

CHECKOUT

1. Oil levels must be checked for the drive gear reducers and the pony gear reducer. See Section 7, Drive Equipment Sub-Section 3, Main Speed Reducer and Sub-Section 7, Pony Speed Reducer.
2. Verify that all bearings and gear couplings have been greased according to manufacturer's instructions.
3. Check and adjust the automatic spray lubrication system. Refer to spray lube and grease lube drawings in Section 3, Drawings, for the system schematic. See Section 8 (blue tab) for the greasing quantities and spray timing intervals. The spray system grease lines should be full and the four (4) grease spraying nozzles at the supporting rings, the one (1) at the axial roller guide and four (4) at the pinion gears should be functioning. Set the air regulators, for the spray nozzles, at 40 psig pressure.

NOTE: It is extremely important for the pinion gear grease spraying nozzles to be positioned so that they spray grease onto the contact (load) side of the pinion gear teeth.

4. Check and adjust the automatic grease lubrication system. Refer to grease lube drawing; Section 3, Drawings. See Section 8 (blue tab) for the greasing quantities and timing intervals.
5. Verify that the drum support rings and support rollers have been aligned during the installation. The rollers are to be squarely aligned with the support ring according to the tolerances shown on drawing 2-26009-03; Section 3, Drawings. When the rollers and support ring are squarely aligned, the natural force of gravity due to the 1° slope causes the drum to move downhill. The inlet support ring beveled side will contact the axial support roller beveled side.
6. Verify that the proximity switches (2) located at the axial guide roller support frame are adjusted to activate when the support ring moves 3/16" inch (.188"),

in either direction away from the guide roller contact position. When properly adjusted the inlet side proximity switch protects the drum and inlet chute seal rings from uphill thrust damage. The outlet side proximity switch provides protection for mechanical failures such as guide roller bearing collapse.

NOTE: The inlet support ring must be in contact with the axial support roller when the proximity switches are set.

7. **WARNING:** Verify that the proximity switch for the pony disengagement coupling shifting lever is properly mounted, connected, and set. It should not be possible to start either of the two main drive motors when the shifting lever is in the engaged position.
8. Unlock the shifting lever for the pony disengagement coupling and shift the lever so that the coupling engages.
9. Bump the pony drive motor to verify proper drum rotation. The drum turns clockwise when looking at the feed end.
10. The pony drive motor will be used to turn the drum slowly for at least one complete revolution to check clearances and to manually grease the support rings and girth gear. This procedure will require many starts and stops of the pony drive to provide sufficient time to apply the grease and check the clearances.
11. Apply grease to all flanks (faces) of the girth gear teeth. The grease can be applied with a brush. Utilize the grease specified by the girth gear manufacturer (Santasalo). Refer to Section 7, Sub-Section 5, for manufacturer's specified grease.
12. Apply grease to the contact faces of the drum support ring., Also apply grease to both beveled sides of the inlet support ring. Use NLGI 0...NLGI 2 grease that has a molybdenum disulphide additive. The viscosity of the basic oil should be greater than 460 cSt @ 150° C.

13. Rotate the drum slowly using the pony drive motor to establish that the drum turns freely and that it does not come into contact at any point with either the bottom vat or the shower hood. Particular attention should be given to the clearances between the welded splash ring plates on the drum and the labyrinth walls on the bottom vat and hood.

Note: Any contact between the turning drum and the bottom vat or shower hood must be eliminated.

