

The slide features several decorative squares in red and grey scattered across the background. A large red square is in the top left, a grey square is in the top center, and a large red square is in the top right. Other smaller squares are placed around the text.

New Developments for Lathe Machinery

2016 Timber Processing And Energy Expo

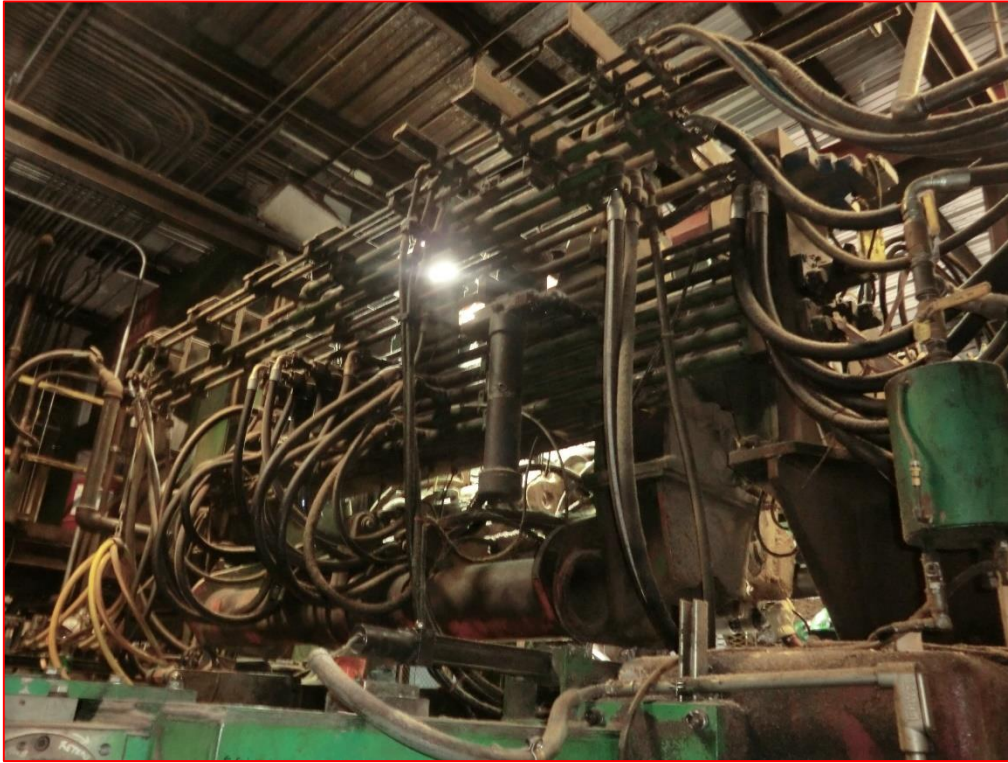
Presented By

Tim Fisher – USNR

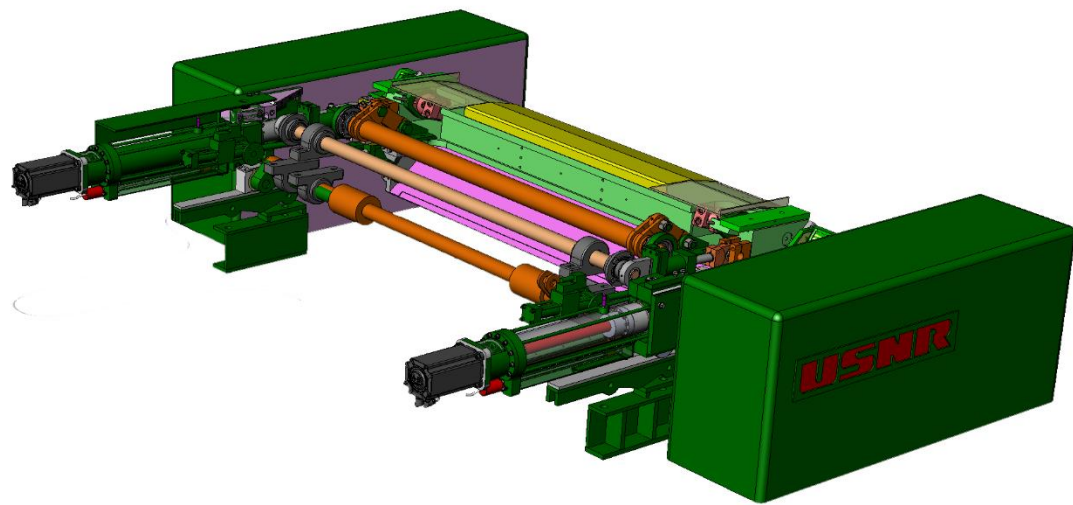
September 28, 2016

USNR

Typical Lathe Machinery Installation



Plenty of Hose and Pipe

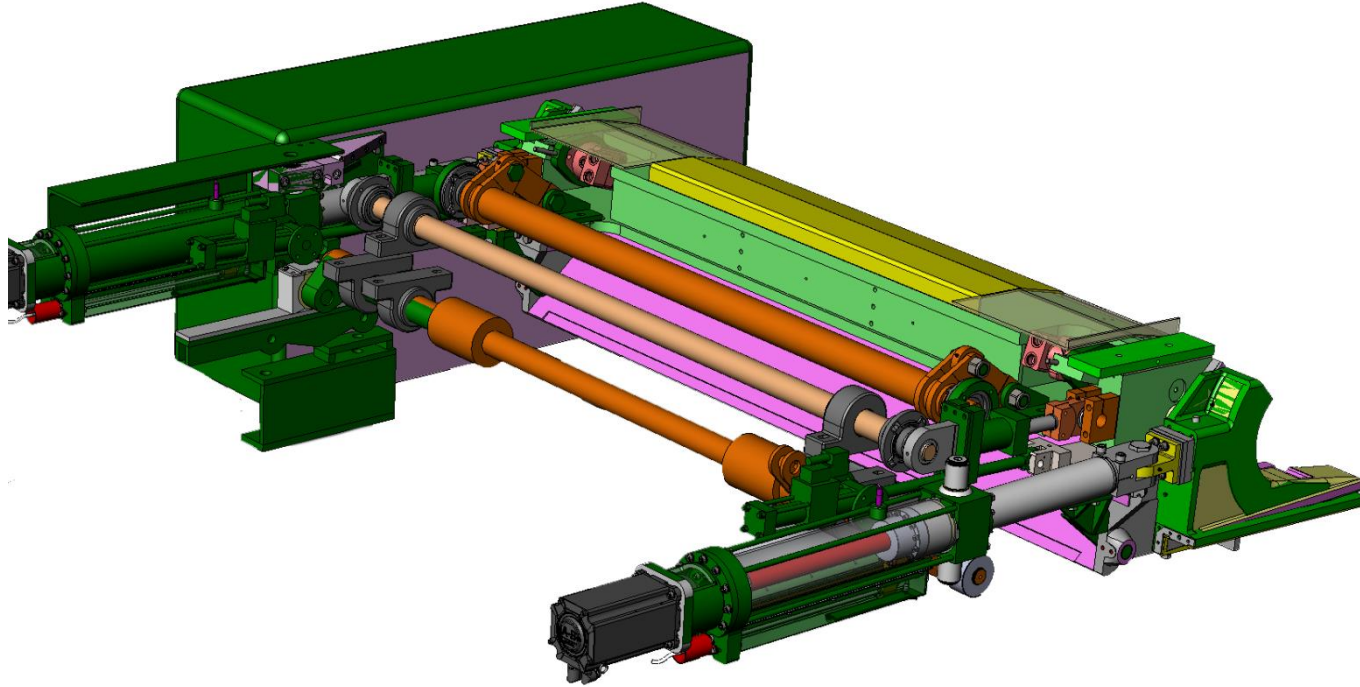


Lathe Carriage Planetary Screw Actuator

Planetary Screw Actuator

- All Electric Actuation; No Hydraulics
