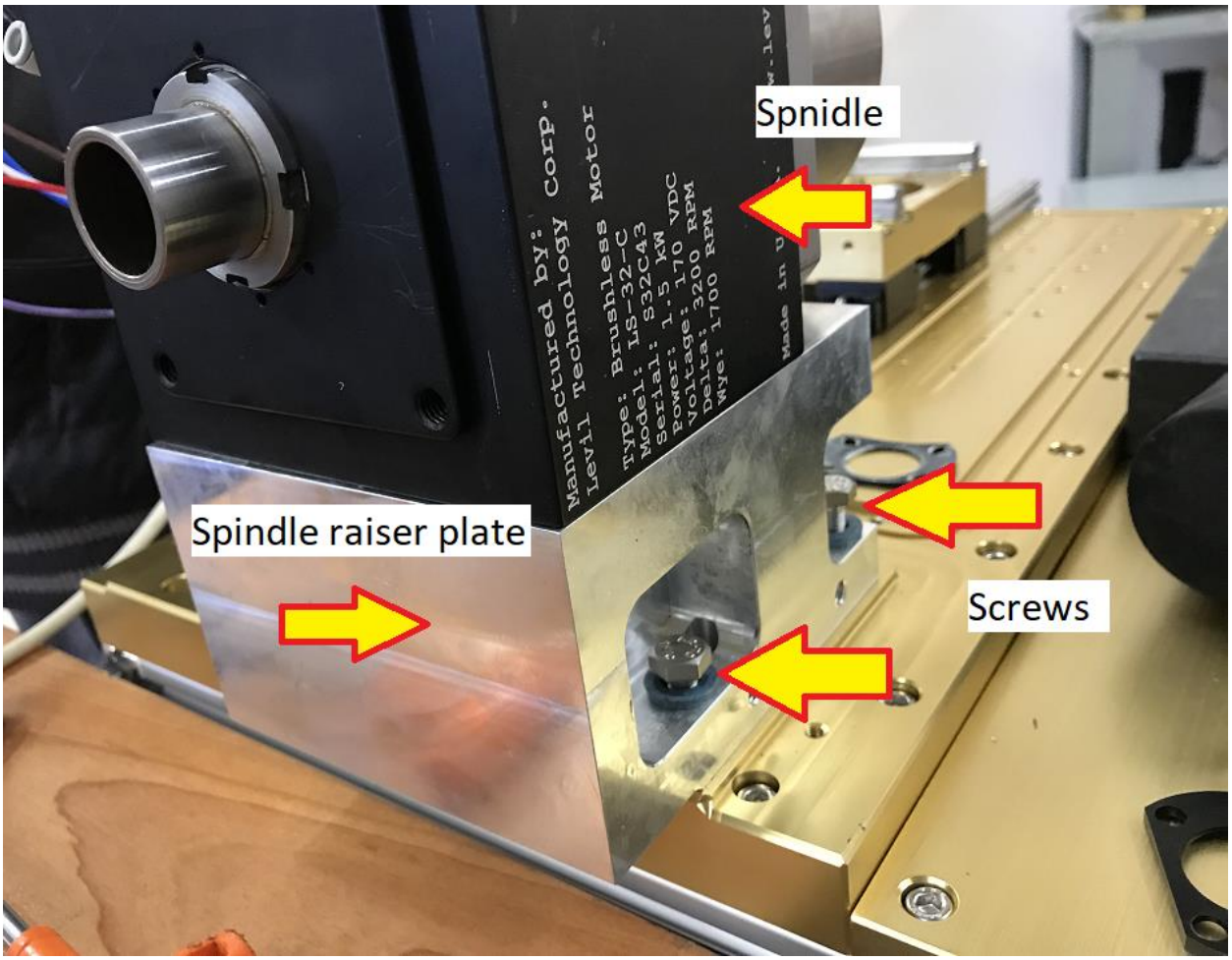

Image 3. View of spindle on spindle raiser plate.