14. **WARNING: DISENGAGE PONY COUPLING WHEN COMPLETE!**

15. The main drive motors should be checked for proper rotation. Be sure that the pony disengagement coupling shifting lever is disengaged and the locking device is installed.
16. Start the oil lubrication pumps on the main drive motors cooling systems. Verify that cooling water is supplied to each cooling system.
17. Bump one main drive motor and check its rotation. Correct the rotation as necessary. The drum turns clockwise when looking at the feed end.
18. Bump the second main drive motor and check its rotation. Correct the rotation as necessary. The drum turns clockwise when looking at the feed end.
19. Start the two main drive motors.
20. Observe the inlet support ring contact with the axial guide roller. If there is no contact, stop the drum and adjust the angle setting of the support roller assemblies. Refer to drawing 2-26009-03; Section 3, Drawings. The angle settings of the support rollers can be adjusted to control the movement direction of the drum. The movement of the drum is limited toward the outlet end by the axial guide roller. The movement of the drum is limited toward the inlet end by the drum stop.

21. Do not over adjust the angles of the support roller assemblies to create too much thrust against the axial guide roller. Monitor the temperature of the axial guide roller bearings to insure that they do not exceed 70 ° C (168 ° F).
22. Check and adjust the seal water to the two agitators in the bottom vat. Refer to Section 9, Agitators, for agitator information.
23. Check to see that the furnish feed conveyor and the reject conveyor are operable.
24. Check the pulper discharge pump for proper rotation and service water supply.
25. Check the pulper dilution supply pump for proper rotation and service water supply.
26. With the drum rotating, start and regulate the dilution water entering the screening section so that the dilution evenly covers the entire screening section. The regulation is controlled by adjusting the valves in the dilution pipe and dilution manifold. The dilution should be set to the amount necessary to pulp the selected furnish start-up rate to 3-4% consistency
27. Check that the bottom vat level control instrumentation is operating properly. There should be no flow from the overflow pipe.
28. Start the agitators and check for proper rotation.
29. Start purge water to the drip pan spray nozzles.
30. Start purge water to the spray nozzles on bottom vat labyrinths (both ends).
31. Observe the inlet chute seal ring, the drum inlet seal ring, and the rope seal for any interference, loading and/or binding. Adjust as necessary.
32. Start the feed conveyor.

- 33.** Start the reject conveyors system (applicable only to systems with rejects conveyors).

Operation:

1. Start the inlet dilution water flow to the drum at the amount sufficient to pulp the selected starting furnish rate to 15% consistency.
2. Start the desired chemical additions to the inlet of the drum
3. Establish, to the degree possible, an even, continuous flow of furnish to the drum at the selected start-up rate.
4. The absolute consistency in the pulping section is very important. The furnish weighing conveyor is tied in to the inlet dilution control; calibration must be established. Other controllable variables include the loading rate, quality and diversity of the furnish. Each variable impacts the output rate, so a period of test running under supervision is desirable to establish parameters for output tonnage and quality.
5. Stock from the pulping section is lifted, by the scoop baffle, into the screening section. Dilution showers in the hood supply dilution to the pulp in the screening Section. Dilution to the 3-4% consistency range has proven universally sound. If conditions warrant, valves on the dilution shower manifold can be used to control the stock consistency to the vat. There is lower fiber loss to the rejects when there is a balanced operating mode.
6. If the good fiber in the rejects is consistently too high, the dilution water amount should be changed. This may require either an increase or a decrease depending on the existing conditions, chemistry, and furnish. Because of these variables, some experimentation may be necessary.
7. The absolute consistency in the screening section should be measured by sampling. Dipping a sample from the bottom vat or tapping the line to the discharge pump are acceptable ways to obtain the sample.

SHUTDOWN

1. Stop the feed conveyor.
2. Wait until existing furnish is fully processed through the drum (approximately 30 minutes).
3. Stop the main drive motors.
4. Stop the chemical pumps and shut off the dilution water.
5. Stop the agitators.
6. Run the bottom vat level to lower limit.
7. Stop the pulper discharge pump.
8. Stop the reject conveyor system (applicable only to systems with rejects conveyors).

NORMAL START-UP

NOTE: To resume operation after shutdown, essentially reverse the shutdown procedure. As a precaution, it is wise to recheck some specific equipment involved in the initial start-up, i.e., proper functioning of the lube system, seal water supply and speed reducer cooling water supply.