- Low horsepower requirement, less costly operation
- Custom Planetary Screw and Nut Assembly Specifically Designed for High Duty Cycles of Lathe Carriages.
- Carriage Retract Speeds Up to 18"/sec.
- No Backlash Typically Caused by Varying Fiber Density
- Direct Mounting to the Lathe End Frame with Minimal Modification.
- Servo Motor Direct Coupled to Planetary Screw. No Belt Drives.
- 56 mm Planetary Screw Ensures Consistent Thickness of Peeled Veneer

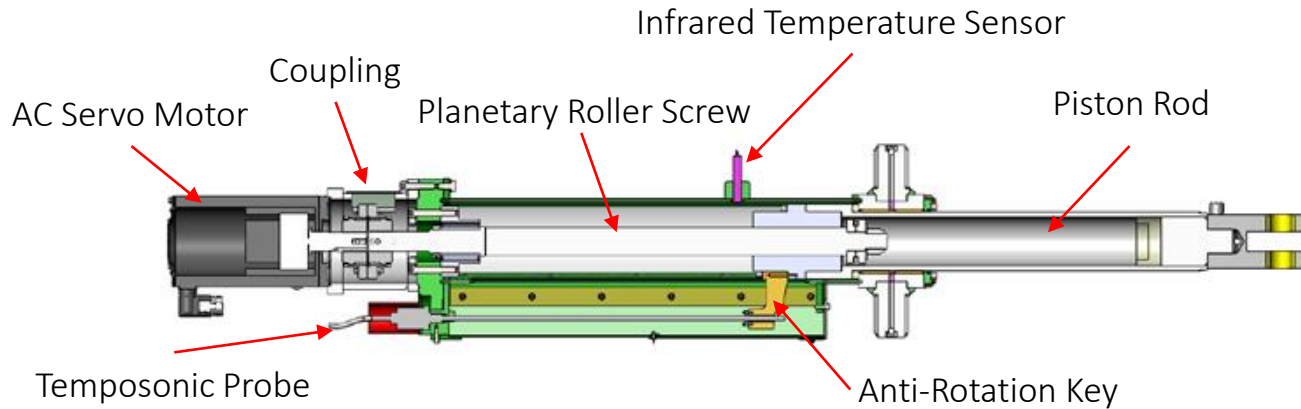
Planetary Screw Actuator



Cutaway View – Carriage Actuator Assembly

Planetary Screw Actuator

Actuator Assembly



Redundant Tempo Probe for Each Actuator Attached Directly to Knife Bar Prevents Skewing. Actual Knife Position is Reported Immediately Following Power Interruption. NO Homing Required.



Planetary Screw Actuator



Actuator with Cut-a-way Showing Screw Assembly

Planetary Screw Actuator



Assembled Actuators Approximately 700# Each

Planetary Screw Actuator



Two Enclosures Required; AB Control Logix PLC and AB Kinetix Drive

Planetary Screw Actuator

Major Benefits

- All Electric
- Consistent Thickness of Peeled Veneer
- Designed for High Cycle Rates, Improved Productivity
- No backlash Caused by Varying Fiber Density
- No Homing Required
- Low Horsepower
- Reduced Maintenance
- Rapid Installation
- Easily Adapts to Most Veneer Lathes



Electric Lathe Carriage

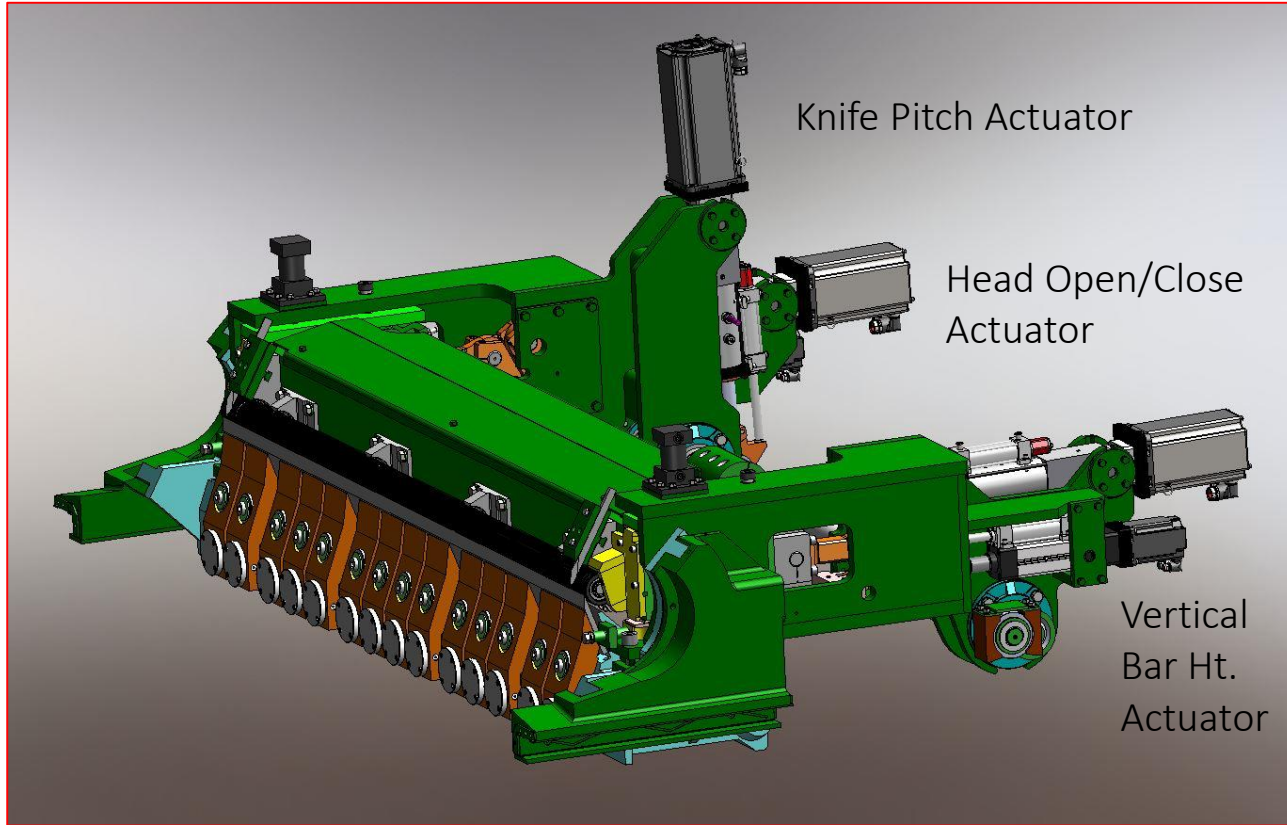
So What's Next ?

Electric Lathe Carriage

New Additions:

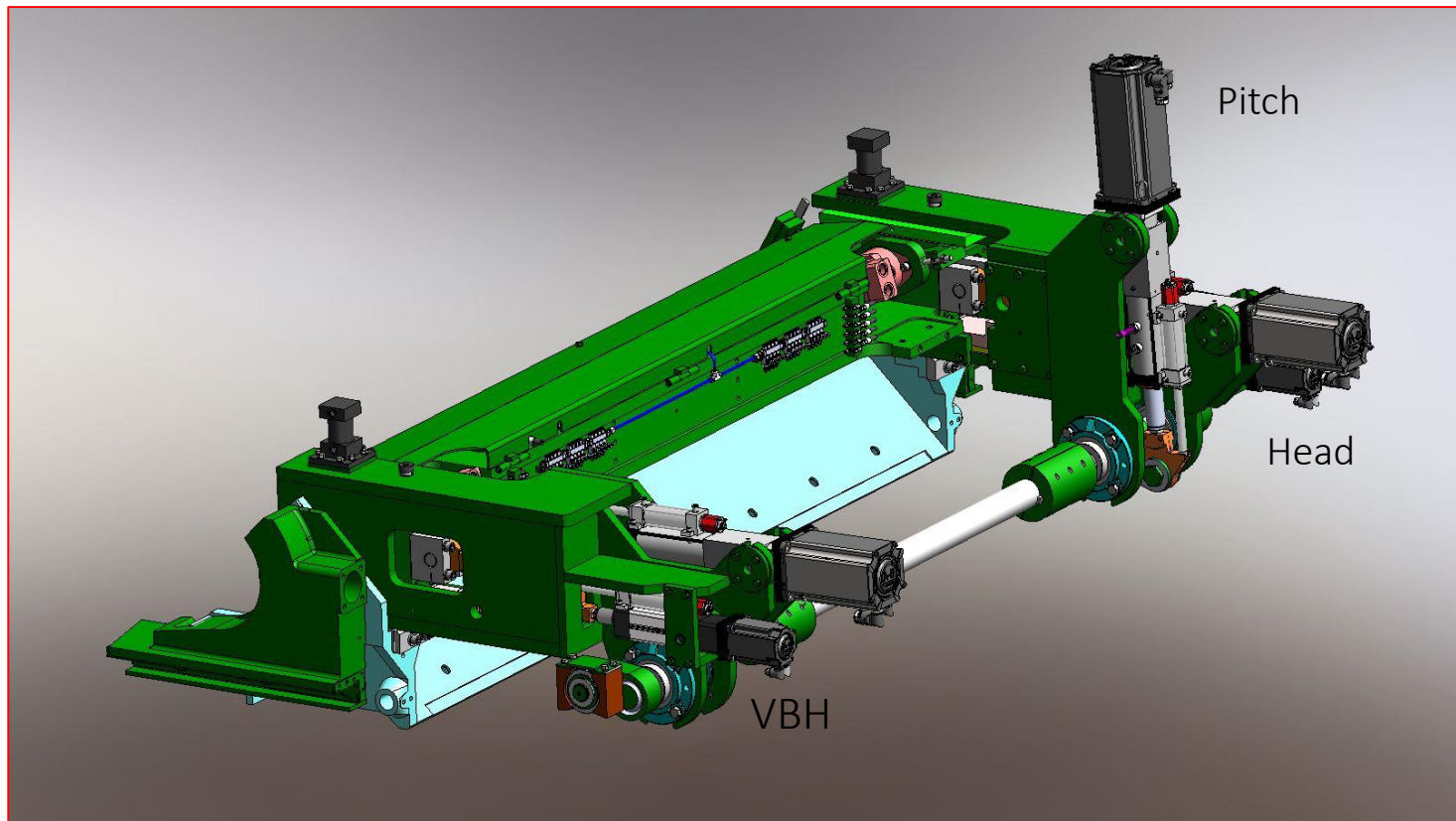
- Electric Actuated Knife Pitch Control
- Electric Actuated Vertical Roller Bar Height Control
- Electric Actuated Horizontal Roller Bar Gap Control

Electric Lathe Carriage



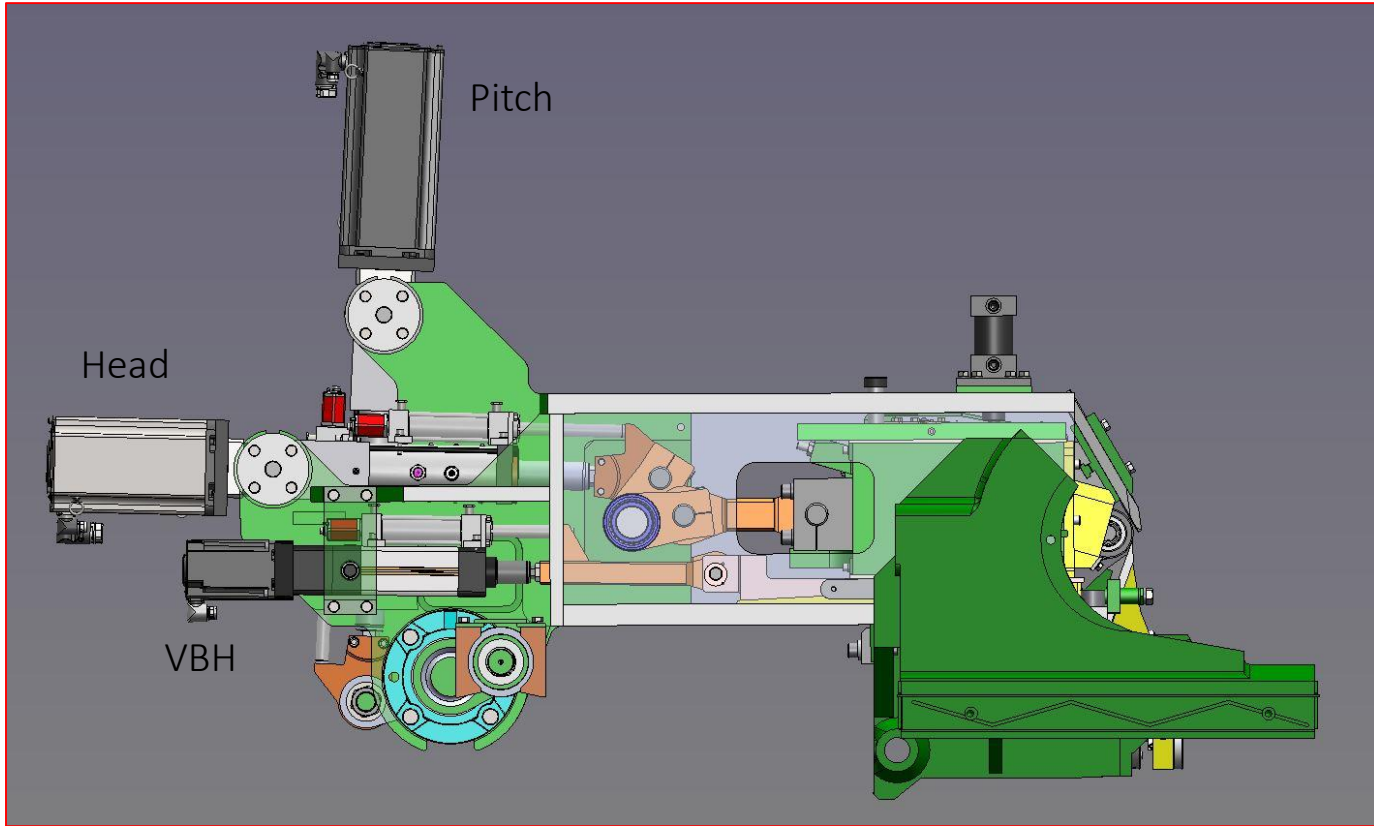
Typical Lathe Carriage Electric Actuator Assembly

Electric Lathe Carriage



Carriage Actuators Backside View

Electric Lathe Carriage



Carriage Cross Section View with Actuators

Electric Lathe Carriage

Benefits

- Provides near zero backlash or slack in the mechanical positioner
- Will not compress under unusual G force loading
- Does not require complex support system of valves, pumps and
- Eliminates hydraulic piping, hoses etc.
- Reduces required mechanical components
- Reduces maintenance requirements

Electric Lathe Carriage

